ANNUAL SCIENTIFIC RESEARCH REPORT

(ACTIVITIES & ACHIEVEMENTS)
2023-2024

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH
MINISTRY OF SCIENCE & TECHNOLOGY, NEW DELHI

DEENDAYAL RESEARCH INSTITUTE

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Introduction

Organizational Background and Infrastructure

Name of the Society	:	**Deendayal Research Institute**
Registered Address	:	7-E, Swami Ramtirth Nagar, Rani Jhansi Road, New Delhi – 110055.
Telephones	:	(011) 23526735. (011) 23510388.
Email	:	dridelhi@dri.org.in, dridelhi1@gmail.com
Website	:	www.dri.org.in
Name & Designation of the Chief Executive	:	**Shri Virendra Parakram Aditya** alias **Sh.Veerendrajeet Singh**

Deendayal Research Institute, a premier voluntary organization of India is engaged in socio-economic and applied research in rural India. Ever since it was founded by the noted social scientist and philosopher, Bharat Ratna Nanaji Deshmukh in 1968, the Institute has been striving to validate on ground, a holistic approach to development, involving a right blend of human and natural resources, with a contemporary outlook. Employing appropriate technology is our mainstay and, having scientific temper is the pre-requisite for the same.

During its existence of over five decades, the DRI, as it is commonly known, the Institute has done pioneering research on various issues and subjects touching rural lives. The Institute believes that the benefit of Researches should reach the common man. Hence, we have devised a system of continuous interaction with beneficiaries

Status

Deendayal Research Institute is a voluntary organization "A Society registered under the Societies Registration Act, 1860 and established on 8.3.1968. Initially notified for recognition in Gazette of India, Notification No.1157 (F.No.DG/IT(E)/ND/23/35(I)(ii) & (iii)94IT(E) on 15th July 1994 under Section 35 (I) (ii) & (iii) of I. T. Act 1961. The Notification was effective for the period from 7.4.94 to 31.3.97. The recognition was further renewed from time to time. The last renewal was done from 01-04-2018 to 31-03-2021 vide letter no. 13/135/94-TU-V dt. 04/04/2018. The recognition was Gazette notified under Notification No. 167/2007 & 168/2007 both dated 11-05-2007.

Aim

Evolution of a social system for the transformation of our age old Indian Society suited to the modern scientific era and based on eternal values of Integral Humanism.

Major Research Areas

- Agriculture and Animal husbandry
- Social Sciences
- Rural Development
- Water conservation
- Entrepreneurship Development
- Rural entrepreneurship and skill development
- Education
- Health and hygiene, Treatment of Chronic Diseases
- Ayurveda, naturopathy and yoga
- Ayurvedic formulations
- Livestock management
- social behaviour vis-à-vis cultural practices
- Inculcating scientific temperament among children, and
- Identifying and adapting appropriate technology
- Social Consciousness
- Women Empowerment
- Environment and Climate Change

Major Programmes

- To carry out research in Social Science with a view to reconstruction of Indian Society.
- To establish Rural Development and Training centers for carrying out research with a view to motivate people in adopting new and improved technologies in the agriculture & industrial field and promote self-employment.
- Activities in the field of medical research, medical care, life-long health and medical education.
- To set up Academic and Technical Vocational Training centers in rural areas.
- To eradicate social evils by propagating human values with the active cooperation and initiative of the people.
- Environment Protection keeping in mind changing climatic conditions and promote clean and green source of energy.
- Documentation and propagation of traditional water culture of India.
- Documentation and propagation of traditional fooding pattern of India.

DRI's primary functions, through its various arms, have been practical models and spreading awareness. *Swavlamban*, i.e., self-reliance is the key word that the Institute's activities revolve around. Contemporising indigenous thought, traditional wisdom and knowledge systems, and technologies are central to its activities. To meet these objectives, the Institute has not only embraced modern tools, it has been a strong votary of these.

A unique concept that the Institute has worked with is 'Social Architect Couples' as the agents of change in rural India. These couples work on the fronts of both social and applied sciences. They are leaders in communication and undergo rigorous and regular trainings to spread

Institute's messages. Besides these social architect couples, hundreds of other DRI volunteers also excel in the art of communication. Basically, communication strategy is their forte. And armed with these strategies, they interact with the villagers – getting their feedback, analysing them juxtaposing government schemes, in the light of cultural and contemporary practices. It is with the avowed objective of giving a cutting edge to traditional occupations, the Institute has been working through various agencies of the government.

The founder of the Institute late Nanaji Deshmukh vowed to adopt the Gandhian path of development and like his fellow traveller Pt. Deendayal Upadhayay, laid great emphasis on decentralisation. His entire edifice of holistic development was built on decentralisation. Nanaji showed the way forward. He carved out a path to decentralisation by involving villagers right from articulating their needs and aspirations, their problems and solutions too.

Major Research Initiatives

1. Self-Reliance Model of Rural Development- Institute has been a pioneer in giving scientific validation to its Social Science Research. Institute's Rural Development model; Self-Reliance Campaign is infect the validation of theory of 'Integral Humanism' propounded by Pt. Deendayal Upadhyay as a third way of development. This model is Scientific as it is based on definable, measurable and tangible parameters. That is why the process of this model has been provided with ISO 9001:2015 certification for its sustainability and replicability. The social Science researches have a long gestation period sometimes involves generations as social factors are not static or constant. Therefore, Social Science researches needs experimentation for longer period and hence financial support for longer period.

Deendayal Research Institute's Chitrakoot Project has been working in the villages in a 50 km radius of Chitrakoot with a holistic integrated model called the Self Reliance Campaign since 2002. The Self Reliance Campaign was conducted in 512 hamlets in 108 clusters in 2 phases. The 1st phase, launched on 26th January 2002 covering 80 hamlets was completed in 2005, and the 2nd phase covering 432 hamlets was completed in 2010.

The Institute's interventions co-relate with the United Nations Sustainable Development Goals.

2. Dialogue on SDGs- With an aim to support positive social change and behaviour change with and for SDG Interventions with specific emphasis on going beyond simply delivering messages to engaging practitioners in self-reflection, dialogue, exchange and feedback in order to achieve lasting positive change. It is applied part of our Research In Social Sciences i.e. Self-Reliance Campaign and also Created a platform for building local to global linkage and also provide interventions and Solutions.

Deendayal Research Institute (DRI), aims to make Chitrakoot a global gathering – "the Davos of SDGs" - with the SDG Conference an annual event with the hope to create a global network for SDG interventions – from high policymakers to grassroots workers. Institute has organised 3 International conferences in past 3 years. The Institute also hopes to take lead worldwide for the dialogue on SDGs by hosting and curating a Global Platform for proven interventions that help achieve the SDGs through the participation of our beneficiaries, community-

based organisations, extension workers and their experiences at the grassroots, as well as experts and practitioners to contribute wholly to global knowledge on meeting the 2030 Agenda.

At the 1st International Conference on SDGs, held at Chitrakoot from the 15th -17th April 2022, the website www.sdginterventions.org was launched. It is an open-source Knowledge Platform that hopes to become the go-to resource for SDG practitioners that work in the field. At the 2nd Conference from 26-27 th February 2023, a World SDG Forum was launched and a 'Chitrakoot Declaration' adopted, that states: "*Realising the inadequacy of the present global economic binaries in the progression towards achieving the Sustainable Development Goals, it is imperative for India and the global South, to initiate efforts for a new and inclusive world economic order, which will hasten the process of fulfilling SDGs in a cooperative economic architecture. the World SDG Forum (WSF) will eventually transform into a global forum for all, with every stakeholder as a partner, participant and beneficiary*". Also, under the aegis of the World SDG Forum, a series of Webinars were conducted throughout the year. The 3rd International Conference on SDGs is our ongoing effort at building local to global linkages and accelerating the progress toward the SDGs. It was held from the **25th to 27th of February 2024 at Chitrakoot,** where the broad outlines for a LiFE Society were discussed. It also deliberated on interventions and solutions for SDGs 2 and 4, in the context of the LiFE Society, with all stakeholders from the village to the Administration to policy makers and Institutions involved in the planning and implementation of schemes and interventions.

3.Social Consciousness vis-à-vis Cultural Practices- Developing a Poshan atlas India's Agro-Climatic zones and a multi-lingual dashboard for Regional Foods. The partners are Bill and Melinda Gates Foundation, Indian Council of Agricultural Research, National Institute of Nutrition, Harvard India Research Center. The project is aimed for eliciting India specific cultural and social factors that are associated with nutrition related practices such as knowledge, beliefs and attitude about diet, nutrition and regional foods and social and cultural norms that promote improved nutrition seeking behaviour.

Based on this extensive research, Institute has published an impressive **Coffee Table Book**, titled '***Poshan Utsav'***. It is based on the cultural practices around nutrition across the nation.'Poshan Utsav' is comprehensive documentation of the traditional wisdom vis-à-vis food and nutritional practices across the country. It's the outcome of a painstaking research of our researchers and volunteers over the last few years. This emanates from the wisdom of our countrymen, particularly those in the villages. They articulate this wisdom through their cultural practices - through social customs, rituals, festivals, prasad, and more widely through folk songs, folklores, etc. We have given a pictorial and textual expression to this wisdom through this coffee table book, in Hindi and English.

4. Sumangalam-Sujalam- SUMANGALAM (सुमंगलम्) is an initiative of some like-minded organisations of the country. This initiative aims to present profound and pragmatic solutions based on the *Bharatiya* thought (भारतीय दर्शन) with respect to the present existential crisis that has emerged due to rapidly changing climate. The main objective of '*Sumangalam*' is to present the unique *Bharatiya* concept of, firstly, securing purity of the five basic elements of

nature, i.e., *Panchamahabhuta* (पंचमहाभूत) – the earth, THE WATER, the fire, the air, and space; and secondly, attaining the order, balance, or rather harmony, among them, for the survival and sustainability of life on Earth.

We organized five separate conferences and exhibitions for each of the elements at five different places across the country. Spiritual leaders, scientists, thinkers, social activists and others engaged in seeking and implementing solutions based on indigenous thinking, from India and abroad, have participated for exchanging ideas. Exhibitions were conceived to display and disseminate the practical aspects of solutions to the people in general.

The concerned ministries of the Government of India, related to each of the basic elements, have come forward to join hands with the voluntary social organisations to organise the conferences and exhibitions.

Reclaiming the *Bharatiya* thought for the well-being of mankind is in true sense a celebration of Indian identity.

Besides coordinating among all the five elements, the DRI has been entrusted with the responsibility of organising the conference and the exhibition relating to the element of Jal, the water. It has been titled as SUJALAM. An Initiative on water aims to present profound and pragmatic solutions based on Bhartiya Thought in relation to the present existential crisis, emerged due to rapidly changing climate.

5. Sustainable Agriculture-Providing sustainable agriculture through introduction of improved farming technologies. Technological Assessment, Refinement and Dissemination conducted through on farm testing (OFT) & frontline demonstration (FLD), thereby increasing farmers' income by two to three fold.

6. Nutrition Sensitive Agriculture- To cater nutritional needs and widening the food basket. The goal of Agriculture is maintaining the nutritional balance and well-being of

Mother Earth, its diverse species and the human community. Nutrition is critically required for the health and overall well-being of an individual, community and society. The Indian Thaali has been an epitome of diversity. It was always been designed by the women in charge of the kitchen, according to the local climate, local cropping patterns and cultural food patterns.

7. Climate Resilient Technologies- demonstrated at farmers field to empower them for climate change Adaptation. Climate change has become one of the most pressing global issues in recent decades, with its impacts being experienced across various sectors, including agriculture, energy, and water resources. Climate change refers to significant changes in global temperature, precipitation, wind patterns, and other measures of climate that occur over several decades or longer. The global temperature increased from 0.65 -1.06 °C from 1880–2012, as per the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5). The unusual temperature increase could significantly affect the global hydrological cycle, including precipitation frequency and patterns. This could result in more intense rainfall and evapotranspiration rates, exacerbating the impact of floods and droughts.

8. Establishing Scientific base of Ayurveda, Scientific validation of drug formulations- Its basic aim is to provide scientific base of Ayurveda and to provide quality medicine through standardization and quality control. Secondly Scientific validation of ancient drug formulations and also conserving knowledge of traditional health practiceners.

9. Research on chronic Diseases and providing affordable healthcare - Our R&D efforts in this field are aimed to provide Lifelong health and providing affordable healthcare to the poor and needy. The Institute is devising an integrated healthcare system by integrating modern medicine system with Ayurveda, YOGA and Naturopathy.

10. Inculcating Scientific temper- The Arogyadoot project has been aimed at facilitating and accelerating the process of localisation vis-à-vis science and health, accelerating and contemporising awareness about health related issues, an important component of 'self-reliant villages',ensuring that our villages are adequately geared to take the load of medical needs of thousands of migrant workers who have returned to their villages in the post-Covid scenario.

11. Understanding Governance Through *Bharatiya* Civilizational Wisdom- Research study that can indicate how the wisdom in the practices of the Indian civilization over millennia can be discerned, culled out and applied for practice in modern India, at the same time being part of and eventually leading international discourse on Good Governance.

This research study is centred at the intersection of:
● Wisdom-based, millennia-long Indian practices of Democracy and Good Governance for sustained prosperity
● Survey-based, Statistically-modelled standardized practices for arriving at numerical values to rate Good Governance on a global scale
● Confidence-based resurgence and awakening in India to its individuality, its innate strengths and its dare to become *Swavrtta*, self-reliant in its decision making and functioning – as evident from the Indian Government's expression and drive towards "*Atmanirbharta*", self- reliance".
This research study is expected to lead to a model that can give a holistic view of India as a Nation and the state of its Governance, that which is culturally appropriate and contextually relevant.

This research study is being carried out by 3 organizations Deendayal Research Institute, Bharath Gyan and Brhat Culture Creative LLP and supported by the team at the Capacity Building Commission which have an Indic background and at the same time come with expertise in areas of Indian Civilizational Knowledge, Policy making and Governance as well as Sustainable Development. It is to emphasize the **Indian approach of synergizing from a multi-dimensional and multidisciplinary perspective right from solutioning to living to Governing too.**

Deendayal Research Institute's Centres

To evolve a model of reconstruction of Indian Society and Rural Development, Deendayal Research Institute has established a host of institutions and centers. Research and Development activities on various aspects of Social Science and Physical Sciences are being carried out at various centres viz. Delhi, Gonda, Balrampur (U.P.), Chitrakoot (U.P. & M.P.), Beed, Nagpur (Maharashtra). Our Main Research Centers are:

Headquarter, Delhi

Deendayal Upadhyay Smarak Samiti, a society under Society Registration Act, 1860 came into existence on 8th March, 1968. The memorial building at Delhi was inaugurated on 20th August 1972. This was started as a laboratory in which some of his colleagues had undertaken the stupendous task of setting up a model of socio-economic order. This is a unique laboratory where both thought and action have been harmoniously blended for ushering a new era. Some of its activities undertaken in the beginning were as follows:

- A Reference-cum-Documentation Library
- Publication of quarterly magazine "Yuganukul Navrachna" in Hindi, besides publications on other important issues.
- Organization of periodical lectures, group discussions on current and basic issues of national importance.
- Essay Competitions.
- Organization of workshops of experts to meet the requirements of actual field work.

Presently, the Delhi Centre of Deendayal Research Institute acts as a liaison office with various agencies of central and state governments, including other voluntary organizations. Delhi office besides overseeing and coordinating the activities of all centers of DRI, also provides logistical support to all units in their endeavour of social reconstruction. It acts as a center of intellectual activities organizing discussions and seminars in the auditorium situated in the building premises. There is also a library with vast collection of books on social sciences.

Arogyadham - The Ayurveda & Naturopathy Campus at Chitrakoot is the key centre for maintaining good health among the villagers. Within the 53 acre campus is:

- Out-patient Department with modern diagnostic equipment.
- In-patient Department for 100 patients
- Ayurvedic Medical College.
- A Maternity & Paediatric Centre with operating theatres and a neo-natal pediatric wing.
- A Yoga & Meditation Centre.
- A fully equipped Naturopathy Centre.
- An Ayurvedic Research Centre for Ayurvedic Herbs and Preparations.
- A modern Dental Unit.
- An Ayurvedic Research Library.
- An Herbal Garden.
- An Ayurvedic Doctor Outreach programme.
- An Herbal Remedies Kit (Dadi Ma Ka Batua) for treating common ailments.

Udyamita Vidyapeeth - A production-cum-training centre that consists of a complex of over 19 industrial sheds, 4 hostels and an administrative block to impart training to villagers in various skills to earn. The Centre is actively involved in the self-reliance programmes and has innovated vertically integrated Self-Help Groups and the concept of one village-one product.

Surrendra Paul Gramodaya Vidyalaya - A comprehensive primary, secondary and high school situated in Chitrakoot that serves 1,500 students from in and around Chitrakoot.

Ramnath Ashramshala - A residential co-educational school for 300 tribal children for their total development so that after being educated they may not depend on reservation for growth, located in Chitrakoot of Satna District.

Parmanand Ashram Paddhati Vidyalaya - A residential co-educational school for 120 scheduled caste children to develop educational system which can bring down the disparity and may be meaningful for humanity located in Ganivan of Chitrakoot District.

Krishna Devi Banwasi Balika Awasiya Vidyalaya - A residential girls school for 120 girls from tribal families.

Gurukul Sankul - A unique experiment that houses 270 children with retired couples in groups of 25-30 children that inculcates values in the children and helps them to study and grow in an inspiring atmosphere.

Chitrakoot Rasshala - The in-house Ayurvedic pharmacy that caters to the medicinal needs of Arogyadham, currentaly it is producing more than 250 types of medicine with the locally available resources with the help of local people.

Gramodaya Darshan Park - A permanent exhibition where all the innovations and interventions used in the self-reliance campaign can be seen in working models as also other innovations that could be used in villages.

Govansh Vikas Avam Anusandhan Kendra - The Gaushala in Chitrakoot is engaged in maintaining pure Indian breeds; research in cross breeding of Indian cows; as also an A.I. programme for improving the livestock yield and bullock performance in the villages in the self-reliance programme.

Resource Centre - Controls the inputs of the **Samaj Shilpi Dampati** – (The Graduate Couples) that live in the village and serve as the catalyst of change in the self-reliance campaign. They are the nodal point through which all interventions of DRI flow to the villagers in the self-reliance campaign.

Educational Research Centre - Innovates new educational aids for schools and adult literacy is currently starting a TCS developed Computer Based Functional Literacy (CBFL) programme in the 80 villages.

Ramnath Goenka Smarak – This is to provide the institutional information and coordinate all the organizational visit programme, it also provides the facility of safe *Ganga Snan* in holy Mandakini and foodstuff at lowest cost to the pilgrims.

Ram Darshan:- Ram Darshan is a modern temple with a difference, once visited the memories that can never be erased out of man's inner eye. Ram Darshan constitutes the human

and cultural aspect of integrated development efforts which not only provides a glimpse of Lord Rama but also lands a deep insight into his exemplary life and character in the highly volatile dynamics of time and inter-personal relationship.

Ramnath Arogyadham, Jaiprabhagram (Gonda) - This Ayurvedic hospital situated at Jaiprabhagram, Jankinagar, Gonda, (U.P.) is providing healthcare facilities in this rural area. Besides general healthcare this hospital also consists of a modern eye-care unit, child welfare unit and a pharmacy.

Chinmay Gramodaya Vidyalaya (Gonda) – This model higher secondary school situated at Jaiprabha gram, Gonda, has more than 1600 boys & girls of this rural area on its roll.

Jai Hanuman Chhatravaas and Trifed Junior High School (Gonda) - The unique educational complex is situated at Imelia Kodar in the tribal region of district Balrampur (U.P.). At present 250 tribal boys & girls are on roll in the school and 100 tribal boys & girls are residing in the hostel.

Krishi Vigyan Kendra (KVK), Majhgawan (M.P.) - A 63 acre model farm that reaches out to farmers in the villages of the self-reliance campaign situated in Madhya Pradesh helping them to increase both farm and non-farm income through watershed management, improved sustainable agricultural inputs both on-farm and farmer's fields and training in various disciplines.

Krishi Vigyan Kendra (KVK), Ganivan (U.P.) - A 50 acre model farm set within a 150 acres DRI campus that reaches out to farmers in the villages of the self-reliance campaign situated in Uttar Pradesh helping them to increase both farm and non-farm income through improved sustainable agricultural inputs both on-farm and farmer's fields and training in various disciplines.

Krishi Vigyan Kendra (KVK), Gopalgram, Gonda (U.P.) - Lal Bahadur Shastri Krishi Vigyan Kendra (KVK) at Gopalgram Centre (Gonda Dist.) was established with the help of ICAR, Govt. of India, in the year 1989. This farm Science Center, situated in the Gonda district of Uttar Pradesh provides farmers of the region training in various disciplines to increase farm and non-farm income.

Krishi Vigyan Kendra (KVK), Ambejogai, Beed (Maharashtra) - Farm situated at Digholamba, Ambejogai, in Beed district of Maharashtra helping the farmers to increase both farm and non-farm income by providing them on-farm and farmers' field trainings in various discipline.

Jan Shikshan Sansthan (J.S.S.), Chitrakoot (U.P.) – This vocational training centre is situated at Ganiwan in District Chitrakoot (U.P.) providing vocational training in various trades to the youths for gainful employment.

Jan Shikshan Sansthan (J.S.S.), Gandhi Park, Gonda (U.P.) – DRI established a Jan Sikshan Sansthan at Gonda in December 2000, with the aid of Government of India, where hundreds of rural youth undergo training every year in different trades to make themselves self-reliant.

Jan Shikshan Sansthan (J.S.S.), Beed (Maharashtra) – This vocational training centre is situated at Beed (Mah).

Bal Jagat, Nagpur – Nanaji's thinking on child development took the shape of **"Bal-Jagat"** at Nagpur. This noble project was inaugurated by the then Prime Minister of India Shri Chandrashekharji on 11th February 1991. It is neither a formal school nor an Institute catering education for degrees and certificates. It is an informal center to cultivate children's talents in music, fine arts, personality development, yoga, etc. Thus the centre plays a vital role in bringing out innate talents in children below the age of 14 by providing proper environment and facilities. Special emphasis is given on inculcating team spirit and brotherhood amongst the children. A modern children park has been constructed for children to develop their natural talent by providing appropriate environmental conditions and modern equipments. The park is open to all children, rich or poor and is very popular amongst the children for its unique conception.

Deendayal Research Institute is surging ahead to develop sustainable developmental technologies with replicable, definable and tangible parameters through its innovative programmes and approaches with the initiative, involvement and empowerment of the villagers.

Research Advisory Board

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Resource Persons of DRI in different fields

S.No.	Section	Name	Qualification	Designation
1	**Social Scientist**	Shri Atul Jain	B.Com. (Hons) & Diploma in Journalism	General Secretary
2	"	Shri Abhay Mahajan	M.Sc. (Ag. Agronomy)	Organizing Secretary
3	"	Shri Vasant Pandit		Treasurer
4	"	Shri Rajesh Mahajan		Secretary
5	"	Shri Ramkrishna Tiwari	M.A.	Incharge, Gonda Project
6	"	Dr. Ashok Pandey	Ph.D., M.A. (Geography)	Incharge, Self-Reliance Campaign
7	**Life Long Health Services**	Dr. Milind Devgawkar	MBBS, MS	Doctor
8	"	Dr. Bharti Srivastav	B.A.M.S., M.D.	Doctor
9	"	Dr. Poonam Pathak	B.A.M.S., M.S.	Doctor
10	"	Dr. Narender Dwivedi	B.A.M.S.	Doctor
11	"	Dr. Rajeev Shukla	B.A.M.S.	Doctor
12	"	Dr. Manoranjan Singh	B.A.M.S.	SRF
13	"	Dr. Varun Gupta	B.D.S.	Doctor
14	"	Dr. Ashok Tiwari	M.Sc. Environment Sc.	JRF
15	"	Dr. Manoj Tripathi	Ph.D., M.Sc. (Botany)	JRF
16	"	Dr. Neelesh Dwivedi	Ph.D., M.Sc. (Industrial Chemistry)	JRF
17	"	Shri Dheerendra Jaiswal	M.Sc. (Biotech)	Research Associate
18	"	Sh. Gaur Hari Trivedi	M.A.	Office Asst.
19	"	Shri Pawan Bhargava	M.Sc. DMLT	Lab Tech
20	"	Sh. Ram Kishore Patel	MA	Store Asst.
21	"	Sh. Awadh Kumar	BA	Dental Technician
22	"	Sh. Mohan Lal	BA	Dental Technician
23	"	Smt. Vandana Vishwakarma	MA	Asst.
24	"	Sh. Rajendra Singh	B. Com	Cashier
25	"	Sh. Kaushlendra Singh	Dipen Radiology	X-ray Technician
26	"	Sh. Sharda Tripathi	MA Hindi BSc	Lab Tech.
27	"	Smt. Alpana Singh	ANM	Nurse
28	"	Ku. Deepa Dwivedi	ANM	Nurse
29	"	Smt. Maya Patel	ANM	Nurse
30	"	Ms. Pooja Tripathi	ANM	Nurse
31	"	Smt. Vandana Devi	ANM	Nurse
32	"	Sh. Sephy Siddhaki	GNM	Nurse
33	"	Ms. Sruti Singh	BDS	Nurse
34	"	Smt. Shilpa Tiwari	ANM	Nurse
35	"	Dr. Anurag Tripathi	BPT	Physiotherapist
36	"	Dr. N.D. Sindahi	MS Gensx	Consultant

37	"	Dr. Vinay Pandey	MBBS	Medical officer
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40	"	Ms. Pallavi Tripathi	ANM	Nurse
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43	"	Smt. Javitri Singh	GNM	Nursing
44	"	Smt.Vandna Shukla	GNM	Nursing
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46	"	Smt. Rekha Singh	12	Ward Attendant
47	"	Shri Raj Kumar Patel	12	Ward Attendant
48	"	Shri Suraj Yadav	10	Ward Attendant
49	"	Shri Rakesh	10	Ward Attendant
50	"	Shri Dharamraj Yadav	B.A.	Dental Tech
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52	"	Shri Prabhat Patel	12	Dental Tech
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54	"	Smt.Sheelu Sharma	12	Dental Tech
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108	"	Sh. R.L. Baheliya	5th Pass	Attendant
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115	"	Smt. Deepa Tiwari	BA	Samaj Shilpi Dampatti
116	"	Sh. Krishana Kumar Patel	BA	Samaj Shilpi Dampatti
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119	"	Smt. Chaya Chaturvedi	BA	Samaj Shilpi Dampatti
120	"	Sh. Uday Pratap Yadav	BA	Samaj Shilpi Dampatti
121	"	Smt. Saroj Yadav	BA	Samaj Shilpi Dampatti

122	"	Sh. Anuj Kumar Sinha	BA	Samaj Shilpi Dampatti
123	"	Smt. Poonam Sinha	BA	Samaj Shilpi Dampatti
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130	"	Sh. Dhanraj Verma	BA	Samaj Shilpi Dampatti
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141	"	Smt. Gayatri Devi	BA	Samaj Shilpi Dampatti
142	"	Sh. Rampal Kushwaha	BA	Samaj Shilpi Dampatti
143	"	Smt. Geeta Kushwaha	BA	Samaj Shilpi Dampatti
144	"	Sh. Ravendra Kushwaha	BA	Samaj Shilpi Dampatti
145	"	Smt. Usha Kushwaha	BA	Samaj Shilpi Dampatti
146	"	Sh. Ramkushal Yadav	MA	Samaj Shilpi Dampatti
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150	"	Sh. Rajababu Gautam	BA	Computer Operator
151	"	Sh. Chhotelal Rana	B.E. (I.T.)	ITI Instructor

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154	"	Dr. Upendra Nath Singh	M.Sc., Ph.D.	Sr. Scientist & Head
155	"	Dr. Vasant Apparao Deshmukh	Ph.D. Agri.	Sr. Scientist & Head
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157	"	Shri V.K. Gautam	M.Sc. (Agronomy)	SMS (Agronomy)
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167	"	Mrs. Vijayshri Shevtekar	B.Com	Program Assistant-Accounts
168	"	Mr. Sanjay Kulkani	B.A	Stenographer cum Clerk
169	"	Mr. Rajabhau Dahibhate	Diploma in Agriculture	Driver
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171	"	Mr. Akram Shaikh	B.A./BCA	Supporting Staff
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173	"	Er. Mithlesh Jha	M.Tech	Scientist
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180	"	Sh. Rajjan Pandey	12th Pass	Attendant
181	"	Sh. Mangat Ram	5th Pass	Cook
182	"	Sh. Ramesh Gupta	5th Pass	Attendant
183	"	Sh. Alok Kumar	M.Sc. Ag. Economics	P.A. (A&V)
184	"	Shri J.B. Singh	B.Com	O.S.cum Accountant

185	"	Shri Kamleshmalviya	Post Graduate	P.A. (Computer)
186	"	Shri S.C. Yadav	Graduate	Supporting staff
187	"	Shri R.K. Patel	Graduate	Supporting staff
188	"	Shri V.P. Tiwari	High-school	Supporting staff
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190	"	Shri R.P. Yadav	Graduation	Supporting staff
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193	"	Shri Ankur Tripathi	B.Tech.	Observer
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195	"	Sh. Akhilesh Kumar Jagre	M.Sc. (Plant Pathology)	S.M.S. (Plant Protection)
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197	"	Sh. A.K.Sharma	M.Sc. (Soil Science)	P.A. (Soil Science)
198	"	Er. Harendra Kumar	M.Tech (Computer Science)	P.A. (Computer Science)
199	"	Sh. Uttam Kumar Tripathi	M.Sc. (Agricultural Extension)	P.A. (Agricultural Extension)
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204	"	Sh. K. Pathak	BA	Field Attendant (A.Sc.)
205	"	Sh. B.G. Joshi	BA	Field Attendant (Hort.)
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212	"	Shri Santosh Mishra	M.A.	Program Coordinator
213	"	Shri Rajendra Singh	M.Sc. (Zoology)	Program Coordinator
214	"	Smt. Seema Panday	B.A.	Asst. Coordinator
215	"	Shri Hariram Soni	M.Com.	Asst. Coordinator
216		Shri Padmakar Malviya	M.A.	Social Scientist
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220	"	Smt. Rohini Sachin Bharat	M.Sc., Home Science	SMS Home Science

221	"	Shri Hemraj Dwivedi	M.Sc., Home Science	SMS Home Science
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228	"	Sri Nikhil Mishra	MBA, B-Tech	Supervisor (SDG)
229	"	Sri Hari Om Shukla	MBA, M.Sc., B.Sc. DCA	Computer Operator
230	"	Sri Deependra Dwivedi	MFA,, PGDCA	Computer Operator
231	"	Sri Umesh Prajapati	MA, B. ED, PGDCA	Computer Operator
232	"	Sri Harish Napit	BBA, PGDCA, TALLY	Computer Operator
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238	"	Dr. Anil Jaiswal	M.Sc., Ph.D.	Dy. General Manager
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240	"	Shri Ramprakash Pandey	M.Com.	Accountant
241	"	Shri Jagbhan Singh	M.Com.	OS
242	"	Shri Vinay Kumar	M.Com.	OS
243	"	Smt. Vijaya Shri Patil	M.Com.	OS
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248	"	Shri Naveen Gautam	M.A. (Economic)	Accountant
249	"	Shri Badri Prasad	B.Com	Accountant
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Innovations and Achievements in Agriculture and Livestock

Agriculture

Krishi Vigyan Kendra working under the administrative control of Deendayal Research Institute are not only fulfilling its mandate of upgrading and developing agriculture in their areas of operation but also forging strong ties with the local developmental agencies/communities in order to foster all-around development of their KVK districts. The KVKs are playing multi-dimensional and proactive role; acting as a resource centre for farmers; conceptualizing and initiating programmes aimed at management of natural resources; propagating chemical free organic/ Natural Farming by motivating farmers and offering training & technical assistance; documenting, analyzing and validating indigenous traditional knowledge systems and running demonstration projects on agri enterprises like model organic/natural farms, dairy, poultry, goatary, mushroom cultivation etc. DRI Krishi Vigyan Kendras (KVK) located at Satna in MP, Chitrakoot and Gonda in UP and Beed in Maharashtra are involved in promoting sustainable agriculture through introduction of improved farming technologies in their respective operational areas. In tune with the mandated activities, as set out by Indian Council of Agricultural Research (ICAR), all the four KVKs are engaged in technology assessment, and refinement and dissemination by conducting on farm testing (OFT); frontline demonstrations (FLD); training for farmers including farm women, rural youth and in-service personnel; production of seeds and planting materials and other extension activities. Apart from the set mandated activities, the KVKs are also involved in a number of flagship programmes of state/central government to achieve the desired objectives. KVKs, are being seen as a instrument in the holistic development of the villages by the district administration.

To achieve the mandate, the KVKs have extended activities many-fold in meeting up the aspiration of small and marginal farmers, rural youths and other stakeholders. The ability of KVKs to deliver information and technology support at the doorstep of the farmers has made them an important link between research and extension at the grass-root level. An evaluation of the performance of 4 KVKs during the year 2023-24 indicates that the KVKs could achieve the target of all the mandated activities in the areas of training, on-farm trial, frontline demonstration, seed and planting material production, soil sample analysis and others. Achievements of KVKs during the year are as follows:

1. **Technology Assessment:** All four KVKs under Deendayal Research institute, spread over Beed in Maharashtra, Chitrakoot and Gonda in Uttar Pradesh and Satna in Madhya Pradesh, worked towards technology assessment, demonstration and application in agriculture and allied fields. Under this most important mandated activity, i.e., technology assessment, the superiority of location specific agricultural technologies was assessed through conducting on farm trials by all the KVKs, covering various crops, livestock and fishery related technologies extending their practical utility for increasing the income and betterment of livelihood of the farmers and other stakeholders. During 2023-24, the KVKs conducted on-farm trials with an objective to assess the technologies developed by different R & D institutions in agriculture and allied sectors. Improved technologies related to crop production, livestock production, resource conservation, Natural Farming, integrated farming, integrated nutrient management, integrated insect pest management, fish production, drudgery reduction, farm mechanization,

women empowerment, post-harvest management and value addition etc. have been assessed to provide technological solution to the farming community pertaining to various aspects of agriculture and allied areas. During the year 2023-24, the KVKs conducted 484 on-farm trials in 45 locations to assess a total of 53 technologies. Among various thematic areas, technologies were tested in varietal /breed evaluation through 13 on-farm trials involving 126 farmers, followed by integrated pest management (12 on-farm trials), integrated nutrient management (6 on farm trials) and others. Among the various crops/enterprises, the highest numbers (15) of on farm trials were conducted in Vegetable production and management followed by 14 on-farm trials conducted on Cereals production and management. The successful technologies were again evaluated as farm demonstration before feeding it to mainstream extension system in the form of technology capsules. The feedback to research system is also provided for the necessary improvement/ modification of the developed technology to suit the wider agro-ecological situation of the KVK district.

2. **Frontline Demonstrations:** KVK conducted frontline demonstrations in crops to establish the production potentiality of the newly released varieties as well as standardized package of practices to enhance the productivity of major crops grown in the district and to improve the seed replacement ratio in these crops. The KVKs took up frontline demonstration programme not only in oilseeds and pulses but also in the area of cereals, vegetables, fruits, spices, and other allied enterprises, so that farmers are updated with latest varieties and technologies. In 2023, the DRI KVKs, conducted Frontline Demonstration programme on oilseeds in 160.8 ha covering 422 farmers. The area under demonstration in pulse was 281.11 ha which covered 793 farmers. The coverage in crops like rice, wheat, maize, millets Pea, cauliflower, Fenugreek coriander & onion etc. was 73.76 ha which involved 346 farmers. As a whole the all DRI KVKs covered 656.27 ha under demonstration in 2023 and benefited 2822 farmers.

The performance recorded in the farmers' field indicated the superiority of the new varieties over local varieties in terms of yield and benefit-cost ratio. The involvement of extension functionaries in the demonstration programmes paved the way for its large-scale dissemination for the benefit of the farming community. Demonstration on livestock and fishery was also carried out by the KVKs in 126 and 3 units through 9 and 1 number of programmes, respectively. Likewise use of improved agricultural implements like Bullock drawn planter, Broad bed furrow planter, Subsoiler were demonstrated in 136.6 ha area.

2.1 Oilseeds: In 2023 total 160.8 ha area was covered under FLD on Oilseeds by all the KVKs. Out of the total coverage, Oilseed was demonstrated 102 ha in Satna district of MP and 40 ha and 13.2 in Gonda and Chitrakoot districts of Uttar Pradesh and 5.2 ha in Beed district of Maharashtra. The farmers covered in MP were 255 and in UP it was 154. The demonstrated yield of soybean and mustard was 33.91 and 43.81% higher in Satna district of MP.

In Chitrakoot and Gonda district of Uttar Pradesh, the demonstration yield was 38.2% and 64.7% higher in Sesame over traditional variety respectively. The yield improvement in Beed district of Maharashtra, with demonstrations was 22.7% in Soybean was observed.

2.2 Pulses: In pulses, demonstration was conducted in 281.11 ha benefitting 793 farmers. The major pulses demonstrated were pigeon Pea (97.68 ha) and lentil (88.5 ha) and Blackgram (69 ha), In pigeon Pea increase in yield was 31.24% in Satna district of MP and 28.44% in Chitrakoot district of UP. In Lentil, average demonstrated yield was recorded 15.4 q/ha which was higher by 30.07% of check yield in Satna district of MP. In Blackgram, the yield under demonstration was 31.24% and28.44% higher over farmers practice respectively in Satna (MP) and Gonda (UP)

2.3 Other Crops: Different field crops important for the respective districts of the KVK were taken up for the purpose of frontline demonstration, rice being the most important crop in Chitrakoot region therefore rice crop was preferred for demonstration. The latest varieties and technologies on rice were demonstrated in 7.0 ha covering 25 farmers. Average yield increase was 25.57% in Satna and 25.86% in Chitrakoot. Wheat being the major crop in the MP UP and Maharashtra states therefore, high yielding varieties of wheat were demonstrated in 21ha which showed average increase in yield of 11.2% and 29.51% in Satna district MP and Beed district of Maharashtra respectively, and nearly about 22% in Chitrakoot and gonad district of UP. Among the vegetable crops brinjal, cauliflower, onion, tomato, potato, Cabbage, chilli, and bitter gourd were demonstrated through frontline demonstration programme. Improvement in yield through demonstration was 22.1% in chillies , 7.1% in garden Pea, 14.3% in onion, 23.4% in tomato, 26.7% in Cabbage, in Satna district of MP and Chitrakoot district of UP.

2.4 Livestock: Different areas in livestock management like new breed introduction, livestock feed formulation with locally available materials, deworming, vaccinations, health management measures were demonstrated by the KVKs.

2.5 Fishery: In fishery, KVK Chitrakoot conducted front line demonstration on farm made fish feed(Feed composed of 50% rice bran+50% Mustard oil cake and 1% Mineral powder and feed @ 2% body wt) at 3 farmer's field in 3.2 ha area. The yield increase was 18.39% higher than local practice in 3 month feeding.

2.6 Enterprise: In different enterprise like poultry, vermicomposting, mushroom production, Nutritional Garden,

value addition of fruits and vegetables were demonstrated among farmers and rural youth to exhibit the earning potential of the technologies. These demonstrations benefited 243 farmers and rural youths in KVK districts.

2.7 Implements: Agriculture implements and tools available for farmers are not in use in many villages due to lack of awareness about the machineries. To create awareness about implements and machineries, 462 demonstrations were organized in 136.6 ha, mostly in Gonda district of UP.

3. Research Innovations:

3.1 New Varieties of crops introduced and tested: KVK assessed the varietal needs of farmers in their respective districts. During the interaction with farmers it was found that the farmers prefer high yielding varieties with resistance/tolerance to various stresses in a changing climate scenario. Therefore, KVK introduced varieties with desirable character. During the period under report, 87 varieties of cereal crops (41 varieties of rice, 39 varieties of wheat and 7 of barley), 24 varieties of nutria cereals s (4 of Kodo millets, 3 of barnyard millets, 4 of sorghum, 2 of Pearl millets, 4 of finger millets 4 of foxtail millet and 3 of little millets) 19 new varieties of pulses (3 of Greengram, 4 of Blackgram, 5 in pegionPea, 4 of Chickpea and 3 of lentil), 29 new varieties in oil seeds (7 in sesame, 8 in soybean and 14 in mustard) have been introduced. Besides, 56 new varieties of horticultural crops have been introduced (8 of fruits, 31 of vegetables and 17 of spices) have been introduced and tested for their suitability in changing micro climatic conditions of these districts. Farmers were showcased the performance of these varieties planted in crop cafeteria. The farmers were asked to rank the varieties based on their yield contributing characters and tolerance to abiotic and biotic stress. Farmer's perception on the performance of these varieties on growth parameters like initial plant growth; branching, maturity period, seed quality, resistance to disease and insect pest, and seed yield were recorded. The varieties were ranked at various growth and development stages of crop on the basis of farmer's perception on various growths and yield contributing factors and the variety getting the highest score for the parameter was ranked first and so on. Of the 215 new varieties of crops introduced by KVK, 37 varieties with tolerance to abiotic and biotic stresses have been found suitable for cultivation.

3.2 Submerged Pitcher system of planting of fruit trees in homestead: To achieve higher survival of fruit plants during the early phase of establishment, submerged pitcher system of planting fruit trees was demonstrated at 341 farm families in 681 fruit plants with 100 per cent plant survival rate.

3.3 Fruit based multi cropping system for Ensuring Livelihood Security to Small Landholders: The Bundelkhand region which covers nearly 2.1% of the geographical area of India is characterized by fragile ecosystem. The production system in this region is confronted by several bio-physical constraints, such as low and erratic rainfall, extreme temperature variations as high as 48°C during summer and 2-3°C during winter and increased

in the severity of long dry spells. Although, the region receives an average annual rainfall of 767.8 to 1086.7 mm during monsoon but, due to undulated topography in the upland, most of the rainwater is lost through surface run off resulting in to erosion of the top soil. The uplands are seldom utilized for production of agricultural crops. Thus, under such situation, multiple cropping systems integrating suitable crops with fruit trees (Guava+ Papaya+ Garden Pea + Cabbage, Aonla + Chickpea, Papaya + CowPea, Guava + Blackgram and Guava + Papaya + marigold) to improve the productivity and profitability of farming were demonstrated at 23 farmers' fields. The results showed that multiple cropping minimized the risk, improved livelihood, ensured high returns from such uplands for small land holders.

4 Capacity Development: Capacity development of the farmers and farmwomen, rural youth and extension functionaries is the integral part of KVK functioning. Continuous updating of knowledge and skill of the farmers are required in the field of agriculture and allied sectors to maintain sustainability in agricultural development. For imparting knowledge and skill, the KVKs organized 318 number of courses for 4949 farmers and 2383 farmwomen covering various aspects of crop production, horticulture, soil health management, agricultural engineering, livestock & fishery, home science, agricultural extension and many more. In respect of rural youths, however, only such areas of capacity building were selected that could provide self-employment in farm and off-farm enterprises. In this process, 823 rural youths including girls were trained through 32 courses. Areas selected for the capacity building of extension personnel were crop production, horticulture, plant protection, animal husbandry, home science, agriculture engineering and fishery field. The KVKs conducted 31 such courses for 694 participants. In addition, the KVKs also organized 35 sponsored training programmes for farmers, rural youths to make youths self-employed. The potentiality of KVKs in capacity development programme has been recognized by Govt. and other organizations as such organizations are more and more depending on KVKs for knowledge and skill development of its functionaries.

4.1 Rural Youth: Considering the employment generation of the rural youth and girls in the rural areas, training progammes for rural youth and girls were organized by the four KVKs during 2023. All four KVKs conducted 32 courses for 823 beneficiaries for rural youth and girls in their respective KVK districts. Trainings were organized both in on and off-campus mode. In Seed production and integrated farming, 4 courses were organized in each, while in value addition of fruits, 8 courses were organized for 241 youths. Other courses organized were raising fruit tree nursery (3), repair and maintenance of farm machinery and implements (2), mushroom production (2), dairying (3), goat faming (3), poultry farming (3) Vermi-culture (2), bio pesticide and bio fertilizer production (2), organic farming (1) and tailoring and stitching (3).

4.2 Extension Functionaries: Extension functionaries of state department of agriculture, horticulture, veterinary and extension workers of other government departments approached KVKs for updating of their knowledge and skills. In the area, KVK played an important role in updating knowledge of the state departments. Sometimes, NGO people also approached for training of their staffs. In the year 2023-24, a total of 31 courses were organized for 694 extension functionaries. The areas of training were integrated pest management (6), productivity enhancement in

field crop (6), integrated nutrient management (3), recent technologies in horticultural crops (6), recent developments in veterinary science (5), improved machinery and implements in farm operation (4) etc. To extend the benefit to large number of extension workers, apart from line department staffs, NGO staffs, agricultural workers of the districts, were also included in the training programmes.

4.3 Sponsored Training Programme: Various organizations came forward with their proposal of training programme to update skills of their farmers/ rural youths. KVKs took the lead role to train the farmers at district level with their expertise on different fields of agriculture and allied vocations. The farmers approach to the KVKs to get trained in the area of crop production, horticulture, water management, off-season vegetable cultivation, soil health and fertility management, post-harvest technology, plant protection, fishery and value addition etc. KVKs trained farmers on various aspects of agriculture and allied sectors using the resources received from the different organizations. A number of government and other non-government organizations were associated to conduct different kinds of trainings for different clienteles. Even different state governments, central government departments, NABARD, ATMA were working in collaboration with the KVKs to reach the farmers at district level. In those programmes, experts were provided by the KVKs. In the year 2023-24, the KVKs conducted sponsored 35 training programmes for 1480 beneficiaries with the fund support from different organizations. Out of these 912, (61.62%) were male and 568 (38.38%) were female beneficiaries. The major courses covered in these programmes were production and value addition in fruits etc. (14) for 496 participants, agricultural extension (9) for 242, crop production (12) for 172 participants, livestock and fishery (4) for 61 participants and others.

Sponsored Training:

2 **Extension Programmes:** Technologies assessed through different programmes of assessment and demonstration are taken to the doorstep of the farmers through the extension activities like field day, exhibition, group meetings, exposure visit, farmers club meeting and through organizing different celebration days in the KVK campus. In creating awareness of the latest technologies in crop production, livestock farming, horticultural production, fishery and other allied technologies, the DRI KVKs organized 14902 numbers of activities involving 113603 farmers and extension officials in four KVK districts. Among these beneficiaries 110575 were farmers and 2988 were extension officials. Analysis of the gender-wise participation showed that 23.39% were women beneficiaries, which is almost 1/4 of the male beneficiaries. A number of extension officials (403) paid visit to the KVKs and interacted with KVK's scientists regarding the latest technologies. Farmers in large number (26033) visited the KVKs and took knowledge about the latest technologies available in the KVK farm and nearby villages. Scientists or the KVK also regularly visited the farmers' field. A total of 715 visit were made by the scientists and during the course of visit 9084 farmers consulted with the scientists. KVKs conducted Kisan gosthies for creating awareness of the different technologies and 120 such Kishan gosthies were organized for 4250 beneficiaries. KVKs also organized 7 Kisan Melas and 27 numbers of exhibitions which benefited 3574

and 4450 beneficiaries, respectively. Different technologies and successful cases were also exhibited through arranging film show for 3411 participants. Farmers seminar, workshop were also organized for creating awareness about different programmes and government schemes. In the year 2023-24, 24 seminars / workshops were organized to cover 2704 farmers and 204 extension officials. Advisory services were one of the most popular services sought by the farmers. In the year, 1102 such services were offered by the KVK staff for the interest of 9273 beneficiaries. 7 Exposure visits of farmers were also organized to show the farmers about the latest technologies. Besides, 5 soil health camps and 77 animal health camps, soil test campaigns were organized to benefit 234, 1760 and 247 beneficiaries, respectively. Farm Service Club, Group Meeting, Self Help Group meeting and Mahila Mandals meetings were organized to make contact of large numbers of farmers, rural youth to the KVKs, 73 such meetings were organized for benefits of 1963 rural people. Involving farmers and rural people with the KVKs by observation of different programmes like celebration of important days, mahila divas, Swachhta Hi Sewa, International Women's Day with the objective to create awareness regarding the government programmes showed that the KVKs conducted various extension activities for the benefit of 2771 participants. Mahila Mandals Conveners meetings were provided to 247 participants. Other major extension activities included organization of technology week (47), central government flagship program (40), creating awareness about FPO (59), diagnostic visit of scientists (206) etc.

Other Extension Activities: The KVKs also gave extensive coverage of their programme through social network and print media. A total of 15 Extension Literatures were developed while 84 news coverage in newspaper, 4 TV talks and 3 radio talks were provided to highlight the KVK programmes and on-going projects.

6. Production of Seed, Planting Materials and Bio-Products:

6.1 Seed Production: Seed production programme of Krishi Vigyan Kendra is a unique venture for supply of quality seed to the farmers at district level. Seed production programme of the KVK enables the farmers to get recently released varieties of different crops, thus helps in spread of such varieties. KVK wise analysis of seed production programme showed that KVK, Satna produced 111.83 q seeds which benefited 3134 farmers in 2023-24. KVK, Beed produced 234.44 q seeds, KVK, Gonda produced 319.16 q seeds and KVK, Chitrakoot produced 164.95 q seeds. Total quantity of seeds produced by all four KVKs was 830.38q benefitting more than 4702 farmers to get seeds of recent varieties. The total production of seed in cereal crops was 537. 61 q which benefited 1026 farmers, in pulse crop was 84.99 q and in oilseeds it was 193.23 q. Besides, 9.67 q Vegetable and spices seeds were also produced and provided to 1851 farmers.

6.2 Planting Material: Very few nurseries are available in these KVK districts which supply quality planting materials to the farmers. To meet the demands of quality planting materials of farmers, our four KVKs took up planting material production programme in the respective districts to provide direct access to the farmers to the planting materials. In the year 2023-24, KVKs produced 1073281 planting materials of fruits, vegetables and ornamental plants and which benefited 7293 farmers. Among the different fruit crops mango, pomegranate, aonla, ber, bael, custard apple banana, guava, lime, papaya, watermelon, brinjal, tomato, cucumber, cauliflower, okra, onion, chilli, bitter gourd, broccoli, capsicum varieties were produced in these programmes. KVK-wise analysis showed that KVK, Satna produced 459992 number of planting materials, KVK Beed produced 51650 number of

planting materials, KVK Gonda produced 343209 number of planting materials and KVK Chitrakoot produced 218430 number of planting materials in the year 2023-24.

6.3 Production of Bio-Product: With the awareness created by KVKs on promotion of organic farming and Natural Farming for maintaining soil fertility of the soil, the demand for bio fertilizers, bio fungicides and bio agents has increased. To meet up the need of the farmers and to promote organic and Natural Farming, KVKs encouraged the use of bio product and promoted production of vermicompost and bio-fertilizer in large scale. KVK, Beed produced, 992 kg of bio fungicides, 255 kg of bio fertilizers and Uzi fly traps (839kg) and provided to 277 farmers during the year 2023-24. In KVK, Satna, 9265 kg of vermicompost, 355 litres of bio pesticide sand 120 litres of vermiwash were produced which benefited 478 farmers during the year under report. The total production of bio products was 12826 kg in 2023-24 which benefited 1255 farmers.

6.4 Livestock and Fishery: Livestock strains, like improved breeds of bulls and goats, chicks, piglets, fingerlings, spawns etc. are supplied to the farmers by KVKs through their livestock production programmes. In the year 2023-24, our four KVK provided 26 nos of improved breeds of bulls and goat, 4785 chicks, 7163887 fingerlings of Catla, Rohu, Amur carp grass carp, Pangasious, IMC to the farmers.

6.5 Soil Testing and Soil Health cards: Scientists engaged in the KVKs motivated farmers through conducting several awareness and training programmes for motivating farmers for testing soil before cultivation in their land to decrease indiscriminate use of fertilizers, and to control environmental and other health hazards. The KVK Scientists analyzed 1025 number of samples through mini soil testing kit/ labs in their KVK districts to provide soil health card to the farmers The soil testing enabled the farmers to judiciously utilize chemical fertilizer in crops, increase crop productivity and to sustain soil health. Apart from the mandated activities, the KVKs also celebrated special day/ week as a means to create awareness among farming community like World Soil Day, Earth Day, National Technology Day, World Veterinary Day and others. Such celebrations attracted good number of participants and provide the opportunity to gain knowledge on the benefit of soil testing and soil health cards among the farmers. A minimum amount was charged from farmers for testing each soil sample. The World Soil Day program was organized on December 5, with the aim to connect people with soil and raise awareness on good soil health importance in our lives. Our KVKs distributed the soil health cards among the farmers. A total of 1025 numbers of Soil Health Cards were prepared during the year, out of which 7455 nos. soil health cards were distributed on World Soil Day, in presence of the public representatives like MP/ MLAs and others in the respective KVKs.

7. Implementation of Central Government flagship programme: To ensure the fulfillment of the desired objectives of bringing quality output our KVKs put greater efforts in creating awareness about the farmers welfare schemes in their respective districts, as a result KVKs have become household name among the farming community and policy makers at the highest level.

7.1 Implementation of Cluster Frontline Demonstration (CFLD) programme: CFLD programs sponsored by NFSM both for oilseed and pulse crops to enhance the productivity with particular emphasis on to utilize rice fallow

has been another achievement of our four KVKs recorded during last one year. In oilseed, average yield recorded was in the range of 28.44% -31.24%. Higher yield was also observed in pulse crops during all three seasons, viz. Kharif, Rabi and summer. The average increase in yield was in the range of 22.7% to 64.7%.

7.2 Retaining rural youths in farm-led vocation: Attracting and Retaining Youth in Agriculture (ARYA) – a project of Indian Council of Agricultural Research is implemented by KVK, Satna. Based on the youth's interest and scope of enterprises in the districts, four enterprises namely, goat farming, vermicompost production, poultry farming and mushroom production have been selected to provide essential skill training and technical support to the identified youths in a phased manner. The efforts of KVK have enabled rural youths to establish 38 number of enterprises for enhanced annual income in a sustained manner. The success of these agri-enterprises has motivated other rural youths also to take off-farm enterprises for their livelihood.

7.3 Formation and Promotion of FPO: Under the Central Sector Scheme, "Formation and Promotion of 10,000 Farmer Producer Organizations" DRI has been identified as a Cluster Based Business Organizations (CBBOs) by implementing agency SFAC to function at the Block level for formation and nurturing of FPOs under this scheme. Till now, 16 FPOs have been formed in three districts viz., Satna (4), Gonda (6) and Beed (6) with minimum of 300 members in each FPO. KVK scientists having expertise and good rapports with farming communities are providing needful technical support to these FPOs in the establishment of their business. After identifying potential commodities in cluster, KVK organized awareness program and mobilized farmers for inclusion in FPO membership, formed Farmers' Interest Group, submitted application for registration, made linkages with line departments., other business organizations, E-business portal, conducted district level stakeholder meeting, facilitated FPO for preparation of business plan, mobilized equity share and conducted review meetings.

7.4 Kisan Sarathi: An Information Communication and Technology (ICT) based interface platform for supporting agriculture at a local niche with a national perspective launched on 93rd Foundation Day celebration of Indian Council of Agriculture Research (ICAR) to facilitate farmers to get 'right information at right time' in their desired language. Under 'Kisan Sarathi' platform, KVK Satna and Chitrakoot with 13 experts of KVKs have been registered. A total of 11233 4 farmers in these districts have already been registered. A total of 1554 calls/ queries have been made so far. This initiative of Kisan Sarathi will empower farmers with technological interventions to reach farmers in remote areas.

7.5 Implementation of Tribal Sub-Plan (TSP) and Schedule caste Plan (SCP): The main objectives of Tribal Sub-Plan (TSP) Schedule caste Plan (SCP) was to channelize the flow of benefits to the development of Schedules Tribes and schedule castes both in physical and financial terms. GOI

identified KVK, Chitrakoot for the implementation of this project to provide the SC and ST people a better quality of life. An amount of Rs. 57.1 lakh fund was provided to KVK, Chitrakoot to conduct different activities like crop farming, horticulture, animal husbandry, dairy development, vocational training, kitchen gardening, fish production, and many others towards the benefit of tribal people. Four village of Manikpur block in Chitrakoot district namely Gopipur, Karonha, Dandi kolan and Jariha dandi have been brought under this project for the benefit of 10932 farmers during 2023-24. Similarly, five villages with 699 SC farm families have been covered under the plan. These farm families have been supported in the establishment of income generating agri-enterprise like goat farming, poultry farming, fish farming etc.

7.6 National Innovations in Climate Resilient Agriculture (NICRA): Successful implementation of technology components by KVK, Chitrakoot and Gonda like summer ploughing, green manuring, zero tillage, organic mulching, BBFS, water saving irrigation methods, ground water recharge, creation of large-scale water harvesting structures, renovation of ponds etc. have not only created positive impact in the NICRA villages but also paved the way for its out scaling in other parts of district for the benefit of the farmers. Popularization of alternate cropping pattern, introduction of suitable crop varieties, innovative methods like community nursery, emphasis on fodder cultivation, creation of VCRMC and custom hiring system and other components carried out through this programme have immensely benefited the farmers of vulnerable districts.

7.7 Gramin Krishi Mausam Sewa through establishment of District AgroMet Unit (DAMU): Under Gramin Krishi Mausam Sewa, KVK, Chitrakoot, provided 1855 agro met advisory services to more than 46000 farmers of the district. An assessment of Weather forecast related messaging to district farmers have shown that messaging have helped the farmers to save the crop losses to the tune of Rs. 2834 per farmer due to climate vulneRability. KVK also popularized 'Meghdoot' and 'Damini' mobile app to provide advance weather related information.

Revenue Generation: The KVK scientists were actively involved in receiving funds from a large number of external sources through sanctioning projects i.e. organizing additional training programmes, research projects, building infrastructural facilities and so on which helped in supporting and strengthening of their KVKs. During the year 2023-24, DRI KVKs managed to receive funds from State Department of Agriculture, Mandi Board, RKVY, NABARD, ATMA and many others. A total of Rs. 251.78 lakh revenue was generated by the KVKs. Out of this, KVK, Satna generated fund of Rs. 208 lakhs, from Mandi Board for strengthening their KVK infrastructure and for demonstration of such technologies that will help the farmers to enhance their income.

8 Celebrations of Important days

8.1 Celebrated of 'Mahila Kisan Diwas: Considering the multi-dimensional role of women in agriculture and allied sectors, KVKs celebrated 'Mahila Kisan Diwas' at their respective districts. The scientists of KVKs emphasized the importance of the day, role of women in agriculture, women empowerment through SHG formation, entrepreneurship development and many others. On that occasion, women farmers were provided with different skill development trainings to improve their scientific knowledge for agricultural production, nutritional security and livelihood income.

The successful women farmers were also felicitated with awards and recognitions by the KVKs to encourage other women farmers in the district.

Observance of 'World Food Day': The 'World Food Day' is observed to mark the anniversary of the founding of the Food and Agricultural Organisation (FAO) of the United Nations, on 16th October with the objectives of tackling global hunger and striving to eradicate hunger across the world. The vegetable crops planting materials distribution; training programmes on Nutri-garden and Nutri-thali, balanced diet preparation, food grain protection during storage, backyard poultry farming, production of food item through organic farming etc. were among the various activities undertaken on the eve of food day celebration. The Farmers-Scientist interaction was also organized by the KVKs to solve the problems of farmers for food grain production.

8.2 Celebration of 'World Soil Day 2023' - The "World Soil Day 2023" programme was celebrated on 5th December, 2023 at all 4 KVKs under Deendayal Research Institute. On the occasion, farmers were made aware with the basic knowledge of soil, about deterioration of soil health and ways it could be restored for optimizing agricultural production through using bio-fertilizer, vermi-compost, FYM, Dhaincha, liquid manure, decomposer, humic acid, Trichoderma viride, Pseudomonas fluorescence, azolla etc. A total of 1025 soil health cards were also distributed among the farmers at the KVKs by the scientists and other senior officials in the respective districts.

8.3 Celebration of 'Independence Day 2023: The 'Independence Day 2023' was celebrated at KVK campus as well as KVKs adopted village in the presence of KVK Scientist on 15th August, 2023. All staff members of KVK assembled in front of the KVK to celebrate the day with utmost zest and a spirit of patriotism for marking the innumerable sacrifices of the freedom fighters of our country.

9. Publication by KVKs: During 2023-24, KVK scientists were actively engaged in preparing and publishing research papers, technical bulletins, newsletters, popular articles, leaflets/ pamphlets, DVD/CD etc. to highlight the achievements of research and other related activities and to make it available to other KVKs, SAUs, ICAR institutes, line departments, ATMA, NABARD, other agencies, farmers and other stakeholders. A total of 181 publications comprising of 24 research papers, 16 newsletters, 29 popular articles, 11 books, 3 book chapters, 49 extension pamphlets/ literature, 7 technical bulletins, 23 technical reports and 19 electronic publications were made by the KVK personnel. The total number of circulation was 69870.

10. Scientific Advisory Committee Meetings: The Scientific Advisory Committee (SAC) Meeting were also organized by the KVKs to finalize the Action Plan for the coming year. As per the guidelines of ICAR, the committee comprises of representatives from ICAR-ATARI, Host Organization, other nearby ICAR Institutes, State Agricultural Universities, development departments of the district, media personnel, financial institutions, progressive farmers and farm women and others.. During the year 2023-24, 4 SAC meetings have been conducted. The meetings were attended by 139 participants.

The Krishi Vigyan Kendra assessed, refined and demonstrated technology/products as per the needs of the farming communities. The activities included on-farm testing to identify location specificity of agricultural technologies under various farming systems, frontline demonstrations to establish production potentials of improved agricultural technologies on the farmers' fields, and training of farmers and extension personnel to update their knowledge and skills. The research and developmental activities performed by four KVKs viz., Satna in MP, Chitrakoot and Gonda in UP and Beed in Maharashtra as per their mandated works during the year under report are as:

1. Technology assessment and refinement

During the year, 53 technological interventions were assessed in four districts at 45 locations by laying out 484 trials on the farmers' fields on various crops under different thematic areas, namely, varietal/breed evaluation, integrated nutrient management, integrated crop management, chemical free Natural Farming, weed management, resource conservation, integrated pest /disease management, drudgery reduction, fodder production, value addition, storage technique and nutritional security in respective districts as per the problems identified. In case of livestock, 4 technological interventions in 6 locations covering 32 trials under the thematic areas, namely breed evaluation, nutrient management and disease management were assessed.

Table 1. Technologies Assessed/ refined by KVKs

Crops/ enterprise	Varietals /breed evaluation	Nutrient manage-ment	Integrated Crop Manage-ment	Weed Manage-ment	Natural Farming	Resource conserva-tion	Insect/ Disease Manage-ment	Drudgery Reduction	Animal Feed Manage-ment	Value addition	Storage Technique	Nutritional security	Total
Cereals	1	3	0	1	0	2	3	0	0	1	1	2	14
Pulses	1	1	0	0	0	0	2	0	0	0	0	0	4
Oilseeds	1	0	0	0	1	0	2	0	0	0	0	0	4
Vegetables	6	1	1	0	2	0	3	1	0	0	0	1	15
Fruits	0	0	1	0	0	0	0	0	0	2	0	0	3
Spices	0	0	0	0	0	0	0	0	0	1	0	0	1
Livestock	2	1	0	0	0	0	1	0	0	0	0	0	4
Pisciculture	2	0	0	0	0	1	0	0	1	0	0	0	4
Commercial crop	0	0	1	0	0	0	0	0	0	0	0	0	1
Sericulture	0	0	0	0	0	0	1	0	0	0	0	0	1
Agri. Implements	0	0	0	0	0	2	0	0	0	0	0	0	2
Total	13	6	3	1	3	5	12	1	1	4	1	3	53

Details of technology interventions assessed and refined

1.1. Varietal Evaluation:

1.1.1 Assessment of processing varieties of potato for their growth and yield parameters in Satna District: Potato (*Solanum tuberosum* L) is an important crop of the world having a significant contribution towards food and nutritional security, especially in the developing countries. It is considered as a balanced food due to the presence of high quality proteins, vitamins and minerals and trace elements. It also contains some important amino acids like leucine, tryptophan and isoleucine. The demand for processed potato like chips, French fries, flakes etc. is ever increasing due to rapid urbanization and inclination of the young generation towards fast foods and higher income. Even though India is the third largest producer of potato in the world, mostly table purpose potato is grown in the country with a little share of processing type potatoes. The table purpose cultivars had low dry matter (17-19%) and high reducing sugars (> 250 mg per 100 g fresh tuber weight) content which in turn reflects in poor chips colour score and crispiness. Hence table purpose cultivars are not preferred by the industries though sometimes they use the table purpose potato for making chips and French fries due to lack of availability of suitable cultivars. However, the market for processed potatoes is getting momentum in the last few years. And consequently, the demand for processing type potato cultivars by the processing industries has enhanced a lot. It has been estimated that the demand for processing type potato with desirable traits would rise up to 25 million tons by 2050. To augment the supply of processing type potato central potato research Institute has developed improved processing cultivars like Kufri Chipsona-1, Kufri Chipsona-2 Kufri Chipsona-3 and fry sona. Based on the trials conducted over different parts of India, it was seen that these processing cultivars are high yielder (> 300 q/ha), high in dry matter content (21-24%), low in reducing sugar content (<0.1%), low in glycol- alkaloids and phenols, lesser undesirable colour (< 5%) and total chips defects(<15%). It is well known that the dry matter content, specific gravity, reducing sugar content (glucose and fructose) as well as chip colour score are the important quality traits for potato.

Considering the better scope for marketing of chip potato in Satna district of Madhya Pradesh, field trials were conducted at 10 farmers field during 2023-24 to evaluate performance of processing varieties for commercial cultivation in Satna district under changing climatic situations. Two processing type potato cultivars (Kufri

Chipsona-1 and Kufri Chipsona -3) were taken in the experiment. The experiment was planted in 10 replications at farmers' fields. Each farmer was provided 25 kg seeds of each variety. The tubers were planted on ridges spaced at 50 cm distance with a plant to plant distance of 20 cm. The spacing between two varieties plots were kept at 1.0 m. All the varieties were fertilized with 120: 60: 80 NPK in the form of urea, single super phosphate and muriate of potash, respectively. Out of these nutrients ½ dose of N and full dose of P and K were applied as basal dose on the date of planting tubers. The rest half of N was applied in two equal split doses, first top dressing at 21 days after planting and the remaining dose was applied 45 days after planting. During the entire crop production period, cultural practices including hoeing, earthling and irrigation were carried out uniformly in each plot. The observations were recorded on plant height (cm), no. of branches/plant, no. of tubers/plant, tuber size (cm2), av. tuber weight (g) tuber yield (kg/ha), Net returns (Rs/ha), B:C ratio.

Table 1.1.1: Performance of processing varieties of potato for their growth and yield parameters

Sr. No.	Parameters	Local	Kufri Chipsona -1	Kufri Chipsona -3
1.	Plant Height(cm)	52.22	48.92	47.60
2.	No. of haulms per plant	5.18	5.63	5.95
3.	No. of tubers per plant	10.77	11.79	12.15
4.	Average Tubers size (cm2)	25.10	25.87	26.05
5.	Average Tuber Weight per plant(g)	312.88	351.89	369.65
6.	Average yield(q/ha)	166.02	176.02	185.41
7.	Grade of tubers			
8.	Grade A		16.16	16.69
	Grade B		59.80	63.65
	Grade C		24.04	19.66
9.	TSS(^{0}B)	6.09	6.76	6.95
10.	Dry Matter Content (%)	19.93	20.81	22.01
11.	Average cost of Cultivation(Rs/ha)	92300	108800	108800
12.	Gross returns (Rs/ha)	232426.60	281633.60	296660.80
13	Net Returns(Rs/ha)	140126.60	172833.60	187860.80
14	B:C ratio	2.52	2.59	2.73

The data given in Table reveals that Kufri Chipsona 3 recorded the lowest plant height at harvest (47.60), higher no. of haulms per plant (5.95), no. of tubers per plant(12.15), tuber size(26.05cm2) and yield of tubers (185.41 q/ha). The yield of tubers obtained in Chipsona 3 was 11.68% higher than the yield recorded in local. Even the percentage of grade A and grade B tubers was higher in Kufri Chipsona 3. Net returns (Rs. 187860.80/ha) and B/C ratio (2.73) was also determined higher in Kufri Chipsona 3 as compared to Kufri Chipsona 1 and local which gave net returns of Rs. 172833/ha and B/C ratio of 2.59. The quality of potato tubers was studied with regards to TSS and dry matter content at harvesting stage. The highest TSS

content was observed in Kufri Chipsona 3 (6.95 ^{0}B) followed by Kufri Chipsona 1 (6.76 ^{0}B). Similarly, higher values of dry matter content were recorded in Kufri Chipsona 3 (22.01%). Based on the evaluation trial conducted at 10 farmer's field it can be concluded that Kufri Chipsona 3, which recorded the maximum yield, higher percentage of grade A and B tubers, higher TSS and dry matter content can be the potential processing variety for Satna district of MP.

1.1.2 Assessment of high yielding varieties of red gram in Beed District of Maharashtra:

Pigeon Pea (*Cajanus cajan* L.) is an important crop of district and is used as intercrop with various crops. Major predominant cropping systems are Kharif sorghum and red gram, Pearl millet + red gram, soybean/cotton - red gram. KVK also introduced red gram + sesame intercropping as a new intervention. In Beed district 60000 ha area is under red gram crop. The productivity is very low due to various reasons like use of old varieties**,** lack of IPM and IDM practices, farmers treat the red gram crop as a secondary and subsidiary crop, with no to imbalanced nutrient management. Diseases like wilt and sterility mosaic is also a major hindrance to production potential.

KVK have focused on varietal replacement, INM, package technologies which ultimately in turn will change the farming situation. KVK also is trying to introduce a new concept of red gram cultivation i.e. planting of sole crop on drip irrigation by dibbling method with wider spacing.

Red gram particularly rich in lysine, riboflavin, thiamine, niacin and iron. It is an important source of human food, animal feed. It helps in sustaining soil fertility by improving physical properties of soil fixing atmospheric nitrogen. Leaves are used to treat bleeding disorder, worm infestations and also act as a natural laxative. The paste of red gram leaves is applied over mate ulcers and inflammation to heal stomatitis. Green pods are delicious source of vegetables. This crop act as a good source of food, feed, fodder, green pasture and green manure.

With keeping in view, the important position of the crop, a trial was conducted with 13 participants. Soil testing of the selected plots was conducted. Three varieties were selected for assessment for their suitability

to climate, stress, Pest and disease susceptibility and yield with processing. The variety BDN-711 with white colour grains with good dal quality, matures in 150 days duration, pods mature at same time and escapes from frost and dew. BDN-716 is a red coloured grain variety fetches good prices in the market, with 165 days duration with 20 q/ha average production. BDN-2013-41 is a new introduction, White coloured variety having 160 days duration, resistant to wilt and sterility. Seed test weight is 11 gm, production potential is 25 q/ha.

Seed treatment was carried out by Carboxin 37.5% + Thiram 37.5% DS(vitavax) and biofertilizers. Complex fertilizer 12:32:16 was applied as a basal dose with zinc sulphate and sulphur, dibbling method of sowing was adopted, wsf, micronutrient mixture was applied at various critical growth stages, Profenofos 40% + Cypermethrin 4% E.C(profex super), Emamectin benzoate, pheroman traps and Helilures used for control of pests. Irrigations were given at flowering and pod development stages. Harvesting was done by power threshers. Observations noted were days to 50%. Flowering, days to maturity, seed test weight, no. Pods/plant, yield etc.

Table 1.1.2 Performance of red gram cultivars with respect to growth and yield attributes in Beed district of Maharashtra.

Sr.No.	Parameters	T1 BDN-711	T2 BDN-716	T3 BDN-2013-41
1	Days to 50% flowering	75	90	85
2	Days to maturity	156	170	162
3	No. Pods/plant	208-226	312-320	380-400
4	Seed weight	11.40	12.10	11.90
5	Yield q/ha	19.00	22.00	25.125
6	Gross Income Rs/ha	190000	220000	251250
7	Cost of cultivation Rs/ha	44000	44000	44000
8	Net returns Rs/ha.	146000	176000	207250
9	Net income/Acre	58400	70400	82900
10	B:C ratio	4.31	5.00	5.71

The above data indicates that variety BDN-2013-41 having high yield potential (25.125 qt/ha) over BDN-716 (22 qt/ha) and BDN-711 (19.00 qt/ha). As far as 50% flowering and maturity, variety BDN-711 has required 75 days for 50%. Flowering with 156 days to maturity. Whereas variety BDN-716 required 90 days for 50% flowering with 170 days to maturity. Mid late variety BDN-2013-41 flowers in 85 days with 162 days maturity, Seed weight is more 12.10 gm in BDN-716 followed by BDN-2013-41 (11.90 gm) and BDN 711 (11.40 gm).

Changing climatic conditions i.e. cloudy weather results into shattering of flowers and increased attack of pod fly. Wilting was observed in variety BDN-711 and sterility was observed in variety BDN-716. Rains at the time of harvesting will create discoloration of seed. Seed production plays vital role in farmer's economy. Sale price is Rs. 10000 to 11000 Rs/qt. and fetches a very good returns to farmer. KVK have initiated pulse milling with SHGs of various pulse crops, milling and popularize dal making business to strengthen the women SHGs.

1.1.3 Assessment of Onion variety- Bhima Shubra in Beed District of Maharashtra:

Onion is cultivated in Beed district in three seasons i.e. Kharif, late Kharif & Rabi. Onion is main crop in vegetables which affects the farmer's economy. Mainly late Kharif onion is preferred by farmers as there is availability of water for irrigation. There are some pockets which cultivate onion in Rabi season. In Kharif & late Kharif only dark red onion is planted. These dark red varieties are old one & have low yield potential. White onion is cultivated in Rabi season which is available in market in month of April and May. White onion is best suited for drying purpose over red. Red onion after drying becomes brown where as white onion becomes pinkish white in color. To make white onion available for drying after Oct. – Nov. this trial was planned. The high yielding white onion variety developed by DOGR, Rajgurunagar, Bhima Shubra for Kharif season. The on-farm trial was conducted at 5 farmer's field in P. Mandwa village to compare with Nashik red onion yield potential in the year 2023-24. Treatments planned were, **T1:** Onion variety Nashik Red and **T2:** Onion variety Bhima Shubra.

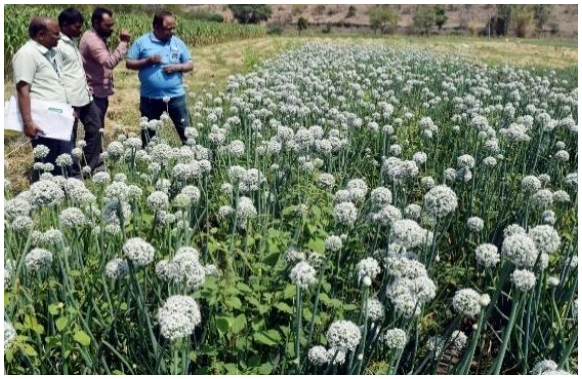


Table 1.1.3 Performance of Bhima Shubra variety of onion in Beed District of Maharashtra

Sr. No.	Performance indicator	Varieties	
		Nashik red	Bhima Shubra
1	Color of Onion	Dark red	Milky white
2	Yield qt/ha	95.0	150.0
3	Cost of Cultivation (Rs/ha)	85000	112000
4	Gross return (Rs/ha)	199000	360000
5	Net return (Rs/ha)	114000	248000
6	B:C ratio	2.34	3.21
7	Color of dried onion	Dark brown	Whitish pink

The results show that Bhima Shubra variety has good acceptable color of dried onion. The yield of Bhima Shubra was higher than dark red by 55 qt/ha. Also, further white onion variety Bhima Shubra gave higher price in market than dark red.

1.1.4 Assessment of Onion varieties for Kharif cultivation in Chitrakoot district of Uttar Pradesh

KVK, Chitrakoot conducted on-farm trial varietal trial with a view to get higher yield and return per unit area in Kharif onion. The data recorded on yield parameter depicted that onion variety L-883 and ADR gave higher yield of 41.99% and 33.36% over locally grown variety respectively. Farmers also obtained Net return of Rs. 117200/ha in L-883 variety of onion as compared to local variety which gave net returns of Rs. 74220/ha.

Table 1.1.4: Performance of Onion varieties for Kharif cultivation in Chitrakoot district of Uttar Pradesh

Technology Option	No.of trials	Yield (q/ha)	Yield increase	Total Cost (Rs./ha)	Total Gross Returns	Net Returns (Rs. /ha)	B:C
Farmers Practice	5	129.67	-	55450	129670	74220	2.33
HYV (ADR)		172.93	33.36	66220	172930	106710	2.61
HYV (L-883)		184.12	41.99	66920	184120	117200	2.75

1.1.5 Assessment of suitable variety of wheat for timely sown condition under Uprahar Micro Agro climatic zone of Gonda district in Uttar Pradesh.

Agro-climatic zone is a land unit in terms of major climates, suitable for a certain range of crops and cultivars. The planning aims at scientific management of regional resources to meet the food, fiber, fodder and fuel wood without adversely affecting the status of natural resources and environment. Crop yield is (FAO, 1983). Agro-climatic conditions mainly refer to soil types, rainfall, temperature and water availability which influence the type of vegetation. An agro-ecological zone is the land unit carved out of agro-climatic zone superimposed on landform which acts as modifier to climate and length of growing period. Uttar Pradesh is the largest wheat growing and producing a state in India and undergone rapid strides since green revolution. Wheat is the leading crop in *Rabi* season of district Gonda. Wheat variety HD-2967 was introduced by the KVK Gonda about 3-4 years back. Now the variety DBW-187 was released by IBWR, Karnal and KVK Gonda conducted the on-farm trial on this variety. In this trial it was observed that the variety DBW-187 was better in all parameters like no. of spikes/sqm. and no. of grain/spike and average yield 3.20 q/ha.

Table: 1.1.5 Performance of the suitable varieties of wheat for timely sown condition.

Technology Option	No. of trials	Yield (Q./ha)	Increase in yield (%)	Parameter	Observations	Net Return (Rs.)	B:C Ratio
Farmer practice- Sowing of wheat variety HD-2967	10	41.6	-	No. of Spike/sqm No. of grain/ spike	279 38	37360.0	1.98
Recommended practice- Sowing of wheat variety DBW-187		44.2	6.25	No. of Spike/sqm No. of grain/ spike	307 46	43480.0	2.24

1.1.6 Assessment of high yielding variety of tomato for summer cultivation in Gonda district of Uttar Pradesh.

Tomato (*Solanum Lycopersicon L.)* a member of solanaceae family, is one of the most important vegetable crops grown widely all over the world. It is the most popular cultivated and versatile garden vegetable grown in the world (Kumar *et al.,* 2013). It is well adapted to wide range of soils and climates and is grown from the tropics to the temperate areas. Its fruits are used in different food preparations and also preserved in different forms. Ripe fresh tomato fruit is consumed as salad and also utilized in the preparation of processed products such as puree, paste, powder, ketchup, sauce, soup and canned whole fruits. Unripe green fruits are used for preparation of pickles and chutney. KVK, Gonda (UP) comes under North-East plain zone conducted the on-farm trial on tomato variety Arka Rakshak in summer season. This trial was conducted on the five different farmer's field with two treatments viz., T_1 & T_2. During this trial it was observed that tomato Arka Rakshak has B: C ratio 2.51.

Table: 1.1.6. Performance of Arka Rakshak variety of tomato in summer season.

Technology Option	No. of trials	Yield (q./ha)	Increase in yield (%)	Parameter	Observations	Net Income (Rs.)	B:C Ratio
Farmer practice- variety – Heemsohna	5	550	-	First flowering (days) No. of fruits/bunch weight/fruit (gm)	50-55 3-4 30-40	214750	2.26
Recommended practice- variety – Arka Rakshak		675	22.73	First flowering (days) No. of fruits/bunch weight/fruit (gm)	45-50 5-6 70-80	283850	2.51

1.1.7 Assessment of suitable variety of Okra for cultivation in Gonda district under North- East plain zone.

Okra (*Abelmoschus esculentus L.*) a commercial vegetable crop belongs to family Malvaceae. It originates from Ethiopia and is widely spread all over tropical, subtropical and warm temperate regions of the world. It plays an important role in the human diet and is a good source of protein, carbohydrates, vitamins, calcium, potassium, enzymes, and total minerals which are often lacking in the diet of developing country. Its medicinal value has also been reported in curing ulcers and relief from hemorrhoids. Okra has found medical application as a plasma replacement or blood volume expander and also useful in Genito-urinary disorders, spermatorrhea and chronic dysentery. The fruits of Okra have reawakened beneficial interest in bringing this crop into commercial production. KVK Gonda conducted the on-farm trial on Okra variety Kashi Lalima. This trial was conducted on the five different farmer's field with two treatments viz., T_1- (VRO-6), T_2 - (Kashi Lalima). During this trial it was observed that Okra Kashi Lalima has B: C ratio 2.35.

Table: 1.1.7 Performance of Okra variety Kashi Lalima in Gonda district

Technology Option	No. of trials	Yield (q./ha)	Increase in yield (%)	Parameter	Observations	B:C Ratio
Farmer practice- variety –VRO - 6	5	129	-	Plant height (cm) Seed to First harvest (Days) No. of pods/plant Pod length (cm)	87 46 15 9	1.96
Recommended practice- variety – Kashi Lalima		138	6.98	Plant height (cm) Seed to First harvest (Days) No. of pods/plant Pod length(cm)	108 53 18 11	2.35

1.2 Integrated Nutrient Management:

1.2.1 Assessment of foliar application of micronutrients on Yield and quality of Bitter gourd in Satna District of Madhya Pradesh: Bitter gourd is the most valuable medicinal vegetable crop of Cucurbitaceous family. Due to its medicinal and nutritional value, this vegetable crop has much demand in the market throughout the year. This vegetable has different medicinal properties such as anti-mutagenic, abortifacient, antilipolytic, cytotoxic, hypoglycemic, antiviral and analgesic. Bitter gourd contains different nutrients in rich amount like vitamin A, vitamin C, carotenoids, essential amino acids, folic acids, moisture, lipids, fiber, protein, carbohydrate, calcium, potassium, iron, manganese, copper, phosphorus, and the entire plant have many bioactive compounds. Naturally, Bitter gourd is monoecious, because it produces more staminate (male) flowers than to pistillate (female) flowers.

Due to this reason it gives less fruit setting and fruit yield. That is the main reason for the reduction in yield of bitter gourd. To get maximum fruit yield there should be synchronization between male and female flower ratio. Maleness and femaleness in bitter gourd has been reported to be influenced by different environmental factors such as temperature, photoperiod and by the application of different micro nutrient or plant growth regulators.

The Boron, a micronutrient, plays an important role in plant development, membrane stability, cell wall structure, phenol and carbohydrate metabolism and sugar transportation. Boron has an important role in the cell differentiation, growth of cell wall, growth of shoot and it also enhances the number of flowers and ultimately fruit yield. Foliar application of boric acid at the concentration of 25 ppm thrice prior to early fruiting stage helps in improving pollen health and also results in marked increase in vigor of the vine, fruit set and size of fruit leading to enhance yield over 25 – 35% and Adding urea at 0.5% or 1.0% improves the absorption of boron by leaves. There are not much literature available about the foliar spray of boric acid on the bitter gourd. The objective of the present study was to evaluate the vegetative and reproductive response of the bitter gourd to the foliar application of boric acid.

On farm trials were undertaken at 10 farmers field in Berma village of Maihar block with improved high yielding variety 'Aman Shree'. Seeding of bitter gourd was done on raised basin at a spacing of 2 meter. Recommended doses of fertilizers 120:80:90 NPK per hectare were applied to each treatment. One third on Nitrogen (N) and full dose of phosphorus and potash fertilizers were applied as basal dose at the time of sowing. While the balance dose of nitrogenous fertilizers was applied in two split doses, first dose one month after sowing and the second dose at flowering stage. Proper staking was provided to the vines. And plant protection measures were followed as and when required. Boric acid was sprayed as per the treatments after 25 days of sowing. The trial comprised of three treatments viz., T1:Recommended dose of fertilizer (RDF) NPKS Zn @ 150:60:40 : 20 :12.5 Kg/ha, T2: RDF + Two Foliar application of urea 0.5% along with boric acid @ 25 ppm at 15 days interval after 25 days after planting. T3: RDF + Two Foliar application of urea 1.0% along with boric acid @ 25 ppm at 15 days interval after 25 days after planting. The data were collected for different parameters such as vine length (m), no. of primary branches/plant, no. of days to first male flower emergence, no, of male and female flowers per vine, sex ratio M/F, no. of days to first female flower emergence, no. of days to first picking, no. of fruits per vine, fruit diameter (cm), av. fruit weight (g) fruit yield (kg/ plant, Yield (kg/ha), Net returns (Rs/ha), B:C ratio.

Table1.2.1 Effect of foliar application of different concentrations of boric acid on growth and yield parameters bitter gourd.

Parameters	Recommended dose of fertilizer NPKS Zn @ 150:60:40 : 20 :12.5 Kg/ha	Foliar application of urea 0.5% along with boric acid @ 25 ppm at 15 days interval after 25 days after planting.	Foliar application of urea 1.0% along with boric acid @ 25 ppm at 15 days interval after 25 days after planting.
Vine Length(m),	4.82	4.91	4.94
Days to first flowering	37.8	35.4	33.8
No. of male flower per plant	145	152	162
No. of female flower per plant	19	28	37
Sex ratio	7.63	5.43	4.38
Days to first picking,	60.2	57.4	54.8
No. of fruits per vine	30.0	33.9	34.4
Av. fruit weight(g)	94.8	97.6	102.6
Av. Fruit Length(cm)	18.74	19.28	19.78
Av. Fruit yield(kg/plant)	2.87	3.31	3.53
Av. fruit diameter(cm)	3.85	3.92	3.97
Yield(kg/ha),	143.65	165.45	171.34
Net returns(Rs/ha)	150520	180240	188580
B:C ratio	2.90	3.13	3.20

1.2.1 Results

Plant Height: The foliar application of boric acid along with urea (0.5% and 1.0%) increased the vine length. The maximum vine length (4.94 m) was measured at first harvest in vines sprayed with 1.0% urea along with boric acid @ 25 ppm twice at 15 days interval after 25 days after planting followed by vines sprayed 0.5% urea along with boric acid @ 25 ppm twice at 15 days interval after 25 days after planting (4.91 m). While in control it was measured about 4.82 m, showing 2.49 and 1.87% increase vine length over control respectively.

Days to first flowering: The foliar application of boric acid with urea showed a significant effect on the number of days to first flowering. The minimum days to first flowering (33.8) were recorded in vines sprayed with 1.0% urea along with boric acid @ 25 ppm twice at 15 days interval after 25 days after planting, while the maximum days (35.4) to initiation of flowering was observed in control, showing 10.58% decrease in days to first flowering by foliar application of boric acid 25 ppm with urea (1%).

No. of male flowers per plant: Bitter gourd crop showed higher number of staminate flowers per plant, when treated with the different concentration of boric acid. The application of boric acid @ 25 ppm with 1.0% urea produced the highest number of staminate flowers per plant (162) compared to control (145).

No. of female flowers per plant: Foliar spray of boric acid and urea in bitter gourd significantly enhanced the total number of female flowers compared to control. The highest number of pistillate flowers per vine (37) were recorded in treatment T3 i.e. foliar application of boric acid @ 25 ppm with 1.0% urea, while minimum no. of pistillate flowers per vine (19) were observed in control, Showing 94.74% increase in the number of female flowers per vine as compared to control.

Sex ratio Male/Female flowers: The sex ratio in monoecious crop is important determinant of crop yield. Lower the sex ratio (male/female), higher the yield harvested. Spraying of boric acid along with urea significantly reduced the sex ratio in bitter gourd. The minimum sex ratio (4.38) was determined in treatment T3 i.e. foliar application of urea 1.0% along with boric acid @ 25 ppm at 15 days interval after 25 days after planting followed by T2 i.e. foliar application of urea 0.5% along with boric acid @ 25 ppm at 15 days interval after 25 days after planting which recorded sex ratio of 5.43 thus showing an improvement of 42.60 and 28.83% respectively in T3 and T2 over the control.

Fruit Weight: The results indicated that fruit weight was improved with foliar application of urea with boric acid. The maximum fruit weight (102.6 g) was measured in fruits under the treatment T3 i.e. with the foliar application of urea 1.0% along with boric acid @ 25 ppm followed by T2 i.e. foliar application of urea 0.5% along with boric acid @ 25 ppm (97.60 g) compared to control which recorded minimum fruit weight (94.80 g). Thus, showing an increase in fruit weight by 8.23 and 2.95% in T3 and T2 respectively, over the control.

Yield: Different parameters attributing to yield such as no. of female flowers and male flowers and sex ratio, fruit length, fruit diameter and fruit weight were observed to be enhanced by foliar application of urea with boric acid. Highest yield (171.34 q/ha) was recorded under crop sprayed with urea 1.0% along with boric acid @ 25 ppm followed by T2 i.e. foliar application of urea 0.5% along with boric acid @ 25 ppm (65.45 q/ha), thus showing an increase in yield by 19.28 and 15.18% in T3 and T2 respectively, over the control (143.65 q/ha). The yield of bitter gourd was enhanced by foliar application of Urea and boric acid might be because of higher rate of photo synthesis and sugar synthesis, which also increased the chlorophyll formation and enzyme activity increasing the translocation of photosynthates to growing fruits that finally lead to the maximum production of dry matter and hence yield.

1.2.2 Assessment of INM & pruning technique in custard apple in Beed District of Maharashtra:

Custard apple and often neglected fruit crop and is naturally occurs on non-cultivated areas and purposefully grown in Beed district and also have received G.I. tag for its uniqueness. Beed district has a good and favorable environment for fruit taste and its development. In the district area under custard apple is increasing with another variety 'golden', this variety has good keeping quality and size is slightly larger as compared to local Bala Nagar and Dharur-6 variety which have higher TSS, higher number of petals in pulp. Particularly due to its only keeping quality character farmers are growing golden variety so that they can sale their fruits at distant market in the country. Farmers generally do not perform pruning operation due to which uneven fruit size and poor yield is noted also they do not apply the recommended dose of nutrients which plays a crucial role in deciding yield and quality of fruits. To increase the yield of custard apple pruning technique is important, which should be performed at onset of monsoon. Due to pruning the fruit set occurred at bottom of mature stick, resulting higher average fruit weight and yield. As the number of fruits and yield is increasing, there is a need of integrated nutrient management in custard apple. To compare the technology with **T1 - Farmers practice** i.e. 10:26:26- 500 gram per plant and **T2**- Pruning + INM (900 gm N, 300gm P, 300 gm K/ plant)

Table 1.2.2 Effect of INM & pruning technique in custard apple in Beed District of Maharashtra

Sr. No.	Performance indicator	Treatments	
		T1: 10:26:26-500 gm	**T2: Pruning + INM (900 gm N, 300gm P, 300 gm K/ plant)**
1	No. of branches/Plant	12	18
2	No of fruits/ plant	26	38
3	Av. Yield kg/plant	8	15
4	Yield qt/ha	44	92
5	Cost of Cultivation (Rs/ha)	72000	112000
6	Gross return (Rs/ha)	95000	252000
7	Net return (Rs/ha)	23000	140000
	B:C ratio	1.31	2.25

The results noted that due to pruning there was increase in no. of branches & fruits per plant over control. Whereas due to INM the average weight of fruit increased resulting increase in fruit yield & rate in market.

1.2.3 Assessment of foliar application of Silicon on growth & yield of garlic in Beed district of Maharashtra: In Rabi season the plantation of garlic was done. It is an important spice crop. In the market there is great demand of desi garlic due to smell & taste. The size of desi bulbs is smaller & bulbs are of inferior quality. The farmers are not using nutrients as per RDF. Only cow dung ash /wood ash is used. The stress element silicon is helpful in uptake and translocation of nutrients, which is not available in soil & ash. So in the present trial the effect of foliar application of silicon was assessed by taking following treatments.

T_1: Farmers practice: Use of chemical fertilisers (10:26:26 / 18:46 etc)

T_2: Assessment : T1+ Micronutrients & Silicon spray at one month interval

Table 1.2.3 Effect of foliar application of Silicon on growth & yield of garlic in Beed district of Maharashtra

Sr.No.	Performance indicator	Treatments	
		T1	T2
1	Height of plant (Cm)	65	78
2	Yield qt/ha	60	72
3	Cost of Cultivation (Rs/ha)	90000	110000
4	Gross return (Rs/ha)	300000	432000
5	Net return (Rs/ha)	210000	322000
6	B:C ratio	3.33	3.92
7	Colour of bulb	Light Purple	Dark Purple

The results of the present study showed that the silicon had an important role in translocation & making available the required nutrients to garlic crop. The effect of silicon was noticed in the form increased plant height with development of dark purple colour, increased bulb size and increased yield of garlic.

1.2.4 Assessment of foliar application of water soluble fertilizer (Urea phosphate) in Chickpea in Chitrakoot district of Uttar Pradesh.

The Chickpea is main pulse crop of Chitrakoot district covering an area of about 42359 ha with average productivity in the district of 12.69 Q/ha. The low productivity of Chickpea was due to poor nutrient availability and moisture stress during important growth stage. The KVK, Chitrakoot conducted on farm trial to assess the effect of water soluble urea phosphate @ 2% at 55 DAS in rain fed situation. The yield data indicated that foliar application of NPK 18:18:18 gav 25.42% higher yield than local ones.

Table1.2.4 Effect of Urea phosphate (NPK18:18:18) on yield of Chickpea

Technology Option	No. of trials	No. of plant m^2	Plant height cm 31.12.23	Yield (q./ha)	Increase in Yield (%)	Net return Rs./ha	B:C Ratio
Farmers practice –DAP 60 kg/ha	05	65.2	53.4	12.98		45084	2.49
T-1 + one spray of Urea phosphate (NPK18:18:18) @2% at 55 DAS		67.4	55.2	16.28	25.42	60924	2.82

1.2.5 Assessment of water soluble fertilizer NPK in wheat crop in Gonda district of Uttar Pradesh.

India is the second largest producer and consumer of fertilizers in the world—after China. In 2021, India consumed 17 million tons of nitrogen, 6.9 million tons of phosphorus, and 2.8 million tons of potash (Fertilizer Association of India 2021) Imbalance use of fertilizers is not only an environmental hazard but have substantial economic loss in term of efficiency of crop and profit of farmers. Keeping in view this issue, this study focused to analyze the effect of water soluble NPK. KVK, Gonda (UP) conducted on-farm trial to assess the use of water soluble NPK in wheat variety HD-2967. In this trial it was observed that average yield increased by 5.35 qt. /ha and net return increased by Rs.35010 with BC ratio 2.12.

Table: 1.2.5 Performance of water-soluble fertilizer NPK in wheat crop.

Practice	No. of trials	Technology	Yield (q/ha)	Increase in yield (%)	Parameter	Observations	Net Return	B:C Ratio
Farmers practice	10	Urea 125.0 kg DAP 62.5 kg MOP - 0 kg	35.25	-	No. of Spike/sqm No. of grain/ Spike	279 38	25650	1.75
Recommended practice		NPK – 125:60:40 Kg/ha	39.55	12.19	No. of Spike/sqm No. of grain/ Spike	307 46	33350	1.98
Refined Recommended practice		NPK – 75% of RDF + 2spray (NPK - 19:19:19)	40.60	15.10	No. of Spike/sqm No. of grain/ Spike	331 48	35010	2.12

1.3 Integrated Crop Management:

1.3.1 Effect of varietal replacement, seed treatment and soil test based fertilizer management on growth and yield of soybean in Beed District.

Soybean (*Glycine maxL.*) is an important oilseed crop grown in Beed district. It has significant contribution in oil making and protein source. It reduces the risk of health problems viz. cardiovascular disease, stroke, coronary heart disease and some cancers. It is also used for improving bone health. Industrial uses of soybean are paper coatings, wood veneer adhesives and alkyd resins, printing ink and oleo-chemicals.

Area under this crop almost covers 40% area of the district (3,20,000 ha). The average yield of soybean is very low as compared to state and national average. The lack of improved varieties with desirable traits, poor information flow and grower's preference for traits beyond yield hamper faster the varietal substitution. After implementing all modern package of practises the yield was stagnated. The cost of cultivation is increasing day by day with labour problem.

It is necessary to assess the production potential of new cultivars which are climate resilient. Seed replacement is a major issue in soybean production. Seed storage of soybean is also a major problem which directly impair the quality and germination of the soybean crop. Seed treatment is important for per acre plant population. As far as nutrient management is concerned zinc and sulphur deficiencies are most prevalent. For increased Zn efficiency assessment of *Psudomona striata is essential.*

Considering the problems identified with the farmers and constraints faced by farmers, 13 trials have been conducted to assess the varietal replacement, seed treatment, and INM. Three varieties were selected, *viz;* MAUS-158, MAUS-612 and KDS-753.The varieties are high yielder under changing climatic conditions. *Psudomona striata* is used for seed treatment with bio fertilizers. Application of recommended dose of fertilizers with through complex fertilizer 12:32:1as per soil test based fertilizer. Sowing was done on BBF method. During crop growth period application of water soluble fertilizers with micronutrient was done.

Emamectin benzoate and pheromone traps were used for control of pests. The observations recorded were No. of branches/plant, No. of pods /plant, no. of nodules /plant, seed weight, and yield q/ha.

Table 1.3.1 Performance of improved varieties of Soybean in Beed district.

Sr.No.	Parameters	T1(MAUS-158)	T2(MAUS-612)	T3(KDS-753)
1	No. of branches /plant	13-15	19-23	20-24
2	No. of pods/plant	96-100	140-160	138-160
3	No. of nodules/plant	89	103	92
4	Seed weight (gm)	10.70	11.80	12.30
5	Yield (q/ha)	29.42	31.83	32.17
6	Gross returns (Rs/ha)	147100	159150	160850
7	Cost of cultivation (Rs/ha)	46500	46500	46500
8	Net returns (Rs/ha)	100600	112650	114350
9	Net profit/acre (Rs/ha)	40240	45060	45740
10	B:C ratio	3.16	3.42	3.45

The data in the table shows that Var. MAUS-158 shows less no. of branches (13-15) with less no. of pods (100), with an average production of 29.42 q/ha. Whereas var. MAUS-612 and KDS-753 are at par on no. of branches and pods per plant. Var. KDS-753 recorded higher yield (32.17q/ha) as compared to 31.83 q/ha. Overall increase in farmer's yield was 9.34%. Good quality seed was produced. Cost of cultivation was reduced. Seed bank concept of soybean seed was established. Sale price of soybean was 5000 Rs/q.

1.3.2 Effect of high density planting with the use of growth retardants on growth and yield of BT cotton in Beed District.

Cotton (*Gossipiumspp*) is an important cash crop and possess 2nd position as area is concerned in Beed district. It occupies 40% area under *i.e.* 3,20,000 ha with average and low productivity and high cost of cultivation with major problems of climatic vulnerabilities and pest problems. On the other hand, district soil strata occupy 64% light and medium type of soil. It is challenge for cotton growers to maximize the yield on light to medium soil with biotic and abiotic constraints.

Cotton crop is important as it is favorite natural fiber. It provides raw material to cotton textile industry. It is known for its beauty; comfort, durability and versatility and make it perfect choice for clothing, bedding, textiles and many other products. Its seed oil is used in food and

cosmetics, used in coffee filters. Seeds are fed to cattle's and crushed to make oil, rubber and plastics. Cotton supports the livelihoods of millions and people both directly and indirectly around the world. In India cotton provides direct livelihood to 6 million farmers and about 40-50 million people are employed in cotton trade and processing. Farmer's generally plant the crop at 3x3 feet distance covering only 4800 plants/acre wider spacing reduces plant population per acre due to low plant population, yield is reduced. Indiscriminate use of fertilizers results into high cost of cultivation, high incidence of pest population and reddening in cotton.

An assessment was planned for reducing the distance between two plants and rows concept of HDPS in cotton have to popularize with soil test based fertilizer management and application of growth retardants as to maintain height of the crop.13 trials have been conducted to assess HDPS and use of growth retardant with STBF management, 8 IPM/IDM practices. Farmers generally planted cotton on 4 x 1.5 feet. Assessed Practice shows 3 x 1 planting and refined practice includes spraying of mepiquat chloride at @ 45 and 65 DAS.

Seeds were treated with the bio-fertilizers. Soil testing was completed. Soil health cards were distributed. The doses were calculated according to STBFR. Complex fertilizer 10:26:26, magnesium sulphate, sulphur were used. Pheromone traps and sticky traps were used for sucking and other lepidoptera pest mainly boll worms. Spraying of water soluble fertilizers were suggested at various critical growth stages. Mepiquat chloride was applied after @ 45 and 65 days to retard excess vegetative growth.

Table 1.3.2 Performance of cotton-on HDPS with use of growth retardants and its effect on growth and yield attributes in Beed District.

Sr.No.	Parameters	T_1 (farmers practice planting on 4 x 1.5 feet)	T_2 (3 x 1 feet)	T_3 (T_2 + use of Mepiquat chloride)
1	No. of branches per plant	10-12	16-18	20-22
2	No. of bolls per plant	32-36	44-46	60-68
3	Avg. weight of bolls per plant (gm)	9.76	11.82	13.70
4	Avg. weight of cotton per bolls (gm)	4.60	5.00	6.10
5	Yield (qtl/ha)	10.50	13.10	19.02
6	Gross income	84000	104800	152080
7	Cost of cultivation	40000	44000	48000
8	Net Returns	44000	60800	104080
9	Net profit per acre	17600	24320	41632
10	B:C Ratio	2.10	2.38	3.16

Planting of cotton on 4 x 1.5 feet reduces no. of branches (12), No. of bolls per plant (30) with a weight of cotton per bolls (4.60 gm) as compared to HDPS in cotton with use of growth retardants.

By using HDPS only yield obtained was 13.10 qtl/ha with No. of branches per plant (18), No. of bolls per plant (46) and Avg. Weight of cotton per bolls (5 gm) with B:C Ratio 2.38.While in refined practice yield was increased from 10.50 qtl - 19.01 qtl having a potential increase of 81% over farmers practice. No. of branches were (22), Avg. No. of bolls per plant was (68) and avg. Weight of cotton per bolls was 6-10 gm. Sale price of cotton was 8000 Rs/qtl. It is an important crop to hold the key position of farmers as far as economic status of the farmer. KVK have tried to establish the new technologies for wide horizontal spreading which boost up farmers yield and reduce the cost of cultivation with management of stress, and climatic vulnerabilities.

1.4 Integrated Weed management

1.4.1 Assessment of Integrated Weed Management technology for management of weeds in Kodo millet in Satna district of Madhya Pradesh: Kodo millet (*Paspalum scrobiculatum* L.) is the coarsest and long duration crop among millets. It forms the mainstay of the dietary nutritional requirements of farmers of marginal and drylands in many parts of India. The fiber content of the whole grain is very high. Kodo millet has around 11% protein and the nutritional value of the protein is slightly better than that of foxtail millet but comparable to that of other small millets. Kodo millet is suggested as a substitute for rice next to finger millet for diabetic patients. The factors responsible for low yields are severe infestation by weeds due to slow initial growth of crops coupled with frequent rains in the rainy season inflict huge yield losses up to an extent of 37%. If weeds are not controlled depending upon soil moisture level, cultivars, soil form, and other environmental conditions, the yield reduction in Kodo millet would be 55-61 percent. To obtain an economical yield of Kodo millet, weeds must be kept under check. Information on appropriate herbicides used for weed management practices is not available for recommendation in this crop. The infestation of these weeds is increasing day by day in the Kodo millet growing areas of the state year after year. So to widen the weed control spectrum, it is imperative to use herbicides and their combinations

having a different mode of action. Since Kodo millet is a long-duration crop as compared to other small millets and hence provides great scope for weed control during the early growth stages of the crop. As vegetative growth of the crop is more, pre, as well as post-emergent herbicides, also play a major role in effective control of the weeds. Therefore, herbicide molecules like bensulfuron methyl + pretilachlor and bispyribac sodium in different concentrations. With this objective in mind a field experiment was conducted at Krishi Vigyan Kendra, Majhgawan (Satna) during Kharif 2023 to Assessment of Integrated Weed Management technology for management of weeds in Kodo millet.

The trial consisted of three treatments viz., T_1-Farmers Practice-No use of weedicide, T2-Recommended Practice- Bensulfuron ethyl 0.6 + Pretilachlor 6.0 G at 0.33 kg ha^{-1} (within 3 DAS) fb one inter-cultivation at 25-30 DAS and T3- Bispyribac sodium 10 SC 0.01 lit/ha (within 15-20 DAS) fb one inter-cultivation at 35-40 DAS.

Bensulfuron ethyl 0.6 + Pretilachlor 6.0 G at 0.33 kg ha^{-1} (within 3 DAS) fb one inter-cultivation at 25-30 DAS recorded highest weed control efficiency (71.50%), grain yield 18.75 q/ha, net return (Rs.46746/ha) and B:C ratio (2.84) and followed byT3-Bispyribac sodium 10 SC 0.01 lit/ha (within 15-20 DAS) one inter-cultivation at 35-40 DAS at par weed control efficiency (62.07%), Grain yield 18.20 q/ha, net return (Rs.44957/ha) and B:C ratio (2.80). Thus, from the present study, it can be concluded that Bensulfuron ethyl 0.6 + Pretilachlor 6.0 G at 0.33 kg ha^{-1} (within 3 DAS) fb one inter-cultivation at 25-30 DAS and Bispyribac sodium 10 SC 0.01 lit/ha (within 15-20 DAS) fb one inter-cultivation at 35-40 DAS options were found to be the feasible option due to control of the broad spectrum of weeds more efficiently and thereby increasing the grain and economics of Kodo millet.

Table 1.4.1 Effect of chemical herbicide on weed control and grain yield of Kodo millet

Performance indicators/ parameters	**Unit/ details**	**Observation**		
		T1	**T2**	**T3**
No of weeds/m2	No/m2	15.41	4.39	5.84
Weed Control Efficiency (%)	%	-	71.50	62.07
Grain yield	kg/ha	7.86	18.74	18.20
Cost of cultivation	Rs/ha	23440	25340	25040
Gross returns	Rs/ha	30218	72086	69997
Net returns	Rs/ha	6778	46746	44957
B:C ratio		1.29	2.84	2.80

1.4.2 Assessment of compatible tank –mix combinations of herbicide and insecticides to manage weeds and insect pest in Soybean in Beed district of Maharashtra:

Soybean is a major crop of Beed district. Majority farmer's income is dependent on the soybean crop. Insect's pest and weeds are major concern in order to achieve the desired yield of soybean. Weed management is laborious, time consuming and increases the cost of production. In order to reduce spraying of chemicals separately for managing the weeds and insect pest, decreasing cost of cultivation by reducing spraying and labor cost required for weeding. Assessment was taken on 05 farmer's field at Kanadebadan, Taluka Kej, District Beed in order to evaluate compatible tank –mix combinations of herbicide and insecticides to manage weeds and insect pest in Soybean. Trial consists of two treatments *viz*., T-1 (Farmers practice *i.e.* hoeing, weeding and spray of Chlorantraniliprole 18.5% SC only), T-2 (Spraying Chlorantraniliprole 18.5% @100 ml/ha + Imazethapyr 10 SL @1000 ml/ha (POE) 21 days after sowing. The major parameters included in the study were grain yield (q/ ha.) Cost of cultivation (Rs/ha.), Gross return (Rs/ha.), net returns (Rs/ha), B:C ratio.

The results revealed that yield 18.6 q./ ha., Cost of cultivation 38200 Rs/ha, Gross return 92810 Rs/ha., net returns 54610 Rs/ha and B:C ratio 2.42 over control respectively. Hence, it can be concluded that compatible tank –mix combinations of herbicide and insecticides is an effective way to manage the both weeds and insect pest in need-based situations.

Table 1.4.2 Effect of compatible tank –mix combinations of herbicide and insecticides to manage weeds and insect pest in Soybean in Beed district of Maharashtra

S. No.	Parameter	T-1	T-2
1.	Grain yield (q/ ha).	13.2	18.6
2.	Cost of cultivation (Rs/ha.)	42000	38200
3.	Gross return (Rs/ha.)	65340	92810
4.	Net returns (Rs/ha)	23340	54610
5.	B:C ratio	1.55	2.42

1.4.3 Assessment of different herbicide for weed control in wheat under agro climatic conditions of Chitrakoot district of Uttar Pradesh

The KVK, Chitrakoot conducted on farm trial to assess the effect of different chemical weedicide in wheat crop. The results indicated that application of Sulfosulfuron 75% + Metsulfuron methyl 5% @ 33gm ai /ha. At 30-35 DAS (T-2) was more effective in controlling the weed population as compared to Isoproturon 0.75 kg ai/ha. & 2, 4-D 0.4 kg ai /ha at 30-35 DAS (T1). The yield was 11.08% higher in T2 than T1. Application of Sulfosulfuron 75% +Metsulfuron methyl 5% @ 33gm ai /ha was found to be more economical as the farmers were observed to get additional income of Rs.9833/ha by incurring additional input cost of Rs.2100 /ha.

Table 1.4.3 Effect of different herbicide for weed control of wheat

Technology Option	No. of trials	No. of Plant m^2)	Yield (q./ha)	Increase in yield (%)	Net Return (Rs./ha)	B:C Ratio
Isoproturon 0.75 kg ai/ha. &2, 4-D 0.4 kg ai /ha. during 30-35 DAS	05	93.2	39.54		55340	2.66
Sulfosulfuron 75% +Met sulfuron methyl 5% 33gm ai /ha. during 30-35 DAS.		96.2	43.81	11.08	63073	2.78

1.5 Chemical free Natural Farming:

1.5.1 Assessment of Natural Farming practices for minimizing cost of production and higher return in Mustard in Satna District of Madhya Pradesh: The unscientific use of agro-chemicals in agriculture leads to several health hazards and environmental problems. To protect our crops and the environment, we have to follow sustainable and eco-friendly agriculture, which minimizes the use of harmful and energy intensive inputs. Application of Jeevamrut in liquid form at very low concentration acts as a tonic in improving soil health. Organic – based fermented fertilizers favour plant growth and regulation and adaptability to the surrounding environments in terms of yield and quality parameters in addition to enhanced tolerance to biotic and abiotic stresses. With this objective in mind a field experiment was conducted at Krishi Vigyan Kendra, Majhgawan (Satna) during Rabi 2023-24 to Assessment of Natural Farming practices for minimizing cost of production and higher return of Mustard.

The trial consisted of two treatments viz., T-1 Seed treatment with Carboxin+ thiram @ 2 g/kg seed, Application of NPKS (32:16:12:8) kg/acre, Application of Pendimethalin 38.7% CS @ 700 ml/acre PE for weed control and application of Thiamethoxam @ 100 g/acre for aphid control and T-2 Seed treatment with Beejamrit @ 20 ml/kg seed, Jeevamrit (Soil application of 200 kg /acre Ghan Jeevamrit before cum up irrigation + Taral Jeevamrit @ 500 litre/acre at cum-up irrigation + Four foliar application of liquid Jeevamrit @ 85 litre/acre at 21 days interval each spray), Straw mulching for weed management and moisture conservation) and two foliar application of Neemastra @ 12 litre/acre for aphid management.

Seed treatment with Beejamrit @ 20 ml/kg seed, Jeevamrit (Soil application of 200 kg /acre Ghan Jeevamrit before cum up irrigation + Taral Jeevamrit @ 500 litre/acre at cum-up irrigation + Four foliar application of liquid Jeevamrit @ 85 litre/acre at 21 days interval each spray), Straw mulching for weed management and moisture conservation) and two foliar application of Neemastra @ 12 litre/acre for aphid management recorded net return (Rs 57807/ha) and B:C ratio (6.48) as compared to control. Thus, from the present study, it can be concluded that Natural Farming practices enhance net monetary return and reduction in cost of cultivation.

Table 1.5.1. Performance of crop under Natural Farming

Performance indicators/ parameters	Unit/ details	Observation	
		T1 (Farmers Practice)	T2 (Recommended Practice)
No. of primary branches	no	3.42	2.70
No. of seeds per siliqua	no	16.16	15.32
1000 seed weight	g	5.33	4.57
Seed yield	q/ha	12.97	12.10
Average cost of cultivation	Rs/ha	20131	10558
Gross returns	Rs/ha	73281	68365
Net returns	Rs/ha	53150	57807
B:C ratio		3.64	6.48

1.5.2. Assessment of Natural Farming practices on growth and yield of onion in Satna district of Madhya Pradesh.

Onion is one of the important vegetable crops grown in Satna

District of MP and ranks third in terms of area and production after potato and tomato. It occupies an area of 2316 ha with a production of 35632.5 tonnes with a productivity of 15.38 t/ha. The current global scenario firmly emphasizes the need to adopt eco-friendly agricultural practices for sustainable food production. The cost of inorganic fertilizers is increasing enormously to an extent that they are out of reach of small and marginal farmers *vis-a vis* indiscriminate use of inorganic fertilizers has deteriorated the soil fertility to a greater extent. The use of organic liquid products such as Beejamrit, Jeevamrit and Panchagavya results in higher growth, yield and quality of crops. These liquid organic solutions are prepared from cow dung, urine, milk, curd, ghee, legume flour and jaggary. They contain macro nutrients, essential micro nutrients, many vitamins, essential amino acids, growth promoting factors like IAA, GA and beneficial micro-organisms.

The on farm trial was conducted at 10 farmers' fields in Satna district to compare the growth and yield of onion under chemical farming and Natural Farming during the year 2023-24. Treatments used in the on farm trial were: T1: Recomended dose of fertilizers NPK @ 120:80:60 kg/ha, T2: FYM (25T) + Soil application of Jeevamrit & 500 lit/ha at planting + vegetative + bulb formation stage, T3: Ghan Jeevamrit 500kg + Soil application of Jeevamrit @ 500 lit/ha at planting + vegetative + bulb formation stage. Individual plot size were kept 10 x 3 m and plant spacing was 15 x 10cm. In Plot 1, Doses of NPK were followed as 120 kg N/ ha, 80 kg P 2 O5 /ha and 60 kg K2 O/ ha. The sources of nitrogen, phosphorus and potassium were Urea, DAP, MOP. Full dose of phosphorous and potassium and 1/3rd of nitrogen was also applied before transplanting. The remaining 2/3 rd of Nitrogen was applied in two equal splits at 30 and 60 days after transplanting. In T2, FYM was applied @ 25 t/ ha a fortnight before planting followed by soil application of Jeevamrit @ 500 lit/ha at planting + vegetative + bulb formation stages and T3 : Ghan Jeevamrit @500kg /ha was applied at the time of planting followed by soil application of Jeevamrit @ 500 lit/ha at planting + vegetative + bulb formation stage Onion cultivar Agrifound Light Red was taken as study material. Transplanting of onion was done on 16th December 2023. Regular irrigation and weeding was done and plant protection measures were taken as needed. The crop was harvested at 120 days after transplanting on 15th April, 2023. The observations on various traits were recorded from five randomly selected competitive plants in each treatments and replication. Data on plant height, number of leaves, leaf length and diameter, neck length and diameter, average bulb weight, bulb size, were taken in field. Bulb yield/ ha1 was computed from the yield obtained in each plot.

Table 1.5.2. Performance of crop under Natural Farming

Performance indicators/ parameters	Observation		
	T1:Recomended dose of fertilizers NPK @ 120:80:60 kg/ha	T2:FYM(25T) + Soil application of Jeevamrit & 500 lit/ha at planting + vegetative + bulb formation stage	T3: Ghan eevamrit 500kg + Soil application of Jeevamrit & 500 lit/ha at planting + vegetative + bulb formation stage
Plant Height (cm)	41.9	39.76	38.45
No. of leaves/plant	8.26	7.84	7.47
Leaf length (cm)	35.58	34.51	31.67
Bulb weight (g)	131.22	127.29	124.93
Bulb Size(cm2)	25.33	23.719	22.73
Yield of Bulb (Kg/ha)	219.59	208.69	190.17
Cost of cultivation (Rs/ha)	83892	85717	75117
Gross returns (Rs/ha)	252529	239994	218696
Net returns (Rs/ha)	168636	154276	143578
B:C ratio	3.01	2.80	2.91
Reduction in yield (q/ha)			29.42
Reduction in cost (Rs/ha)			8775
Reduction in Income (Rs/ha)			25058

The results revealed that the values of the growth as well as yield parameters such as plant height, no. of leaves, leaf length, bulb size, bulb weight and yield of bulb were slightly lower in Natural Farming than with in comparison to application of chemical fertilizers. The bulb yield of onion was observed to be 29.42 q/ha compared chemical farming. The maximum total yield of bulbs (219.59 q/ha) were obtained with treatments T1 as compared to T3, that gave yield of 190.17 q/ha. However, the cost of cultivation was observed to be reduced by Rs. 8775/ha under Natural Farming as compared to chemical farming.

Based on the results observed under Natural Farming it is evident that onion production is feasible by following Natural Farming practices showing the possibility of substituting the synthetic fertilizers effectively by Ghan Jeevamrit.

1.5.3 Assessment of Natural Farming vs chemical farming in Rice cultivation in Chitrakoot district of Uttar Pradesh.

The Rice crop is major cereal crop of the district covering an area of 48220 ha with average productivity of 23.64 Q/ha, the yield of crop was affected due to poor uptake of nutrients. The KVK, Chitrakoot conducted on farm trial to

assess the performance of Natural Farming. The yield performance indicated that the yield was 0.9 q/h higher in chemical farming, However, the income was calculated to be higher by Rs. 2835/ha in Natural Farming by incurring additional cost of Rs. 8050/ha in applying NPK through chemical fertilizers. However, the B:C ratio of 4.17 was also higher in Natural Farming than chemical farming.

Table1.5.3: Effect of Natural Farming practices in Rice

Technology Option	No. of trials	No. of Plant m^2	Plant height cm	No. of tillers/ plant	Yield (q./ha)	G.Cost Rs./ha	Net return Rs./ha	B:C Ratio
Farmers practice (chemical farming)Nitrogen and phosphorus 80 kg & 60 kg/ha	05	67.2	108.04	7.2	42.24	39250	93806	3.38
Organic nutrient through Beejamrit, Jeevamrit and Ghan Jeevamrit (Natural Farming)		67.4	104.46	6.6	41.34	31200	99021	4.17

1.6. Resource Conservation

1.6.1 Assessment of KMnO4 @ 1 kg per ha and CIFAX application on growth performance of fishes under composite fish farming system in Chitrakoot district of Uttar Pradesh

KVK Chitrakoot conducted on farm trial at 04 farmer's field to assess the Disease outbreak and growth performance of fishes under composite fish farming system through application of CIFAX and $KmNo_4$ in cultured fish pond at four locations in the district Chitrakoot. The first three month results indicated good improvement in water quality of pond fish culture system. The final observations indicated that by spending Rs. 9000/- extra farmer will get Rs. 15575/- additional income after applying CIFAX.

Table1.6.1 Effect of KMnO4 @ 1 kg per ha and CIFAX application on water quality and fish yield

Treatments	No. of Trials	Water quality				
		Disease outbreak	Water Ph	Transparency	D.O.	Yield Q/h
Farmers practice (Lime application) (T-1)	02	Nil	7.25	45.2 cm	8.12 PPM	28.75

Kmno4 and CIFAX @ 1 lit per (T-2)	02	Nil	7.45	44.61	8.02 PPM	30.97

Economic performance

Treatments	Gross exp. (Rs/h)	Gross income (Rs/ha)	% Increase	B:C ratio
Farmers practice (Lime application) (T-1)	115200	201250	-	1.75
Kmno4 and CIFAX @ 1 lit per (T-2)	124200	216825	7.74	1.75

1.6.2 Assessment of Rotary mulcher for crop residue management of sugarcane crop and sowing of wheat after field preparation in Gonda district of Uttar Pradesh.

Crop residues are rich source of plant nutrients, hence have the potential to improve the resource use efficiency along with sustainability of the agro-ecosystem. The unsystematic use and disposal of crop residues is of major concern as it promotes the imprudent practice of on-field residue burning, causing irreversible loss of nutrients, soil fertility and environment. Rotary Mulcher is tractor driven agricultural implements useful for cutting paddy, palavers and bushes. It also helps in maintaining soil fertility by cutting and mixing the residues into the soil. KVK, Gonda (UP) conducted on farm trial to find out the yield performance, cost saving, water saving and stop burning after use of rotary mulcher in sugarcane field. The yield enhances 6.62%, Net return Rs. 36650.0/ha., water saving and farmers aware about crop residue management instead of burning of sugarcane leaves.

Table: 1.6.2: Performance of Rotary mulcher for crop residue management of sugarcane crop and yield of wheat crop.

Technology Option	No. of trials	Yield (q./ha)	% change in Yield	Parameter	Observa-tions	Net Return (Rs.)	B:C Ratio
Farmer practice- Sowing of wheat after burning of crop residue of sugarcane.	5	35.45	-	Weed (no. /sqm) No. of irrigation	133 4	32430.0	1.46
R. practice- Sowing of wheat after crop residue management of sugarcane crop through rotary mulcher.		37.80	6.62	Weed (no. /sqm) No. of irrigation	41 2	36650.0	1.88

Farmers Feedback on Technology: Use of rotary mulcher is suitable for crop residue management. It is better for in situ moisture conservation and farmers opined that wheat seed germination was 2-3 days earlier in this field than general sowing of wheat.

1.6.3 Assessment of super seeder for crop residue management of paddy and sowing of wheat in Gonda district of Uttar Pradesh.

Adopting innovative farm mechanization techniques enhances the overall productivity and lowers the cost of production in agriculture. Farmers are burning away the paddy straw assuming it to be quick and easy for disposing which enables them to plant the next wheat crop well in time. Happy seeder technology is the greatest solution of residue management and direct seeding of wheat in paddy harvested fields. In the district the area of paddy 123711 ha transplanting and direct seeded rice cultivation. Farmers harvesting their crops by combine or reapPear cum binder. The farm machinery bank is available in every block of the district. KVK motivated the farmers and training and awareness about uses of farm machinery bank, KVK, Gonda (UP) conducted on farm trial to find out the yield performance, after the use of super seeder in combine harvested plot for wheat sowing without burning of paddy crop residue.

Table: 1.6. 3 Performance of super seeder for sowing of wheat without burning of paddy crop residue.

Technology Option	Yield (Q./ha)	% change in Yield	Parameter	Observations	Net Return (Rs.)	B:C Ratio
Farmer practice- Sowing of wheat after Burning of crop residue of paddy	34.25	-	Seed rate (kg./ha.) Germination(days) No. of tiller (no/hill.)	125 8-9 20-25	33865	1.65
Recommended practice- Sowing of wheat with super seeder machine without burning of paddy crop residue.	37.30	8.90	Seed rate (kg./ha.) Germination(days) No. of tiller (no/hill.)	100 6-7 25-30	36550.0	1.87

Farmers Feedback on Technology: It will stop the burning of paddy crop residue. It will minimize the cost of cultivation as there is no need of field preparation. It will encourage timely sowing of seed. Besides other benefit like Soil mulching and early germination 2-3 days in comparison to traditional method and increase in no. of tillers.

1.7. Integrated Pest Management:

1.7.1 Assessment of efficacy of bio pesticide against, Hairy caterpillar, Pod borer and Blister Beetles in Blackgram in Satna district of Madhya Pradesh: The present investigation was undertaken by conducting on farm trials at 10 farmers field in Majhgawan block of Satna district with the main objective to study the effect of bio pesticide formulations Brahmastra @ 6% on checking Hairy caterpillar, Pod borer and blister beetle pests in Blackgram. Bio-pesticides were reported to be effective against many crops pests and being biodegradable do not leave any harmful effect on environment. The trial consisted of two treatments viz., T-1(Foliar Spray of Indoxacarb 14.9% SC 150 ml per acre insecticides after the pest's infestation), T-2 (foliar application of Brahmastra bio pesticide @ 6% at 30, 45 and 60 DAS).

The results showed that foliar application of Brahmastra @ 6% effectively minimized Hairy caterpillar, Pod borer and Blister beetle pest population in Blackgram. The important parameters encompassed in the study were no. of insect pest per m2, grain yield (q./ ha.) Cost of cultivation (Rs/ha.), Gross return (Rs/ha.), net returns (Rs/ha), B:C ratio. The study revealed the positive influence on all parameters as compared to control. The result in increase in No. of insect pest per m2, (Hairy caterpillar – 6.7, Pod borer – 5.3, Blister beetle 4.6, Yield q./ ha.11.4, Cost of cultivation Rs/ha. 20610, Gross return Rs/ha. 71820 and net returns (Rs/ha) 51210 and B:C ratio.2.48 per hectare over control. Thus, from the present study, it can be

concluded that the foliar application of Brahmastra bio pesticide @ 6% is an effective and way to manage pest population.

Table 1.7.1 Effect of bio pesticide formulations on Hairy caterpillar, Pod borer and Blister Beetles in Black Gram in Satna District of Madhya Pradesh.

S. No	Parameter		
01	**No. of insect pest population / m2**	**T-1**	**T-2**
1.1	Hairy caterpillar (avg.)	14.2	6.7
1.2	Pod borer (avg.)	12.6	5.3
1.3	Blister beetle (avg.)	10.4	4.6
02	Grain yield q./ ha.	8.6	11.4
03	Cost of cultivation (Rs/ha.)	18250	20610
04	Gross return (Rs/ha.)	54180	71820
05	Net returns (Rs/ha)	35930	51210
06	B:C ratio	1.96	2.48

1.7.2 Assessment of integrated module of *Fusarium* wilt management in Chickpea in Satna district of Madhya Pradesh: The present investigation was undertaken by conducting on farm trials at 10 farmer's field in Majhgawan block of Satna district by using integrated module of Fusarium wilt management in Chickpea. The treatments comprised of two treatments viz., T-1(Seed treatment with Carbendazim + Mancozeb @2 gram per kg seed), T-2 (Integrated module- Deep ploughing + Soil application of *Trichoderma virde* @ 4 kg/ha + Seed treatment (FIR) + Intercropping (Chickpea+ Coriander, 10:1or 2) and Marigold planting around the border + need based foliar application of Tebuconazol @ 625 ml/ha at 25 and 45 DAS at before flowering stage.

The important parameters encompassed in the study were disease incidence per m^2, yield (q/ha), cost of cultivation (Rs/ha.), net returns (Rs/ha), B:C ratio. The

study revealed the positive influence on all parameters as compared to control.

The treatment Deep ploughing + Soil application of *Trichoderma virde* @ 4 kg/ha + Seed treatment(FIR)+ Intercropping (Chickpea+ Coriander, 10:1or 2) and Marigold planting around the border + need based foliar application of Tebuconazol @ 625 ml/ha at 25 and 45 DAS before flowering stage was found to be the best as this treatment significantly reduced the disease incidence per m^2, (10.7%), increased grain yield/ ha by 34.04%, gross return Rs.68544/ha. and thus giving net returns of Rs.45904/ha and B:C ratio 2.02 per hectare over control.

Table 1.7.2 Effect of integrated module of *Fusarium* wilt management in Chickpea.

Sr. No.	Parameters	Treatment	
1.	**Sucking pest population three terminal leaves (No.)**	**T-1**	**T-2**
1.1	Disease incidence/m^2	36.4	10.7
1.2	Yield (kg/ha),	9.4	12.6
2.	Cost of cultivation Rs./ha.	19685	22640
3.	Gross income Rs/ha.	51136	68544
4.	Net income	31451	45904
5.	B:C ratio	1.59	2.02

1.7.3 Assessment of efficacy of bio pesticide against sucking pest in Mustard in Satna district of Madhya Pradesh

The present investigation was undertaken by conducting on farm trials at 10 farmer's field in Majhgawan block of Satna district with the main objective to study the effect of bio pesticide formulations Neemastra @ 6% on checking sucking pest (Aphid) in Mustard. Bio-pesticides were reported to be effective against many crops pests and being biodegradable do not leave any harmful effect on environment. The trial consisted of two treatments viz.,T-1 (Foliar application of Thiamethoxam 25 wg @ 100 gram/acre insecticides after the pests infestation), T-2 (foliar application of Neemastra bio pesticide @ 6% at 30,45 and 60 DAS) and T-3 (foliar application of Aganistra bio pesticide @ 6% at 30,45 and 60 DAS).

The results showed that foliar application of Aganistra bio pesticide @ 6% effectively minimized Aphid population in Mustard. The effect of foliar application of Aganistra bio pesticide @ 6% on vegetative growth, flowering and grain filling stages.

The important parameters encompassed in the study were no. of insect pest population three terminal branches per plants, Insect control (%), grain yield(q./ ha.) Cost of cultivation (Rs/ha.), Gross return (Rs/ha.), net returns (Rs/ha), B:C ratio. The study revealed the positive Influence on all parameters as compared to control.

The result in control of insect population 66.5% increase in Yield q./ ha.11.25, Cost of cultivation Rs/ha. 20165, Gross return Rs/ha. 63562 and net returns (Rs/ha) 43397 and B:C ratio.2.15 per hectare over control. Thus, from the present study, it can be concluded that the foliar application of Aganistra bio pesticide @ 6% is an appropriate and effective way and biodegradable and do not leave any harmful effect on environment.

Table 1.7.3 Effect of bio pesticide formulations on sucking pest in Mustard

S. No	Parameter			
01		**T-1**	**T-2**	**T-3**
1.1	Insect pest population (aphid) per plants	115	67	52
1.2	Insect control (%)	49.2	60.3	66.5
02	Grain yield q./ ha.	9.21	10.57	11.25
03	Cost of cultivation (Rs/ha.)	17635	19480	20165
04	Gross return (Rs/ha.)	52036	59720	63562
05	Net returns(Rs/ha)	34401	40240	43397
06	B:C ratio	1.95	2.06	2.15

1.7.4 Assessment of integrated module of late blight management in tomato in Satna district of Madhya Pradesh.

The present investigation was undertaken by conducting on farm trials at 10 farmer's field in

Majhgawan block of Satna district by using integrated module of Fusarium wilt management in Chickpea. The treatments comprised of two treatments viz.,T-1 (Foliar application of Carbendazim +Mancozeb @0.2%), T-2 (Soil application of *Trichoderma viride* @ 4 kg /ha. at 15 days before transplanting followed by prophylactic spray of fungicides viz., Metalaxyl + Mancozeb 72% (0.2%), sprayed at regular intervals of ten, twenty and thirty days.

The important parameters encompassed in the study were disease incidence per m^2, No. of Healthy fruits (per plant), yield (kg/plants), yield (kg/ha), cost of cultivation (Rs/ha.), net returns (Rs/ha), B:C ratio. The study revealed the positive Influence on all parameters as compared to control.

The treatment summer Deep ploughing + Soil application of *Trichoderma viride* @ 4 kg /ha at 15 days before transplanting followed by prophylactic spray of fungicides viz., Metalaxyl + Mancozeb 72% (0.2%), sprayed at regular intervals of ten, twenty and thirty days at vegetative stage was found to be the best as this treatment significantly reduced the disease incidence per m^2, (12.8%), increased fruit yield 16.74%, gross return Rs.138276/acre. and thus giving net returns of Rs.97051 /acre and B:C ratio 2.52 per hectare over control.

Table 1.7.4 Effect of integrated module of late blight management in tomato.

Sr. No.	Parameters	Treatment	
		T-1	T-2
1	Disease incidence/m^2	42.6	12.8
2	Avg. Number of Healthy fruits per plants	44.6	49.5
3	Avg. weight of fruits (g)	79.25	90.12
4	Average Yield (kg/plants)	3.54	4.61
5	Yield (kg/acr),	96.45	115.85
6	Cost of cultivation Rs./acre	35160	39225
7	Gross income Rs/acre	115740	138276
8	Net income Rs/acre	79160	97051
9	B:C ratio	2.26	2.52

1.7.5 Integrated Pest Management of tomato leaf miner (*Tuta absoluta) in Beed district of Maharashtra*: South American tomato pinkworm, *Tuta absoluta* (Meyrick, 1917) (Lepidoptera: Gelechiidae) also known as the tomato leaf miner is one of the destructive invasive pests observed for the first-time infesting tomato crop in Maharashtra, India. This pest has been classified as the most serious threat for tomato production worldwide. Plants are damaged by direct feeding on leaves, stems, buds, calyces, young fruit, or ripe fruit and by the invasion of secondary pathogens which enter through the wounds made by the pest. It can cause up to 90% loss of yield and fruit quality under greenhouses and field conditions. This pest has cause huge losses of tomato growers of the region hence assessment was taken on 05 farmers field at Gondanpattitanda, Taluka Ambajogai, District Beed in order to study the effect of IPM strategy in management of tomato leaf miner, *Tuta absoluta.* Trial consists of two treatments *viz*., T-1 (Farmers practice *i.e.* use of different insecticides only), T-2 (use of light & pheromone trap, Spinosad 0.25 ml/liter followed by flubendiamide 0.20 ml/liter of water rotation at 3 weeks' interval. At the Peak use deltamethrin 2.5 EC @ 1 ml/liter of water. The major parameters included in the study were no. of Percent incidence of pest, grain yield (ton/ ha.) Cost of cultivation (Rs/ha.), Gross return (Rs/ha.), net returns (Rs/ha), B:C ratio.

The results revealed that incidence of the pest was reduced from 37.4 to 16.6%, yield 31.40 over 22.20 ton./ha., Cost of cultivation was 267300 over 247500 Rs/ha, Gross return 628000 over 247500 Rs/ha., net returns 360700 over 196500 Rs/ha and B:C ratio 2.34 over 1.79 per hectare over control respectively. Thus, from the present study, it can be concluded that IPM is an appropriate and effective way to manage the pest.

Table 1.7.5 Effect of IPM against tomato leaf miner

S. No.	Parameter	T-1	T-2
01	Incidence of pest at Peak (%)	37.4	16.6
02	Yield ton/ ha.	22.20	31.40
03	Cost of cultivation (Rs/ha.)	247500	267300
04	Gross return (Rs/ha.)	444000	628000
05	Net returns (Rs/ha)	196500	360700
06	B:C ratio	1.79	2.34

1.7.6 Integrated Pest Management of Uzi fly in Sericulture in Beed district of Maharashtra: Beed district ranks first in the mulberry plantation in Marathwada region of Maharashtra. Sericulture has become vital source of income for the farmers. Uzi fly, *Exoristabombycis* is a major pest of silkworm. The incidence of this fly is increasing and causes heavy economic losses to the sericulture farmers of the region. The extent of damage ranges from 10-30 percent. Hence, assessment was taken on 05 farmers field at Javalban, Taluka Kej, District Beed in order to study the effect of Integrated Pest Management of Uzi fly, *Exoristabombycis* in Sericulture. Trial consists of two treatments *viz*., T-1 (Farmers practice *i.e.* use of nylon net only), T-2 (use of Nylon insect net, pheromone trap of Uzi fly @ 05 traps/shed and *Nesolynx thymus* pouches @ 02/100 dfls. The parameters included in the study were no. of percent incidence of pest, grain yield (kg/ shed) Cost of cultivation (Rs/shed.), Gross return (Rs/shed.), net returns (Rs/shed), B:C ratio.

The results revealed that incidence of the pest was reduced from 36.6 to 12.2%, yield 158.6 over 108.4 kg/shed., Cost of cultivation was 21830 over 18440 (kg/ shed), Gross return 71370 over 48780 (kg/ shed), net returns 49540 over 30340 (kg/ shed) and B:C ratio 3.27 over 2.65 over control respectively.

Table 1.7.6 Effect of Integrated Pest Management of Uzi fly in Sericulture

S. No.	Parameter	T-1	T-2
01	Incidence of pest (%)	36.6	12.2
02	Cocoon yield (kg/shed).	108.4	158.6
03	Cost of cultivation (Rs/shed)	18440	21830
04	Gross return (Rs/shed)	48780	71370
05	Net returns (Rs/shed)	30340	49540
06	B:C ratio	2.65	3.27

1.7.7 Assessment of suitable and economical control measure of sheath blight in rice under Uprahar micro-agro-climatic zone of Gonda district in Uttar Pradesh.

Rice-sheath blight is a disease caused by Rhizoctonia solani (teleomorph is *Thanetophorus cucumeris*), a basidiomycete, that causes major loss of rice production in India and other countries of Asia. It is also a problem in the southern US, where rice is also produced. It can decrease yield up to 50%, and reduce its

quality. It causes lesions on the rice plant, and can also cause pre and post-emergence seedling blight, banded leaf blight, panicle infection and spotted seed. KVK Gonda conducted on farm trial to control the sheath blight in rice, due to low rate of such type of rice in the market. It was observed that foliar spray of *Trichodermaviride + Psudomonas phloriserce* is very effective to control the sheath blight.

Table: 1.7.7 Effect of Trichoderma viride + Pseudomonas fluorescents to control the sheath blight in rice.

Technology Option	No. of trials	Incidence of the disease	Yield	Yield Increase %	Net Income (Rs.)	B:C Ratio
Farmer practice- Use of mancozeb	5	42-45	36.2	-	9850.0	1.24
Recommended practice- Spraying of trichoderma viride 1.15% wp @ 3gm + Pseudomonas fluorescens 0.5 wp @1gm / lit water.		5-7	45.8	26.51	21210.0	1.92

1.7.8 Assessment of suitable and economical control measure of false smut in rice under Tarahar micro-agro-climatic zone of Gonda district in Uttar Pradesh.

False smut of rice is one of the major emerging and destructive diseases especially in high yielding rice varieties of many rice growing regions of the India. False smut causes chalkiness of grains which leads to reduction in grain weight. It also reduces seed germination. False smut disease infection may initiate at the booting/ flowering stage and visible symptoms apPear at the grain filling stage. The field experimental trial was conducted on the five different farmer's field locations with two treatments combinations viz., T_1 (Use of Mancozeb) and T_2 (Spraying of propiconazole 25 EC (0.1%). Fungicide was applied twice, first at panicle initiation and second at early flowering stage). It was recorded that incidence of the disease was found 26.25% in T_1 and only 6.40% in T_2 with B: C ratio 2.30.

Table: 1.1.7. Effect of propiconazole 25 EC (0.1%) on false smut disease in rice.

Technology Option	No. of trials	Incidence of the disease (%)	Average Yield (q/ha)	Net Income (Rs./ha)	B:C Ratio
Farmer practice- T_1- (Use of mancozeb)	05	26.25	39.10	27550.0	1.61
Recommended practice- T_2- (Spraying of propiconazole 25 EC (0.1%) Fungicide was applied twice, first at panicle initiation and second at early flowering stage)		6.40	48.65	44730.0	2.30

1.9 Animal Feed Management

1.9.1 Assessment of Chickpea flour mixed with butter milk in expelling retained fetal membranes for quitting of Placenta in buffalo in Satna district of Madhya Pradesh: Buffalo based livestock production is very important in all over district, but retention of problem due to the Poor Veterinary Services and lack of awareness among farmer's community regarding management. Farmers use some locally available herbs as a medicine. The retention of fetal membranes in buffaloes is usually defined as failure to expel fetal membranes within 24 hours ager parturition. Normally, expulsion occurs within 3 -8 hours after delivery.

Buffaloes with retained fetal membranes are at increased risk of metritis, displaced abomasum, mastitis Ketosis and early lactation culling. In Satna district retained fetal membranes is 6% percent in buffaloes. To treat this problem one trial was conducted among 6 selected suffered buffaloes of six farmers and treatment was given (one kg Chickpea flour mixed with buttermilk to be fed to the affected animals for three days.)

The data were calculated in terms of Average Daily Milk yield (L) of three months after treatment, quitting of Placenta percentage (%), Economics, B: C ratio.

On the basis of results, it can be concluded that the Chickpea flour mixed with butter milk having a better and effective potential for treating the problem of retention of placenta. In this treatment no extra expenses was needed but overall results were impressive. Milk productivity was enhanced by the proper treatment and finally the value was so far higher in the properly treated buffaloes. Hence, the technology can be recommended for large scale adoption in Satna District of Madhya Pradesh.

1.9.1 Assessment the effect of Chickpea flour mixed with butter milk in expelling retained fetal membranes for quitting of Placenta in buffalo.

S. No	Parameter	Treatment	
		T1	T2
1	Average Daily Milk yield of three months after treatment (L),	4.52	7.5
2	Quitting of Placenta %	7	2
3	Cost of rearing (Rs./ buffalo)	86	112
4	Gross Return (Rs./ calf)	248.6	412.5
5	Net returns/ calf)	162.6	300.5
6	B: C ratio	2.89	3.68

1.9.2 Assessment of hybrid Napier variety 'COBN – 5' for quality green fodder production in Beed district of Maharashtra: The hybrid Napier 'COBN 5' is an interspecific hybrid between fodder combo (*Pennisetum glaucum*) and Napier grass (*P. purpureum schumach*). It is popular among dairy farmer due to its characteristics such as high green fodder yield, palatability, winter hardy and quick regeneration nature, superior ratooning ability and free from pest and disease. This fodder could be suitable for dairy farming in Beed district also. To understand the importance of this fodder in our district, the On Farm Trials were conducted on five farmer's field in order to assess the performance of fodder and introduction of high yielding fodder variety in the month of June 2023.

The data of green fodder and milk yield is recorded regularly from assessed farmers. The collected data analysed and compared with same type of data obtained from farmers practice T_1 (Feeding of maize fodder) and T_2 (Feeding of Hybrid Napier - Phule Jaywant). The results showed that fodder yield (qtl/ha.) in assessed practice were 865 while it was 310 & 610 in farmer's practices. Milk yield (Lit./animal/day) of Marathwadi buffalo in assessed practice was 4.95 while it was 4.3 and 4.6 in farmers practices. The Hybrid Napier COBN 5 is advised to cultivate for fodder production when farmer is having irrigation facility round the year.

Table 1.9.2 Performance of Hybrid Napier variety COBN-5 for quality green fodder production in Beed district of Maharashtra

S. No	Parameter	Treatment		
		T_1	T_2	T_3
1	Fodder yield (q/ha.)	865	310	610
2	Milk yield (Lit./animal/day)	4.95	4.3	4.6
3	Gross Cost (Rs./Animal)	36960	34540	21885
4	Gross Return (Rs./Animal)	63590	65950	68580
5	Net Return (Rs./Animal)	26630	31410	36695
6	B: C ratio	1.72	1.90	2.15

1.9.3 Assessment of suitable Variety of Oat for maximum green fodder production in Gonda district of Uttar Pradesh.

Oat (*Avena sativa L.)* is an important winter growing, high yielding fodder crop, better suited to a variety of soil types, altitude, rainfall and waterlogged conditions compared to most of other cereals and require bulk of fertilizers N for quality forage. Fodder yield of oat in terms of green forage and dry matter as well as the quality is a function of plant height, tiller number, and vegetative growth which are markedly influenced by nutrient application specially nitrogen. Oats are grown for use as grain as well as forage and fodder, straw for bedding, hay, silage and chaff. KVK, Gonda (UP) conducted on-farm trial to assess the suitable variety of Oat for maximum green fodder production. This trial was conducted on the five different farmer's field with two treatments viz., T_1- (Old variety Kent), T_2 - (JHO-2000-4). During this trial it was observed that (JHO-2000-4) has B: C ratio 1:84.

Table: 1.9.3 Performance of the suitable variety of Oat for green fodder production.

Technology Option	No. of cutting	Fodder yield	BC Ratio
Farmer practice- sowing of old variety (Kent)	3	382.0	1.53
Recommended practice- Sowing of high yielding variety (JHO-2000-4)	4	464.5	1.84

1.10 Breed Evaluation of Poultry bird and Fish

1.10.1 Evaluation of poultry breed-Narmada Nidhi in Satna district of Madhya Pradesh: Narmada Nidhi is one of the most popular dual purpose hybrid breed of poultry for meat and chicken in M P. The market demand of this breed is growing day by day throughout India. This breed may be suitable for backyard farming in Satna district also. To understand the importance of this breed in our district, the On Farm Trials were conducted to evaluate the breed performance in the month of June 2023 at 4 farmers home in back yard system of poultry farming. The required data

were collected and analyses that average body weight gain of Narmada Nidhi at 90 days of age was 1.9 kg while the nondescript breed reared in same situation was 1.35 kg. According this finding it can be concluded that Narmada Nidhi breed is more suitable in back yard System of Poultry.

Another parameter of age of egg laying started was also analyzed that results revealed the Narmada Nidhi breed started the laying before 79 days of age as compared to control. Rate of mortality parameter was also analyzed and according to the results the mortality was 8 percent less in Narmada Nidhi breed in same situation as comparison to local reared breed. The net input output ratio was more appropriate (4.53 then 3.3) and profitable to the farmers therefore it is recommended to the other poultry farmers in the district.

Table 1.10.1 Performance of poultry breed-Narmada Nidhi

S. No	Parameter	Treatment	
		T1	T2
1	Body Weight gain at 90 days of age	1.35	1.9
2	Age of egg laying started (days)	205	184
3	Mortality percent up to 6 months of age,	26	18
4	Cost of cultivation (Rs. / bird)	45	65
5	Gross Return (Rs. /bird)	148.5	294.8
6	Net returns/ bird	103.5	229.8
7	B: C ratio	3.3	4.53

1.10.2 Assessment of improved backyard poultry breed 'Kaveri' for eggs & meat production in Beed district of Maharashtra:

Kaveri is improved dual purpose backyard chicken breed developed by Central Poultry Development Organisation (CPDO), Bhubaneshwar. These birds have characteristic features like low early chick and laying mortality, excellent in growth, eggs production and flock uniformity, early sexual maturity, withstanding predators, laying brown colour eggs etc. This breed is gaining popularity among backyard poultry farmers. This breed may be suitable for backyard poultry farming in Beed district also. To understand the importance of this breed in our district, the On Farm Trials were conducted on five farmer's field and 30 chicks of 14 days old were issued to each farmer in the year 2023 in order to assess the performance of Kaveri breed in terms of chicken and egg production.

The data of live body weight and egg production is recorded regularly from assessed farmers. The collected data analysed and compared with same type of data obtained from farmers practice T_1 (rearing of DP cross birds) and T_2 (rearing of local poultry birds). Results showed that weight gain (kg/bird) in assessed practice was 2.25 while it was 1.1 & 1.7 in farmer's practices. Egg production (No./year) of Kaveri in assessed practice was 126 white it was 58 and 95 in farmers practices. Backyard poultry breed Kaveri is recommended for egg and meat production.

Table. 1.10.2 Performance of poultry breed - Kaveri

Sr.No.	Parameter	Treatment		
		T1	T2	T3
1	Live body weight (kg/bird) at 90 days of age	1.1	1.7	2.25
2	No. of eggs /bird/year	58	95	126
3	Cost of production (Rs./bird)	475	655	715
4	Gross Return (Rs./bird)	780	1190	1434
5	Net returns (Rs./bird)	305	535	720
6	B: C ratio	1.64	1.81	2.00

Table 1.10.3 Assessment of yield performance of fishes with Amur carp (*Cyprinus carpio haematopterus*) in Khet talab in Chitrakoot district of Uttar Pradesh

In Bundelkhand more than 2000 farm pond excavated at farmer's field named "Khet Talab". These ponds are used for life saving irrigation of field crop and rest of the stored water is used for fish production but the yield of fish in these ponds is very low due to small pond size and lack of appropriate breeds in culture system. So, KVK Chitrakoot conducted on farm trial at 04 farmer's field to assess the yield and growth performance of Amur carp instead of IMC and compared with traditional IMC culture at four locations in the district. The first three months result indicated higher weight gain in culture system by including Amur carp.

Table 1.10.3 Performance of Amur Carp

Treatments	No. of Trials	Stocking density	Initial Wt. (Gm)	Wt at 3 Month (gm)	Yield (Kg/h)	Gross exp. (Rs/h)	Gross income (Rs/ha)	% Increase	B:C ratio
Catla, Rohu, Nain (T-1)	04	10000 /ha	2.18	122	2608	110000	182000	-	1.64
Amur carp (T-2)			4.20	158.5	2986	124000	208740	14.49	1.68

1.11 Animal Disease management

1.11.1 Assessment the anti-diarrheic effect of whey on lactating buffalo: Diarrheic problem is very common stomach disease in lactating buffaloes. The symptoms of this disease are droppings usually become soft, watery and smelly. In this disease buffaloes have diarrhea and become weak and dehydrated. In severe cases buffaloes could die. In summer season diarrhea comes in severe form to the buffaloes. Immediate treatment is necessary to cure the suffered buffaloes otherwise milk production is significantly reduced immediately. The veterinary services are so far from anterior rural area and in these conditions; farmers lose their livestock wealth before proper treatment. In order to prevent the losses due to the diarrhea in buffaloes, on farm testing was conducted at 10 buffalos' rearers by assessing the technology. The assessed technology controls the diarrhea and enhance the milk production rate and weakness of buffaloes. Under this technology, lactating diarrheic buffaloes were fed with 2 litres of whey to control the heat stress, diarrhoea and it to be followed for one week.Immediate treatment consists of giving enough clean drinking water. The mortality rate in given trial was 6 percent only as compared to the farmer's situation (10 Percent). The net return benefit was also more than the controlled system. Milk productivity was not affected

significantly in selected buffaloes. According to the results recommendation of this trial can be suggested to the other farmers.

Table 1.11.1 Assessment the anti-diarrheic effect of whey on lactating buffalo

S. No	Parameter	Treatment	
		T1	T2
1	Average Milk production per day during 15 days of period per buffalo after suffering from diarrhoeic disease (lit)	3.5	5.6
2	Mortality rate after treatment	10	6
3	Cost of cultivation per day (Rs)	82.5	118
4	Gross Return on one year of age (Rs. buffalo)	192.5	328
5	Net returns on one year of age (Rs / buffalo)	110	210
6	B: C ratio	2.33	2.77

1.12. Drudgery Reduction

1.12.1 Assessment the efficiency of Brinjal mitten (gloves) for harvesting in Beed district of Maharashtra: Vegetable production is a labour intensive and women play vital role and performs ninety per cent of activities in vegetable production system viz., seedling / transplanting, weeding, fertilizer application, harvesting and post harvesting activities with use of traditional/ conventional tools,

which adds drudgery and postural discomfort to workers. Vegetable harvesting is performed manually only by the farmwomen. It is tedious and drudgery prone activity. No technology is available for vegetable harvesting. Harvesting brinjals was found to be very difficult activity for farmwomen due to pricking of thorns and prickles and skin contact of natural secretion of plant and insecticide to the fingers and arms. Wounds, skin irritation and rashes, insect bite, itching were common problems faced by women workers while performing harvesting of brinjals. These were the reasons affecting work efficiency of farmwomen. Hence, to prevail over these problems, mittens for protecting hands and arms were tested at farm women field in the village Lahuri Tq Kaij Dist Beed.

Table 1.12.1 Effect of Brinjal mitten (gloves) for harvesting in Beed district of Maharashtra

Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
Traditional method	Time required for harvesting brinjal (kg./hr)	20	Harvesting rated with brinjal mitten was found to be a 23.6 kg /hr against 20 kg /hr in case of farmers practice.	Time saving, no injuries to hands and palm
Use of brinjal Mitten	Time required for harvesting brinjal (kg./hr)	23.6		

Table 1.12.1 revealed that harvesting brinjal by wearing a mitten was found to be a 23.6 kg while in Farmer practices only 20 kg brinjal can harvest. Use of brinjal mitten increase the work efficiency and reduces the physical hazards.

1.12.2. Assessment of BD cotton planter in Beed District of Maharashtra

Area of the cotton crop is second largest in the Beed district. Dryland farmers having light to medium soil was also growing cotton crops. Cost of cultivation for the Cotton crop is increasing day by day which reduces profit. Productivity goes on decreasing due to non-scientific traditional farming practices.

Planting of cotton seeds is a laborious and costly operation. During the plantation period there is a Peak labour requirement. All family members including school going children are also being engaged in this planting operation. Drudgery during planting operations is high.

To reduce cost of cultivation & for the introduction of mechanization in dryland farming trial of bullock-operated cotton planter designed by VNMKV, Parbhani was taken in village Rakshawadi, Tq. Ambajogai. The trial consisted of two treatments viz T1 traditional manual planting and T-2 Bullock drawn cotton planting. The result shows that 40% cost of operation is reduced with increase in work efficiency 3 times. It helps to reduce 66% reduction in labour requirements. B.C. ratio was 2.94 as compared to control treatment 2.02. Overall bullock drawn cotton planter saves labour time & cost with low level of drudgery during operation.

Table 1.12.2.Performance of BD cotton planter in Beed District of Maharashtra

Parameters	T1 Traditional manual planting	T2 Bullock drawn cotton
Field capacity	0.056	0.166
Labour requirement (Man/hr)	18	6
Operation cost (Rs./ha)	500	300

1.13. Value Addition

1.13.1 Assessment of heat treatment on improving the shelf life of Pearl millet flour in Beed district of Maharashtra: Millets are one of the oldest foods known to human beings and possibly the first cereal grain to be used for domestic purposes. Pearl millet is a multifunctional cereal crop. It is generally known in various local Indian languages as bajra, bajri, sajje, kambu, kamban, sajjalu, etc. It is widely used for food and forages. Pearl Millet is highly valuable in semi-arid regions because of higher productivity under heat and drought conditions. Rajasthan, Maharashtra, Gujarat, Uttar Pradesh and Haryana are the largest Pearl millet growing states in the country. The higher nutrient content means that Pearl millet has been recognized by the Ministry of Agriculture, Government of India as one millet under “Nutri-Cereals”.

The Pearl millet grains are consumed either as grits or in the form of flour and its products. These grains are rich in fat, vitamins and minerals. The shelf life of milled flour is limited due to high fat content and active lipolytic enzymes that come in contact with their substrates during milling. Moreover, moisture and oxygen availability further accelerate oxidative rancidity, development of off-flavour and bitter test in Pearl millet flour rendering flour unacceptable for consumption after 8 to 10 days. Poor keeping quality limits the utilization of Pearl millet in regular diet and also the processing rate of Pearl millet is very low as compare to other cereals.

The objective behind conducting this assessment was to study the effect of different processing method on shelf life of Pearl millet flour.

This OFT was conducted on 11 farm women at Village Sindhi, Tq Kaij, Distt. Beed. Three processing techniques were applied for inactivate the lipolytic enzymes in order to enhance shelf life. First technique includes traditional method of farm women (Direct sunlight of Pearl millet grains). Second techniques Blanching- It is done by boiling water at 98°C, followed by immersing of the grains in the boiling water for 90 sec. Third techniques were dry heating can be done by heating the grains in hot air oven maintained at 100 6 2°C for 60 to120 min, followed by rapid cooling and finally milling to grains.

Table 1.13.1. Effect of different processing method on shelf life of Pearl millet flour

Technology Assessed	**Parameters of assessment**	**Data on the parameter**	**Results of assessment**
Traditional method	Storage life in days	08	Treatment to Bajra seeds before milling improve the shelf life of Bajra flour up to 22 to 31.
	Organoleptic evaluation (Turns bitter from the day)	09	
T_2: Blanching to Bajra grains (at 980C for 90 sec) before milling	Storage life in days	22	
	Organoleptic evaluation (Turns bitter from the day)	23	
T_3: Dry heat treatment before milling of Bajra. (Heating the grains in oven at 1000C for 1 to 2 Min)	Storage life in days	27	
	Organoleptic evaluation (Turns bitter from the day)	28	

Table 1.13.1 explained that Treatment 1 which include traditional method of farm women. It means, direct sun drying of Pearl millet grain and then milling. By using this treatment, it is stated that Pearl millet flour can store only 8 days and having organoleptic score 9 days. This method cannot effective to store flour for

more days. The second treatment was blanching grain sat 98^0C for 90 second and then milling. It shows that the Pearl millet can be stored for 22 days and having organoleptic score 23 days. Second method is effective and can store flour maximum days. At last, the third treatment i.e., heat drying in micro-oven. This method's result indicate that the Pearl millet flour can store for 27 days and having organoleptic score 28. Third method is more effective than other two but this method is not feasible for rural women to conduct.

1.13.2 Assessment of Value addition of maize by preparing different product in Gonda district of Uttar Pradesh

Maize is an important cereal crop of the world and is known as 'Queen of Cereals' due to its multifarious uses and high productivity potential. It plays a very important role in human and animal nutrition in general and meeting the protein and calorie requirement of millions of people across developing countries, in particular. It is also a source of high fiber, antioxidants, other vitamins and minerals. Maize is a leading crop of district Gonda and it is cultivated round the year for maize cob but maize grain is used only as preparing Bhuja and Atta. KVK, Gonda (U.P.) conducted on farm trial for value addition of maize grain like Mathari, Daliya, Namakeen and Sattu.

Table: **1.13.2 Economics of *value addition of maize.***

Technology	No. of trials	Cost for the preparation of maize product (10.0kg of maize) Rs.	Gross Income (Rs.)	Net Income (Rs.)	B:C Ratio
Farm women practice (Maize- Atta and Bhuja)	10	410.0	655.0	245.0	1.59
Recommended practice (Mathari, Daliya, Namakeen and Sattu.)		1270.0	2980.0	1710.0	2.34

1.14 Health and Nutritional Security

1.14.1 Assessment of fortified nutri cereal based diet in management of anemia in vulnerable group in Chitrakoot district of Uttar Pradesh

Anemia is a major problem in Chitrakoot district which occurs in resource poor family due to iron deficient diet. The inhabitants of the district have a limited access to live stock products, food and vegetables in their daily diets. Addressing this problem inclusion of medicines and nutritional supplements are not feasible to these farm families. Keeping this point in view, KVK designed an OFT for inclusion of fortified grains in their daily diet i.e. bio fortified

Bajra, Sawan, Ragi, and lentil (Pusa –Vaibhav) and wheat (K-1006) which is economically feasible to solve anemia problem. These fortified crops contain high Fe, protein, calcium and other nutrients value near about double then the existing varieties in cultivation by these farm families. The results on producing and consuming these varieties in reducing the anemic condition of vulnerable group are however still awaited in terms of HB level enhancement and clinical signs.

Table1.14.1: Effect of bio fortified food on anemic vulnerable group

Crop	Demo Yield (kg)	Personal Use	Sold out
T-1 Farmer practice (Daal , Roti and Rice)	-	Not used	Not used
T-2 Consumption of bio fortified Pearl millet Bajra, Sawan and Ragi in Kharif and var. of Lentil (Pusa Vaibhav L 4147) in Rabi season	359.83	173	186.83

1.14.2 Assessment of low cost iron rich foods in overcoming iron deficiency anemia in adolescent girls

KVK, Chitrakoot conducted on farm trial to assess the effect of low cost iron rich food in improving the iron deficiency anemia in adolescent girls. Anemic vulnerable group diets were observed to be deficit in nutritive foods. The trial was conducted by including low cost iron rich food Paustic laddu (puffed bajra + Chickpea + lentil + ground nut + rice flakes + puff ramdana) 10gm each + jaggery 30 gm up to 3 months for improving the iron deficiency anemia in adolescent girl. Observation was taken before & after treatment. The HB level of 30 girls selected for trial was found to be increased from 8.08 to 9.60.

Table1.14.2: Effect of inclusion of Paushtic laddu in normal diet of girls-

Technology Option	After treatment HB level	Before treatment HB level
T1:Normal Diet T-1 (Dal, Chaval, Roti)	8.08	8.08
T-2: Normal Diet T-1 (Dal, Chaval, Roti) + Paushtic laddu (puffed bajra + Chickpea + lentil + groundnut + rice flakes + puff ramdana 10gm each + jaggery 30 gm	9.60	8.08

2. Frontline demonstrations:

The frontline demonstrations are conducted under the close supervision of the scientists. Only newly released technologies are selected for the Frontline Demonstrations. Frontline Demonstrations are organized in a block of two to four hectares involving all those farmers whose plots fall in the identified demonstration block. Only critical inputs and trainings are provided from the scheme budget, remaining inputs are arranged by the farmers themselves. The purpose is to convince extension functionaries and farmers together about the potentialities of the technologies for further wide scale dissemination. Frontline demonstrations are used as a source of generating data on factors contributing higher crop yields and constraints of production under various farming situations.

2.1 Frontline Demonstrations conducted in Satna District of Madhya Pradesh: During the year, 448 frontline demonstrations, covering an area of 136.22 ha, were organized oilseeds, pulses, cereals and horticultural crops, livestock, and other enterprises, farm implements and tools on farmers' fields.

2.1.1 Oilseeds: A total of 255 demonstrations were conducted covering about 102 ha on Sesame, Niger Soybean and Mustard. Increase in yield varied from 43.81% in Mustard to 22.03% in Sesame, and on an average oilseed crops under improved technology demonstrations gave 31.40% more yield than farmers' practice. The increase in yield was primarily owing to suitable high-yielding varieties and better adoption of good agricultural practices; soil test based application of fertilizers; Integrated Pest Management practices against major diseases like phyllody in sesame, Yellow vein mosaic in Soybean and aphids in Mustard. Oilseeds farmers were encouraged for better adoption of Integrated Crop Management covering all the major technological aspects of crop husbandry.

Table 2.1.1 Frontline Demonstrations on oilseeds conducted in Satna district of MP.

Crop	No. of farmers	Area (ha)	Yield (q/ha)		Increase (%)
			Demonstration	Local	
Sesame	55	22	5.54	4.54	22.03
Niger	25	10	5.35	4.25	25.88
Soybean	50	20	15.80	11.8	33.90
Mustard	125	50	16.25	11.3	43.81
Total/ average	**255**	**102**	**10.74**	**7.97**	**31.40**

2.1.2 Pulses: During the year, 375 demonstrations were conducted covering 150 ha on major pulse crops, including Black Gram, Pigeon Pea and Lentil in Satna district of MP. The percentage increase in yield varied from 34.65 in Blackgram to 30.07% in Lentil and on an average pulse crops under various technology demonstrations gave 31.99% more yield than farmers' practices. Growing of many high-yielding varieties of these pulses and promoting major technological interventions in the Integrated Crop Management Practices facilitated in realizing higher productivity.

Table 2.1.2. Frontline Demonstrations on Pulse crops conducted in Satna district of MP

Crop	No. of farmers	Area (ha)	Yield (q/ha)		Increase (%)
			Demonstration	Local	
Blackgram	125	50	8.55	6.35	34.65
PigeonPea	125	50	13.82	10.53	31.24
Lentil	125	50	15.40	11.84	30.07
Total/ average	**375**	**150**	**12.59**	**9.57**	**31.99**

2.1.3 Cereals: A total of 40 demonstrations in 16 ha in major cereal crops like Rice, Sorghum, Wheat and Barley were conducted during the year, achieving an average increase of about 11.22% in Wheat to 32.12% in Sorghum. The increase in productivity in cereal crops was mainly due to dissemination of short duration high yielding variety in rice (Shwarnshrey) and low water requiring wheat variety (JW3288) and popularization of the latest technologies and balanced nutrient management.

Table 2.1.3 Frontline demonstrations conducted in Cereal crops in Satna district of MP

Crop	No. of farmers	Area (ha)	Yield (q/ha)		Increase (%)
			Demonstration	Local	
Rice	10	4	45.25	35.95	25.86
Sorghum	10	4	26.097	19.753	32.12
Wheat	10	4	42.43	38.15	11.22
Barley	10	4	40.58	35.141	15.48
Total/Average	**40**	**16**	**38.59**	**32.25**	**21.17**

2.1.4 Frontline Demonstration on Natural Farming in vegetable crops

Natural Farming is a farming method that believes in growing crops in tune with nature, raising crops without using any chemical fertilizers and pesticides or any other external materials. Natural Farming has guided the farmers towards sustainable farming practices thus helping in retaining soil fertility, to ensure a chemical free agriculture and ensure low cost of production and thereby enhancing the farmers income. The concept was promoted by an agriculturist, *Padamshri* Subhash Palekar in the mid 1990s as an alternative to Green Revolution's methods driven by chemical fertilizers, pesticides and intensive irrigation. Natural Farming is a cow based production management system which promotes and enhances soil health and soil biological activity. Natural Farming respects the laws of nature to increase yield and disease resistance. Central and state governments are also focusing to promote chemical free Natural Farming. However, there are two school of thoughts about Natural Farming. Some people say that switching over to Natural Farming can drastically reduce the crop yields and think that multi location studies are needed to scientifically validate the long term impact and viability of Natural Farming Model before it is promoted country wide in a large scale. Hence a proper scientific validation regarding success of Natural Farming has to be done**.** Therefore, the frontline demonstrations were conducted at farmers' fields with the objective to test the efficacy of Natural Farming components on crop growth and yield in comparison to chemical farming.

Table 2.1.4 Details of Frontline Demonstrations on Natural Farming in vegetables

Crop	No. of farmers	Area (ha)
Tomato	15	1.0
Potato	19	0.5
Cabbage	18	1.0
Total	**52**	**2.5**

2.1.4.1 Methods of Preparation of Natural Farming (NF) materials and their Application: The demonstrations on four wheels of Natural Farming- *Jeevamrit*, *Beejamrit*, mulching and *wapsa* on horticultural crops were organized. *Jeevamrit* and *Beejamrit* which are reported to improve the soil fertility by stimulating microbial activity and increasing nutrients availability to plants were prepared as per the details given below in Table 2.4.2.

Table 2.1.4.1 Table Ingredients and method of preparation of microbial formulations:

S.No.	Microbial formulation	Ingredients	Method of preparation
1.	*Beejamrit*	Cow dung - 5kg Cow urine - 5litre Lime - 50 g Water - 20litre Soil beneath Banyan tree-handful	In 20 litre water add 5 kg cow dung, 5 litre cow urine, 50g lime and soil and stirred well and keep it for 48 hrs under shed
2.	*Jeevamrit*	Cow dung - 10kg Cow urine - 10 litre Pulse Flour - 2 kg Jaggery - 2kg Water - 200litre Soil beneath Banyan tree-handful	In 200 litre water, add 10 litre cow urine, 10 kg cow dung, 2 kg jaggery and 2 kg pulse flour and soil Mix all above materials and stirred Stirred 2 times daily in the clockwise direction and kept it for 48 hours under the shade
3.	*Ghan Jeevamrit*	Cow dung - 100kg Cow urine - 10 litre Pulse Flour - 2 kg Jaggery - 2kg	Took 100 kg cowdung, 10 litre cow urine, 2 kg jaggery and 2 kg pulse flour Mixed all the contents Spread it on flour and dried it under shade

Demonstrations on Natural Farming were conducted during 2023-24 in potato, tomato and Cabbage crops. Natural Farming practices were followed as per the details given in Table 2.4.3.

Table 2.1.4.2 Treatment details and method of application

Crop	Chemical Farming	Natural Farming
Tomato	Recommended dose of fertilizer NPK @ 120:80:60 Kg/ha and two foliar sprays of fungicides and insecticides Planting of seedlings on raised beds Application of chemical pesticides for the control of disease and insects	Paddy straw mulching-2 inch thick layer of mulch is spread after planting of tomato seedlings Seed treatment with Beejamrit (0.3%) Application of Ghan Jeevamrit @ 5 kg/3 sqm bed+ liquid Jeevamrit @ 5 lit/bed twice at 10 days interval after sowing *Ghan Jeevamrit* was applied @ 5 q/ha at the time of raised bed preparation for transplanting of tomato seedlings Liquid *Jeevamrit*@500 l/ha was applied along with irrigation water as and when irrigation was required Foliar application of *Jeevamrit* @ 30ml/litre of water at 15 days interval after 15 days after transplanting of seedlings

		Need based application of Neemastra/Brahmastra @ 0.3% for pest management
Potato	Recommended dose of fertilizer NPK @ 120:80:60 Kg/ha Application of chemical pesticides for the control of disease and insects	Paddy straw mulching- 2 inch thick layer of mulch is spread after sowing of tubers Seed tubers were soaked in *Beejamrit* @ 20ml/kg seed *Ghan Jeevamrit* was applied @ 5q/ha at the time of planting of tubers Foliar application of liquid *Jeevamrit* @ 30ml/litre of water at 15 days interval after germination Need based application of Neemastra/Brahmastra @ 0.3% for pest management
Cabbage	Sole Cabbage (control) Recommended dose of fertilizer NPK @ 20:50:60 Kg/ha Use of chemical fertilizers Application of chemical pesticides for the control of disease and insects	Cabbage + Pea(1:1) *Ghan Jeevamrit*@ 5 q/ha was applied at the time of field preparation Liquid *Jeevamrit* @ 200 litre/acre was applied along with irrigation water. Foliar application of liquid *Jeevamrit*@ 30 ml /litre of water was done at 15 days interval after transplanting of seedlings and sowing of intercrop.

2.1.4.2 Yield and quality of tomato as influenced by Natural Farming Practices

The Frontline demonstrations on 15 farmers field were conducted to demonstrate the effect of Natural Farming practices on yield and quality of tomato in comparison to chemical farming. The important parameters studied were plant height, no. of fruits per plant, fruit length (cm), fruit width (cm) average fruit weight and average yield per hectare. The different observations were recorded from the randomly selected five plants during the growing period after transplanting in each plot. The plant height was

measured from ground level to the tip of main shoot. The matured red fruits in each plant were collected from three pickings in all the five plants of each pot. Then the mean of replications represented the number of fruits per plant. The fruit weight per plant at harvest was recorded and the mean fruit weight per plant was expressed in grams per plant.

Table 2.1.4.2 Growth and yield of Tomato as influenced by Chemical Farming vs Natural Farming

Sr.No.	Parameters	Chemical Farming	Natural Farming
1.	Plant Height (cm)	72.74	69.49
2.	No. of fruits/plant	28.05	25.40
3.	Fruit Length (cm)	5.22	5.12
4.	Fruit width (cm)	5.47	5.38
5.	Average fruit weight (g)	91.78	89.12
6.	Average yield (q/ha)	298.01	280.96
7.	Cost of Cultivation (Rs/ha)	100575	86615
8.	Gross returns (Rs/ha)	298010	280958
9.	Net Returns (Rs/ha)	197435	194343
10.	B:C ratio	2.96	3. 24
11.	Reduction in cost (Rs/ha)		13960
12.	Reduction in yield (q/ha)		17.05

The study revealed the fruit yield of tomato (Table 2.1.4.2) was recorded 17.05 q/ha less under Natural Farming than under chemical farming. The application of Natural Farming practices resulted in fruit yield (280.96 q/ha) as compared to chemical farming (298.01q/ha). However, the Natural Farming reduced the cost of cultivation by Rs 13960/ ha as compared to chemical farming. Benefit cost ratio was observed to be higher (3.24) under Natural Farming as compared to chemical farming which recorded B:C ratio of 2.96 only.

2.1.4.3 Yield and quality of potato as influenced by Natural Farming Practices

The frontline demonstration on Natural Farming vs chemical farming in potato cv Kufri Chipsona -3 were conducted with two treatment combinations viz.; T1- Recommended dose of fertilizer NPK @ 120:80:60 Kg/ha

and use of chemical pesticides for the control of insect pest and T2-Seed treatment with *Beejamrit* @ 20 ml/kg seed & soil application of Jeevamrit @ 250 kg/ha + foliar application of liquid Jeevamrit @ 30ml/litre of water at 15 days interval after 15 DAS and application of bio pesticide Neemastra @0.3% for the management of insect pests as per the details given. Under chemical farming, recommended doses of fertilizers were applied during final land preparation. Half of N, full P and K applied as basal and remaining half of N was applied as top dressing at the time of earthing up (30 DAP). Recommended practices of the region were followed for raising crop under chemical farming.

The demonstrations have been conducted during winter season (October to January) to study the effect of Natural Farming practices on improving plant growth, yield and quality parameters in potato (*Solanum tuberosum* L.).

Table 2.1.4.3 Effect of Natural Farming practices v/s chemical farming on growth and yield of Potato

Sr. No.	Parameters	Chemical Farming	Natural Farming
1.	Plant Height(cm)	40.47	37.72
2.	No. Of haulms per plant	4.69	4.41
3.	No. Of tubers per plant	9.64	9.45
4.	Average Tubers size(cm2)	25.41	26.15
5.	Average Tuber Weight(g)	288.47	274.16
6.	Average yield(q/ha)	180.58	175.01
7.	Average cost of Cultivation(Rs/ha)	92300	78375
8.	Gross returns (Rs/ha)	225730	218763
9.	Net Returns(Rs/ha)	130430	140388
10.	B:C ratio	2.46	2.79

The values of number of haulms, plant height and number of tubers, tuber size and av. weight of tubers were recorded less in Natural Farming as compared to chemical farming. The average yield of tubers (175.01 q/ha) was obtained with Natural Farming as compared to 180.58 q/ha in chemical farming. However, the Natural Farming reduced the cost of cultivation by Rs. 13925/ ha as compared to chemical farming. Benefit cost ratio was observed to be higher (2.79) under Natural Farming as compared to chemical farming which recorded B:C ratio of 2.46 only.

2.1.4.4. Demonstration on intercropping of Pea in Cabbage on productivity and economics per unit area: The frontline demonstrations were conducted during Rabi seasons on intercropping Cabbage + Pea (1:1). *Ghan Jeevamrit* @ 5 quintal/ha was applied in Cabbage at the time of transplanting of seedlings. Thirty days old seedlings of Cabbage cv. Golden acre were transplanted at a spacing of 50 cm x 50 cm during 1st fortnight of November. Seeds of the intercrops (Pea and Fenugreek) were sown in between rows of Cabbage. Liquid *Jeevamrit* @ 200 litre/acre was applied along with irrigation water. Besides, foliar application of liquid *Jeevamrit* @ 30 ml /litre of water was done at 15 days interval after transplanting of seedlings and sowing of intercrop. The results pertaining to yield parameters of Cabbage showed that intercropping of Cabbage with Pea recorded maximum values for head weight (1225.0g), head circumference (14.22cm), compactness of Cabbage head (8.52), number of marketable heads per plot (67.92kg), and marketable yield per hectare (216.46). Cabbage + Fenugreek intercropping combination was found second best treatment after sole cropping of Cabbage as it recorded next best values for head weight (1195.0 g), head circumference (13.98 cm), compactness of Cabbage head (8.42), number of marketable heads per plot (66.78), marketable yield per hectare (216.29 q/ha). But as per Cabbage equivalent yield was concerned, it was found that Cabbage + Pea and Cabbage + Fenugreek system of intercropping recorded comparatively maximum value (262.85 and 263.65 q/ha) for this parameter respectively and which were 21.67% and 22.03% more over sole cropping of Cabbage (216.04 q/ha). The maximum values for Cabbage equivalent yield in Cabbage and intercropping treatments might be due to higher yield of the main crop i.e Cabbage and greater market price of the component crop i.e. Pea and Fenugreek.

Table 2.1.4.4 Cabbage equivalent yield and economics of Cabbage as influenced by intercropping of Pea and Fenugreek

Treatment	Yield (q/ha)	Cabbage equivalent yield(q/ha)	Gross returns (Rs/ha)	Net returns (Rs/ha)	B:C ratio
T1- Sole crop of Cabbage (60 X 60 cm)	217.24	217.24	206585	132380	2.51
T2- Cabbage+ Pea(1:1)	217.24+35.18	273.71	260029	170974	2.63

Perusal of data (Table 2.4.4) related to economics of production it was observed that Cabbage + Pea intercropping system was most remunerative as it recorded highest net return and B:C ratio (Rs. 1,32,380 and 2.63, respectively) as compared to sole cropping of Cabbage which recorded net returns and B:C ratio (Rs.170924 and 2.51, respectively). Thus Cabbage, grown with Pea was found most remunerative which might be due to maximum Cabbage equivalent yield, higher price of Pea and comparatively lower cost for cultivation. But due to comparatively higher cost of cultivation and comparatively lower Cabbage yield than intercropping treatments Cabbage, grown as sole crop was least remunerative. Since Pea being the legume crop improve the soil health and comparatively fetches higher price, the Cabbage equivalent yield is also higher and which ultimately giving higher B:C ratio than sole crop. Based on the performance of the present experiment, intercropping of Cabbage with Pea and Cabbage + Fenugreek were found best combination to maximize yield and remuneration of Cabbage.

Thus, considering the hazards of chemical fertilizers and pesticides, farmers can employ these environmentally beneficial microbial formulations as a production alternative. Based on the results it could be concluded that the application of *Ghan Jeevamrit* liquid *Jeevamrit* along with mulching and intercropping with leguminous vegetables can effectively reduce the production cost.

2.1. 5 Livestock, fisheries: Besides, 10 demonstrations on livestock were conducted. The details of which are given below:

2.1.5 Frontline Demonstrations conducted on use of mineral mixture

Enterprise	No. of Animal	Beneficiaries
Mineral Mixture	39	39

2.2 Frontline Demonstrations conducted in Beed District of Maharashtra: During Kharif and Rabi season in 2023, 4 frontline demonstrations has been conducted covering an area of 20.4 ha with 51 Farmers. The crops selected were Bajra (millet), soybean (oilseed), sorghum (millet) and wheat (cereals).

2.2.1 Oilseed

In soybean, being an oilseed crop 13 demonstrations covering an area of 5.2 ha was conducted. It is important oilseed crop. By using varietal replacement technique yield was increased by 22-70% over farmer's local check. The increase in yield is due to high yielding varieties, seed treatment with combo fungicide and bio fertilizers, better adoption of INM and application of sulphur and zinc sulphate better adoption of good agricultural practices like IPM for control girdle beetle, stem fly and pod blight diseases. Farmers were adoption of training, encouraged for newly technology through day to day contact visit etc. Seed production concept formation of seed banks in villages were the key issues handled during the programme.

Table 2.2.1 Frontline demonstration on oilseed-Soybean in Beed district of Maharashtra

Crop	No. of Farmers	Area (ha)	Yield qtl/ha		Increase (%)
			demonstration	local	
Soybean	13	5.2	16.86	13.74	22.70%

2.2.2 Millet (Bajra)-During the year Kharif 2023, 15 demonstrations were conducted at Shindi and Kolhewadi villages covering an area of 6.00 ha. Beed district is known for the district of sugarcane cutters and labours. To stop the migration from villages to other places, KVK have intervened the millet production technology with processing. Bajra chunk (Kharwadi) was prepared by Bajra growing women SHG'S and marketed it at various places with the help of KVK. They fetches good remunerative prices in the Bajra production demonstrations. Var. AHB-1200 is a bio-fortified variety enriched in Zn and Fe, and mainly useful in various dietary recipes. This variety was demonstrated against local Bajra hybrid of various types. Seed treatment with Thimethoxim and bio-fertilizers was conducted. At critical growth stages, 12:61:0, 20:52:34 along with Nano urea, bio-stimulants like microbia was applied. Irrigation was given at the critical stages of the crop. Stress management was cured by spraying 'Vasant Urja' and Sagarika, 19.53% yield was increased over farmer's practice. The crop helps in nurturing nutrition status of the farmers as it contains Fe and Zn. Also provides employment to peoples of villages for chunk (Kharwadi) business. SHG's were strengthened.

Table 2.2.2 Frontline Demonstration conducted on millet-Bajra

Crop	No. of Farmers	Area (ha)	Yield qtl/ha		Increase (%)
			Demonstration	Local	
Bajra	15	6.00	15.30	12.80	19.53%

This variety is popular among the farmer's by adopting training methodologies, shelf life of Bajra flour was increased. This demonstration fetches good economic returns.

2.2.3 Cereals (Rabi Sorghum) During the year Rabi 2023, demonstrations on cereals with an area of 5.2 ha were conducted. R. Sorghum plays an important role in Beed district covering an area of 2 lakh ha. Varietal replacement along with good package of practices plays a pivotal role in increasing the production potentials of R. Sorghum. The main aim of taking these demonstrations are to disseminate the short durational, high yielding cultivars among the farmers. Var. Phule Revati and Phule Vasudha were demonstrated. Var. Phule Revati is a totally irrigated variety where as Phule Vasudha is a rain fed variety. Seeds were treated with Sulphur, Thimethoxim and bio fertilizers for control of Smut, shoot fly etc. A new intervention was developed by KVK that cultivation of R. Sorghum on drip irrigation method. Microlla, Sagarika, Nano-urea, 0:0:50 and 19:19:19 were given at regular intervals on critical growth stages of the crop. Vaibhav sickles were used for cutting of R. Sorghum. Fodders quality is not good as compared to local kadabi stalks but grain production is four fold against local checks. 28.92% increases in the yield over local practice.

Table 2.2.3. Demonstration on cereals-Rabi Sorghum

Crop	No. of Farmers	Area (ha)	Yield qtl/ha			Increase (%)
				Demonstration	Local	
R. Sorghum	13	5.2	Grain	15.60	12.10	28.92%
			kadabi	925	825	

In villages women SHG's were developed for promotion of processing and value addition on R. Sorghum and "Jwarishev" is a new initiative developed by our KVK, and became popular nowadays.

2.2.4 Wheat: In the Rabi 2023, 10 demonstrations covering an area of 4 ha were conducted at nearby adopted villages, wheat as a staple food plays an important role in Rabi planning. At every farmer some area is reserved under wheat crop. KVK in collaboration with ARC- Niphad (MPKV- Research center) developed a good linkage for wheat producing farmers. Var. Phule Anupam is new promising cultivars was demonstrated against age old varieties, seed treatment was completed with Thimethoxim and Fungicide with bio-fertilizers Nano-urea was used with wsf fertilizers. 10:26.26 was used as a basal dose. Secondary nutrients were applied. Nowadays changing environmental conditions results into empty ear heads of the

crop. Grain filling is hampered. The wheat variety Phule Anupam (NΓAW-3624) resistant to leaf and stem rust and aphids and also have good chapatti quality. Attractive long grains with grain appear score of 8-2. Duration is 116-120 days. By varietal replacement with good agronomic practices, 29.51% yield was increased.

Table 2.2.4 Frontline Demonstration on Wheat crop in Beed district of Maharashtra

Crop	No. of Farmers	Area (ha)	Yield qtl/ha		Increase (%)
			Demonstration	Local	
Wheat	10	4.00	38.40	29.65	29.51

This variety was found suitable for value addition and processing and hence good source for women SHG's as a raw material for vermicelli making.

2.2.5 Gum production from Babool: Farmers are getting income from their crops only. There should be additional source of income for their livelihood. In Marathwada region the Babool plants are abundant, they grow naturally in the road side, hilly track, bunds of farm. By injecting a particular concentration solution of ethephon to Babool trunk in the month of Feb-March. It induces plant to ooze the gum which has good market value. So that the trial was conducted.

2.2.6 To increase yield of chilly INM trial was planned. In this demonstration w/s fertilizers were used. As results yield of green chilly increased by 32%.

2.2.7 As there is high acceptance of local purple color garlic, we have introduced the Phule Purple variety of garlic. The variety shows results by increasing yield by 44% over local desi variety.

S.No.	Crop	No. of Farmers	Area	Demo.	Local	% increased
1	Gum production	10	1.0	300gm	0	--
2	INM in chilly	10	1.0	186	140	32%
3	Garlic- Phule Nilima	10	0.5	65	45	44%

2.2. 8 Frontline Demonstrations conducted on Integrated Pest Management in Cotton:

Cotton is major crop of the farmers in the District Beed. Cotton crop is attacked by number of insect pests. Among them, sucking pest aphids, jassids, thrips and white fly are major pest but from few years pink bollworm have cause huge losses of cotton crop. Hence, present investigation was conducted on 10 farmers field at Davnapur, Taluka Parali, District Beed in order to study the effect of IPM strategy in management of insect pest of Cotton. Trial consists of two treatments *viz*., T-1 (Farmers practice *i.e.* use of different insecticides only), T-2 (use of yellow and blue sticky traps @ 25/acre & pheromone trap @ 05 traps/acre, spraying of Azadiractin 10000 ppm @ 1ml/liter of water and Thiamethoxam+ Lambda cyhalothrin @ 3 ml/Liter of water). The major parameters included in the study were Percent damage bolls, grain yield (q/ ha.) Cost of cultivation (Rs/ha.), Gross return (Rs/ha.), net returns (Rs/ha), B:C ratio.

The results revealed that damage on bolls was reduced from 26.5 to 12.80%, yield 18.40 over 12.75 q/ha., cost of cultivation was 67950 over 55250Rs/ha, Gross return 128800 over 89250 Rs/ha., net returns 60850 over 34000 Rs/ha and B:C ratio.1.89 over 1.61 over control respectively. Thus, from the present study, it can be concluded that IPM is an appropriate and effective way to manage the pest.

Table. 2.2.8 Effect of IPM on major insect pest of Cotton

S. No.	Parameter	T-1	T-2
1	Damage bolls (%)	26.50	12.80
2	Cotton yield q/ ha.	12.75	18.40
3	Cost of cultivation (Rs/ha.)	55250	67950
4	Gross return (Rs/ha.)	89250	128800
5	Net returns (Rs/ha)	34000	60850
6	B:C ratio	1.61	1.89

2.2.9 Frontline Demonstrations on Management of Gummosis in Kagzi lime:

Kagzi lime cultivation in Beed district is facing numerous production constraints including diseases caused by fungal, viral and few bacterial pathogens right

from nursery level to bearing stage resulting in considerable losses. Among them Gummosis, *Phytophthora spp*. is one of the factors responsible for yield losses. Due to infected seedlings from nursery, excessive irrigation, water logging, flood irrigation brings contact of tree trunk with water, *etc* are causes of spread of Gummosis and causes loses in yield.

Hence, present investigation was conducted on 10 farmer's field at Mandawa, Taluka Parali, District Beed in order to study the effect of Integrated disease management strategy on Kagzi lime. Trial consists of two treatments *viz*., T-1 (Farmers practice *i.e.* use of different fungicides only), T-2 (use of Biomix as per need, application of Bordo pastes twice a year, use of Metalaxyl 4% + Mancozeb 64% at regular interval). The major parameters included in the study were per cent infestation of plant, grain yield (q/ha.) Cost of cultivation (Rs/ha.), Gross return (Rs/ha.), net returns (Rs/ha), B:C ratio.

The results revealed that percent infestation of plant was reduced from 31.50 to 15.50%, yield 8.07 over 5.69 ton/ha., Cost of cultivation was 70937 over 59986Rs/ha, Gross return 121046 over 85415 Rs/ha., net returns 50108 over 25429 Rs/ha and B:C ratio.1.71 over 1.42 over control respectively. Thus, from the present study, it can be concluded that IDM is an appropriate and effective way to manage the disease.

Table. 2.2.9 Effect of IDM on Gummosis in Kagzi lime

S. No.	Parameter	T-1	T-2
1	Infestation of plant (%)	31.50	15.50
2	Yield q/ ha.	5.69	8.07
3	Cost of cultivation (Rs/ha.)	59986	70937
4	Gross return (Rs/ha.)	85415	121046
5	Net returns (Rs/ha)	25429	50108
6	B:C ratio	1.42	1.71

2.2.10 Integrated Pest Management in Chickpea: Chickpea is major crop in Rabi season of Marathwada rainfed region. The major pest of Chickpea is Chickpea pod borer, *Helicoverpaarmigera.* Pod borer defoliate the whole plant, especially during the pod formation stage. The young grubs bore inside the pod by making holes and then feeding on the developing grains. No gram field is free from its attack. If not managed it can cause huge damage to the crop. So, investigation

was conducted on 10 farmer's field at Bansarola, Taluka Kej, District Beed in order to study the effect of IPM strategy in management of insect pest of Chickpea. Trial consists of two treatments *viz*., T-1(Farmers practice *i.e.* use of different insecticides only), T-2 (use of pheromone trap @ 05 traps/acre, spraying of Azadiractin 10000 ppm @ 1 ml/liter of water and at Peak incidence Chlorantraniliprole @ 3 ml/Liter of water). The major parameters included in the study were Moth catches/trap, yield (q/ha.) Cost of cultivation (Rs/ha.), Gross return (Rs/ha.), net returns (Rs/ha), B:C ratio.

The results revealed that Moth catches/trap were increased from 5.20 to 14.30, yield 14.63 to 19.88 q/ha., Cost of cultivation from 43937 to 46437 Rs/ha, Gross return 73125 to 99375 Rs/ha., net returns 29187 to 52937 Rs/ha and B:C ratio.1.67 to 2.14 respectively. Thus, from the present study, it can be concluded that IPM is an appropriate and effective way to manage the Chickpea pod borer.

Table 2.2.10 Performance of IPM on major insect pest of Chickpea in Beed District of Maharashtra

S. No.	Parameter	T-1	T-2
1	Moth catches/traps (No.)	5.20	14.30
2	Yield (q/ ha.)	14.63	19.88
3	Cost of cultivation (Rs/ha.)	43937	46437
4	Gross return (Rs/ha.)	73125	99375
5	Net returns (Rs/ha)	29187	52937
6	B:C ratio	1.67	2.14

2.2.11 Effect of probiotic feeding on milk production in cattle

The Frontline demonstrations on 10 farmer's field were conducted to demonstrate the effect of probiotic feeding on milk production in cattle. Probiotics have the ability to enhance intestinal health by stimulating the development of a healthy microbiota, increasing digestive capacity, lowering the pH and enhance nutrient absorption in order to improve production. The cow selected for demonstration on the basis of average daily milk yield and stage of lactation (early to mid-lactation). The lactating cows were fed with basal diet comprising of green fodder, dry fodder and concentrates individually to meet maintenance and production requirement. The each cow were fed with basal diet of 5 kg Sorghum straw, 20 kg green maize fodder, 1 kg concentrate for maintenance and 1 kg concentrate for each 3 liters milk production per day. The lactating cows (T_1 – control practice) fed with only basal diet, T_2 (demonstration practice) with basal diet plus 20 gm probiotics per day. The probiotic consists of two strains of bacteria (*Lactobacillus acidophilus* and *Propionibacterium frendenreichii*) and fungi (*Saccharomyces cerevisiae*, *Saccharomyces boulardii*) each along with sea weed powder. The important parameter studied were milk yield

(L/anim./day), cost of production, gross return, net return and B:C ratio. The study revealed that the milk yield of lactating cow (L/anim./day) was recorded 6.5 in farmers practice while 7.5 in demonstration practice. The supplementation of probiotic powder in lactating cow resulted in increased milk yield. Along with this, the higher gross return, net return and B:C ratio observed in demonstration practice as compared to control practice. Therefore, it is recommended to feed 20 gm probiotics with basal diet in lactating cow.

Table 2.2.11 Effect of probiotic feeding on milk production

Sr. No.	Parameters	Control practice	Demo practice
1.	Milk yield L/anim./day	6.5	7.5
2.	Total cost of production (Rs/livestock/year)	39995	41250
3.	Gross returns (Rs/livestock/year)	74100	85500
4.	Net returns (Rs/livestock/year)	34105	44250
5.	B:C ratio	1.85	2.07

2. 2.12 Hybrid Napier variety 'Phule Gunwant' for quality green fodder

The Frontline demonstrations on 10 farmer's field were conducted to demonstrate the effect in hybrid Napier 'Phule Gunwant' on milk yield and milk economics. This fodder will prove to be a better option under Beed conditions because of its perennial nature, profuse tillering habit, high yield, palatability, nutritional value, free from spines and suitability for silage making than other forage crops.

The Marathwadi buffaloes selected for demonstration on the basis of their average daily milk yield and stage of lactation (early to mid-lactation). The lactating buffaloes were fed with basal diet comprising of green fodder, dry fodder and concentrates individually to meet maintenance and production requirement. The lactating buffalo (T_1 – control practice) fed with local hybrid Napier and T_2 (demonstration practice) with hybrid Napier 'Phule Gunwant'. The important parameter studied were milk yield (L/anim./day), cost of production, gross

return, net return and B:C ratio. The study revealed that the milk yield of lactating buffaloes (L/anim./day) was recorded 4.3 in farmers practice while 4.9 in demonstration practice. The feeding of hybrid Napier 'Phule Gunwant' in lactating buffaloes resulted in increased the milk yield. Along with this, the higher gross return, net return and B:C ratio observed in demonstration practice as compared to control practice. Therefore, it is recommended to feed hybrid Napier- 'Phule Gunwant' as green fodder in dairy buffaloes.

Table 2.2.12 Effect of hybrid Napier – 'Phule Gunwant' feeding on milk yield

Sr. No.	Parameters	Control practice	Demo practice
1.	Milk yield L/anim./day	4.3	4.9
2.	Total cost of production (Rs/livestock/year)	36195	32950
3.	Gross returns (Rs/livestock/year)	58050	66150
4.	Net returns (Rs/livestock/year)	21855	33200
5.	B:C ratio	1.60	2.00

2.2.13 Effect of mineral lick bricks supplementation on goat production

The Frontline demonstrations on 10 farmer's field were conducted to demonstrate the effect of mineral lick bricks supplementation on goat production. Mineral lick brick is useful in goat rearing due to ensuring goat get the daily minerals they need, act as buffer for sub clinical ruminal acidosis, provides electrolytes in stressed animals, increasing fertility and encouraging reproduction, promoting strong growth and development in goats. The demonstration conducted on those farmers unit those rearing 5 to 10 Osmanabadi goats. The goats in control practice provide diet which comprising of only green, dry and concentrate as per requirement. In demonstration practice, mineral lick bricks supplementation given to goat along with basal diet in shed. For *ad libitum* supplementation, 2 to 3 mineral lick bricks kept hanging on proper height in shed to lick by goat and kids.

The important parameter studied were live body weight gain, cost of production, gross return, net return and B:C ratio. The study revealed that the body weight gain of kids at 9 month of age was recorded 22 kg in farmers practice while 25.5 kg in demonstration practice. The supplementation of mineral lick brick in goats resulted in higher body weight gain. Along with this, the higher gross return, net return and B:C ratio

observed in demonstration practice as compared to control practice. Therefore, it is recommended to provide mineral lick brick supplementation in goat rearing in order to obtain good profit.

Table 2.2.13 Effect of mineral lick bricks supplementation on goat production

Sr. No.	Parameters	Control practice	Demo practice
1.	Live weight gain at 9 month of age (kg/kid)	22	25.5
2.	Total cost of production (Rs/kid)	3580	3650
3.	Gross returns (Rs/kid)	7700	8925
4.	Net returns (Rs/kid)	4120	5275
5.	B:C ratio	2.15	2.44

2.2.14 Rearing of improved backyard poultry breed 'Grampriya' for additional income

The Frontline demonstrations of improved backyard poultry breed 'Grampriya' on 10 farmer's field were conducted for additional income. Grampriya is improved backyard chicken breed developed by Project Directorate on poultry, Hyderabad. The female birds can produce 180 eggs in one year of production. Birds are morphologically resembles to native chicken. It is suitable for backyard farming, having attractive feather pattern, moderate body weight, longer shanks, brown shell egg and lower predator threat. In demonstration practice, 30 chicks of Grampriya were reared by each farmer whereas in control practice 30 Giriraj birds. The uniformity was maintained in feeding and manage mental practices as much as possible. Chicks were maintained in shed which was previously cleaned and disinfected. The feeders and drinker were fixed in such a way that the chicks were able to eat and drink conveniently. Feed and water were supplied *ad libitum* to the poultry throughout the year. The proper vaccination program was followed by each farmer for prevention of poultry diseases. The data of egg production is recorded regularly from farmers. The data collected from demo practice and control practice was compared. Results showed that egg production (No./year) of Grampriya in demo practice was 148 white it was 102 in control practice. The higher gross return, net return and B:C ratio observed in demonstration practice as compared to control practice.

Table 2.2.14 Performance of poultry breed – Grampriya

Sr. No.	Parameter	Control practice	Demo practice

1	No. of eggs/bird/year	102	148
2	Cost of production (Rs./bird)	756	809
3	Gross Return (Rs./bird)	1170	1630
4	Net returns (Rs./bird)	414	821
5	B: C ratio	1.54	2.01

2.2.15 Nutrition Kitchen Garden

As per RDA daily intake of vegetables should be 300 gm/person including roots and tubers, green vegetables while it was very low in rural areas. Due to poor economic condition, they are unable to purchase fruits & vegetables from market for their daily dietary need. It results in poor health & imbalance nutritional status.

So, to ensure proper intake of vegetables made an effort to establish Kitchen in the farmer's field under Front Line Demonstrations. Front line demonstration on nutritional garden have been given to 100 farm women, before conducting this demonstration pre training programs were conducted for farm women in the villages of Ambajogai, Kaij, Dharur, blocks with total female participants of 100.After the training kitchen garden kit containing seeds seasonal vegetables having a combination of fruits, roots and tuber, leafy vegetables were distributed.

Table 2.2.15 Performance of nutrition kitchen garden

Name of specific technology/skill transferred	No. of participants	% change in yield	Change in income (Rs.)	
			Before (Rs./1R)	After (Rs./1 R)
Nutrition kitchen garden	100	55	3800	4760

Average income by local practice was Rs. 3800/- but increased by adopting nutrition kitchen garden i.e. 4760/- net. It is also seen that there are many social benefits that have emerged from kitchen gardening practices, better health and nutrition, increased income, employment, food security within the household, and enhance in community social life.

2.2.16 Use of solar conduction dryer to minimize post-harvest losses of fruits and vegetables

Drying is one of the easiest and most convenient methods of preservation of food material for a longer period. This process involves removing surplus water from a product in order to acquire a specific moisture content. Different agricultural products tend to have a moisture content between 70 and 90%. The process of drying allows food to be preserved and stored for an extended period of time without deterioration of quality. Solar drying is gaining more attention due to several advantages such as it operates on solar (renewable) energy. This FLD conducted on 10 farm women at Village Sindhi Tq Kaij. Result seen that solar dryer reduces drying time. It has zero impact on the environment. Solar systems are renewable, economical, and easy to operate. It reduces the postharvest losses and provides easiness in storage, transport and ensures product availability round the year.

Table 2.2.16. Performance of Solar conduction dryer

Name of observations	Demonstration	Check
Drumstick leaves	10 (Hr.)	24 (Hr.)
Fenugreek Leaves	10 (Hr.)	20 (Hr.)
Coriander Leaves	8 (Hr.)	12 (Hr.)
Curry leaves	9 (Hr.)	15 (Hr.)
Spinach	8 (Hr.)	14 (Hr.)
Carrot (Grated)	12 (Hr.)	19 (Hr.)
Onion	10 (Hr.)	17 (Hr.)
Okra	8 (Hr.)	16 (Hr.)
Tomato	10 (Hr.)	16 (Hr.)
Beet root (Grated)	12 (Hr.)	20 (Hr.)
Other vegetables (Tomato, Brinjal) (days)	9 (days)	4

It provides additional income to the farm women. Drying of fruits and vegetables by direct sun drying found a slow process and may lead to the inferior quality product due to contamination.

2.2.17 Demonstration on use of Broad bed furrow planter for planting of soybean:

The frontline demonstrations were conducted during Kharif 2023 on use of broad bed furrow (BBF) planter for planting of soybean in village Bhavthana & Rajewadi Tq. Ambaogai Dist Beed. BBF planter was developed by CRIDA, Hyderabad helps in the preparation of broad bed furrow & simulations planting. There is saving in seed (20%) than traditional method which reduces cost of cultivation. Due to planter seed to seed distance is maintained which result in germination of desired no of plants/ ha. As farmers

used planter crop growth was satisfactory resulting in 15% yield increase. Due to ridger on BBF planter furrow formed helps in water conservation during drought/water stress condition. These furrows helps in drain of the excessive rainfall occurred in short period in climate change condition. Furrows are traditionally using bullock operating tifan which requires more labour (11.76 man/ha/ha) whereas BBF planter requires only 2.51 man/hr/ha. Area covers by BBF planter is 0.4 ha/hr compared to traditional planting of 0.17 ha/hr.

Table 2.2.17 Performance of Broad bed furrow planter in Soybean

Major parameters	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)	Cost reduction (Rs./ha or Rs./Unit etc.)
	Demo	Check		Sowing	Labour
Field capacity (ha/hrs)	0.4	0.17	135.29	1.16	580
Labour required (Man hr/ha)	2.51	11.76	78.65		

2.2.18 Demonstration on use of bullock drawn planter for planting of soybean

The frontline demonstrations were conducted during Kharif 2023 on use of bullock drawn planter for planting of soybean in village Rakshaswadi Tq. Ambajogai Dist Beed. B/D planter was developed by VNMKV Parbhani helps in maintaining seed to seed distance which results in germination of desired no. of plants/ha. Due to use of planter, crop growth was satisfactory resulting in 15% yield. There is saving in seed (20%) than traditional planting method which reduces cost of cultivation. Traditionally farmers used tifan for sowing requires 2 bullock pair with 3 persons. Improved planter operates with one pair of bullock & one person only. It saves extra labour for fertilizer application. Labour required for traditional saving is 12 man/hr/ha whereas for B/D planter. It requires 4 man/hr/ha fertilizer application efficiency was also increased due to this planter than traditional tifan. Hence it is boom in dryland agriculture.

Table 2.2.18 Performance of Bullock drawn planter in Soybean

Major parameters	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)	Cost reduction (Rs./ha or Rs./Unit)
	Demo	Check		Land preparation	Labour
Field capacity ha/hrs	0.20	0.16	25	00	500

Labour required (Man hr/ha)	4	12	66.6		

2.2.19 Demonstration on use of subsoiler for improving soil condition:

The Frontline demonstration was conducted during summer 2023 on the use of subsoiler for improving soil condition. Due to improper tillage and farming practices day by day soil gets compact resulting in increased bulk density of soil in the cultivable area at around depth of 4 to 6 inches. It affects the water holding capacity, infiltration rate, and percolation status and water retention. A hard pan is formed over the period of time, due to tillage continuously at a certain depth of soil. To break the hard pan & improve soil aeration, tractors operated subsoiler is useful. Subsoiler is tractor mounted implement used to loosen, mix and breakup the hard pan. It can break up soil compaction and loosen the soil to almost 45 cm depth. This deeper loosening can increase fissuring which improves aerations and infiltration of water and creates greater volume for the development of roots. It helpful for deep plough. Subsoiler cracks soil after every 4 feet helps in improving subsurface drain system by increasing macro porosity. Moisture availability was also increased helps in increase in yield of next crop.

Table 2.2.19 Performance of Subsoiler in Beed district of Maharashtra

Major parameters	Field observation (output/man hour)		% change in major parameter	Labor reduction (man days)	Cost reduction (Rs./ha or Rs./Unit)
	Demo	Check		Land preparation	Labour
Field capacity ha/hrs	0.21	0.15	135	0.23	115
Labour required (Man hr/ha)	4.6	6.6	78.65		

2.3 Frontline demonstrations conducted by KVK, Gonda (UP) at farmer's field

During the year, a total of 996 demonstrations covering an area of 203.02 ha under cereals, oilseed, pulses and vegetable and spices were organized. Demonstrations (104) were organized to promote the income generating enterprises viz nutritional kitchen garden.

2.3.1 Oilseeds A total of 117 demonstrations were conducted covering about 40 ha on sesame and mustard. The increase in yield was primarily owing to suitable high-yielding varieties and better adoption of good

agricultural practices; soil test-based application of fertilizers; Integrated Pest Management practices against major diseases like phyllody in sesame, and aphids in Mustard. Oilseeds farmers were encouraged for better adoption of Integrated Crop Management covering all the major technological aspects of crop husbandry. The yield of sesame increased up to 64.7% over local practice and Mustard yielded 20.9% higher than local ones.

Table 2.3.1 Frontline demonstrations on oilseeds conducted by KVK, Gonda (UP)

Crop	Variety	No. of farmers	Area (ha)	Average Yield (q/ha)		Increase (%)
				Demo.	Local	
Sesame	Shekhar	33	10	5.6	3.4	64.7
Toriya	Uttara	33	10	3.60	0	
Mustard	Girraj	51	20	18.5	15.3	20.9
Total	**-**	**117**	**40**	**-**	**-**	**-**

2.3.2 Pulses: During the year 2023-24, 135 demonstrations were conducted by KVK Gonda covering 50 ha on major pulse crops, including Black Gram, Pigeon Pea & Lentil. Growing of many high-yielding varieties of these pulses and promoting major technological interventions in the Integrated Crop Management Practices facilitated in realizing higher productivity. The result indicated that the yield of demonstrated crop Black Gram given higher yield 23.5%, Pigeon Pea performed better and gives 20.2% more yield whereas Lentil and yielded 18.2 and 16.7 percent higher yield than local yield respectively.

Table 2.3.2 Frontline demonstrations on pulse crops by KVK, Gonda (UP)

Crop	Variety	No. of Farmers	Area (ha)	Average Yield q/ha		% Increase in yield
				Demo	Local	
Black Gram	Shekhar 2	21	10	12.6	10.2	23.5
Pigeon Pea	NA-2	54	20	20.8	17.3	20.2
Lentil	IPL-316	60	20	18.2	15.6	16.7
Total	**-**	**135**	**50**	**-**	**-**	**-**

2.3.3 Cereals: Total number of 35 demonstrations in 14 ha in wheat were conducted at Gonda district during the year 2023-24, achieving an average increase of about 21.7% in wheat. The increase in

productivity in cereal crops was mainly due to dissemination of short duration high yielding varieties and popularization of the latest technologies and balanced nutrient management.

Table 2.3.3 Frontline demonstrations on Cereal crops by KVK Gonda (UP)

Crop	No. of farmers	Area (ha)	Average Yield (q/ha)		Increase (%) in Yield
			Demo.	Local	
Wheat DBW-187	35	7	44.61	36.63	21.7
Total	**35**	**7**	**-**	**-**	**-**

2.3.4 Horticultural crops: In horticultural crops comprising vegetables and spices 28 demonstrations on 1.5 ha area were conducted in Gonda District of Uttar Pradesh. The increase in yield in horticultural crops resulted due to manifold interventions like high-yielding varieties and good cultural and management. Chili KA-2 perform better and yield is collected and calculated.

Table 2.3.4 Frontline demonstrations on Horticultural crops by KVK, Gonda (UP)

Category & Crop	Name of the variety	No. of Farmers	Area (ha)	Average Yield (q/ha)		% Change in Yield
				Demo	Check	
Chilli	KA -2	28	1.5	182.0	149.0	22.1

2.3.5. Home Science (Household food security) To popularize vegetable cultivation and nutritional security 265 kitchen garden were established at 5 locations during Kharif and Rabi season. Despite of all season vegetable availability for family member they are also earning money and help others.

Table 2.3.5 Frontline Demonstrations on Nutritional Kitchen garden by KVK, Gonda (UP)

Activities	Package	No. of farmers	Area (ha)	Average Yield (q/ha)		% Change in Yield
				Demo	Check	
Kitchen gardening Kharif & Rabi	Vegetable	265	200 sqm	378	257	47.08

2.3.6 Livestock: 14 Demonstrations were conducted. The milk yield of buffalo also increased 1 lit/day by feeding green forage.

Enterprise	Breed	No. of farmers	No. of animals, poultry birds/ha. etc.	Average Yield (q/ha)		% Change in Yield
				Demo	Check	

Oat	JHO-2000-4	14	1	468	389	20.3

2.3.7. Frontline Demonstrations conducted on Farm Implements and Machinery by KVK Gonda (UP)

Name of the implement	Crop	Technology demonstrated	No. of Farmer	Area (ha)	Major parameters	Field observation (output/man hour)		% change in major parameter
						Demo	Check	
Laser guided land leveler	Paddy (hy)	Precision leveling of land	127	28	Water saving hr/ha	17	23	38.88
					Yield q/ha	55.4	52.1	6.33
Super seeder	Wheat HD-2967	Sowing of wheat without field preparation	132	53	Seed rate kg/ha	100	125	25
					No. of tiller /hill	30-35	25-28	20-25
					No. of weeds/ sqm	100-125	150-200	50-60
					Yield q/ha	47.5	40.8	16.42
Raised bed planter	Pigeon Pea	Sowing of pigeon Pea on raised bed	118	22	Seed rate kg/ha	10	12.5	25
					No. of plant damage/sqm	1-2	4-5	60-75
					No. of branch /plant	40-45	30-35	28-33
					Yield q/ha	23.3	16.5	41.21

2.4 Frontline demonstrations conducted by KVK, Chitrakoot (UP)

During the year, a total of 326 demonstrations covering an area of 109.02 ha under cereals, oilseed, pulses and vegetable and spices were organized. Demonstrations (104) were organized to promote the income generating enterprises viz nutritional kitchen garden, backyard poultry, Piggery and Fisheries.

2.4.1 Oilseeds A total of 37 demonstrations were conducted covering about 13.6 ha on sesame and mustard. The increase in yield was primarily owing

to suitable high-yielding varieties and better adoption of good agricultural practices; soil test based application of fertilizers; Integrated Pest Management practices against major diseases like phyllody in sesame. Oilseeds farmers were encouraged for better adoption of Integrated Crop Management covering all the major technological aspects of crop husbandry. The yield of sesame increased up to 38.12% over local practice and Linseed yielded 25.65% higher than local ones.

Table 2.4.1 Frontline demonstrations on oilseeds conducted by KVK, Chitrakoot (UP)

Crop	Variety	No. of farmers	Area (ha)	Yield (q/ha)		Increase (%)
				Demonstration	Local	
Sesame	GT-6, Sulpher @ 25 kg/ha	15	4.8	5.87	4.25	38.12
Linseed	JL-79	22	8.8	12.54	9.98	25.65
Total		37	13.6			

2.4.2 Pulses: During the year 2023-24, 273 demonstrations were conducted covering 79.11 ha on major pulse crops, including Green Gram, Pigeon Pea, Black Gram and Lentil. Growing of many high-yielding varieties of these pulses and promoting major technological interventions in the Integrated Crop Management Practices facilitated in realizing higher productivity. The result indicated that the yield of demonstrated crop Green Gram gives 31.90% higher yield than farmers practice, Pigeon Pea performed better and gives 28.44% more yield whereas Lentil and Black Gram yielded 23.13 and 34.23 percent higher yield than local yield respectively.

Table 2.4.2 Frontline Demonstrations on Pulses conducted by KVK, Chitrakoot (UP)

Crop	Variety	No. of Farmers	Area (ha)	Demonstration		% Increase in yield
				Average	Local	
Green Gram	IPM2-3	107	29.2	7.36	5.58	31.90
Pigeon Pea	IPA-203	89	27.68	17.34	13.5	28.44
Black Gram	IPU13-1	29	9.0	6.47	4.82	34.23
Lentil	IPL316	48	18.5	15.76	12.80	23.13
Total		273	79.11			

2.4.3 Cereals: A total of 21 demonstrations in 4.2ha in major cereal crops like rice and wheat were conducted during the year, achieving an average increase of about 25.75% in rice to 22.14% in wheat. The increase in productivity in cereal crops was mainly due to dissemination of short duration high yielding varieties and popularization of the latest technologies and balanced nutrient management.

Table 2.4.3 Frontline demonstrations on cereal crops conducted by KVK, Chitrakoot (UP)

Crop	No. of farmers	Area (ha)	Yield (q/ha)		Increase (%)
			Demonstration	Local	
Rice Pusa 2511	15	3.0	40.75	32.45	25.57
Wheat HD 2967	6	1.2	43.36	35.5	22.14
Total	**21**	**4.2**			

2.4.4 Horticultural crops:

In horticultural crops comprising vegetables and spices 50 demonstrations on 4.64 ha area were conducted. The increase in yield in horticultural crops resulted due to manifold interventions like high-yielding varieties and good cultural and management. Arka Rakshk, Kashi Abhiman variety of tomato yield data is awaited because crop is standing in field. Onion NHRDF-4 and Pusa Ridhi Demonstrated at farmers' fields but yield data is still awaited. Chili AM-1 perform better and yield is collected and calculated. The vegetable Pea variety AP-3 performed good at farmer's field and gave better yield than local varieties.

Table 2.4.4 Frontline demonstrations on horticultural crops conducted by KVK, Chitrakoot (UP)

Category & Crop	Name of the variety	No. of Farmers	Area (ha)	Average Yield (q/ha)		% Change in Yield
				Demo	Check	
Tomato	K. Aman, K Abhiman	12	1.0	RA		
Onion	NHRDF R-4, Pusa Riddhi	06	0.44	199.16	174.11	14.38
Chilli	AM-1	09	0.36	RA		
Veg. Pea	AP-3	22	2.56	92.02	85.9	7.12
Total		**49**	**4.36**			

2.4.5 Nutritional kitchen gardening: To enhance the consumption of nutritious vegetables in daily diet of farm family, nutrition kitchen gardens were established at 50 homestead of 50 farm families by including leafy, fruit and tuber crops. Proper layout and planning of 200 m2 area was done for year round production of vegetables. Farm women have been able to harvest and meet their vegetable requirement, selling the surplus in the nearby market. Thus helping them to earn.

Table 2.4.5 Frontline demonstrations on Nutritional Kitchen garden conducted by KVK, Chitrakoot (UP)

Activities	Package	No. of farmers	Area (ha)	Average Yield (kg/ha)		% Change in Yield
				Demo	Check	
Kitchen gardening Kharif	Vegetable	50	1.0	163.7	95.50	
Rabi	Vegetable	50	1.0	86.44	50.00	72.88

2.4.6 Livestock: 12 Demonstrations were conducted covering dairy animals, goat and fish farming. Lalitpuri buck provided to farmers for breed upgradation to local herds. For year-long availability of green fodder to animals oat were provided to 10 farmers and they are able to get green fodder yearlong. The milk yield of buffalo also increased 1.75 lit/day by feeding green fodder and also comes in heat within 3-4 month after calving.

Table 2.4.6 Frontline demonstrations on Livestock conducted by KVK, Chitrakoot (UP)

Enterprise	Breed	No. of farmers	No. of animals, poultry birds/ha. etc.	Average Yield (q/ha)		% Change in Yield
				Demo	Check	
Goat	Lalitpuri	2	2	14	-	100
Oat	Kent	10	0.4	620.11	487.00	27.33

2.4.7 Fisheries A field demonstration was conducted on fish farming on feeding of stocked fishes with farm made feed. Fish Feed is one of the major component of fish production. KVK Chitrakoot conducted front line demonstration of farm made fish feed at 3 farmer's field in 3.2 ha area. The result shows that the yield was 18.39% higher than local practice only after 3 month feeding. Feed composed of 50% rice bran+50% Mustard oil cake and 1% Mineral powder and feed @ 2% body wt.

Table 2.4.4 Frontline Demonstrations on fish farming conducted by KVK, Chitrakoot(UP)

Enterprise	Component	No. of farmers	Area(ha)	Average Yield (q/ha)		% Change in Yield
				Demo	Check	
Fish farming	Farm made feed	3	3.2	13.20	11.15	18.39

3. Research Innovation:

3.1 Evaluation of New Varieties of Crops for their growth and yield characteristics in Satna District of MP.

Table 3.1: Promising New Varieties introduced in the District

Cereal Crops		Varietal characteristics
Rice	Jawahar Rice 10 (JR10)	Suitable for early to medium duration planting during Kharif season, recommended for entire rice growing areas of MP, average yield 50-55 q/ha, maturity 120 days; farmers can grow lentil/Chickpea after the harvest of this variety, moderately tolerant to most of the diseases including blast & blight
	Pant Dhan 28 (PD10)	High yield potential, excellent cooking quality and moderate resistance to diseases. Duration 128-130, Average yield 56-60 q/ha
Black Gram	PU 12	Duration 75-80 days, Yield 10-12 q/ha, Smooth pods, tolerant to MYMY, PM, Bold seeded
	PU 10	Duration 80-85 days, Yield 12-13 q/ha, Resistance to MYMV, ULCV and CLS disease
	PU 9	Duration 80-85 days, Yield 10-11 q/ha, Resistance To MYMV, CLS and PM
Green Gram	IPM 410-1 (Shikha)	Duration 65-70 days, Yield11-12 q/ha, Suitable for summer and spring seasons, resistant to MYMV
	IPM 205-7 (Virat)	Duration-52-56 days and yield 10-11 q ha, Resistant to MYMV, Suitable for summer

Pigeon Pea	Pant Arhar 6	Suitable for rain fed and irrigated conditions of Kharif season, average yield 16.7 q/ha, protein content 25.87%, maturity 151 days, resistant reaction for phythopathora stem blight, resistant to wilt and sterility mosaic diseases, moderately resistant to pod borer (Helicoverpa), Maruca and Apionclavipes and Bruchid.
	Pant Arhar 7	Matures in about 132 days and each pod contains 3–5 medium-sized yellow-brown seeds. The average grain yield is 16-17 q/ha
Soybean	NRC 128	Duration-92 days, yield-15-16 q/ha, Oil 17.8%, Purple Flower, Yellow hilum with a spot over it, Glabrous pods, MR to charcoal, TLS & Pod Blight (ct)
Wheat	DBW 303 (Karan Vaishnavi)	Duration145-150 days, Yield 75-80 q/ha, it has a good chapati score and is highly resistant to black and yellow rust
	DBW 332 (Karan Aditya)	Duration150-155 days, Yield 75-80 q/ha, highly resistant to Karnal bunt, Powdery mildew, loose smut and foot rot, Yellow, Brown and Black rust
	DDW 55 (Karan Manjiri)	Duration112-120, Yield 55-57 q/ha, suitable for restricted irrigation, timely sowing, Duram, Heat tolerant, resistance to brown and black rusts, Kernel bunt and insect pest.
	JW 3465	Duration120-125, Yield 60-65 q/ha, suitable for cultivation under timely sown, rain fed conditions. resistant to yellow, black and brown rust
	K 1616	Duration120-125, Yield 50-55 q/ha, suitable for cultivation under timely sown, rain fed conditions. resistant to yellow, black and brown rust
Barley	DWRB 137	Maturity duration 115 days and yield 42-45 q/ha. Lodging tolerance, resistant reactions for yellow, brown strip rusts. High protein content (12.7%), good malting quality
	DWRB 182	Duration 120-125 days, average yield 49 q/ha and Potential yield 74.5 q/ha, two-row malt barley variety
Mustard	DRMR 1165-40 (2018)	Maturity duration 135-150 days and yield 22-25 q/ha. Timely sown rain fed condition, Oil Content: 40-42.5% Heat tolerant at seedling stage and moisture stress tolerant.
	RH725 (2018)	Maturity duration 120 -125 days and yield 25-26 q/ha. Bold seeded siliqua, oil content 40%
	RH761 (2019)	Maturity duration 125-130 days and yield 26 -27 q/ha. Long raceme having long siliqua, oil content 40%
Chickpea	JG 24	Duration 105-110 days, yield 18-20 q/ha, Light yellow brown colour large attractive seed, resistant to wilt and dry root rot disease, best for irrigated condition, good for mechanical harvesting
	RVG 204	Duration-112-115, average yield 19.8 q/ha, Tolerant to wilt. Amenable to machine harvesting, (Desi type variety). Suitable for timely sown conditions and amenable to machine harvesting, desi type, tolerant to wilt
Lentil	IPL 534	Duration 100-107 days, yield 15-16 q/ha, Resistant to rust and Fusarium wilt. Tolerant to black aphid and pod borer
	RVL 11-6	Duration-107-113 days, yield-15-16 q/ha, large seeded, wilt resistant

3.2 Evaluation of different genotype of wheat crop in Gonda district of UP

Wheat (*Triticum aestivum*L.) is a staple food of the India, and the most widely cultivated cereal crop in the district. It finds a major place in both time meals of common population in the district. As a result of

technological innovation, the average productivity of wheat has increased from 1.23 tons per hectare to 3.18 tons per hectare. This phenomenal increase in production is due to large scale adoption of high yielding varieties. The studies for evaluation of different 46 varieties of wheat crop have conducted at KVK farm. These varieties collected from different Institutes. The size of plot is 3.5 x 3.2 meter. The soil of the experimental field was sandy soil in texture having low nitrogen, phosphorous and medium in potassium with soil pH 7.5. Each wheat variety was sown in rows at 22.5 cm apart during last week of November, resulted that the maximum yield was recorded. In DW303 (60 q/ha) and K402 (55.04 q/ha) followed by K402 (55.05 q/ha) & Unnat PBW550 (51.90 q/ha), however variety HD 3226 recorded lowest yield (39.66 q/ha) as compared to other varieties during the evaluation year. The variety DBW 303 recorded maximum crop yield due to more numbers of tillers and yield attribute characters and also favorable climatic condition enhance crop yield of this variety during 2023-24 at instructional farm of LBS KVK Gonda.

Table 3.2 Performance of different varieties of wheat in Gonda District (UP)

Varieties	Yield kg/plot	Yield kg/ha
Timely sown condition Wheat		
HD3406	0.585	4834
HD3369	0.574	4743
HD3086	0.609	5033
HD3237	0.558	4611
HD3226	0.480	3966
HD2967	0.567	4685
DBW222	0.564	4661
DBW303	0.726	6000
DBW332	0.492	4066
DBW187	0.612	5057
DBW17	0.542	4479
DBW252	0.612	5057
PBW154	0.475	3925
Unnat PBW550	0.628	5190
Unnat PBW343	0.614	5074
PBW343	0.491	4057
PBW502	0.548	4528
K-1317	0.512	4231
K-607	0.554	4578
K-402	0.666	5504
K-1006	0.57	4710
NW-5054	0.61	5041
WB02	0.51	4214

DPW621-50	0.584	4826
HI1544	0.578	4776
KUNDAN	0.607	5016

3.3 Evaluation of Mustard varieties in Gonda District (UP)

Evaluation studies of seven varieties of mustard crop have done at KVK, center. These varieties procured from different research organizations of India. The size of plot is 3.5x3.2 meter. The sowing was performed during 2nd week of Nov 2023, crop yield was recorded. Mustard variety PM 32 gave significantly higher (23.03 q/ha) yield then PM 33 varieties (15.74 q/ha) and others, which was superior over to other collected varieties. Maximum yield was found may be due to higher crop canopy, branches, no. of flower and bold seed size and also favorable climatic situation increased crop yield, however lowest yield was obtained under PM 28 (11.38 q/ha) during the experiment.

Table 3.3 Performance of different varieties of Mustard in Gonda District (UP)

Crop	Varieties	Yield kg/plot	Yield kg/ha
Mustard	PM25	2.002	1291
	PM27	1.817	1172
	PM28	1.765	1138
	PM30	2.146	1384
	PM32	3.57	2303
	PM33	2.441	1574
	Giriraj	1.926	1242

3.4 Evaluation of Lentil varieties in Chitrakoot (UP): KVK, Chitrakoot evaluated the performance of 6 varieties of lentil introduced from different parts of India by conducting a trial in Rabi season 2023-24. Each variety was sown in plot size of 5.0m x4.0 m in 2nd week of Nov 2023. The data recorded on yield revealed that among the six varieties, the lentil variety L-4717 (16.00 q/ha) recorded the highest yield followed by IPL-316 (14.55q/ha) and L-4727 (14.00 q/ha). These varieties showed their superiority over the lentil variety DPL-62 grown by farmers in Chitrakoot district.

Table 3.4. Performance of different varieties of Lentil in Chitrakoot District (UP)

Crop	Varieties	Yield kg/plot	Yield kg/ha
Lentil	L- 4717	3.200	1600
	KBL-2008	2.300	1150
	IPL- 316	3.200	1600
	L-4727	2.800	1400
	DPL-62	2.600	1300

3.5 Performance of Mustard varieties under dry land area in Chitrakoot district (UP)

Eight varieties of mustard crop have been evaluated for their performance under dryland situation of Chitrakoot District. The sowing of these varieties was done on 2nd week Nov 2023. The data recorded on grain yield reveled comparatively higher (17.50 q/ha) yield in Azad Mahak and PUSA Mahak variety (17.00 q/ha) over other tested varieties. Higher yield in these varieties was observed due to increased number of branches, no. of flower and bold seed size. These varieties could also resist the adverse weather condition during the crop growth period.

Table 3.5 Performance of different varieties of Mustard in Chitrakoot District (UP)

Crop	Varieties	Yield kg/plot	Yield kg/ha
Mustard	Pusa Mahak	3.400	1700
	Urvashi	3.400	1700
	PM-30	3.100	1550
	PUSA Bold	3.00	1500
	Azad Mahak	3.500	1750
	Giriraj	2.200	1100
	RH-749	2.200	1100
	Pitambari	2.30	1150

3.6 Evaluation of high yielding varieties of Wheat in Chitrakoot (UP) KVK, Chitrakoot conducted a varietal trial with a view to find the best high yielding variety of wheat for Chitrakoot District. Each variety was sown in a plot size of 5.0mx4.0m. The soil of the experimental field was Marwa heavy soil in texture having low nitrogen, phosphorous and medium in potassium with soil pH 6.8. Crop was sown in rows at

22.5 cm apart during last week of Nov 2023. The data on grain yield was recorded at harvest. The maximum yield was recorded in DBW-187 (42.5 q/ha) followed by HI-2967 (37.00 q/ha) and GW-273 (37.00 q/ha). These varieties were found to be less effected by rising spring temperature during the grain filling stage.

Table 3.6 Performance of different varieties of Wheat in Chitrakoot District (UP)

Crop	Varieties	Yield kg/plot	Yield kg/ha
Wheat	GW-451	5.500	2750
	HI – 1605	6.000	3000
	K-1616	6.700	3350
	GW-273	7.400	3700
	HI-8759	7.000	3500
	HD-2967	7.400	3700
	HD-2932	5.000	2500
	HI-1632	5.600	2800
	K-1006	4.900	2450
	K-1317	5.000	2500
	HI-1544	5.100	2550
	Durum Wheat(Desi)	3.300	1650
	Black Wheat	11.5 (5x8m)	2875
	(DBW 187)	8.500	4250

3.7 Performance of Chickpea crop under Natural, Organic and Chemical farming in Bundelkhand

An experiment was conducted during Rabi season 2023-24 at Krishi Vigyan Kendra, Ganiwan Chitrakoot, to evaluate the performance of Chickpea crop under natural farming, organic farming and chemical farming. Among the three, Maximum grain yield was recorded with Chemical farming technique fallowed by Natural Farming and Organic Farming.

Table 3.7 Comparative study of Natural, Organic and Chemical farming of Chickpea under Bundelkhand Region

Technology	Average Yield (kg/plot)	Grain Yield (kg/ha)	Straw Yield (kg/ha)
Natural Farming	328	1640	1780
Organic Farming	527	2635	2950
Chemical Farming	611	2900	3290

3.8 Demonstration of Fruit-based Multi cropping system for Ensuring Livelihood Security to Small Landholders in Satna District (MP): "Small is beautiful" is a good saying. But it does not appear to be good when it comes to landholdings in agriculture. More than 57.9 per cent of farmers in Satna District own less than one hectare land. Their share of cultivated land is only 19.11 per cent of the total available agricultural land (341257 ha). The cropping system followed by marginal land holders, failed to provide food, nutritional, economic and employment security to these farm families. As a result, these groups of farm families are showing disinterest in farming, quitting farming and are migrating towards cities.

The Bundelkhand region which covers nearly 2.1% of the geographical area of India is characterized by fragile ecosystem. The production system in this region is confronted by several bio-physical constraints, such as low and erratic rainfall, extreme temperature variations as high as 48°C during summer and 2-3°C during winter and increased in the severity of long dry spells. Although, the region receives an average annual rainfall of 767.8 to 1086.7 mm during monsoon, but, due to undulated topography in the upland, most of the rainwater is lost through surface run off resulting in to erosion of the top soil. The uplands are seldom utilized for production of agricultural crops. Thus, under such situation, multiple cropping system integrating suitable crops with fruit trees could be more remunerative as it will not only improve the productivity and profitability of farming but it will also provide fruit, food, fuel and fodder (4Fs) to the farm family. The practice of multiple cropping also permits crop diversification to spread out the risk to more crops, thus, eliminating the dependence of income on a single crop. Therefore, to minimize risk, improve livelihood, ensure high returns from such uplands for small land holders and further, to improve the soil characteristics, perennial fruit plant based multi-storied production system consisting of fruit trees having bigger canopy as main crop, dwarf stature fruit trees as filler tree and annual crops as intercrops could be a most promising technology. The climate of the region is suitable for production of different fruit crops in a pure or agri-horticulture system and further utilization of wide interspaces in between the rows of young trees by growing vegetables, pulses and oilseed crops will not only fetch additional income to the

farmers from their lands till the trees come into commercial bearing, but will also simultaneously improve the condition of soils if leguminous crops are grown as intercrops.

Fruit plants planted at a distance of 3m - 6m X 3m - 6m offer a good opportunity for an effective utilization of the inter space between the plants. Since the maximum effective root zone in newly planted fruit orchard is 2 m^2, 22.22% of the total area is only effectively utilized by a single plant leaving 87.78% available for other crops. Even, during identification of champion farmers for plantation of fruit trees, it was observed that farmers having small landholdings were reluctant to plant fruit orchard in their small piece of land. The information available on Guava based multi storied cropping system is scanty and systematic investigations are required to study the inter-relations and inter effects between various types of intercrops and fruit trees before specific profitable recommendations can be made to growers. The multiple cropping model were demonstrated to farmers to encourage farmers to grow fruit trees and utilize inter space for pulses and vegetable growing under rain fed fruit based production system.

During the first year in 2022, fruit based crop diversification and intensification model (Guava + papaya + Garden Pea + Cabbage) was demonstrated in 500 square meter area at Instructional farm of Krishi Vigyan Kendra, Satna by planting guava at 3m x 3m and planting papaya as filler tree at 1.5m apart between and within the rows of Guava. The left over spaces of over storey component was utilized for growing ground storey crops (Cabbage + Pea crops). Field days were organized to showcase the model to the farmers and farmwomen of villages of project area, so that the model can be replicated to their field during next year. During 2023, fruit based diversification and intensification models comprising of fruit trees and intercrop as pulses/ vegetables/flowers in 500 to 2000 square meter area were demonstrated at 24 farmers' fields. The details regarding number of plants and their arrangements are furnished as under:

Table 3.8(a). Arrangement of over and ground storey components in different cropping systems

Fruit based model	No. of farmers	Component	Crop	Variety	No. of plants	Spacing	Remarks
Guava+ Papaya+ Garden Pea + Cabbage	01	Over Storey Component	Guava	Dhawal/ Shweta	55	3m X3m	Top storey component
			Papaya	Coorg Honey Dew	55	1.5m	Planted in intra-row spacing of aonla as filler
		Ground	Garden	Kashi Smridhi		45cm	Sown in inter-

		storey component	Peas			X10 cm	spaces of Guava plants
			Cabbage	Golden acre		45cm X45 cm	Planted in between rows of garden Pea and inter-spaces of fruit plants
Aonla + Chickpea	06	Over Storey Component	Aonla	NA 7 and Chakaiya		6m X6m	Top storey component
		Ground storey component	Chickpea	RVG 202			Sown in inter-spaces of Aonla plants
Papaya + CowPea	*02*	Over Storey Component	Papaya	Coorg honey Dew		2m X 2m	Top storey component
		Ground storey component		Kashi Kanchan			Sown in inter-spaces of papaya plants
Guava + Black gram	06	Over Storey Component	Guava	Shweta		5m X 5m	Top storey component
		Ground storey component		Pant Urd 40			Sown in inter-spaces of Guava plants
Guava + Papaya + marigold	04	Over Storey Component	Guava	Shweta		5m X 5m	Top storey component
			Papaya	Arka Prabhat			Planted in intra-row spacing of Guava as filler
		Ground storey component	Marigold	Pusa Narangi			Marigold planted in inter-spaces of Guava plants
Lime + Pea	04	Over Storey Component	Lime			5m X 5m	Top storey component
		Ground storey component	Pea	Kashi Nandini			Pea sown in inter-spaces of Lime plants

The performance of the fruit species and their cultivars in respect of plant survival planted during the year 2023 are presented in table 3.8b.

Table 3.8b: Plant survival of different cultivars of fruit species planted during the year 2023

Fruit Species	Cultivar	No. of Plants Planted (no.)	No. of Plants surviving	Plant Survival (%)
Guava	Dhawal	136	116	85.29
	Shweta	841	782	92.98
Aonla	NA 7	784	644	82.14
	Chakaiya	167	132	79.04
Mango	Amarpali	434	353	81.34
	Langra	985	810	82.23
	Dushehari	385	302	78.44
Karonda	Pant Manohar	312	237	75.96
Ber	Thai Ber	194	87	44.85
Bael	Narendra Bael 9	70	32	45.71
Papaya	Coorg Honey Dew	234	187	79.91
	Arka Prabhat	342	263	76.90
Jackfruit	Khwaja	74	57	77.03
Lime	Kagzi Lime	465	402	86.45
Lemon	Thai Lemon	452	378	83.63
Pomegranate	Bhagua	90	82	91.11
Jamun	Raw	14	8	57.14
Passion fruit		40	32	80.00
Chironji	Local	50	31	62.00
Total		**6069**	**4935**	**81.31**

Plant Survival: The survival percentage of plants is one of the important parameters, which determines the adaptability and suitability of a cultivar to a particular environment. The survival percentage among the fruit species and their cultivars was found significantly different. The plant survival ranged from 44.85% in ber cultivar Thai ber to 91.11% in Pomegranate cultivar Bhagua after one year of planting. The highest

percentage of survivability of plants was observed in pomegranate followed by lime and lemon whereas, the lowest survival percentage of plants was observed in Ber and Bael.

3.9 Submerged pitcher system for providing lifesaving moisture to planted fruit trees so as to have good survival of plants: The practice of using submerged pitcher water as a source of irrigation on new fruit plantation is the most economical method for achieving higher survival of plants particularly in wastelands where no assured source of watering are available and rainfall is scanty and erratic. In this system pitcher is placed in pit and the plant is planted close to it. The pitcher is filled with water as and when newly planted sapling require water and particularly during summer month and stone/slate lid is placed on the top. The roots draw moisture from pitcher leading to reduction in the mortality. The pitcher once filled supplies sufficient moisture for at least two weeks and then again it can be filled with water as and when moisture deficit situation arrives.

3.9.1 Demonstration of submerged pitcher system of planting of fruit trees in homestead: To achieve higher survival of fruit plants during the early phase of establishment, submerged pitcher system of planting fruit trees was demonstrated at 341 farm families in 681 fruit plants with 100 per cent plant survival rate.

Table 3.9.1 Details of fruit species planted by submerged pitcher system of planting

Sr.No.	Fruit Plants	Chitrakoot site			Satna site		
		No. of Farm families	No. of Plants	No. of Plants surviving upto November	No. of Farm families	No. of Plants	No. of Plants surviving upto November
1.	Guava	15	35	35	91	180	180
2.	Lime	12	29	29	80	155	155
3.	Mango	15	40	39	110	165	165
4.	Aonla	15	43	40	3	38	38
5.	Jackfruit	13	42	35	7	7	7
	Total	**57**	**147**	**143**	**284**	**538**	**538**

3.10 A study on the health and nutritional status of Mawasi tribal women in selected villages of Chitrakoot region in Madhya Pradesh: A female's health status has a significant effect on the health and well-being of the whole family. Maternal morbidity and mortality affect not only the mother but the entire family. Most often, women not only shoulder the responsibility of home management and child care, but are also actively involved in economically gainful employment outside the household or even contribute significantly in the family business, be it agriculture or industry. They also play an important role in rural economy, yet their health has always been neglected. In developing countries like India discrimination against women begin from the birth and continues till her last breath. Differences frequently emerge in consideration of health and nutritional status between the sexes. Throughout their life cycles female receive less food and also inferior quality of foods than male. The latest National Family Health Survey report (2019–21) significantly shows that, nearly 13% of Indian women are underweight. Almost 17.4% of tribal reproductive women belong to underweight. According to some recent studies, malnutrition affects 25.3% of tribal women in India.

According to Census report 2011 tribes constitute 8.6% of India's total population or about 104 million in numbers, which is almost half of the world total tribal population (Census of India 2011). Scheduled Tribes are viewed as the lowest strata of the community due to their primitive lifestyle, poverty, illiteracy and isolated geographical area. Most of the tribes still live far from main stream development, near the forest area and are fully dependent on forest produce, herbs & woods etc. Their poor living conditions, eating habits and limited access to public services make them more susceptible to all sorts of health problems and have an adverse effect on their nutritional status. Thus they are considered to be vulnerable groups of the society, among them women are more vulnerable, firstly due to their tribal status and secondly due to their gender.

This study focuses on the assessment of health and nutritional status of Mawasi tribal women. It also explores the relation of socio demographical factor with health status of these disadvantaged women of Chitrakoot region, Madhya Pradesh. The study will provide an insight to the government bodies about the current situation of malnutrition among the Mawasi tribal women, which can be further utilized for improving the health care services and policy making.

Need for the Study

Even after 72 years of Independence, the Mawasi community, a Scheduled Tribe that lives in the hills of Madhya Pradesh is deprived of many facilities and are still depended on collecting forest produce for

generating income. Their poor health condition and nutritional status has been neglected due to their small population. There has been no such study in the past focusing on problem faced by these tribal women which could have shed some light on this issue.

Keeping in view all the above aspects, the present study has been undertaken with the following objectives:

3.10.1 Objectives:

1. To study socio-demographic characteristic of Mawasi tribe women.
2. To evaluate nutrient and food intake of Mawasi tribal women using 24 hr dietary recall method.
3. To analyze dietary pattern using food frequency questionnaire.
4. To assess nutritional status in terms of anthropometric measurements, clinical examination and biochemical analysis.

3.10.2 Methodology:

Data Collection: The data on various health and nutritional status of Mawasi tribal women in two villages selected for the implementation of the project was collected in the month of May and June, 2023.

Study Setting: The study was carried out among Mawasi tribe, living in villages of Majhgawan block of Chitrakoot region.

Research Design: A cross sectional community based survey was carried out.

Sampling Design: A stratified random sampling technique was used to select the study subjects. According to the inclusion criteria women of child bearing age, of 18-46 year were selected, making the total sample size to be 100.

Data Collection Tool: A predesigned and pretested interview schedule was used to collect the data. Socio demographic variables included in the interview schedule were education, type of family, occupation, number of children, sources of drinking water, agriculture land and personal ill habits of Mawasi tribal women. For analysis of nutritional status of tribal women direct method of nutritional assessment were included. Anthropometric method included height and weight measurement. For determining the hemoglobin level of tribal women hemoglobin meter was used. In clinical assessment general appearance of women was observed. A 24 hr dietary recall method and food frequency questionnaire were used to determine the dietary intake. And RDA – 2020 for adult moderate women and Indian food composition

table was used to compare and calculate the nutrients consumed such as energy, protein, fat, calcium and iron.

Statistical analysis: Data was entered in MS–Excel, descriptive analysis (mean and standard deviation) was performed using SPSS, and presented logically in form of table and graphs.

3.10.3 Findings:

Socio-economic characteristics: Socio demographic data of 100 Mawasi tribal women in the age group of 18-46 years was collected and presented in Table 7.3.3.1. The data depicts that there were 49% women in the age group of 18-30 year age and 51% between the ages of 31-46 year. Out of 100 women 58% women are illiterate and only 11% woman are educated up to class 10^{th} and above. This indicated that literacy rate among Mawasi tribal women is very low as compared to the literacy rate of women (62.45%) of this district Satna as per census 2011. Majority (97%) of women are living in nuclear family, which shows the decreasing joint family trend among Mawasi tribal. Most (62%) of them are working as a labour having no agricultural land, where as 38% are involved in farming. In regards number of children, all of them had children and majority (77%) of women had more than 2 children. Majority of the samples (79%) had total family members consisting of 4-8 family members, 7% had 1-4 family members and 18% had more than eight family members. The family size and pattern depicted that most of the mare living in nuclear families and the family size consisted of 4-8 members and majority of them have more than 3-4 children. Due to ignorance, lack of knowledge, illiteracy and for social security reasons, they preferred to give birth to more children.

Table3.10.3.1: Socio demographic characteristic of the tribal women (N=100)

Socio demographic variable		**Number**	**Percentage (%)**
Age group	18- 30 years	49	49
	31- 46 years	51	51
Education	Illiterate	58	58
	Primary	24	24
	Middle	7	7
	Matric	6	6
	Intermediate	5	5

Type of Family	Nuclear	97	97
	Joint	3	3
Occupation	Farming	38	38
	Labour	62	62
No. of Children	One	4	4
	Two	19	19
	Three	28	28
	Four	32	32
	More than Four	17	17
Family Size	Less than 4	7	7
	5 – 8	79	79
	Greater than 8	18	18
Source of Income	Agriculture	9	9
	Agriculture + Agri. Labour	8	8
	Forest Produce collection + Agriculture	21	21
	Forest Produce collection + Agriculture Labour	62	62
Agricultural land	No Agricultural Land	62	62
	Less than 1 ha	23	23
	1- 2 ha	13	13
	More than 2 ha	2	2
Family Income/annum	Less than 25000	57	57
	25000 to 50000	24	24
	50000-75000	13	13
	75000-100000	4	4
	Above 100000	2	2

In case of agriculture land possession 62% women did not have any agriculture land and thus are earning money by labour work where as those having agriculture land are involved in farming. Majority of the farm families (57%) reported that they have annual income less than 25000. Only 2% women reported that they have their income above 1 lac rupees per annum.

Clinical examination:

Clinical examination is the simplest and the most practical method of ascertaining the nutritional status of a group of individual. It is considered as an essential feature of all nutritional surveys.

General appearance of the females:

During the clinical assessment of Mawasi tribal women their general appearance in terms of height, distribution of fat body and the muscle has been carefully observed just to get clues on to their health and nutritional status. Table 7.3.3.2 shows the findings recorded on the general assessment of nutritional status of the tribal females. The result shows that 51% of the Mawasi women were short in height and thin in built. This indicates that nearly half of the females were under-nourished. Furthermore, 17% females were of average height and thin which also adds to the percentage of undernourished females. Only 6% of females were of average height and weight.

Table3.10.3.2. Data showing general appearance on inspection of Mawasi tribal women

General Appearance	**Number**	**Percent**
Tall and thin	4	4
Tall and stout	3	3
Short and thin	51	51
Short and stout	7	7
Short and average weight	12	12
Average height and thin	17	17
Average height and average weight	6	6
Total	**100**	**100**

Health problems experienced by Mawasi tribal women

Information on frequency of experiencing health problems related to nutrient deficiencies in last three months were collected based on major five symptoms such as fatigue, weakness, backache, dizziness, and insomnia considering deficiency of nutrients like iron, folic acid, vitamin B12 and calcium and are

presented in Table 7.3.3.3. The respondents were expected to answer in terms of frequently and rarely. The results indicates that 71 percent of respondents experienced fatigue frequently and 29% experienced it rarely, Weakness was experienced by 57 per cent and 43 per cent respondents frequently and rarely respectively whereas 49 per cent of respondents experienced backache frequently and 51 percent experienced rarely. There were 63 per cent women who experienced dizziness frequently and 37 percent rarely. Insomnia was experienced by 55 per cent and 45 per cent woman frequently and rarely respectively.

Table 3.10.3.3 Health problems experienced by Mawasi tribal women

Symptoms	Category	Frequency	Percentage
Fatigue	Frequently	71	71
	Rarely	29	29
	Total	100	100
Weakness	Frequently	57	47
	Rarely	43	53
	Total	100	100
Backache	Frequently	49	49
	Rarely	51	51
	Total	100	100
Dizziness	Frequently	63	63
	Rarely	37	37
	Total	100	100
Insomnia	Frequently	55	553
	Rarely	45	457
	Total	**100**	**100**

Anthropmetric Measurements of Mawasi Tribal Women

The anthropometric measurements observed for the study were the height and the weight of the respondents using standard equipment. Based on the weight and height of the respondent the BMI was also calculated and the observations are presented in Table 7.3.3.4

Table 3.10.3.4 Distribution of females according to their weight and height excluding pregnant women

Anthropometric measurement		
A. Weight in Kg	**Number**	**Percent**
< 35	4	4
35-40	28	28
40-45	45	45
45-50	15	15
50-55	5	5
55-60	1	1
>60	2	2
Total	100	100
Mean ± SD :- 42.72 ± 6.69	Range- 31.2 - 78.5	
B. Height (in cm)		
<145	23	23
145-150	48	48
150-155	24	24
155-160	5	5
>160	0	0
Total	**100**	**100**
Mean ± SD :- 148 ± 0.04	*Range- 137 - 159*	

Weight: The mean weight of Mawasi tribal women (non-pregnant women) was 42.72 Kg, which was much less than the weight of (55 Kg) reference women (ICMR, 2020). Proportion wise nearly one-fourth (32%) females had weight below the cut-off point for mothers at risk and about 97.0% of females weighed less than the weight of reference women (55 kg) as per RDA 2020. If < 45 kg is taken as a cut-off about two third (77%) of females would be categorized as low weight. However, nearly one-fourth (32%) females in this study whose weight was less than 40 kg were at substantially risk for future pregnancy complications.

Height: The heights of women ranged from 137 cm to 159 cm with a mean height of 148 ± 0.04 cm. Further, it is commonly believed that women in all tribal areas are shorter than their state or national

figures. In the present studies 23% women are found to have height less than 145 cm. In present study, vast majority of women belong to low income group, therefore their heights have hardly any effect on birth weight of their babies, as later is influenced mainly by low income. The result shows that 71% women have height less than the height of reference women (151cm) as per RDA 2020. Nonetheless 71% women with height less than 150 cm reflect under nutrition during childhood and adolescent.

Body Mass Index (BMI): Body Mass Index (BMI) is the most widely accepted and used index for assessing nutritional status of adult population. It is used as an index to assess the extent of Chronic Energy Deficiency (CED) in adults. In the present study (Table7.3.3. 5) it has been found that more than half (51%) of the study women suffered from chronic energy deficiency (BMI<18.5). In present study, among chronically nutritionally deficient women, maximum percentage (41.0%) belonged to grade –III CED (mild malnutrition) followed by grade–IICED (7.0%) and grade I CED (3%).

The Chronic Energy Deficiency (CED) is associated with impaired physical capacity, reduced economic productivity, increased mortality and poorer reproductive outcomes. Some evidence in developing countries indicates that malnourished women with a Body Mass Index (BMI) below18.5kg/m2, show a progressive increase in mortality rates as well as increased risk of illness. In the present It was found that in case of Mawasi tribal women the BMI was higher (20.09) in above 30 year age group and lower (17.17) in the 18-30 years age group.

Table 3.10.3.5 Body Mass Index (BMI) of Mawasi Tribal Women

Class	BMI	Frequency / percentage
CED Grade I (Severe)	< 16.0	3
CED Grade II (Moderate)	16.0 - 17.0	7
CED Grade III (Mild)	17.0 - 18.5	41
Low Weight (Normal)	18.5 - 20.0	15
Normal	20.0 - 25.0	32
Obese	> 25.0	2

Association between Socio-demographic and BMI

The data on association between socio demographic data and women having BMI < 18.5 are presented in table 7.3.3.6. It is visible in the result that 65.31% women belonging to 18-30 year age group were underweight as per WHO BMI classification. Whereas women who were illiterate were having a poor

nutritional status and thus 77.42% of illiterate women were having a BMI less than 18.5. Out of 62 women 67.74% of women having no agriculture land had a BMI less than 18.5, which shows that women growing their own food had a less chance of being underweight. It should also be noted that women having a habit of chewing tobacco are more likely (73.21%) of having a BMI less than 18.5. In a previous study, the nutritional status of 1, 66,172 schedule tribe women from National Family Health Survey (NFHS-5) was analyzed and a multinomial logistic regression model was used to analyze how different factors are associated with BMI.

Table3.10.3. 6: Socio–demographic variables associated with BMI of Mawasi tribal women

Socio demographic variable		**Frequency / Percentage**	**BMI (<18.5)**	
Characteristics	**Sub-category**		**Frequency**	**Percent (%)**
Age group	18- 30 years	49	32	65.31
	31- 46 years	51	19	37.25
Education	Illiterate	31	24	77.42
	Literate	27	17	62.96
	Primary	24	6	25.00
	Middle	7	2	28.57
	Matric	6	1	16.67
	Intermediate	5	1	20.00
Type of family	Nuclear	97	49	50.52
	Joint	3	1	33.33
Occupation	Farming	38	9	23.68
	Labour	62	42	67.74
No. of children	<= 2	23	16	69.57
	>2	77	35	45.45
Source of Drinking water	Hand pump	59	37	62.71
	Dug well	38	14	36.84
	Bore well	3	0	0.00
Agricultural land	No agriculture land	62	42	67.74
	Less than 1 ha	23	6	26.09
	1-2 ha	13	3	23.08
	More than 2 ha	2	0	0.00
Personal ill habits	No	44	10	22.73
	Chewing tobacco	56	41	73.21

Prevalence of Anemia in Mawasi tribal women

The data presented in Table 7.3.3.7 and Figure 3 shows that the prevalence of anemia among Mawasi tribal women was 98% with hemoglobin values below 12 g/dL. Among the subjects, 8% women were severely anemic, 71% were moderately anemic, and 19% were mildly anemic. According to National Family Health Survey (2015–2016), nearly 54% of women in the reproductive age group suffer from anemia

Table 3.4.3.7 Prevalence of Anemia among tribal Women

Age Group	**Severe (<7.0 g/dL)**	**Moderate (7.0- 9.9g/dL**	**Mild (10-11.9)**	**Normal (>-12)**	**Total**
18- 25	0	10	2	1	**13**
26-30	0	30	6	0	**36**
31- 35	2	17	4	0	**23**
36-40	3	6	3	1	**13**
41-45	3	7	3	0	**13**
Above 46	0	1	1	0	**2**
	8	71	19	2	**100**

The prevalence of anemia was 55.9% (95) with hemoglobin values below 12 g/dL. Among the subjects, 6 (3.5%) were severely anemic, 33 (19.4%) were moderately anemic, and 56 (32.9%) were mildly anemic. The study sample had a mean hemoglobin value of 11.3 g/dL.

Nutrient intakes

24 hr dietary recall method was used to measure the quantity of foods eaten by woman during the last 24 hrs. The food eaten was converted into grams and nutrients intake were calculated as per Indian food composition table and compared with the recommended dietary allowance (RDA 2020) nutrient intake by woman. The data depicts that the overall median intakes of various nutrients were lower than the recommended RDAs by tribal Mawasi women (Table 8). The intake of various nutrients Energy(24.77%), Protein(32%), Fat(28.80%), Calcium(47.67%), Iron(61.43%), Vitamin-A (75.5%), and Riboflavin(39.17%), Vitamin B12(63%), Thiamin(19.09%), Folic acid(70.32%) & Vitamin C(54.83%) was deficit to RDAs.

Table 3.10.3.8 Dietary intake by 24 Hour Food Recall Method

Nutrients	Mean Intake	RDA	% of Deficiency
Energy(kcal/d)	1618 ± 201.42	2230	27.44
Protein(g/d)	37.4 ± 6.92	55	32.00
Fat(g/d)	18.3 ± 3.48	25	26.80
Iron(mg/d)	8.1 ± 2.34	21	61.43
Calcium(mg/d)	314 ± 182.41	600	47.67
Zinc(mg/d)	5.82 ± 1.32	10	41.80
Vitamin A(mg/d)	1176 ± 238.9	4800	75.50
Thiamin (mg/d)	0.89 ± 0.3	1.1	19.09
Riboflavin(mg/d)	0.73 ± 0.34	1.2	39.17
Niacin (mg/d)	9.94 ± 6.62	14	29.00
Folic acid(mg/d)	59.37 ± 15.04	200	70.32
Vitamin B-12(mg/d)	0.37 ± 0.43	1.0	63.00
Vitamin C(mg/d)	18.07±13.41	40	54.83

Frequency of food group Intake

Apart from 24hr dietary recall food frequency questionnaire was used to study the consumption of various food groups by the subjects. When it is used with 24hr dietary recall it improves the accuracy to estimate the intake of the nutrients. The frequency of intake of different food groups gives an insight to the different nutrient deficiency which can occur in the long term. The data collected on the frequency of food intake are given in Table 9. The data revealed that only foods from four groups are consumed by Mawasi tribal on daily basis. These food groups were cereals, roots and tubers, fats and oils and sugars & jaggery. It was the fruits, milk and milk products and fruit vegetables, pulses and legumes which were greatly deficit in their daily diet. The daily intake of milk (3%), fruit (0%), other vegetables (16%), pulses (29%) and non-vegetarian food (0%) is very low.

Table 3.10.3. 9 Frequency of Food Group intake

S.No.	Food Groups	Daily	Twice a week	Weekly	Twice a month	Monthly
1	Cereals	100	0	0	0	0
2	Pulses and legumes	29	53	18	0	0

3	Milk & milk products	3	17	29	33	18
4	Green leafy vegetables	89	11	0	0	0
5	Roots and tubers	100	0	0	0	0
6	Other vegetables	16	34	39	11	0
7	Fats and oils	100	0	0	0	0
8	Fruits	0	3	23	39	35
9	Sugar & Jaggery	100	0	0	0	0
10	Meat, eggs, fish and poultry	0	0	5	13	16

4. Training Programmes

During the year, 543 training programmes including sponsored ones were organized by all four KVKs with the participation of about 13936 farmers, farm-women, rural-youth, and extension personnel.

4.1 Farmers: A total of 562 training programmes both on-campus and off-campus were organized for the benefit of 7513 farmers and farm-women on various aspects of crop production, horticulture, livestock production and management, plant protection, women in agriculture and other farmers and farm women. The details of training programmes organized by KVK are presented in Table 4.1.

In the training programmes, farmers and farm women were acquainted with improved production technologies such as selection of best variety seeds, seed treatment, sowing techniques, and balanced use of fertilizers, Natural Farming, weed management, soil-health and fertility management, plant protection measures, use of improved tools and implements, resource conservation technologies formulation of balanced ration for milch animals and dairy farming farm machinery, animal nutrition, water management, animal health, production and vermi composting and mushroom production.

Of these, 43% were on-campus and 57% were off-campus programmes. The beneficiaries include about 4949 farmers and 2383 farm-women.

Table 4.1 Training Programmes for farmers and Farm women by KVKs

Area of training	No. of courses	No. of participants		
		Male	Female	Total
Crop Production	64	1190	419	1609
Horticulture	57	929	315	1244

Livestock Production	41	636	242	878
Plant Protection	49	861	221	1082
Agriculture Extension	14	523	53	576
Soil Health & Fertility Mgt.	9	167	96	263
Home Science	49	147	985	1132
Agri. Engineering	26	496	52	548
Fisheries	9	0	0	181
Total	**318**	**4949**	**2383**	**7513**

4.2 Rural youth training: Thirty two training programmes were organized on Vegetative propagation of fruit crops, seed production of field crops, integrated farming, value addition of fruits, mushroom production, organic farming, dairying, goat farming, poultry farming and vermicompost production, tailoring and stitching etc. The details of Skill upgradation training programmes organized are given in Table 4.2.

Rural youths were exposed to various income generating enterprises like vermi-culture, planting material production, seed production, poultry, nursery raising of horticultural crops, integrated farming, repairing and maintenance of farm machinery and implements, etc. to develop entrepreneurship.

Table 4.2 Training Programmes for rural youths

Area of training	No. of courses	No. of participants		
		Male	Female	Total
Vegetative propagation of fruit crops	3	64	10	74
Seed production	4	69	14	83
Integrated farming	4	67	4	56
Repair and maintenance of farm machinery and implements	2	52	0	52
Value addition of fruits	8	42	189	241
Mushroom Production	2	59	11	70
Dairying	3	84	7	91

Goat Farming	3	83	18	101
Poultry production	3	96	18	114
Vermicompost Production	2	80	10	90
Bio pesticide and bio-fertilizer production	2	23	19	42
Organic farming	1	20	0	20
Entrepreneurial development of farmers/youths	1	27	7	34
Tailoring and Stitching	3	0	52	52
Total	**32**	**503**	**325**	**823**

4.3 Extension personnel training: A total of 31 training programmes both on-campus and off-campus was conducted covering about 694 participants. These programmes were organized for extension functionaries working in government and nongovernmental organizations related directly or indirectly with the development of agriculture in their respective districts. The trainings were imparted in frontier areas of agriculture technologies related to increasing productivity of crops, IPM, INM, rejuvenation of old orchards, protected cultivation technology, production of organic input at site, care and maintenance of farm machinery and implements, gender main streaming through SHGs, group dynamics and farmers organizations, women and child care, low cost and nutrient efficient diet designing, group dynamics and farmers organization, information networking among farmers, capacity building for ICT application, formation and management of self-help group, management in farm animals, livestock feed and fodder production, household food security and others.

Table 4.3 Training Programmes for extension personnel

Area of training	**No. of courses**	**No. of participants**		
		Male	**Female**	**Total**
Crop Science	9	170	17	187
Horticulture	6	93	20	113
Plant Protection	6	136	15	151
Animal Science	5	79	24	103
Home Sci.	7	8	165	173
Agril. Engineering	4	74	3	77

Agriculture Extension	1	22	0	22
Soil Science	1	24	2	26
Total	**31**	**469**	**225**	**694**

4.4 Sponsored training: Out of a total 416 training programmes (19,364 participants) conducted by the KVKs for the farmers and farm women, rural youth and in-service extension personnel; 35 training programmes were conducted on sponsorship by various organizations covering 1480 participants. The sponsorships were from various government and non-government organizations associated directly or indirectly with the development of agriculture, DRDA, State departments of Agriculture, horticulture and animal husbandry. (Table 4.4).The trainings were imparted to upgrade their knowledge and skills in crop production and management, vegetables and spices cultivation, orchard establishment and management, livestock production and management, soil and water conservation, use of improved farm machinery and tools and organic farming, formulation of balanced diet for farm families.

Table 4.4 Sponsored Training Programmes organized for farmers, farm women, rural youths and extension personnel

Area of training	**No. of courses**	**No. of participants**		
		Male	**Female**	**Total**
Crop production	12	138	34	172
Horticulture	14	313	183	496
Plant Protection	10	193	165	358
Agriculture Extension	9	221	21	242
Animal Science	4	34	27	61
Home Science	7	13	138	151
Total	**35**	**912**	**568**	**1480**

5. Extension programmes

During the year, 14902 extension programmes were organized covering 110575 farmers and 2988 extension personnel, to create awareness about improved agricultural technologies. The activities included advisory services, diagnostic visits, field-days, group discussions, *kisan goshthi*, film shows, self-help group conveners' meetings, *kisan melas*, exhibitions, scientists' visit to farmers' fields, farmers' visit to

Krishi Vigyan Kendras, plant/animal health camps, farm science club, ex-trainees *sammelan*, farmers' seminar/workshop, method demonstrations, celebration of important days, special day celebration, exposure visits etc. Besides, 119 programmes were carried out through electronic and print media to have wider coverage in the districts. These included electronic media, extension literature, newsletters, newspaper coverage, technical articles, technical bulletins, technical reports, radio talks, TV talks, popular articles, technical books, leaflets and folders and lecture delivered.

Table 5. Details of Extension activities organized by KVKs

Nature of Extension Activity	No. of activities	Farmers			Extension Officials			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	48	1226	286	1512	49	11	60	1275	297	1572
Kisan Mela	7	2776	672	3448	88	38	124	2864	710	3574
Kisan Ghosthi	120	3268	778	4046	137	73	209	3405	845	4250
Exhibition	27	5773	1854	7627	267	58	325	6040	1912	7952
Film Show	112	2843	731	3574	44	12	56	2887	524	3411
Method Demonstrations	24	295	187	482	7	6	13	302	193	495
Farmers Seminar/Workshop	24	1612	1092	2704	135	69	204	1747	1161	2908
Group meetings	58	600	608	1208	6	2	8	606	610	1216
Lectures delivered as resource persons	85	3063	1245	4308	340	114	454	3403	1359	4762
Newspaper coverage	84	0	0	0	0	0	0	0	0	0
Radio talks	3	0	0	0	0	0	0	0	0	0
TV talks	4	0	0	0	0	0	0	0	0	0
Popular articles	13	0	0	0	0	0	0	0	0	0
Extension Literature	15	10827	3476	14303	21	4	25	10848	3480	14328
Advisory Services	1102	8593	553	9146	122	5	127	8715	558	9273
Scientific visit to farmers field	715	6278	2806	9084	120	33	153	6398	2839	9237
Farmers visit to KVK	11931	19668	5962	25630	265	138	403	19933	6100	26033

Diagnostic visits	206	948	186	1134	111	49	160	1059	235	1294
Exposure visits	7	182	42	224	5	1	6	187	43	230
Ex-trainees Sammelan	2	88	14	102	2	0	2	90	14	104
Soil health Camp	5	197	34	231	3	0	3	200	34	234
Animal Health Camp	77	1300	428	1728	21	7	28	1321	439	1760
Soil test campaigns	9	234	13	246	0	0	0	234	13	247
Farm Science Club Conveners meet	2	20	3	23	2	0	2	22	3	25
Self Help Group Conveners meetings	17	28	440	468	0	7	7	28	447	475
Mahila Mandals Conveners meetings	6	0	240	240	0	7	7	0	247	247
Celebration of important days (specify)	47	2000	549	2549	174	48	222	2174	597	2771
Technology Week	48	6159	2525	8674	77	32	109	6236	2557	8793
Other Flagship Program	40	3386	1151	4537	103	57	160	3489	1208	4697
FPO Activity	59	618	121	497	92	32	124	710	153	863
Social Media	5	2850	0	2850	2	0	2	2852	0	2852
Total	**14902**	**84832**	**25996**	**110575**	**2193**	**803**	**2988**	**87025**	**26578**	**113603**

6. Production of technological products: The technological products like seeds, planting materials, bio-products, livestock, and vermicompost materials were also produced at KVKs instructional farm and 3244 farmers were benefited in the district.

6.1 Seeds: During the year, 830.38 Quintals of quality seeds of cereals, oilseeds, pulses, vegetables, spices, fodder, were produced and provided to 4702 farmers by our Krishi Vigyan Kendra.

Table 6.1 Seed Produced by KVKs

Crop	Seed (q)	Provided to No. of Farmers
Cereals	537.61	1026
Oil seeds	193.23	704
Pulses	84.99	1073
Vegetables and Spices	9.67	1851
Fodder Crop	4.88	48
Total	**830.38**	**4702**

6.2 Planting materials: 2937841 nos. of quality planting materials of horticultural crops, vegetables, fruits, ornamental, MPTs, spices, and forest species were produced and provided to 7293 farmers.

Table 6.2 Details of Planting material produced and supplied to farmers

Crop	Number	Provided to No. of Farmers
Fruits	20417	2331
Vegetables	2825236	3269
Spices	86583	773
Forest species	576	102
Ornamental Plants	5029	818
Total	**2937841**	**7293**

6.3 Bio products: Bio products, namely, vermicompost (9265Kg), Bio-fertilizers (1255 litre) Uzi fly trap (839 kg), vermiwash (120 litre), biopesticides (355 liters) were produced and supplied to 1255 farmers.

Table 6.3 Details of Bio products produced and supplied to farmers

Name of the bio-product	Quantity (Kg)	Provided to No. of Farmers
Bio fungicides	992	149
Bio fertilisers	1255	613
Uzi fly traps (Nos.)	839	15
Vermicompost	9265	13
Bio pesticide	355	342
Vermiwash	120	123
Total	**12826**	**1255**

6.4 Livestock, poultry chicks and fish fingerlings: Improved breeds of namely, Buffalo bull (3 no), Bull (7 no), Poultry chicks (4785 no.), goats (16), fingerlings (7163887) were produced and supplied to 332 farmers.

Table 6.4 Details Livestock, poultry chicks and fish fingerlings produced and supplied to farmers

Name of the bio-product	Quantity (no)	Provided to No. of Farmers
Buffalo-Murrah	3	3
Cow-Sahiwal, Gir	7	5
Poultry chicks	4785	47
Goat (Sirohi, Lalitpuri, Bundelkhandi)	16	9
Fingerlings (Catla, Rohu, Amur carp, Grass carp, Pangasious, IMC)	7163887	268
Total	**7168698**	**332**

6.5 Soil Testing and Soil Health card: A total of 1025 soil samples were analyzed and soil health card have been provided to 745 farmers belonging to 234 Villages.

Name of KVK	No. of Sample tested (no.)	Soil Health Card (no.)	No. of Farmers (no.)
Satna	234	234	176
Beed	365	365	194
Chitrakoot	187	187	177
Gonda	239	239	198
Total	**1025**	**1025**	**745**

7. Technology Week

KVKs organized Technology week for exposing the farmers to innovative and new farm technologies during 25 September of October 11, 2023. The major activities undertaken during technology weeks were training for farmers, farm women and rural youths (10); exhibition (04), scientists-extension personnel-farmers interactive sessions (05), farmers gosthies (34), visit to crop cafeteria and technology demonstration plots (15); distribution of seed (92.5 q), planting materials (156322) and literature on crop and livestock management (7087), etc., benefiting 7087 farmers, farm women, rural youths and extension personnel. The technology week ended with the organization of Kisan Mela on 11 October.

Table 7. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS

S.No.	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock /technology
1	Gosthies	34	655	Mid and terminal drought mitigation techniques in Kharif, Zero and dry seeding technology
2	Lectures organized	67	7087	Technologies for mitigating and adapting the drought, water saving methods, Soil and water conservation technique, Nursery raising of vegetables, livestock feeding management
3	Exhibition	4	965	Technologies on drought mitigation in Kharif crops and improved production technologies for important Rabi season crops were shown through exhibition
4	Film show	11	535	Production technology of Rabi crops
5	Fair	1	812	Technical information/lecture related to the Rabi crops, Felicitation of innovative farmers

S.No.	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock /technology
6	Farm/ Field Visit	27	136	Identification of important diseases insects, weeds and deficiency symptoms of nutrients
7	Diagnostic Practical's	32	67	Insects, pests, diseases of Kharif standing crops
8	Distribution of Literature (No.)	12	7087	Package of practices of Rabi crops
9	Distribution of Seed (q)	92.5	368	Rabi crops & vegetables
10	Distribution of Planting materials (No.)	156322	613	Fruit sapling and vegetables seedlings
11	Bio Product distribution (Kg)	140	14	Liquid biofertlizer, Beejamrit and Ghan Jeevamrit
12	Total number of farmers visited the technology week	15	1205	Technology park and demonstration units
13	Animal health camp	3	142	Vaccination and use of minerals mixture
14	Awareness programme	3	217	Natural Farming and Agri drone
15	Demonstration (ha.)	103	259	Improved production technology of Rabi season cereals pulses and oil seeds
16	Exposure visit	3	175	Technology park and demonstration units
17	Ex-trainees Meet	-	-	-
18	Farmer scientist interaction	5	125	Improved varieties seed tolerant biotic and abiotic stress
19	Farmers Training	10	235	Mustard, Chickpea and Wheat
20	Gajarghans Unmulan Pakhwada	2	82	Uprooting and chemical control
21	Group Meeting	2	56	SHG
22	Jai Kisan Jai Vigyan Sangoshthi	3	147	Recent technologies
23	Plant Protection Week	1	113	Cultural and mechanical pest control
24	Seed treatment campaign	1	125	Seed treatment and inoculation
25	Self Help Group convener meet	1	6329	Forest produce collection ,storage and marketing
26	Soil health Camp	1	105	Soil Sampling techniques and STFR

S.No.	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock /technology
27	Swachha Bharat Abhiyan	4	84	Farm waste management
28	Farmers workshop	2	317	Preparedness of Rabi season crop and improved farm technologies
	Total	**487**	**28055**	

8. Kisan Mobile Advisory: Kisan Mobile Advisory is a new initiative in using Information and Communication Technology for dissemination of need-based and timely information to the farmers. Our KVKs, initiated the Kisan Mobile Advisory Service to provide need based information to farmers. Regular mobile advisory services with regard to information on weather, disease and insect pest infestation on crops and plant protection measures to be adopted, market and farm operations, are provided to 238380 farmers of the four districts. The Kisan Mobile Advisory has made access to the information easier and cost effective to the farmers. During the year, about 238380 registered farmers have been sent 431 messages on various aspects of agriculture, horticulture and animal husbandry, besides weather forecast, and pest and disease control.

Details of messages send to farmers

Sr.No.	KVK District	No. of Messages send	No. of farmers
1.	Satna (MP)	79	34356
2.	Beed (Maharashtra)	12	147918
3.	Chitrakoot (UP)	261	21750
4.	Gonda (UP)	79	34356
	Total	**431**	**238380**

9. SPECIALIZED PROGRAMMES:

9.1. Attracting and Retaining Youth in Agriculture (ARYA):

The ARYA project aiming at attracting and empowering youth in rural areas to take up agriculture and allied sector enterprises for sustainable income and employment was also initiated. Under ARYA 38 different enterprise units related to mushroom

production, Goat farming, backyard poultry management and vermi-compost production, were established during the year benefiting 134 rural youth in majhgawan block of the district. Skill training was given to 200 rural youth through 04 training programmes pertaining to the enterprise units establishment. Two exposure visit was arranged to 80 youth to mushroom production and Poultry farming enterprise units being managed successfully as training and confidence building measure.

9.2 Natural Farming project

Programs and activities Organized for Farmers and farm women: Under Natural Farming project, organized 20 Training and 22 Awareness program in villages and block level in Satna and Gonda district for farmers and Farm women with the participation of 3034 farmers. Out of 80 program, twenty four demonstration programme were conducted on Natural Farming with 24 beneficiaries. Eight exposure visits organized under Natural Farming with participant of 324 farmers.

Table 9.2 Details of Programs and activities organized for farmers and farm women.

S. No.	Activity	No. of Activity	Participants
1	Training cum organized in Self Reliant Centre	**20**	**716**
2	Awareness program	**22**	**1092**
3	Organized one day workshop on Natural Farming at block level in Satna District	**4**	**874**
4	Demonstration on Natural Farming	**24**	**24**
5	Exposure visit	**8**	**328**
6	Cow based Microbial formulation unit establishment	**2**	**0**
	Total	**80**	**3034**

10. WORKSHOPS/ CONFERENCES/SYMPOSIA ORGANIZED

	Details of Workshop/ Seminar organized	**No. of Participants**
10.1	**Workshop/ Seminar organized in Satna district of MP**	
10.1(a)	Rain Water Conservation & Management Campaign	857
10.1(b)	Scope and prospects of Nutri-cereal Production in Satna District ("Shree Ann") 11.05.2023	210
10.1(c)	Livelihood promotion and nutritional security to schedule caste farmers 03.06.24	165
10.1(d)	Production technology of "Shree Ann" "Veerangana Durgavati Balidan Diwas " 24.06.23	467
10.1(e)	Internship program of students -AKS University Satna & PG College ATTRA, Banda (UP)	241
10.1(f)	Crop diversification 25.09.23	125
10.1(g)	Organized workshop Prompting Production & Consumption of Fruits to Reducing Malnutrition 05.10.23	525
10.1(h)	Organized Seminar in entitled Protection and Registration in Traditional Farmers Varieties 26.2.24	435
10.1(i)	Organized Workshop entitled "Maatru Shakti ke Uttam Swasthya evm Poshan me Poshak Anaajon ka Mahatva 26.2.24	227
	Total-9	**3252**

10.2	**Workshop/ Seminar organized in Beed district of Maharashtra**	
10.2(a)	PM Kisan Sanman Nidhi	56
10.2(b)	Food security and Soil testing	113
10.2(c)	Organic farming	160
10.2(d)	Integrated crop management in cotton	186
10.2(e)	PMFME for entrepreneurship development	50
10.2(f)	Bee Keeping farmers - Honey marketing	11
10.2(g)	Pre Kharif Farmer Workshop	35
10.2(h)	Workshop for FPC BoD on business planning	20
10.2(i)	Workshop for FPC BoD on business planning	22
10.2(j)	Bee keeper farmer meeting	12
10.2(k)	Farmer Scientist Interaction	107
	Total -11	**772**
10.3	**Workshop/ Seminar organized in Chitrakoot district of UP**	
10.3(a)	"Shree Ann" sangosthi	265
10.3(b)	Pulses production sangosthi to schedule caste farmers 11-10-2023	275
10.3(c)	Poshan Mahotsav	125
10.3(d)	Organized Workshop entitled "*Prakritik Kheti evm Manav Swasthya*″26.2.24	450
	Total-4	**1115**
	Total -24	**5139**

11. Publications:

11.1 Research Paper

S.No.	Title of Paper	Year of Publication	Author	National /International (Name of Journal with NAAS Rating)
1.	Assessment of Nutritional Status of 3-8 year Mawasi Tribal Children using Anthropometric Indices. Journal of Scientific Research and Reports	2023	Jagre A and Negi R.S.	Journal of Scientific Research and Reports (NAAS: 5.17)
2.	A Study on the Health and Nutritional Status of Mawasi Tribal Women in Villages of Chitrakoot Region in Madhya Pradesh, India	2023	Jagre A and Negi R.S.	Advances in Research (NAAS: 4.76)
3.	Assessment of Rice-mustard & Rice-Chickpea Cropping Sequence through Conservation Agricultural Practices under Rice-Fallow Cropping System in Satna District of Madhya Pradesh, India. International Journal of Plant & Soil Science: 36 (2): 96-100	2023	Chourasiya Ajay, Chauriha Satyam and Dwivedi Hemraj	International Journal of Plant & Soil Science: 36 (2): 96-100 (NAAS: 5.07)
4.	Assessing the effect of climate change on dairy cow production system a review of emerging challenges	2023	V.Prajapati, Narendra Singh Gurjer	International journal of Advanced Research in Science Communication and Technology Vol. 03 (2)
5	An Analysis of the Potential for Organic Dairy Farming in India in the Future	2023	V.Prajapati, Narendra Singh Gurjer	International journal of Advanced Research in Science

				Communication and Technology Vol. 03 (2)
6.	Awareness of Agro Input Dealers about Insecticide Label Claims	2023	Suhas K Panke Vasant A Deshmukh Krushna M Kardile	Gujarat Journal of Extension Education (ISSN 2322-0678) Volume 35
7.	Awareness of Agro Input Dealers about Insecticide Label Claims in Beed district	2023	Suhas K Panke Upendra D Kulkarni Vasant A Deshmukh Krushna M Kardile	Paper presented in National Seminar on "Evolving Extension Science Towards Secondary Agriculture for Sustainable Development" 2023
8.	Impact of training for rural youth in agriculture for self-employment generation	2023	Suhas K Panke Upendra D Kulkarni Vasant A Deshmukh	Abstract presented in National Seminar on "Evolving Extension Science Towards Secondary Agriculture for Sustainable Development" 2023
9.	Effect of various mulching materials on Physical attributes of acid lime	2023	Narendra Joshi	The scientist ISSN: 08903670|NAAS: 6.85 Page No.811 https://www.thescientist.online/

10.	Effect of some fungicides, botanicals, and bio-agents in the treatment of the Alternaria blight of Indian mustard	2023	Pandey, A. K.; Sharma, S.; Pandey, D. K.	The Pharma Innovation Journal, 12(2): 1367-1372.
11.	Socio-economic profile of women dairy farmers: An exploration study in Deoghar, Jharkhand.	2023	Sudhanshu; Tiwari, Ankit; Mishra, Abhishek; Pandey, Ashish Kumar; Gurjar Pushpendra Singh; Jha, Mithilesh Kumar; Singh Upendra Nath	The Pharma Innovation Journal, 12(5): 1051-1054.
12.	Milk Badi prepared by using buffalo milk and wheat flour.	2023; Shukla, Rahul	Mishra, Abhishek; Sudhanshu; Tiwari, Ankit; Pandey, Ashish Kumar; Gurjar, Pushpendra Singh; Jha, Mithilesh Kumar; Singh, Upendra Nath	The Pharma Innovation Journal, 12(5): 3780-3783.
13.	Fundamentals and Principal of Agriculture Extension Education	2023	Sudhanshu; Tiwari, Ankit; Mishra, Abhishek; Pandey, Ashish Kumar; Gurjar, Pushpendra Singh; Jha, Mithilesh Kumar; Singh, Upendra Nath	Advanced Trends in Agricultural Ext. (Volume - 6), Pp. 63-75. Integrated Publications (ISBN : 798-93-95118-31-6)

14.	Important Plant Pathogenic Organisms - Different Groups - Fungi, Bacteria, Fastidious Vesicular Bacteria, Phytoplasmas, Spiroplasmas, Viruses, Viriods, Algae, Protozo and Phanerogamic Parasites with Examples of Diseases Caused by Them	2023	Pandey, Ashish Kumar; Sudhanshu; Gurjar, Pushpendra Singh; Tiwari, Ankit; Mishra, Abhishek; Jha, Mithilesh Kumar; Singh, Upendra Nath; Shukla, Rahul; Tripathi, S.K.	Research Trends and Innovations in Plant Pathology (Vol - 6). (Acceptance- Ref. RTIPP-06-04) Integrated Publications
15.	Genesis, Region, Yielding, Diversity, package of practices for Okra	2023	Gurjar, Pushpendra Singh; Sudhanshu; Pandey, Ashish Kumar; Tiwari, Ankit; Mishra, Abhishek; Jha, Mithilesh Kumar; Singh, Upendra Nath; Shukla, Rahul	Advances in Genetics and Plant Breeding (Volume - 22). (Acceptance- Ref. AGPB-22-05) AkiNik Publications
16	Effect of farm made feed on growth, yield and income of Indian major carps- A Frontline Demonstration.	2023	KS Shukla, CM Tripathi, Shrishti Mishra	International Journal of Multidisciplinary Research and Development Volume 10, Issue 12, 2023, Page No. 27-29

17	Growth performance of pangasianodon hypophthalmus at different stocking density in Chitrakoot district of UP	2023	K S Shukla, C M Tripathi, Shrishti Mishra	International Journal of Fisheries and Aquatic Research Volume 8, Issue 2, 2023, Page No. 10-12
18	Revolutionary Role of Trichoderma in Sustainable Plant Health Management: A Review	2023	Pooshpendra Singh Dixit	*International Journal of Environment and Climate Change Volume 13, Issue 11, Page 4203-4217, 2023; Article no.IJECC.109441*
19	Effect of different methods of rice establishment and organic and inorganic source of nutrients on yield and economics of rice (*Oryza sativa* L.)	2023	Manoj Kumar	*Current Advances in Agricultural Sciences* 15(2): 135-139 (December 2023)
20	Application of unnamed aerial vehicles in smart agricultural	2024	Pushpendra Singh,	Bhumi Publishing India, Advances in Agriculture Science Volume -I
21	A Review on Protected Cultivation of Vegetables: Opportunities and Challenges	November 2023	Pooshpendra Singh Dixit, Ankit Kumar Singh, C. M. Tripathi, Raghvendra Singh and Prabhat	*International Journal of Environment and Climate Change Volume 13, Issue 11, Page 3371-3380, 2023; Article no.IJECC.105528*

22	Ameliorate chemical quality through different pruning time, pruning intensity and bagging of fruit in Mrig Bahar *guava cv.* Sardar (L-49)	2024	Ravi Pratap Singh, Arun Kumar Singh and Pooshpendra Singh Dixit	International Journal of Advanced Biochemistry Research 2024; 8(2): 47-53
23	Consequence of different pruning time, pruning intensity and bagging on physical parameters of *Guava cv.* Sardar (L-49)	2023	Ravi Pratap Singh, Arun Kumar Singh and Pooshpendra Singh Dixit	International Journal of Advanced Biochemistry Research 2024; 8(2): 39-46
24	Concealing of *Ocimum gratissimum* germplasms in natural field condition against leaf spot disease caused by *Alternaria alternata*	2024	Ravi Pratap Singh, Pooshpendra Singh Dixit and Digvijay Singh	International Journal of Agriculture Extension and Social Development Volume 7; Issue 2; Feb 2024; Page No. 109-111

11.2 Book Publication

Sr. No.	Title	ISBN No.	Author
1	Natural Farming	978-93-5914-851-9	Suhas Panke, Dr. Vasant Deshmukh, Dr. Ravindra Korake
2	ShriannaVyanjane	978-93-5980-004-2	Rohini Bharad Dr. Vasant Deshmukh, Suhas K Panke
3	Pashudhan Paramparik Upachar Padhhati	978-93-5917-441-9	Dr. Ravindra Korake, Dr. Vasant Deshmukh, Suhas Panke
4	Organic Farm Diary	-	Vasant A Deshmukh Suhas Panke
5	Mushroom production	-	Rohini Bharad Dr. Vasant Deshmukh Dr. Pradeep Sangle
6	Honey Bee	-	Dr. Pradeep Sangle Dr. Vasant Deshmukh
7	Natural Farming - Revised Edition	-	Suhas Panke, Dr. Vasant Deshmukh, Dr. Ravindra Korake
8	Organic Farm Diary – Revised Edition	-	Vasant A Deshmukh Suhas Panke
9	Success Stories of Farmers	-	Vasant A Deshmukh
10	Handbooks of Agricultural Extension and Education	978-93-92239-82-3	Sudhanshu, Pushpendra Singh Gurjar, Ashish Kumar Pandey, Ankit Tiwari, Abhishek Mishra,
11	Introduction to Principal of Plant Pathogen and Its Managements	978-81-19428-95-3	Ashish Kumar Pandey, Sudhanshu, Pushpendra Singh Gurjar, Ankit Tiwari, Abhishek Mishra

11.3 Book Chapter

Sr. No.	Title		
1	Interventions resulting in Doubling Farmers' Income	Vasant A Deshmukh	Submitted to ICAR-ATARI Pune for publication (In press)
2.	Fundamentals and Principal of Agriculture Extension Education	Sudhanshu, Ankit Tiwari, Abhishek Mishra, Ashish Kumar Pandey, Pushpendra Singh Gurjar Mithilesh Kumar Jha, Upendra Nath Singh	(Integrated Publications) Advanced Trends in Agricultural Extension (Volume - 6)
3.	Genesis, Region, Yielding, Diversity, Package of Practices for Okra	Pushpendra Singh Gurjar, Sudhanshu, Ashish Kumar Pandey, Ankit Tiwari, Abhishek Mishra, Mithilesh Kumar Jha, Upendra Nath Singh, Rahul Shukla	(AkiNik Publications) "Advances in Genetics and Plant Breeding (Volume - 22)"
4.	"Important Plant Pathogenic Organisms - Different Groups - Fungi, Bacteria, Fastidious Vesicular Bacteria, Phytoplasmas, Spiroplasmas, Viruses, Viriods, Algae, Protozo and Phanerogamic Parasites with Examples of Diseases Caused by Them	Ashish Kumar Pandey, Sudhanshu, Pushpendra Singh Gurjar, Ankit Tiwari, Abhishek Mishra, Mithilesh Kumar Jha, Upendra Nath Singh, Rahul Shukla	(Integrated Publications) "Research Trends and Innovations in Plant Pathology (Volume - 6)".

Entrepreneurship Development & Value Additions

Entrepreneurship Development

Udyamita Vidyapeeth: One of the major causes of the extreme poverty in rural India is that 80% of the rural population are small and marginal farmers, and cannot generate enough income solely from agriculture to cover their needs. According to the Agriculture Census 2015-16, 68.45% of all operational land holdings are marginal (less than 1 ha) and 17.65% are small (1-2 ha), with the average size of marginal holdings being 0.39 ha and small holdings being 1.42 ha. Although 64% of rural employment is agricultural, income is only 39%. There has been a sharp decline in family and "own account enterprises" (OAEs) as they could not attract capital, and therefore could not absorb the technology required for production on a higher and improved scale and to meet market demand. To enable rural poor to earn enough, non-farm sector income to supplement their agricultural incomes is a necessity. The main sectors for non- farm employment are:

a) Trade & Hospitality 15.6% b) Construction 14.3%

c) Transport 5.7% d) Education & Health 1.6%

To address this issue, the focus of Udyamita Vidyapeeth, the Entrepreneurship Training Centre of Deendayal Research Institute at Chitrakoot has been to develop (developing) an alternate model of self-employment generation, which aims at poverty alleviation through the creation of a network of small-scale enterprises at the basic level of the villages.

The main aim of the model is the prevention of seasonal migration to urban centres in search of employment. The strategies for the interventions have been threefold.

1. Resource based: As the population of Chitrakoot are largely poor consisting of Scheduled Caste and Schedule tribes. Tribal, with many of them dependent on minor forest produce, the Institute has conducted value addition training and established Self Help Groups (SHGs) in the villages itself to help increase produce value. The Institute has been selected to implement the Van Dhan scheme with TRIFED to improve tribal incomes through value addition.

2. Animal Husbandry and Agricultural Enterprise: The KVKs are actively involved in breed upgradation for improved yield and helping farmers to engage in poultry, fishery, goat rearing, etc. as a secondary source of income as well as training them is alternate agricultural income activities such as mushroom farming and production of vermicompost and vermiwash.

3. Need based: As the size of most farm holdings are unable to employ all members of a family on a permanent basis, there is a large pool of unemployment youth and women that have the potential to contribute a high percentage of family income. Currently, most youth look to migrate to urban centres in search of employment. This unplanned migration forces a large number of low wage migrants to live in unhygienic squalor in urban slums.

Udyamita Vidyapeeth aims to transform rural youth to acquire a productive identity through short duration interventions, which include awareness campaign, motivational camps, unemployed rural youth meet, formation of rural youth committee, formation and management of self-help groups, training for improving the skills of traditional artisans, entrepreneurship and value addition skill development programmes and micro financing. The centre caters to youth in the age group of 18 to 35 years. The centre is particular in identifying the aptitude and interest of the rural youth to take the self-employment. This is done by organizing interface with experts in camps and meet in rural areas and this provides the centre with valuable clues regarding the potential of the rural youth.

The centre employs a path breaking approach of training youth for self-employment ventures. In the first phase the entrepreneurship competency is developed and in second phase, the rural youths are trained to acquire the technical skills in production cum training center. The process of training is quite rigorous. The rural youths while seeking training are asked to reside at the center. Following the principle 'learning by doing and learning by seeing' provides them with increased self-confidence but also develops their abilities in interactions with people in groups. Udyamita Vidyapeeth has been conducting ITI and KVIC courses for rural youth in disciplines that have a demand in and around the Chitrakoot area. These include Bakery, Food Processing, Tailoring, Computer, Draftsman, Electrician, Fitter, Plumber, Beautician, Bamboo craft, Carpentry, Welding & Fabrication, Dyeing & Printing, etc. However, with the changing scenario in most of rural India, including the Chitrakoot area, a re-think of the skills given to rural youth in line with need and aspirations is required. Among the top four non-farm employment sectors, the need for skilled personnel in Hospitality, Building and Health is foremost in the area. To this end, the Institute is looking to add to the trainings already being imparted by establishing Skill Development Labs for: Front Office, Tourism & Hospitality, Healthcare, Security and Housekeeping & Automobile.

Udyamita Vidyapeeth is situated in a 44-acre campus with large existing infrastructure that includes 23 workshops and hostel accommodation for 250 students. It is a production-cum-training Centre that consists of a complex of over 19 industrial sheds, 4 hostels and

an administrative block to impart training to villagers in various skills to earn. The Centre is actively involved in the self-reliance programmes and has innovated vertically integrated Self-Help Groups and the concept of one village-one product. Focus of Udyamita Vidyapeeth, the Entrepreneur Training Centre of Deendayal Research Institute at Chitrakoot has been to develop an alternate model of self-employment generation, which aims at poverty alleviation through the creation of a network of small-scale enterprises at the basic level of the villages. The main aim of the model is the prevention of seasonal migration to urban centres in search of employment.

The centre employs a path breaking approach of training youth for self-employment ventures. Following are the functional units providing trainings for Self-Employment; Oil Expeller Unit, Readymade garments, Screen & Offset Printing, M.C.R. Tiles, Sakar Blocks, Processing of Cereals and Pulses Industry (PCPI), Flour Mill, Cane & Bamboo Craft, Fabrication, Computer Training, Bakery Products, Soap and Detergent Production, Handmade Paper making, Radio Electronics.

Entrepreneurship Development Training Programmes organized by Udyamita Vidyapeeth during the year 2023-24.

Sl. No.	**Activities**	**% Achieved**
	Production Cum Training Center	
A	Food Processing	
1.	Bakery	85%
2.	Oil Expeller	54%
3.	Wheat flour mill	79%
4.	Fruits and vegetable processing	69%
5.	PCPI Masala	21%
	Average Production	**62%**
B	Handicraft	
1.	Readymade Garments	105%
2.	Screen Printing	29%
	Average Production	**67%**
C	Workshop	
1.	Tiles Unit	37%
2.	Fabrication	76%
	Average Production	**57%**
	Grand Average Production	**62%**

KVIC Training Programmes:

Sr. No.	Trade Name	Place	No.
1	Dyeing & Printing	Karwi, Bankat, Jaitwara	60
2	Cane & Bamboo	Karwi, Patna Kala	40
3	Carpentary & Wood Trg.	Mudkhoha, Jaitwara	40
4	Bamboo Article Making	Majhgawan, Kothi, Rohaniya (Devlaha)	80
5	Cutting & Tailoring	Bargadi Ka Purwa, Bankat Karwi, Kathara, Patna Kala, Majhgawan, Chaura.	190
6	Beautician Course	Rajapur, Karwi, Jaitwara, Kothi, Majhgawan.	168
7	Jute and Cloth Bag Making	Khadseda	20
8	Mehandi Course	Karaundihai, Majhgawan, Bankat, Karwi, Surendrapal Vidyalaya, Krishna Devi Vidyalaya.	262
9	Mobile Cell Phone Repairing	Nayagaon Chitrakoot	20
10	DTH Repairing	Nayagaon Chitrakoot, Raond	40
11	Detergent Powder Making	Barha Bhatiya, Banka Pipravan, Bundelapurwa.	65
12	Fruit & Vegetable Processing Technology	UVP	38
13	Pickle Making	UVP	47
14	Jam, Jelly,	UVP	30
15	Spices and Masala	UVP	40
16	Advance Bakery and Food Products	UVP	16
17	Fruit & Vegetable Processing	UVP	41
18	Papad Making	Manohar Ganj, Karwi, Bankat, Chitara	80
19	Bakery Course	UVP	63
20	Motor Winding Course	Majhgawan	20
21	Agarbatti Making	Pathar Kachhar, Bhujauli	44
22	Welding and Fabrication	Fatehganj	20
Total			**1424**

KVIC Training Programme:

Mango Pickle Training

Mobile Repairing

Agro Based Food Processing Industry Related Programme

S.No	Trade	Date	Place	No.
1	Agro based Food Processing Industry Related Program (AIA)	01/08/2023 to 30/08/2023	AKS University,	213
2	Agro based Food Processing Industry Related Program (AIA)	02/11/2023 to 10/11/2023	Balarampur P.G. College, Meja	51
3	Agro based Food Processing Industry Related Program (AIA)	09/03/2024 to 11/03/2024	Sarvodaya University Martin Ganj, Azamgarh	96
Total				**360**

Exposure Visits

Sr. No.	Date	Institute	Place	No.
1	29.04.23	RSETI Shiv Rampur Chitrakoot	UVP	30
2	14.09.23	Kumhari Udyog Training verification	South Area	20
3	11.01.24	Submission of Agriculture and Extension Atma, Fatehpur	UVP	48
4	19.02.24	Lok Vigyan Sansthan, Shah Nagar, Panna, Krashak Bhraman	UVP	23
5	10.10.23	Krishi Vistar Sudhar Karyakram (Atma) Dist. Shahdol	UVP	44
6	21.11.23	Panchkoshadharik Gurukul Ambarnath Dist. Thane, Maharashtra	UVP	22
7	08.12.23	Pragya Gramottha Sewa Samiti Fatepur (U.P.)	UVP	39
8	22.12.23	Extension Krishi Vibhag Hamirpur (U.P.)	UVP	51
9	22.02.24	Audyogik Utpadak Evam Viparan Sahkari Samiti Limited, Fatehpur	UVP	22
10	24.02.24	Aasha Gramotthan, Jalaundh (U.P.)	UVP	46
11	29.02.24	Pragya Gramotthan Seva Samiti, Fatehpur	UVP	27
12	07.03.24	Krishi Vibhag Ayodhya (Aastha Development, Mau Ayodhya)	UVP	17
13	15.03.24	Nabard Prayojit Limited Pariyojana, Fatehpur	UVP	31
14	16.03.24	Aatma Pariyojana, Fatehpur	UVP	27
15	21.03.24	Samaj Karya Vibhag, Vishwavidyalaya Shiksha Vibhag, Rewa	UVP	23
Total				**470**

EAP Programme

S.No.	Name of Village	Date	No.
1	Sada	18.04.2023	35
2	Singhpur	21.04.2023	50
3	Gujhuwa	25.04.2023	40
4	Motawa	08.05.2023	44
5	Bhiyamau	17.05.2023	33
6	Chuwa	23.05.2023	28
7	Shivrajpur	24.05.2023	50
8	Bundelapur	01.06.2023	41
9	Hariharpur	03.06.2023	44
10	Patana Kala	06.06.2023	31
11	Banka	10.06.2023	37
12	Mahtain	15.06.2023	18
13	Bhathwa	26.06.2023	40
14	Patna, Hiraundi	08.07.2023	21
15	Pagar Kala	12.07.2023	28
16	Tighra	15.07.2023	32
17	Jhakhaura	20.07.2023	48
18	Vichhiyan	24.07.2023	32
19	Chandai	10.08.2023	36
20	Harshed	14.08.2023	34
21	Pindra	17.08.2023	50
22	Selaura (Kathara)	19.08.2023	48
23	Barua	06.09.2023	36
24	Jhari	08.09.2023	48
25	Nakaila	09.09.2023	41
26	Shahpur	11.09.2023	40
27	Padri (Udeli)	12.09.2023	32
28	Sonwarsha	16.09.2023	34
29	Devlaha (Rohniyan)	19.09.2023	40
30	Bramhipur (Shivrajpur)	20.09.2023	40
31	Patna kala	04.10.2023	28
32	Barha Naugawan	04.10.2023	32
33	Chakaundh	05.10.2023	24
34	Bargadi Purwa	07.10.2023	50
35	Patvaniya (Amha)	09.10.2023	40
36	Amiriti	11.12.2023	23

37	Pagar Khurd	14.12.2023	33
38	Lalpur	18.12.2023	42
39	Baraundha	05.02.2024	50
40	Marwa	08.02.2024	44
41	Khutaha	12.02.2024	27
42	Nayagaon (Bandhawa)	17.02.2024	48
43	Chaubepur	11.03.2024	40
44	Satianusuiya	18.03.2024	34
Total			**1646**






Deendayal Industrial Training Center (DITC)

S.No.	Name of Trade	No. of Students
1	Electrician	40
2	Fitter	40
3	Computer operator and Programming Assistant (COPA)	20
4	Cutting & sewing	15
5	Plumber	10
6	Draughtsman Mechanical	10
	Total	**135**

The Solar Technician Workshop was inaugurated by
the Chief Minister of Madhya Pradesh, Dr. Mohan Yadav

Under Strive Project, construction work of 50-seater computer lab was completed

On 30th November and 1st December, 105 trainees of Deendayal Industrial Training Center had a one-day industrial visit to Prism Johnson Cement Factory

Employment Generation

Employment Generation

Training for Employment Generation **(Jan Shikshan Sansthan)** , The skill development centre is aimed at improving the skill and quality of life of its beneficiaries. Though the scheme does not target any specific group or area it concentrates on the socio-economically backward and educationally disadvantaged group of urban/rural population such as neo-literates, semi-literates, SC, ST, Women and Girls, slum dwellers, migrant workers etc.

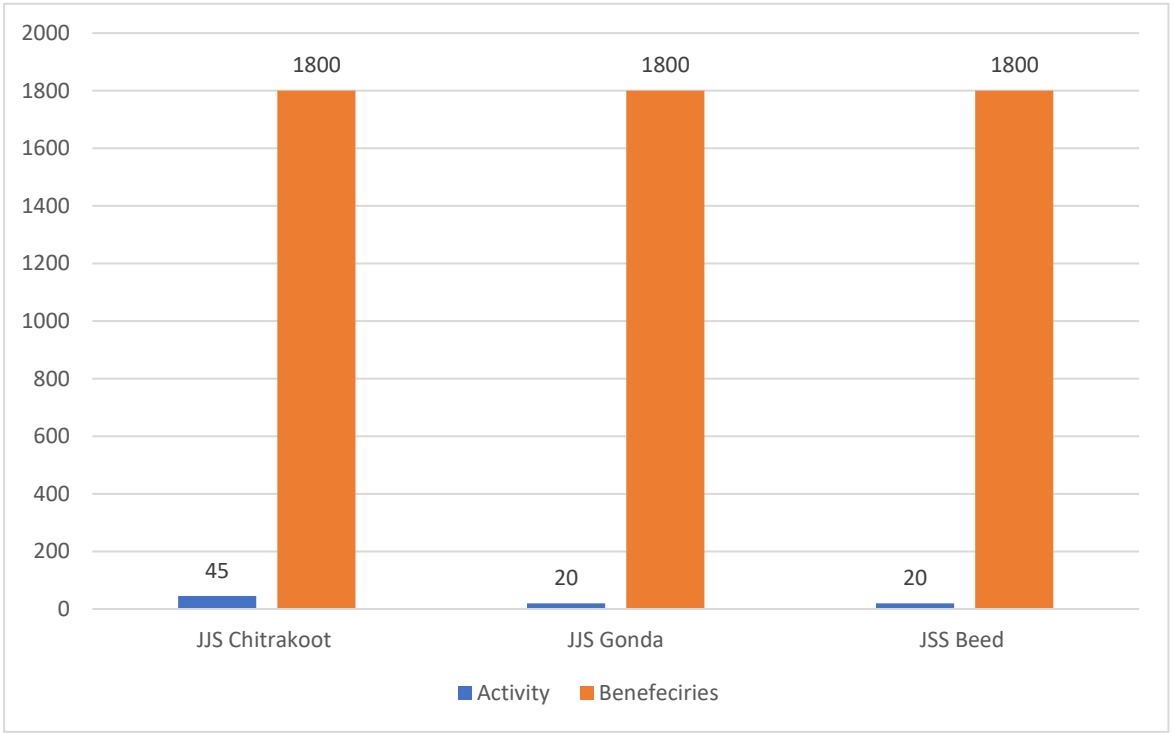
The objective of JSS is not only the economic wellbeing of participants but also it fosters the qualitative aspect of human life pertaining to behavior and attitude. Therefore, we have conducted activities to create an environment where people started seeking the correct information and option for betterment of their lives.

Objectives

- To improve the occupational skills and technical knowledge of the neo-literates and the trainees and to raise their efficiency and increase productive ability.
- To motivate people for active participation in development activities.
- To widen the range of knowledge and understanding of the social, economic and political systems in order to create a critical awareness about the environment.
- To promote national goals such as secularism, national integration, population and development, women's equality, protection and conservation of environment keeping all the view in mind.

Jan Shikshan Sansthan, planned their activities and long-term training programmes for the year 2023-24 in different fields like agriculture science, automobile, electrical engineering and handicrafts etc.

The details are:



Vocational Courses organized by JSS Chitrakoot:

S. No.	Trades	No. of Trainings	Beneficiaries
1	Assistant Dress Maker	20	400
2	Beauty & Wellness	20	400
3	Jute Product Maker	09	180
4	Automobile Rep.	06	120
5	Assistant Hand Embroiderer	06	120
6	Assistant Computer Operator	06	120
7	Food Processing	09	180
8	Electric Technician	03	60
9	Electric Helper wireman	03	60
10	Assistant Textile Printer	02	40
11	Fashion Jewellery	06	120
Total			**1800**

Activities other than vocational courses organized by JSS Chitrakoot are given below: -

S. No.	Name of Activities	Date	Place	No. of Participants
01.	Personality Development Programme (Resource Persons)	06 April 23	JSS Office	46
02.	Ambedkar Jayanti	14 April 23	Mau	92
03.	Shramik Diwas Programme	01 May 23	Chhibon	45
04.	Tobacco Day	31 May 23	Rampurwa	70
05.	Jan Bhagidari Programme (Prabhatferi)	01 June 23	Mau	130
06.	Jan Bhagidari Programme (Webinar)	02 June 23	JSS Office	36
07.	Jan Bhagidari Programme (Swachchata Sandesh)	03 June 23	Ramnath Ashramshala	41
08.	Jan Bhagidari Programme (Cycle Rally)	04 June 23	Sitapur	26
09.	International Environment Day	05 June 23	Mulayam Nagar Karwi	43
10.	Jan Bhagidari Programme (Rangoli Competition)	06 June 23	Purani Bazar Karwi	32
11.	Jan Bhagidari Programme (Career Counselling)	07 June 23	Sitapur	38
12.	Jan Bhagidari Programme (Debate Competition)	08 June 23	Prayagraj road Karwi	30
13.	Jan Bhagidari Programme (Essay Writing Competition)	10 June 23	Gauhani Kala	33
14.	Jan Bhagidari Programme (Story Making & Telling Competition)	11 June 23	Pathraudi	30
15.	Jan Bhagidari Programme (Slogan Writing Competition)	12 June 23	Karwi	24
16.	Jan Bhagidari Programme (Poster Competition)	13 June 23	Kucharam	30
17.	Jan Bhagidari Programme (Financial Literacy)	14 June 23	Sitapur	28
18.	Jan Bhagidari Programme (Webinar on Gym workout strategies	15 June 23	JSS Office	46
19.	International Yoga Day	21 June 23	Ragauli Jail & 27 Training Center	640
20.	EDP Karyakram	4 July 23	Office	45
21.	Capacity Building for Resource Person	20 July 23	Office	42
22.	Swatantrata Diwas	15 Aug. 23	Office & 06 Self Reliance Village	524
23.	Vishwakarma Jayanti	17 Sep. 23	Office	71
24.	Gramodaya Pakhwada	25-30 Sep. 23	Hardauli	40
25.	Swachchata Karyakram	01 Oct. 23	Sitapur, Khichari	114
26.	Gandhi Jayanti	02 Oct. 23	Rajapur	62
27.	Personal Hygiene & Cleanliness Programme	06 Oct. 23	Pahadi	50
28.	Personal Hygiene & Cleanliness Programme	09 Oct. 23	Ranipur Khaki	33
29.	Personal Hygiene & Cleanliness Programme	10 Oct. 23	Manikpur	61
30.	Nana Ji Jayanti	11 Oct. 23	Ganiwan, Chitrara Gokulpur	137
31.	Kaushal Deekshant Samaroh	12 Oct 23	JSS Office	176
32.	Personal Hygiene & Cleanliness Programme	13. Oct. 23	Rampurwa	36
33.	Chitrakala Pratiyogita	19-22 Oct. 23	Mau, Mawai Kala, Chakjafar	125

34.	Swachchatata hi Seva Hai	30 Oct 23	Sikari Aman	31
35.	Unity Day Programme	31 Oct 23	Govt. Girls College Ganiwan	124
36.	Swachch Ghar Pratiyogita	06 Nov. 23	Dehruchh	50
37.	Shraddha Parva	08 Nov. 23	Lodhaura	63
38.	Birsa Munda Jayanti	21 Nov. 23	Manikpur	1000
39.	Samvidhan Diwas	26 Nov. 23	Karwi	18
40.	Aids Day	01 Dec. 23	Gauhani Kala	24
41.	Bhartiya Bhasha Utsav Diwas	11 Dec. 23	Poddar Inter College Sitapur	83
42.	Smt. Sumati Tai Suklikar (Mahila Sangam)	24 Dec. 23	Surrendrapal Gramoday Vidyalaya	172
43.	Republic Day	26 Jan. 24	JSS Office	36
44.	Mahila Sashaktikaran me Swayam Sahayta Samuho ki Bhumika	26 Feb. 24	UVP	288
45.	International Women's Day	08 March 24	Mau, Chanahat	125
Total				**4990**

Jan Shikshan Sansthan Gonda:

S.No.	Activities	Target	Achieved
1-	Vocational Trainings	90	90
2-	Activities	15	15
	Total	**105**	**105**

Gradually the society is showing its inclination towards the need of self-reliance. Adding a feather to JSS efforts 20% beneficiaries have become either self-employed or wage employed. District has observed an apparent change towards emigrational trends.

Activities other than vocational courses organized by JSS Gonda are given below: -

S.No.	Name of Activities	Date	Place	No. of Participants
1	National Women Health Day	11th April 23	Gonda	42
2	Millets Exhibition at Nandini Nagar Mahavidyalaya	13th April 23	Gonda	185
3	Ambedkar Jayanti	14th April 23	Gonda	55
4	BOM Meeting conducted	28th April 23	Gonda	14
5	Janbhagidari Karyakram (Rally,Cleanliness drive, Hygiene, Wall painting, Slogan writing, Cyclothon, Rangoli Competition, Run)	1st June to 12th June 23	Gonda	Between 150-200
6	Environment Day	5th June 23		60
7	NIESBUD 5 days workshop for candidates	8tn June to 12th June 23	Gonda	48
8	International Youth Skill day at SVM Inter College, Malviyanagar	15th July 23	Gonda	65
9	Yoga Day at Kisan Kanya Inter College	21st June 23	Tarabganj, Gonda	150
10	Capacity Building Workshop	21-23 July 23	Lonavala, Maharashtra	150
11	Independence Day	15tn August 23	Gonda	40
12	Executive Meeting	28th August 23	Gonda	8
13	Pt. Deendayal Jayanti	25th September 23	Gonda	35
14	Shraddhey Nanaji Deshmukh & Loknayak Jaiprakash Narayan Jayanti	11th October 23	Gonda	35
15	Deekshant Ceremony	12th Oct.23	New Delhi	Ministry sponsored
16	MSDE Meeting	6th December 23	New Delhi	Ministry sponsored
17	International Women's Day	8th March 24	JP Gram, Gonda	60
18	Capacity Building, Exhibition and Review Meeting	18th & 19th March 24	Guwahati, Assam	Ministry sponsored
19	PMKVY-Certificates Distribution	7th March 24	JP Gram, Gonda	30
20	BOM Meeting	9th March 24	JP Gram, Gonda	18

Jan Shikshan Sansthan Beed: -

S.No.	Activities	Target	Achieved
1	Vocational Trainings	90	90
2	Activities	16	16
	Total	**106**	**106**

Major Achievement: -

- JSS Beed is selected for Sankalp Project and received equipment for computer lab as Chairs 20, Computer set 20, Computer table 20, LAN switch 2, online UPS 1.
- Printer (HP Laser pro MFP128FW), speaker, web camera, mice 20, smart board 1.
- JSS Beed provided special training of Uniform making to 10 women. Now they are stitching school uniforms and earning money.
- JSS Beneficiaries stitch 1000 swadeshi cloth bags for "Jagar stree Shakticha"sammelan.
- JSS S.H.G. – Women of Sakhi Mahila Gat Patoda are honored by Nakshat Gat forcompleting order of Diwali gift Jute bags.
- 6 JSS candidates got letter of intent in the 'Aai' Scheme by Ministry of Tourism.

Activities other than vocational courses organized by JSS Beed are given below:

Sr. No.	Name of Activities	Date	Place	No. of Participants
1	Bharat Ratna Dr. Babasaheb Ambedkar Jayanti Program	14/4/2023	Khandeshwari Parisar, Beed	76
2	International Workers Day And Maharashtra Din	1/5/2023	Chakradhar Nagar, Beed	74
3	Entrepreneur Guidance Program	19/5/2023	Chakradhar Nagar, Beed	64
4	Jan Bhagidari Program Celebrated	1 June to 15 June 2023	District Jail ,Sneh Nagar, Swarajya Nagar Beed, Dharur,	357
5	Celebration Of International Yoga Day	21-Jun-23	Manas Gurukul	130
6	World Youth Skill Day	15-Jul-23	Chakradhar Nagar, Beed	137
7	Meri Mati Mera Desh	13 to 15 Aug 2023	Beed	47
8	Teachers Day	5 Sept. 2023	Ambajogai, Kaij Dharur, Dist. Beed	210
9	Marathawada Mukti Sangram Din Kaushal Dikshant Samaroh And Bhagwan Vishvakrama Jayanti	17/9/2023	Beed	220
10	Pandit Deendayal Upadhyaya Jayanti	25/9/2023	Yashwant Vidyalaya, Beed	200
11	Mahatma Gandhi Jayanti And Swachchatachata Hi Seva Abhiyan	1st to 30th Oct 2023	Beed, Georai, Shirur, Ambajogai, Kaij, Dharur	821
12	Bharatratna Nanaji Deshmukh Jayanti	11/10/2023	Shidod	140
13	Kaushal Dishant Samaroh	12/10/2023	Chakradhar Nagar, Beed	175
14	National Unity Day	31/10/2023	Majalgaon, Aherwadgaon, Balepir	85
15	Sanvidhan Din And Birsa Munda Jayanti -Jan Jati Gaurav Din	26/11/2023	Chakradhar Nagar, Beed	45
16	World Aids Day	1/12/2023	Majalgaon	1300
17	Bhartiya Bhasha Din - Mahakavi Subramanyan Bharati Jayanti	11/12/2023	Beed	40
18	Kranti Jyoti Savitribai Phule Jayanti	3/1/2024	Chakradhar Nagar, Beed	220
19	Pandit Deendayal Upadhyay Rojgar Mela	13/2/2024	Govt. I T I Beed	70
20	International Women's Day	8/3/2024	Beed	300

Health & Hygiene

Arogyadham

Man's physical body is home to his soul. Though perishable, it must be kept healthy and in good condition, to achieve its purpose in life. It was an appreciation of this fact that gave birth to the sciences of Yoga and Ayurveda. Yoga links each organ of the body to the organismic whole — uniting body and soul. Ayurveda is the science of longevity, of which curative medicine is only a small part.

To live, man has to sustain his body. In this respect, he shares certain traits with other species of the animal world. The most common of these are the need for food and drink; the need to sleep; the compulsion to procreate for the perpetuation of the species; and the survival instinct.

In animals, these basic physical functions are instinctual and wholly governed by nature. Animals cannot transgress the limits set by nature and as long as they remain within their natural habitat, they are unlikely to lose their vigor and become unhealthy.

Man, on the other hand, along with the body, is blessed with a mind, intellect, and a soul. Perception and imagination are faculties of the mind; reason and inventiveness stem from the intellect and within the soul lies his emotional and ethical substance. Man has also been endowed with the power of creativity and a conscience that gives him the power to discriminate between right and wrong. All these attributes make man unique.

Man, however, is also susceptible to the temptation of greed and lust. Disregarding the essential balance of life, and the power of discrimination, man has become a slave to unrestrained sensual pleasures. This unfortunate human disposition to live an unnatural lifestyle causes imbalances in the psycho-physical-intellectual-spiritual make-up of the individual. Over-indulgence in sensual pleasures causes ill health, sometimes endangering life itself. This has necessitated a major spurt in man's requirement for drugs, remedies, clinics, and hospitals. The advances made in medicine and surgery have achieved remarkable success. Yet, despite qualitative and quantitative advances in healthcare, many diseases remain resistant to drugs, and new drug-resistant viral strains continue to appear. The failure to control certain killer diseases has caused despondency in allopathic medical circles.

Hence, a new approach is required. India's two ancient Shastras (sciences), Yoga (including Naturopathy) and Ayurveda, provide pointers to finding an alternative path, as their main goal has always been the maintenance of lifelong health. These Shastras do not treat the body in isolation, but treat it as a part of a psycho-physical-intellectual-spiritual continuum.

The key to lifelong health lies in maintaining a subtle balance between body, mind, intellect, and soul — the four aspects of human life. To achieve this, it is important to establish a model that puts this theory into practice. In pursuance of this goal, Deendayal Research Institute has established, Arogyadham — The J.R.D. Tata Foundation for Research in Yoga, Naturopathy & Ayurvedic Sciences.

Arogyadham: -

The Arogyadham campus, spread over 43 acres on the banks of the Mandakini river in Chitrakoot, aims to provide a model for the realization of a new life system, by taking a total overview of human development with Yoga, Naturopathy and Ayurveda.

As the objective is to study the impact of parentage, family background, environment, and upbringing, as well as the properties and effects of Yoga and Ayurveda, on a life adapted according to these principles,

Arogyadham has established the following facilities:

- An Out-patients Department (O.P.D.)
- In-patients Department (IPD).
- Maternity and Pediatric Centre with operating theatre and a neo-natal pediatric wing.
- Fully equipped Yoga and Naturopathy Centre.
- Modern Dental unit.
- An Ayurvedic Research Centre
- An Ayurvedic Research Library.
- Herbal Garden.
- Rural Health Department
- An Ayurvedic Pharmacy

Arogyadham objective is to provide Life-long Health through Ayurveda, Yoga & Naturopathy

The objective of Ayurveda is Svasthasya svasthya rakshanam aturasya vikaraprasamanam means to protect the health of the healthy and to relieve the suffering of the sufferer. It is a unique holistic science that lays more emphasis on maintaining good health and therefore

advocates a host of measures in a preventive manner. Under Swasthavritta it teaches daily and seasonal routine which includes diets and a range of physical activities. People in the olden times used Ayurveda – the only healthcare system available and attained good health. Ayurveda, being the most scientific of all traditional systems has to have its rightful place.

The notion of lifelong health although implicit in the philosophy of Ayurveda is a new concept in modern healthcare and stands out as a very thoughtful application of Ayurveda and other Indian Systems of Health Care.

Keeping this in view, Deendayal Research Institute established Arogyadham in Chitrakoot located in Satna district of M.P. and at Jaiprabha Gram in district Gonda (U.P.) The objective of Arogyadham is to demonstrate a healthcare strategy based on Ayurveda, Yoga & Naturopathyfor attaining life-long health.

The key to lifelong health lies in maintaining a subtle balance between body, mind, intellect, and soul — the four aspects of human life. To achieve this, it is important to establish a model that puts this theory into practice.

Objectives of Arogyadham

- To evolve a healthcare system of attaining lifelong health through Ayurveda, Yoga & Naturopathy.
- To establish a scientific base of Ayurveda.
- To make available the healthcare facilities at the doorsteps of the people in rural areas of Chitrakoot region in the radius of 50 km through ‘Dadi Maa ka Batua’.
- To empower traditional communities through the protection of their knowledge related to healthcare with their initiation and involvement.
- Research on Chronic Disease.
- Cultivation and conservation of medicinal Plants.
- Scientific validation of ancient drug formulations.
- To provide overall oral and dental Health care for the people of 500 villages in and around Chitrakoot.
- To conserve germplasm material of ornamental plants.
- To provide quality medicine to the people through drug standardization and quality control.
- Documentation and validation of traditional knowledge.
- To determine water quality in and around Chitrakoot for drinking water.

Arogyadham has established Clinical and Non-clinical wings to achieve the above-mentioned goals.

Clinical □ Out Patients Department □ In Patients Department

Clinical Activities (Outreach & In-house)

Activities name	No. of Center	No. of Beneficiaries
Health awareness and treatment camps	150	5959
Health awareness and treatment camps (Dental)	132	1687
Treatment of patients suffering from chronic diseases	108	1781
Health awareness and treatment to the pregnant lady	108	1079
Health meeting	157	3797
Patients follow up visit	49	4959
No of patients to get benefit from '*Dadi Maa ka Batua'*	108	9626
Health Workers selection	108	555
Establishment of Aushadhi Vatika	11	166
Health workers training/Vaidya Sammelan	01	68
Total No. of Beneficiaries		**29677**

Clinical Activities (In-house)

A total of 23841 patients were treated by outreach clinical activities and in-house clinical activities during the year 2023-24.

Units Name	No. of Beneficiaries
Ayurveda OPD registration	6338
Dental registration	17503
Total	**23841**

Nidan Sadan (OPD) The patients coming to OPD are being treated solely through Ayurveda, Yoga, and Naturopathy, but the diagnosis is carried out using both, Ayurvedic and modern allopathic techniques. The physicians working here also give tips on Swasthavritta that includes ritucharya and dincharya as described in classical books to the patients.

The activities performed by the Out Patient Department during the year under report are as:

S.N.	Project Output	Actual
1	Registration New	17655
2	Registration Old	3745
3	Registration free (Poor & Sant Mahatma)	1200
4	Registration health checkup Karyakarta	16
5	Registration health checkup students	4
6	Pathological investigations	4140
7	X-Ray	625

In-Patient Department (Swasthya Sadan): Chronic patients suffering from different types of diseases are admitted as indoor patients. The doctors study the patients to know the root cause of the problem. The in-patient department has been designed for 100 patients. Every 16 patients are looked after by a nurse and an attendant who also documents all the clinical data. During the year 2023-24, the following activities have been conducted by the In-Patient Department are as follows:

S.N.	Project Output	Actual
1	Admission & Registration	119
2	Occupancy/ month	723
3	Shiravedh	0
4	Vaman	4
5	Virechan	15
6	Nasya	9
7	Sidharth Snan	5
8	Soriatic Lap	10
9	Netra Tarpan	3
10	Kalk Bandhan	27
11	Infrared Lamp	3

Rural Health Department: This is the unique intervention of our Institute that provides proper medical care to the villagers deprived of any medical facilities. The intervention consists of a medicinal kit, called "Dadi Maa Ka Batua", containing 34 Ayurvedic medicines prepared from locally available herbs. One person in every village has been trained in using this kit for the treatment of common ailments. People living in the villages have benefitted from the kit and they are happy about it, as medical care is now available at their doorsteps. The department of Rural Health Department organized health awareness and treatment camps in the Chitrakoot area. The medical facilities provided in the camps are given below:-

- Ayurvedic Treatment & Consultancy
- Dental Treatment & Consultancy
- Naturopathy Treatment & Consultancy
- Yoga Treatment & Consultancy

Dispense of ayurvedic medicines at a subsidized rate. Activities undertaken by the Rural Health Department to achieve the objectives:

During the year 2023-24, 9626 patients were treated by Rural Health Department through ‘‘Dadi Maa Ka Batua’’ in villages around Chitrakoot. Besides,108 health meetings were also organized to create awareness about common diseases and their root causes.

S.N.	Project Output	Achieved
1	Identification of malnutrition child & their treatment	108
2	Health awareness and treatment for the pregnant lady	108
3	Treatment of patients suffering from chronic disease	108
4	Health awareness and treatment camp	150
5	Health meetings	157
6	No of patients get benefit from ‘‘Dadi Maa ka Batua’’	9626
7	Aushadhi Vatika	166
8	Health worker selection	555

Health Awareness & Treatment Camp (Northern Area)

S.N.	Date	Centre name	Male	Female	Child	Total
1	15/04/2023	Bhaganpur	17	11	2	30
2	19/04/2023	Sangrampur	18	10	0	28
3	22/04/2023	Ranipur Khakhi	20	16	3	39
4	26/04/2023	Pathraudi	19	21	0	40
5	29/04/2023	Kalla	18	8	4	30
6	05/05/2023	Karari	24	1	2	27
7	13/05/2023	Bharthaul	19	7	6	32
8	20/05/2023	Banadi	20	21	4	45
9	25/05/2023	Bhaghauda	23	8	0	30
10	31/05/2023	Bhabhai	13	24	2	39
11	05/06/2023	Narayanpur	13	10	4	27
12	08/06/2023	Padri	10	8	0	18
13	13/06/2023	Tarav	29	11	1	41
14	16/06/2023	Bhinhari	13	13	0	26
15	20/06/2023	Kalwaliya	13	6	0	26
16	24/06/2023	Hardauli	7	14	7	28
17	27/06/2023	Pachokhar	11	7	0	18
18	30/06/2023	Semariya	13	12	1	26
19	03/07/2023	Kolgadahiya	30	10	4	44
20	06/07/2023	Lodhwara	20	11	1	32
21	10/07/2023	Kucharam	15	12	0	27
22	14/07/2023	Itraur	9	16	4	29
23	18/07/2023	Ganivan	10	19	3	32
24	22/07/2023	Ramakol	14	14	2	30
25	26/07/2023	Chakaundh	9	20	4	33
26	31/07/2023	Anandpur	29	3	0	32
27	08/08/2023	Purwa Taraunha	21	13	1	35
28	12/08/2023	Sabhapur	7	13	1	21
29	22/08/2023	Rampuriya Abbal	8	22	3	33
30	26/08/2023	Amiliha	14	9	5	28
31	29/08/2023	Nayachandra	11	18	3	32
32	13/10/2023	Baihar	17	15	2	34
33	13/10/2023	Rampurwa	12	15	1	28
34	16/10/2023	Look Patauda	29	23	3	55
35	17/10/2023	Gauhani	21	10	2	33
36	18/10/2023	Kuin	12	11	7	30
37	19/10/2023	Nandi Taura	15	22	5	42
38	20/10/2023	Barkurra	10	14	7	31
39	21/10/2023	Lakhanpur	5	20	7	32
40	25/10/2023	Chhapramaphy	19	10	2	31

41	26/10/2023	Jamhil	12	17	3	32
42	30/10/2023	Sikri Aman	17	15	2	34
43	31/10/2023	Nonagar	9	14	3	26
44	02/11/2023	Bhabhet	17	17	3	37
45	04/11/2023	Dhaurehimaphy	15	10	1	26
46	06/11/2023	Duwari	25	3	5	33
47	08/11/2023	Mainhai	22	16	3	41
48	10/11/2023	Boodha Semarwar	19	10	3	32
49	15/11/2023	Kuseli	8	8	7	23
50	16/11/2023	Mirjapur	7	21	2	30
51	18/11/2023	Sardhuwa	19	9	1	29
52	20/11/2023	Hariharpur	2	28	0	30
53	22/11/2023	Ghurehtanpur	11	21	0	32
54	23/11/2023	Manpur	22	9	0	31
55	25/11/2023	Bharatpur	18	14	0	32
56	28/11/2023	Khamariya	15	21	4	40
57	30/11/2023	Basila	5	22	0	27
58	08/12/2023	Babupur	6	21	3	30
59	13/12/2023	Semardaha	17	20	1	38
60	16/12/2023	Nonar	6	11	10	26
61	20/12/2023	Paikaura	14	13	1	28
62	23/12/2023	Arjunpur	19	12	1	32
63	04/01/2024	Chanhat	10	11	4	25
64	06/01/2024	Dadiya	6	22	1	29
65	08/01/2024	Bhujauli	36	29	6	71
66	10/01/2024	Magarhai	16	8	6	30
67	12/01/2024	Ghurehta	17	9	5	31
68	16/01/2024	Dhan	9	13	7	29
69	18/01/2024	Karaundi Kala	5	25	0	29
70	20/01/2024	Kapuri	13	14	5	32
71	23/01/2024	Bhadevra	7	21	3	31
72	27/01/2024	Bachharan	7	24	1	32
73	29/01/2024	Panauti	4	19	5	28
74	31/01/2024	Kaheta Maphy	6	23	1	30
75	03/02/2024	Bakta Bujurga	16	7	2	25
76	06/02/2024	Rauli	30	26	4	60
77	10/02/2024	Chakla	17	11	8	36
78	15/02/2024	Raipurwa Maphy	17	4	0	21
79	19/02/2024	Byur	16	10	0	26
80	23/02/2024	Agarahuda	10	17	0	27
81	02/03/2024	Khutaha	13	13	2	28
82	05/03/2024	Dadri	15	9	7	31
83	09/03/2024	Bandar Kol	15	12	0	27
84	13/03/2024	Balapur	20	18	2	40
85	16/03/2024	Pahadi	23	3	0	26

86	20/03/2024	Ragauli	19	16	1	36
87	22/03/2024	Machhariha	14	12	2	28
		Total	**1303**	**1236**	**228**	**2771**

Health Awareness & Treatment Camp (Southern area)

S.N.	Date	Centre name	Male	Female	Child	Total
1	14/04/2023	Malgausa	10	18	4	32
2	18/04/2023	Sanda	18	17	5	40
3	21/04/2023	Singhpur	17	15	0	32
4	25/04/2023	Gujhwa	13	15	3	31
5	28/04/2023	Chitahra	7	23	2	32
6	8/5/2023	Bhargawan	11	19	2	32
7	17/5/2023	Bhiyamau	23	7	2	32
8	23/5/2023	Chuwa	10	20	4	34
9	28/5/2023	Barha Naugawan	12	22	3	37
10	29/5/2023	Pipri Tola	14	20	4	38
11	6/6/2023	Patna Kala	25	1	5	31
12	10/6/2023	Banka Piprawan	11	22	9	42
13	15/6/2023	Mahtain	9	22	1	32
14	19/6/2023	Putri Chuwa	20	11	0	31
15	21/6/2023	Arjunpur	11	19	2	32
16	26/6/2023	Barha Bhatiya	17	26	1	44
17	29/6/2023	Ranipur	20	17	2	39
18	5/7/2023	Amiliya	8	20	6	34
19	8/7/2023	Hiraundi	6	17	9	32
20	12/7/2023	Pagarkala	6	32	7	45
21	15/7/2023	Tighra	11	16	11	38
22	20/7/2023	Jhakhaura	17	28	5	50
23	24/7/2023	Khodhri	2	27	3	32
24	28/7/2023	Jawarin	**29**	**9**	**6**	44
25	10/8/2023	Chandai	6	25	1	32
26	14/8/2023	Veerpur	15	12	4	31
27	17/8/2023	Pindra	16	13	3	32
28	19/8/2023	Selaura	6	18	9	33
29	24/8/2023	Patharkachhar	16	19	0	35
30	28/8/2023	Kandar	20	26	1	47
31	31/8/2023	Kelhaura	19	9	5	33
32	6/9/2023	Barua	12	21	2	35
33	8/9/2023	Jhari	24	6	2	32
34	9/9/2023	Nakaila	18	8	5	31

35	11/9/2023	Shahpur	18	14	0	32
36	12/9/2023	Padari	14	15	4	33
37	16/9/2023	Sonvarsha	16	15	1	32
38	19/9/2023	Devlaha	18	13	5	36
39	20/9/2023	Bramhipur	10	21	5	36
40	23/9/2023	Pachheet	6	25	1	32
41	26/9/2023	Machkhada	11	17	3	31
42	27/9/2023	Harduwa	22	10	0	32
43	29/9/2023	Badkhera	11	15	0	26
44	30/9/2023	Sejwar	8	26	6	40
45	11/12/2023	Amirti	10	23	0	33
46	14/12/2023	Pagarkhurda	14	20	5	39
47	18/12/2023	Lalpur	7	24	0	31
48	21/12/2023	Kailashpur	9	21	0	30
49	26/12/2023	Turra Gauhani	5	27	0	32
50	28/12/2023	Paldev	13	16	2	31
51	30/12/2023	Tedhi	20	9	2	31
52	05.02.2024	Baraundha	29	3	0	32
53	08.02.2024	Marwa	14	11	7	32
54	12.02.2024	Khutaha	20	17	1	38
55	17.02.2024	Nayagawan	22	16	12	50
56	21.02.2024	Karogohi	22	24	0	46
57	24.02.2024	Nardaha	26	8	4	38
58	04.03.2024	Pokharwar	13	16	1	30
59	06.03.2024	Khohi	22	6	3	31
60	11.03.2024	Chabepur	11	15	4	30
61	15.03.2024	Chhirpurwa	18	11	5	34
62	18.03.2024	Sati Anusuiya	27	7	0	34
63	21.03.2024	Pathara	18	13	2	33
		Total	**933**	**1058**	**201**	**2192**

Health workers Training on 11-12 October 2023 at Krishi Vigyan Kendra Ganiwa, U.P.
(68 health workers got the training from 36 self-reliant villages)

Yoga & Naturopathy Centre: -

Yogic treatment is becoming more and more popular throughout the world. Most people follow only the physical exercises, the Asanas. These exercises are only a part of Yoga and not the complete process. Asanas by themselves cannot ensure lifelong health. Pranayama and Dhyana (Meditation) have to be practiced along with Asanas for lifelong health. Arogyadham provides this integrated form of Yoga therapy along with Naturopathy. Naturopathy starts with the purification of the body. A process, described as Panchkarma, and the cleaning process of Naturopathy, have been clubbed together in this department. The following activities have beenperformed by the centre to achieve the objectives:

Activities undertaken by Yoga Sadan to achieve the objectives:

S.N.	Project Output	Actual
1	Seke Mittipati	351
2	Snehan (Sarvang) + OPD	1858
3	Snehan (Ardhand) + OPD	276
4	Swedan (Sarvang) + OPD	1415
5	Swedan (Ardhang) + OPD	279
6	Shirodhara	460
8	Vasti (Sthapan)	381
9	Vasti (Anuvasan)	510
10	Kati Vasti	405
11	Janu Vasti	340
12	Greeva Vasti	86
13	Meerudand Vasti	96
14	Nasya	379
15	Akshi Tarpan	154
16	Netra Pindi	64

Activities of Herbal Garden and Landscaping: -

S. No.	Project Output	Actual
1	New introduction of plants in Aushadhi Vatika	10
2	Propagation of Medicinal Plants	500
3	Satawar	1kg
4	Green and fresh medicines to Rasshala	128
5	Total fruit production in Garden	1256 kg
6	Selling of medicinal plants	81 no.
7	Cultivation of Ornamental plants	190 no.
8	Mala (Garlands)	7 no
9	Bouquet	16 no.
10	Loose flowers selling	750 gm
11	Meeting of Staff	4

Ayurveda Sadan (Research Laboratory)

The evidence of effectiveness of Ayurveda in curing disease and maintaining a healthy body is available in abundance but no systematic scientific studies have been done to prove this. Unfortunately, there is a lack of standardization and scientific validation of the herbs used in Ayurvedic formulations. This is a great hindrance to its acceptability worldwide. To overcome this shortcoming the research laboratory named **Ayurveda Sadan** has been established. In Ayurveda Sadan, there are seven modern laboratories. These include **Taxonomy laboratory, Pharmacognosy laboratory, Medicinal Chemistry laboratory, Microbiology laboratory, Genetics and Molecular Biology laboratory, Tissue Culture laboratory, and Core Instrumentation Facility laboratory**.

Highly sophisticated instruments have been procured and placed in these laboratories. This center has signed a MoU with CSIR -NBRI, Lucknow, CSIR-CIMAP Lucknow, and other reputed institutions for cooperation and collaboration in the research activities of Ayurveda medicines. The focus of the research activities of the center are:-

- Identification of Ayurvedic compound formulations with the help of experienced Ayurvedic doctors.
- Procuring required herbs with the help of a taxonomist.
- Survey, collection, and identification of medicinal and aromatic plants.
- Development & preservation of Herbarium.
- Laying standards for the raw drugs used in Ayurvedic formulations.
- Identification of active principles and/or marker components in the herbs of interest.
- Identification and standardization of analytical methods for the estimation of specific components found or known to play an active therapeutic role.
- Quality control of raw drugs and finished drugs.
- Microbial screening in the AYUSH drugs.
- Collection, identification, and documentation of plants used by the tribal/local people.
- Preparation of plant inventories of Chitrakoot region.
- Collection and scientific validation of folklore knowledge.

"Health for all" is a dream and a goal that humanity at large shares and strives for. Unfortunately, it has now been proven without doubt that modern pharmaceuticals are and will remain out of reach for a large proportion of the human population for the foreseeable future. This has created an appreciation and a need for the use of other sources of human knowledge to provide common health benefits. Alternative and traditional medicines, largely herbal in nature, are now regarded as important.

As most herbal medicines are prepared from more than one plant material, documentation must be made both on single medicinal plants and on composite herbal preparations. It is being studied for easy access by all beneficiaries, producers, and stakeholders.

The knowledge base for an herb or herbal medicine promoted for wider use should be strengthened and expanded so that there is a sound scientific basis for each use. Several 26 single drugs and 07 composite formulated drugs have been studied during 2013-14. Targeted and well-planned work has been done in this regard with Standard Operating Procedures for the standardization of each & every drug. So that a layman can undergo the processing of herbal medicine and the ways and means for moving forward to achieve the difficult goal of preparing herbal medicines of consistent quality and effects.

Objectives of Ayurveda Sadan:

- To establish a scientific base of Ayurveda.
- To provide quality medicine to the people through drug standardization and quality control.
- Documentation and validation of traditional knowledge.

Activities performed by Ayurveda Sadan

- Standardization of Ayurvedic drugs.
- Quality Control of Ayurvedic drugs.
- Analysis of drinking water quality and organization of the water awareness camps in self-reliant villages.
- To conduct training programs for UG/PG/Research Scholars students belonging to different colleges/universities.
- To assist and provide research facilities for Research Scholars belonging to different Colleges/Universities for the completion of their research work.

The laboratory has tested several Ayurvedic products as per given guideline of Ministry of AYUSH, Government of India and WHO. Tested products are given below-

S. No.	Name of products	Parts used
1.	Cough & Cold Reliever	M/s. Zyro Health Care Pvt Ltd, Flat no. 02, Samta Apartment, Plot-L6A, Mahavir Enclave, Palam area, New Delhi-110045
2.	Honey	M/s. Ramesh Shivhare, Majhagawan (Chitrakoot Rasshala)
3.	D Churna	M/s. Chitrakoot Rasshala, Chitrakoot, Satna M.P.

A_1. Standardization of single / compound drugs

We have standatdized 2 single drugs in our laboratoty *Blumea lacera* and *Ampelocissus latifolia* (Roxb.) as per defined parameters by ministry of AYUSH

Collection, Authentication of Plant & Preparation of Herbarium

Fully grown fresh plants of *Blumea lacera* and *Ampelocissus latifolia* (Roxb.) were collected from Arogyadham campus, Deendayal Research Institute, Chitrakoot, Satna (M.P.) India, in the month of October, 2022. Plants material was identified and authenticated by Dr. Manoj Tripathi, Senior Scientist & Head (R&D Department), Arogyadham, Deendayal Research Institute, Chitrakoot, Satna (M.P.), India.

Preparation of Samples

Fresh root, stem and leaf of *Blumea lacera* and *Ampelocissus latifolia* were used for anatomical studies like macroscopic, and microscopic study and, whereas dried materials of plant parts under electric tray drier were powdered through electric grinder separately and enough to pass through 355 μm IS Sieve (old sieve number 44) and stored the samples in air-tight containers for further analysis such as powder microscopy, florescence study, physico-chemical tests, HPTLC analysis and heavy metals testing.

Pharmacognostic Study of *Blumea lacera*

Blumea lacera family Asteraceae is commonly called as Kakaronda. It is annual or biennial erect, 25-110 cm tall and a camphoraceous smelling herb. *Blumea lacera* stem simple, hairy, tall, corymbosely branched, branches sometimes ascending. Leaves sessile or petiolate, elliptic to oblong, 8-10 × 3.0-4.0 cm, lanate abaxially, base attenuate, margin doubly serrate or sometimes slightly variously lyrately lobed, apex obtuse; veins 4-8 pairs. Capitula 7-8 × 2.0-3.0 mm, in axillary and terminal dense to lax panicles. Receptacle convex, alveolate, glabrous. Marginal florets ca. 5 mm, 2-5-lobed, limb glandular. Central florets yellowish, 6-7 mm, with 5 triangular lobes, lobes with sessile glands and multicellular hairs. Achenes oblong, sparsely hirsute.

Macroscopic/morphological study of *Blumea lacera*

Root- externally root colour is light brown, faintly yellowish in internally, taste slightly astringent, and disagreeable characteristics odour. Root is cylindrical, highly tortuous, often attached with a woolly stout crown, measuring 1.5-3.5 cm in diameter, about 2-11cm in length, surface rough, finely longitudinally striated and wrinkled running spirally and getting anastomosing at places, transversely cracked and corrugated, rarely grooved, often exhibiting lateral root scars; fracture outer short, inner fibrous.

Stem- Cylindrical branched from woody base, villous and glandular, dorsiventrally slightly flattened, 4-10cm in length, 2-10 mm in thickness, longitudinally wrinkled and striated, young slender stems are highly woolly. Nodes swollen shows cluster of woolly small leaf and buds in the axil, fracture short and fibrous**.**

Leaf- Leaves simple, alternate, obovate or elliptic-oblong in outline, lyrately-lobed, margins entire or serrate-dentate, narrowed into a short cylindrical petiole 1-1.5 mm in length, glandular and densely hairy on both sides. Leaves are 3.5 -12 cm in length and 2-6.5cm in width**.**

Diagrammatic Transverse Section of the root is irregular circular in outline and shows a wide central wood occupying almost 2/3rd area of the section, encircled by a narrow bark,

Detailed Transverse Section (TS) of the root shows outer 2 to 5 rows of cork often getting obliterated at places followed by 2 to 5 rows of parenchymatous cortex, endodermis is distinct, underneath of this lies a narrow zone of pericycle characterized with a row of oil cells, phloem, wider parenchymatous zone, traversed with small groups of fibres lying towards the inner zone, few of them being in very large conical patches with their broad base embedded in the innermost region of the phloem and reaching almost upto the region of pericycle; cambium distinct, xylem consists of isolated or groups of xylem vesses

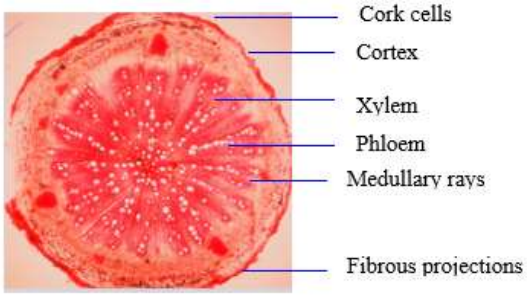
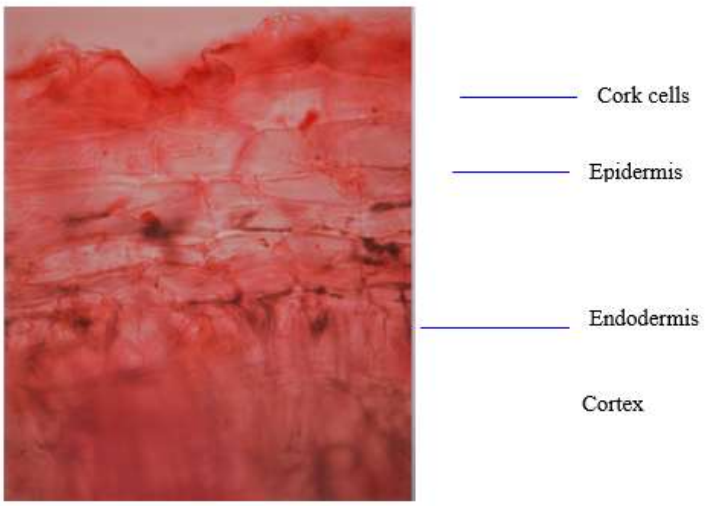


Fig. Diagrammatic TS of *Blumea lacera root*



Microscopic study of *Blumea lacera* stem

Diagrammatic TS of stem is circular in outline with simple and glandular trichomes, a ring of conjoint, collateral vascular bundles capped with group of pericyclic fibres encircles a wide central parenchymatous pith occupying the major area of the section,

The detailed TS show a layer of epidermis with thick cuticle and few stomata and bearing both simple and glandular trichomes. Simple trichomes are non-lignified, 3 to 13 celled in height, uniseriate, thick-walled. Glandular trichomes are with 1 to 3 celled stalk and 2 to 4 celled head. A narrow collenchymatous hypodermis lies underneath this, followed by 3 to 5 celled parenchymatous cortices, endodermis is distinct, pericycle is characterized with groups of lignified fibres, each capped over by a discontinuous ring of vascular strand consisting of radially arranged xylem vessels, associated with fibres and tracheids, phloem is narrow. Pith is parenchymatous,

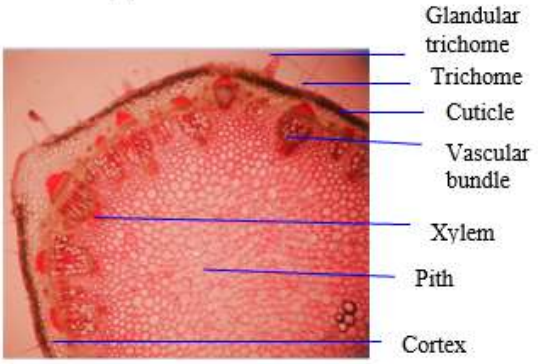
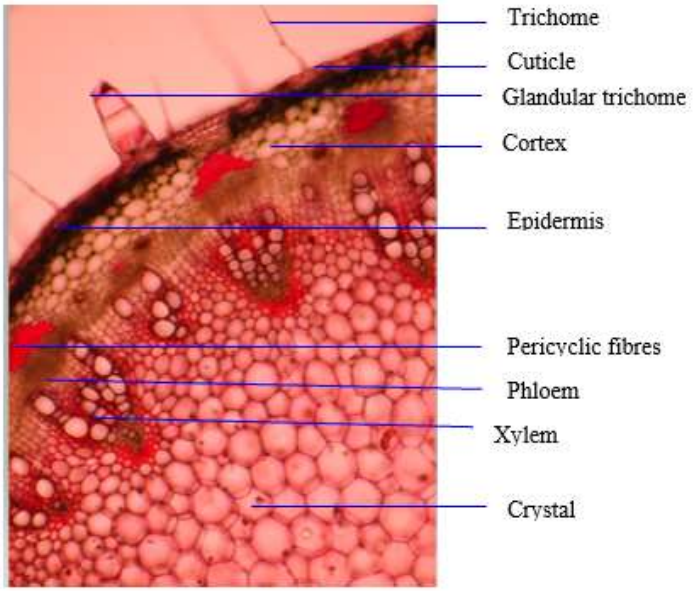
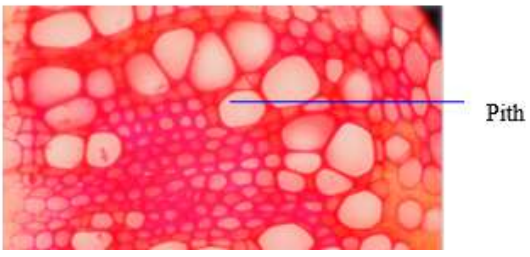


Fig. - Diagrammatic TS of *Blumea lacera* stem

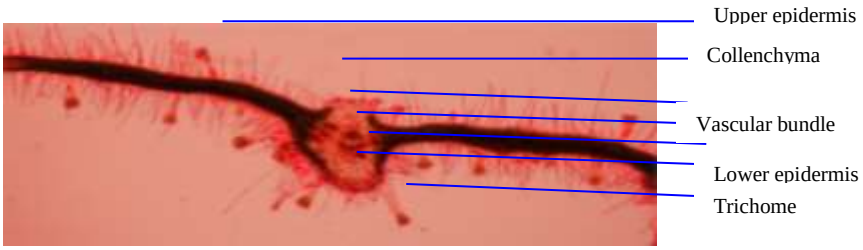


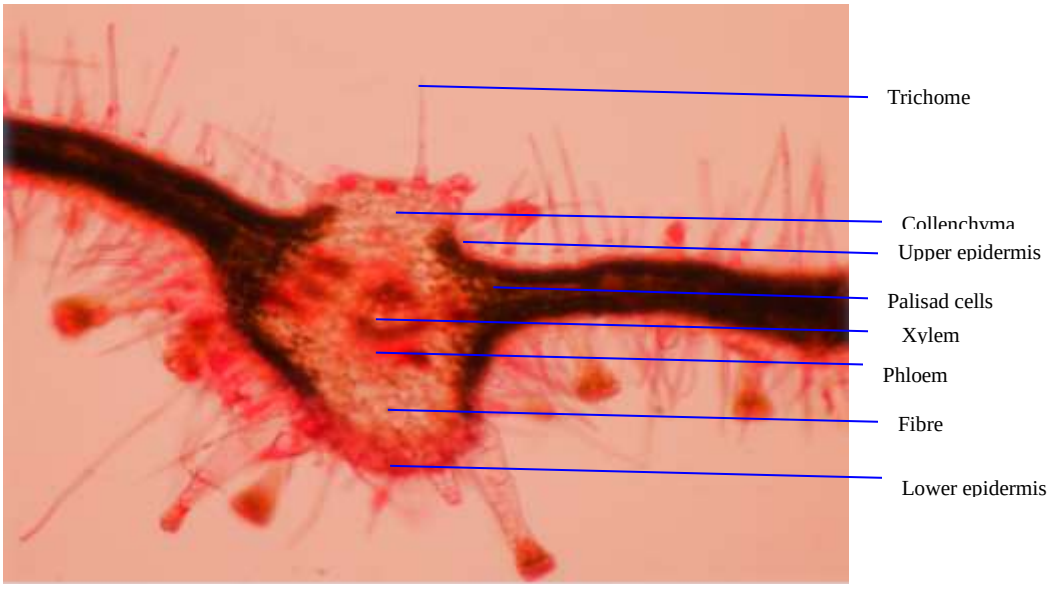


Microscopic study of *Blumea lacera* leaf

Diagrammatic TS of the leaf passing through the midrib is convexly protruding at the lower side and ridged on the upper side with collenchymatous tissue under both the epidermis and a centrally located meristele. Lamina is dorsivertral and pubescent**.**

Detailed TS shows upper and lower papillose epidermis with thick cuticle, traversed with stomata and bear simple and glandular trichomes. The simple trichomes are 2 to 8-celled, uniseriate, thick-walled. Glandular one are with 1 to 3 celled stalk and 2 to 4-celled head, collenchymatous tissue lies under both the epidermis of the midrib, being strongly developed towards the lower side, and the centrally located meristele is protected dorsoventrally by fibrous band and encircled by a parenchymatous sheath, a row of small sized palisade cells lie underneath the upper epidermis, the remaining mesophyll being of spongy parenchymatous cells traversed with vascular strands**.**





Quantitative Microscopy *Blumea lacera* leaf

Quantitative microscopy of *Blumea lacera* leaf was performed such as stomatal number, stomatal index, vein islet number, vein termination number and palisade ratio and results are shown in table

Table -Quantitative microscopy of *Blumea lacera* Leaf

Determination	**Values per mm2**
Palisade ratio	10
Vein islet number	26-34
Vein termination number	48-57
Stomatal number (upper epidermis)	104-114
Stomatal number (lower epidermis)	111-127
Stomatal index (upper epidermis)	10-15.5
Stomatal index (lower epidermis)	14-16.8

The result shows that in *Blumea lacera* leaf palisade ratio is 10, vein islet number 26-34/mm2, vein termination number 48-57/mm2, stomatal numbers are higher in lower epidermis (104-114/mm2) than upper epidermis (111-127/mm2) and stomatal index was also higher in lower epidermis (10-15.5mm2) than upper epidermis (14-16.8/mm2).

Fluorescence study of *Blumea lacera*

Root- Fluorescence study was performed in various mounts with samples and chemicals and observed the color of the mounted materials with the help of UV Spectrophotometer at UV light and at 366nm. Powder showed different colors at different wavelengths, it means various types of secondary metabolites are present in the *Blumea lacera* root. Result are given in table-

Table -: Fluorescence study of *Blumea lacera* root

S. No.	Drug powder+ Chemical	Observation in UV light	Observation in 254nm	Observation in 366nm
1	Powder	Cream	Creamish white	Creamish white
2	Drug powder + Distilled water	Cream	Whitish cream	Creamish white
3	Drug powder + Nitrocellulose	White	Light yellow	Yellowish green
4	Powder + Acetic acid	Dark black	Brownish white	Blackish brown
5	Powder + 50% KOH	Sky blue	Greenish white	Turmeric yellow
6	Powder + 1N HCL	Light red	Light brown	Brownish yellow
7	Powder + 1N NaOH water	Pale yellow	Greenish yellow	Pale yellow
8	Powder + H2SO4	Dark black	Dark green	Light black
9	Powder + Iodine water	Sky blue	Bluish yellow	Blue
10	Powder + 1N NaOH methyl	Blue	Yellowish green	Yellowish blue
11	Powder + 50%H2SO4	Brownish black	Greenish brown	Light yellow
12	Powder + 50%HNO3	Brownish black	Dark brown	Dark yellow

Physico-chemical analysis of *Blumea lacera*

The physico-chemical tests such as Loss on drying on 105^0C, water such as extractive values, alcohol soluble extractive value, total ash value and acid insoluble ash value were performed. The results are expressed as mean (n=3) ± standard deviation in w/w. *Blumea lacera* root LOD was found 5.84% w/w, total ash value 10.16% w/w, acid insoluble ash value 0.21% w/w, alcohol soluble extractive value

13.98% w/w and water soluble extractive value 25.77%w/w. Stem LOD was found 6.23% w/w, total ash value 6.88% w/w, acid insoluble ash value 0.25% w/w, alcohol soluble extractive value 18.46% w/w and water soluble extractive value 22.64%w/w and leaf LOD was found 6.29% w/w, total ash value 7.30% w/w, acid insoluble ash value 0.13% w/w, alcohol soluble extractive value 21.93% w/w and water soluble extractive value 38.68%w/w. The loss on drying value obtained is an indicative of amount of moisture content could prevent bacteria, fungal or yeast growth.Water soluble extractive value is higher than the alcohol soluble extractive value. The extractive values, indicates the amount of active constituents in given amount of plant material when extracted with respective solvent and useful for the determination of exhausted or adulterated drug. Ash values of the drug gave an idea of the earthy matter or the inorganic composition and other impurities present along with the drug. total ash value is an indicative of total amount of inorganic material after complete incineration and the acid insoluble ash value is an indicative of silicate impurities, which might have arisen due to improper washing of the ingredients. Ash value is useful in determining authenticity and purity of the drug and also these values are important quantitative standards. The results of physicochemical analysis are given in (**Table 4.5**).

It is observed that the leaf LOD value 6.29% is higher than the stem LOD 6.23% and tuberous root LOD 5.84%. Respectively total ash values were higher in root (10.16%) as compared to leaf (7.30%) and stem (6.88%). While, acid insoluble ash is higher in stem 0.25% than leaf 0.13% and tuberous root 0.21%. Water soluble extractives were higher than alcohol soluble extractives in leaf (38.68, 21.93%W/W), stem (22.64, 18.46%W/W) and tuberous root (25.77, 13.98%W/W).

Preliminary Phyto -chemical tests of *Blumea lacera*

Preliminary phyto-chemical analysis was performed in petroleum ether, benzene, chloroform, acetone, methanol, ethanol and water of ***Blumea lacera*** root, stem and leaf powder was carried out and outcomes are shown **in table 4.40**. It was observed that the phytochemical higher present in aqueous extract than the other extracts. The results indicated that the alkaloids were present in chloroform, methanol and water extracts of *Blumea lacera* leaf and stem while root was devoid of it. Flavonoid was present in chloroform, acetone, methanol and water extracts of *Blumea lacera* root while absent in leaf and stem. Saponins were present only in methanol and water extracts of *Blumea lacera* root. Methanol and water extracts of *Blumea lacera* leaf, root and stem contained carbohydrates. Phytosterols were found in petroleum ether and acetone extracts of *Blumea lacera*leaf. Acetone, methanol and water extracts of *Blumea lacera* root were found to contain tannins and phenolic compounds. Cardiac glycosides and coumarins were absent in petroleum ether, benzene, chloroform, acetone, methanol and water extract of *Blumea lacera* leaf, root and stem. Anthraquinone glycosides were present in chloroform, acetone, methanol and water extracts of *Blumea lacera* leaf. Dissimilar result of phytoconstituents in successive extracts of *Blumea lacera* leaf, stem and root helps in identification of plant.

Preparation of test solution-

For High-performance thin layer chromatography, about 5 gm accurately weighed *Blumea lacera* samples (root, stem and leaf) with 100 ml of methanol (3X100) in a Soxhlet apparatus for 6 hours separately. Filtered and concentrated the extracts under a vacuum oven to get the residue. Dissolved 100 mg of *Blumea lacera* extracts residue (root, stem and leaf) in a 10ml (10mg/ml) volumetric flask and make up the volume with methanol to get the working test solution separately.

4.7.2 Preparation of Standard Solution- (Cineol, Ferullic acid, and Stearic acid)

For preparation of the standard marker working solutions, 10mg of Cineol, Ferullic acid, and Stearic acid were dissolved in a 10 ml volumetric flask and made up the volume with methanol separately. Then transferred 1 ml of stock solution to a 10 ml volumetric flask and made up the volume with methanol separately (0.1mg/ml). From the solution, prepared standard solutions by transferring aliquots (0.1, 0.2, 0.3 and 0.4 ml) corresponding to (1, 2, 3 and 4 ug/ml) of stock solution to 10ml volumetric flasks and made up the volume in each case to 10 ml with methanol.

4.7.3 Calibration curve-

Applied 8 µl each of the standard solution (80 to 480 mg per spot) on the HPTLC plate. Develop the plate in the solvent system till the solvent rises to a distance of 8 cm. Dry the plate and scan at 358nm. Record the peak areas. Prepared a calibration curve of Cineol, Ferulic acid and Stearic acid standard by plotting peak areas against concentration of Cineol, Ferulic acid and Stearic acid standard.

High performance thin layer chromatography (HPTLC) study of the methanolic extracts of *Blumea lacera* root, stem and leaf with Cineol, Ferulic acid, and Stearic acid standard marker spots applied in precoated TLC plate. Samples (root, stem and leaf) as well as standard markers (Cineol, Ferulic acid, and Stearic acid) were applied by spotting test solution 8 µl (each test solution root, stem and leaf) on pre-coated silica-gel aluminum plate 60 F_{254} (10x20 cm with 0.2 mm layer thickness Merk Germany) using Camag Linomat -5 sample applicator and a 100 µl Hamilton syringe. The samples, in the form of bands of length 6 mm were spotted 15 mm from the bottom, 15 mm from the left margin of the plate, and 10 mm part. And apply 1.0, 2.0, 3.0, and 4.0, standard markers Cineol, Ferullic acid, and Stearic acid, 0.1, 0.2, 0.3, and 0.4 ml on pre-coated silica-gel aluminum plate 60 F_{254} (10x20 cm with 0.2 mm layer thickness Merk Germany) using Camag Linomat -5 sample applicator and a 100 µl Hamilton syringe and standard markers, in the form of bands of length 6 mm, were spotted 15 mm from the bottom, 15 mm from the left margin the plate and 10 mm part.

The plate was developed using a mobile phase consisting of *toluene: ethyl acetate* (7:5v/v). Linear ascending development was carried out in a 20x20cm twin through glass chamber equilibrated with the mobile phase. The optimized chamber saturation time for the mobile phase (20 ml) was 30 min at room temperature. The length of the chromatogram run was 8.5 cm. Subsequent to the development, a thin layer of chromatography plate was dried at room temperature. The peak area for samples and standards were recorded with the camera photo documentation system Camag Reprostar 3 and the plate was scanned densitometrically with the help of Scanner 4. Record the respective areas and prepare a

calibration curve by plotting peak area *vs* concentration of standard markers Cineol, Ferullic acid, and Stearic acid. Major spots R_f values with colour were recorded after derivatization at 366nm. Major spots of R_f values after derivatization at 366nm major spots $R_{f\ values}$ are 0.30 sky blue, *Blumea lacera* root and stem with Cineol standard marker, 0.30 sky blue *Blumea lacea* root and stem with Stearic acid, standard marker. It is observed that the Cineol is higher present in *Blumea lacera* root than the stem and root, while Stearic acid was present higher in *Blumea lacea* stem than the *Blumea lacera* root, but Ferulic acid was absent in *Blumea lacera* root, stem and leaf.

4.7.4 Estimation of Cineol in *Blumea lacera* root, stem and leaf

Applied 8 µl of the test solution on precoated TLC plate. Developed the plate in the solvent system and record the chromatogram for the calibration curve. Calculate the amount of Cineol present in the samples from the calibration curve of Cineol.

The percentage of Cineol ranges from 0.42 to 0.46 percent in the *Blumea lacera* root analyzed, while Cineol range was found in *Blumea lacera* root, 0.12 to 0.14 percent.

4.7.5 Estimation of Stearic acid in *Blumea lacera* root, stem and leaf

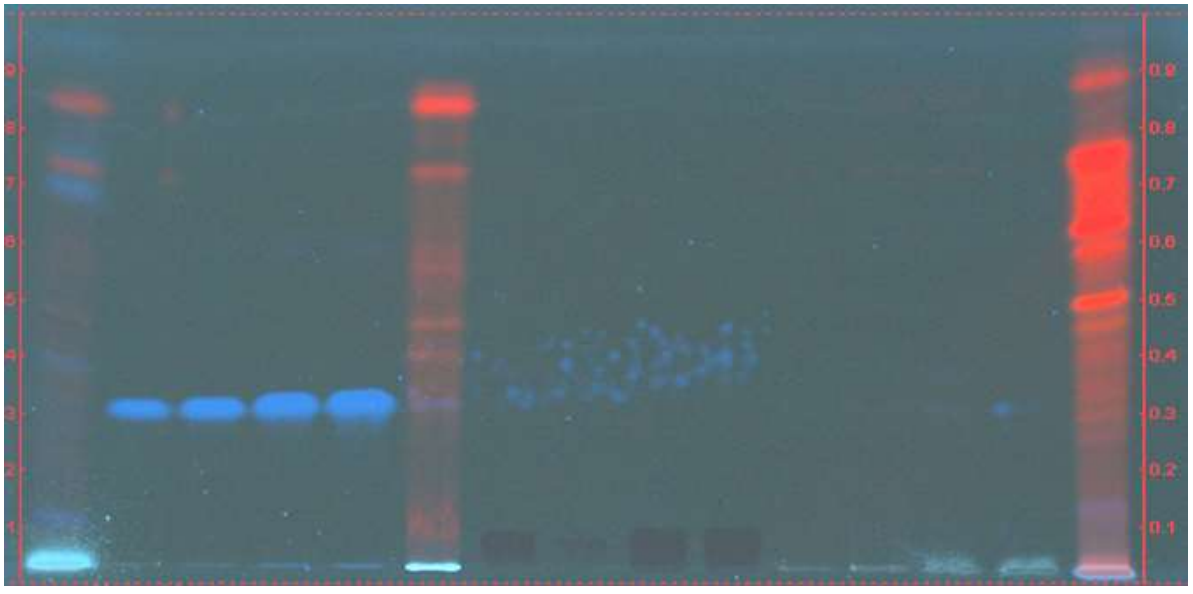
Applied 8 µl of the test solution on precoated TLC plate. Developed the plate in the solvent system and record the chromatogram for the calibration curve. Calculate the amount of Stearic acid present in the samples from the calibration curve of Stearic acid. The percentage of Stearic acid ranges was uncountable in root, stem and leaf

4.7.6 Estimation of Ferullic acid in *Blumea lacera* root, stem and leaf

Applied 8 µl of the test solution on precoated TLC plate. Developed the plate in the solvent system and record the chromatogram for the calibration curve. Calculate the amount of Ferullic acid present in the samples from the calibration curve of Ferullic acid.

The percentage of Ferullic acid ranges from 0.10 to 0.12 percent in the *Blumea lacera* stem analyzed, while Ferullic acid ragnes was found in *Blumea lacera* root 0.3 to 0.6 percent.

Chromatograms profile and Rf values with colour are given



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Screening of heavy metals in *Blumea lacera*

Heavy metal toxicity has proven to be a major threat and there is several health risks associated with it. The toxic effects of these metals (Pb,Cd, As, & Hg), even though they do not have any biological role, remain present in some or the other form harmful for the human body and its proper functioning. They sometimes act as a pseudo element of the body while at certain times they may even interfere with metabolic processes. Few metals, such as aluminium, can be removed through elimination activities, while some metals get accumulated in the body and food chain, exhibiting a chronic nature. This can lead to various disorders and can also result in excessive damage due to oxidative stress induced by free radical formation. Arsenic is one of the most important heavy metals causing disquiet from both ecological and individual health standpoints. Lead is a highly toxic metal whose widespread use has caused extensive environmental contamination and health problems in many parts of the world. Lead is an extremely toxic heavy metal that disturbs various plant physiological processes and unlike other metals. Mercury is very toxic and exceedingly bio -accumulative. Brain remains the target organ for mercury, yet it can impair any organ and lead to malfunctioning of nerves, kidneys and muscles. Cadmium is also most toxic heavy metal and creates a severe problem in the body. These heavy metals detected through Atomic Absorption Spectrophotometer in *Blumea lacera* root, stem and leaf as per described standard method. The results obtained in ppm and ppb level and found within limits as per guideline of WHO/API for heavy metals. As per obtained results of heavy metals, it was observed that the screened metals Pb, Cd, As, and Hg are detected in very low values, means samples are safe and not harmful for the health.

Pharmacognostic Study of *Ampelocissus latifolia*

Ampelocissus latifolia, a climber belonging to the Vitaceae family, is mostly found in the Sub-Himalayan region of India, ranging from the Sutlej eastward to Kumaon up to 4000 feet, as well as in Aasam, Konkan, Western Ghats from Bombay to Nilgiris and Anamallis Deccan. Root colour is reddish brown, odourless and tasteless. Various parts of this plant is using to treatment of the several human diseases like leaf and stem bark is useful for wound healing, whole plant is used Kustha (Leprosy) and Sotha (Swelling). The stem bark is used in stomach pain and bone fracture. The roots are used in skin diseases, wound healing, rheumatic affections, fractures, diuretic, gonorrhoea, syphillis, eye diseases, menstrual troubles and also as a tonic.

Macroscopic/morphological study of *Ampelocissus latifolia*

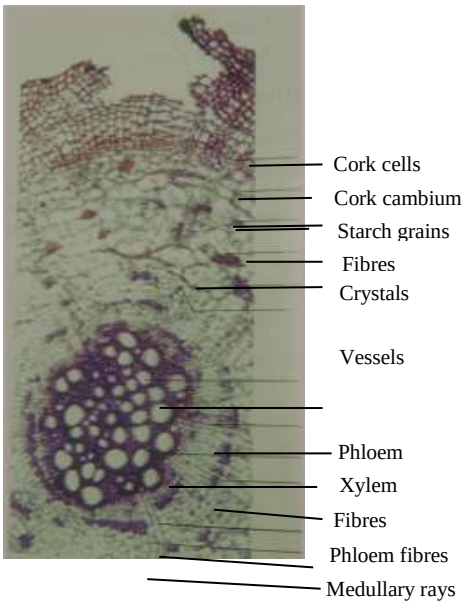
Root: Root colour is reddish brown. Roots are fasciculated with many tuberous roots in cluster having irregular shape and size arising from root stock. Roots are 6.5cm - 16 cm long and 1cm - 5 cm thick. Roots are taped at both the end with bulging in middle.

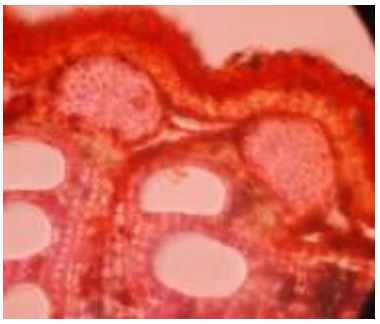
Stem: Stem bark colour is green, surface smooth, often tinged purple especially at the nodes, covered with thin glaucous bloom. Young shoots glabrous and hollow, Tendrils forked. Plant stem is cylindrical shape 3.5-6.5 meter long, 8-14mm diameter which are scarcely woody.

Leaf: Leaves are broadly heart-shaped or circular, 6-16 x 7-15cm, length broad, 3-7 lobed. Lobes are acute, toothed. Leaf stalk 3.5-6cm long, crenate-serrulate or dentate margin, cordate mealy when very young and glabrescent and with pubescent nerves when mature, often tinged with pink or purple beneath, base 5-7 nerved. Petiole varying in length up to 20cm deeply grooved above.

Microscopic study of *Ampelocissus latifolia* root

Detailed Transverse Section (TS) of the *Ampelocissus latifolia* root shows epiblema contained multi-layer of compactly arranged parenchymatous cells. Cortex contains 8-10 layers of parenchymatous cells. Sclereids were present in cortex. Pericycle was not distinct but pericyclic fibres were present. Vascular bundle was found to contain xylem and phloem and 6 to 10 seriate medullary ray. Acicular crystals of calcium oxalate were present in unstained root section. Abundant starch grains were present throughout cortex.

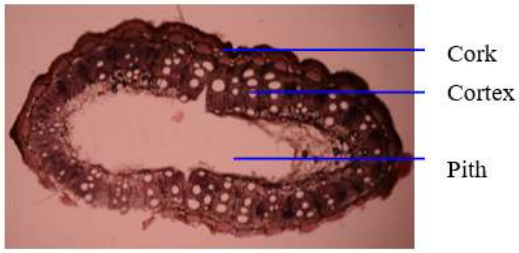


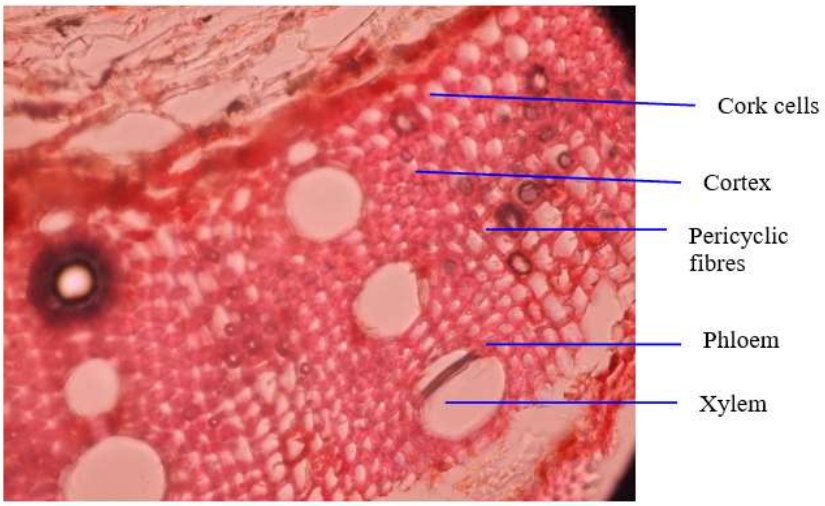


Microscopy of *Ampelocissus latifolia* stem

Transverse section of *Ampelocissus latifolia* stem found oval/circular in outline.

Transverse section of *Ampelocissus latifolia* stem in outer most region was found to contain 2-5 layers of closely packed cells in cork. Cortex contains 3-6 layers of collenchyamatous cells and 3-8 layers of loosely arranged parenchymatous cells. Pericyclic fibres containing sclerencymatous cells were found in form of cap over vascular bundle. Collateral vascular bundle was arranged in circular. Phloem was on outer side and xylem was inner side in vascular bundle. Pith was the central largest region of stem contained polygonal parenchymatous cells. Unstained transverse section of *Ampelocissus latifolia* showed presence of acicular crystals of calcium oxalate.





Microscopy of *Ampelocissus latifolia* leaf

Transverse section of *Ampelocissus latifolia* leaf passing through midrib was dorsiventral and contained following elements as shown.

Midrib- Upper epidermis contains single layer of palisade cells covered with cuticle. Upper epidermis contains multicellular covering trichomes. Upper collenchyma contains 3-6 layers of compactly arranged collenchyma. Vascular bundle was arch shaped and covered with pericyclic fibres on lower side. It contains xylem and phloem. Lower collenchyma contains 5-9 layers of collenchyamatous cells. Lower epidermis was having single layer of parenchymatous cells covered with cuticle. Lower epidermis was contains multicellular covering trichomes.

Lamina- Palisade contains single layer of columnar cells having chlorophyll. Spongy parenchyma covered rest of lamina region by loosely arranged parenchymatous cells. Apart from it A. latifolia leaf contains spharophide and acicular calcium oxalate crystals.

Quantitative Microscopy *Ampelocissus latifolia leaf*

Quantitative microscopy of *Ampelocissus latifolia* (Roxb.) leaf was performed such as stomatal number, stomatal index, vein islet number, vein termination number and palisade ratio and results.

Quantitative microscopy of *Ampelocissus latifolia* (Roxb.) **Leaf**

Sl. no.	Determination	Values per mm2
1	Palisade ratio	12
2	Vein islet number	32-42
3	Vein termination number	52-68
4	Stomatal number (upper epidermis)	112-120
5	Stomatal number (lower epidermis)	124-135
6	Stomatal index (upper epidermis)	11-15
7	Stomatal index (lower epidermis)	14-17

Result shows that in *Ampelocissus latifolia* (Roxb.) leaf palisade ration is 12, vein islet number 32-42/mm^2, vein termination number 52-68/mm^2, stomatal numbers is higher in lower epidermis (124-135/mm^2) than upper epidermis (112-120/mm^2) and stomatal index was also higher in lower epidermis (14-17mm^2) than upper epidermis (11-15/mm^2).

Fluorescence study of *Ampelocissus latifolia* (Roxb.)

Root- Fluorescence study was performed in various mounts with sample and chemicals and observed the colour of the mounted materials with the help of UV Spectrophotometer at UV light and at 366nm. Powder showed different colours at different wavelength, it means various types of secondary metabolites are present in the *Ampelocissus latifolia* (Roxb.) **root**. Result are given in table-

Fluorescence study of *Ampelocissus latifolia* (Roxb.) root

S. No.	Drug powder+ Chemical	Observation in UV light	Observation in 254nm	Observation in 366nm
1	Powder	Light brown	Brownish white	Light white
2	Drug powder + Distilled water	brown	Dark white	Greenish white
3	Drug powder + Nitrocellulose	White	Yellow	Light green
4	Powder + Acetic acid	Light black	Brownish white	Black
5	Powder + 50% KOH	Sky blue	Greenish white	Turmeric yellow
6	Powder + 1N HCL	Black	Light green	Light green
7	Powder + 1N NaOH water	Pale yellow	Greenish yellow	Pale yellow
8	Powder + H2SO4	Light green	Green	Green
9	Powder + Iodine water	Sky blue	Bluish yellow	Blue
10	Powder + 1N NaOH methyl	Light blue	Yellowish green	Yellowish blue
11	Powder + 50%H2SO4	Light black	Brownish black	Yellow
12	Powder + 50%HNO3	Brownish black	Dark brown	Brownish yellow

Physico-chemical analysis of *Ampelocissus latifolia* (Roxb.)

The physicochemical tests such as Loss on drying at 1050C, water such as extractive values, alcohol soluble extractive value, total ash value, and acid insoluble ash value were performed. The results are expressed as mean (n=3) ± standard deviation in w/w. Ampelocissus latifolia root LOD was found at 4.15% w/w, total ash value 15.86% w/w, acid insoluble ash value 0.66% w/w, alcohol soluble extractive value 10.84% w/w, and water-soluble extractive value 31.30%w/w. Stem LOD was found 4.97% w/w, total ash value 5.6% w/w, acid insoluble ash value of 2.38% w/w, alcohol soluble extractive value 11.13% w/w and water soluble extractive value 20.12%w/w and leaf LOD was found 5.19% w/w, total ash value 6.30% w/w, acid insoluble ash value 3.71% w/w, alcohol soluble extractive value 7.03% w/w and water soluble extractive value 21.74% w/w. The loss on drying value obtained is indicative of the amount of moisture content that could prevent bacteria, fungal, or yeast growth. The water soluble extractive value is higher than the alcohol soluble extractive value. The extractive values, indicates the amount of active constituents in given amount of plant material when extracted with respective solvent and useful for the determination of exhausted or adulterated drug. Ash values

of the drug gave an idea of the earthy matter or the inorganic composition and other impurities present along with the drug. Total ash value is an indicative of total amount of inorganic material after complete incineration and the acid insoluble ash value is an indicative of silicate impurities, which might have arisen due to improper washing of the ingredients. Ash value is useful in determining authenticity and purity of the drug and also these values are important quantitative standards.

It is observed that the leaf LOD value 5.19% is higher than the stem LOD 4.97% and root LOD 4.15%. Respectively total ash values were higher in root (15.86%) as compared to leaf (6.30%) and stem (5.6%). While, acid insoluble ash is higher in leaf 3.71% than stem 2.38% and root 0.66%. Water soluble extractives were higher than alcohol soluble extractives in root (31.30, 10.84%W/W), leaf (21.74, 7.03%W/W) and stem (20.12, 11.13%W/W).

Chemical test of *Ampelocissus latifolia* (Roxb.)

Qualitative phytochemical examination of successive extracts in petroleum ether, benzene, chloroform, acetone, methanol and water of *Ampelocissus latifolia* leaf, stem and root powder was carried out and outcomes are shown . The results indicated that the alkaloids were present in chloroform, methanol and water extracts of *Ampelocissus latifolia* leaf and stem while root was devoid of it. Flavonoid was present in chloroform, acetone, methanol and water extracts of *Ampelocissus latifolia* root while absent in leaf and stem.

Saponins were present only in methanol and water extracts of A. latifolia root. Methanol and water extracts of *Ampelocissus latifolia* leaf, root, and stem contained carbohydrates. Phytosterols were found in petroleum ether and acetone extracts of *Ampelocissus latifolia* leaf. Acetone, methanol, and water extracts of *Ampelocissus latifolia* root were found to contain tannins and phenolic compounds. Cardiac glycosides and coumarins were absent in petroleum ether, benzene, chloroform, acetone, methanol, and water extract of *Ampelocissus latifolia* leaf, root, and stem. Anthraquinone glycosides were present in chloroform, acetone, methanol, and water extracts of A. latifolia leaf. Dissimilar result of phytoconstituents in successive extracts of *Ampelocissus latifolia* leaf, stem, and root helps in the identification of the plant.

HPTLC Analysis of *Ampelocissus latifolia*

Preparation of test solution-

For High-performance thin layer chromatography, about 5 gm accurately weighed *Ampelocissus latifolia* samples (root, stem, and leaf) with 100 ml of methanol (3X100) in a Soxhlet apparatus for 6 hours separately. Filtered and concentrated the extracts under a vacuum oven to get the residue. Dissolved 100 mg of *Ampelocissus latifolia* extracts residue (root, stem, and leaf) in a 10ml (10mg/ml) volumetric flask and make up the volume with methanol to get the working test solution separately.

Preparation of Standard Solution- (Ferullic acid and Quercetin)

For the preparation of the standard marker working solutions, 10mg of Ferullic acid and Quercetin were dissolved in a 10 ml volumetric flask and made up the volume with methanol separately. Then 1 ml of stock solution was to a 10 ml volumetric flask and made up the volume with methanol separately (0.1mg/ml). From the solution, prepared standard solutions by transferring aliquots (0.1, 0.2, 0.3, 0.4, 0.5, and 0.6 ml) corresponding to (1, 2, 3, 4, 5, and 6 ug/ml) of stock solution to 10ml volumetric flasks and made up the volume in each case to 10 ml with methanol.

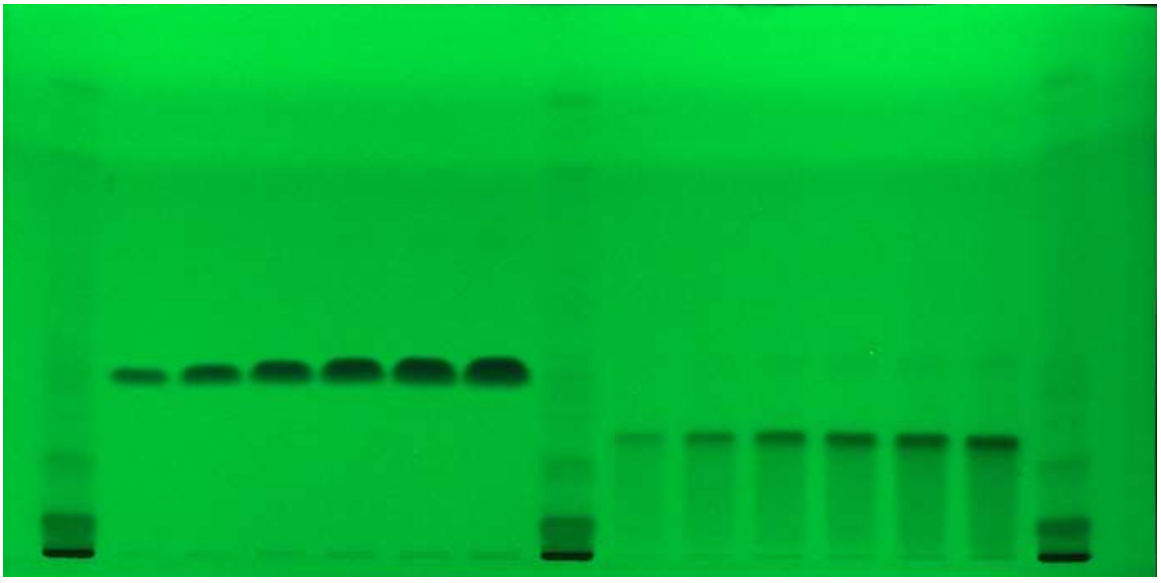
Calibration curve-

Applied 8 µl each of the standard solutions (80 to 480 mg per spot) on the HPTLC plate. Develop the plate in the solvent system till the solvent rises to a distance of 8 cm. Dry the plate and scan at 358nm. Record the peak areas. Prepared a calibration curve of Ferulic acid and Quercetin standard by plotting peak areas against concentration of Ferulic acid and Quercetin standard.

High-performance thin layer chromatography (HPTLC) study of the methanolic extracts of *Ampelocissus latifolia* root, stem, and leaf with Ferulic acid and Quercetin standard marker spots applied in precoated TLC plate. Samples (root, stem, and leaf) as well as standard markers (Ferulic acid, and Quercetin) were applied by spotting test solution 8 µl (each test solution root, stem, and leaf) on pre-coated silica-gel aluminum plate 60 F_{254} (10x20 cm with 0.2 mm layer thickness Merk Germany) using Camag Linomat -5 sample applicator and a 100 µl Hamilton syringe. The samples, in the form of bands of length 6 mm were spotted 15 mm from the bottom, 15 mm from the left margin of the plate, and 10 mm part. Apply 1.0, 2.0, 3.0, 4.0, 5.0, and 6.0, µl standard markers Ferullic acid and Quercetin, 0.1, 0.2, 0.3, 0.4, 0.5 and 0.6 µl on pre-coated silica-gel aluminum plate 60 F_{254} (10x20 cm with 0.2 mm layer thickness Merk Germany) using Camag Linomat -5 sample applicator and a 100 µl Hamilton syringe and standard markers, in the form of bands of length 6 mm, were spotted 15 mm from the bottom, 15 mm from the left margin the plate and 10 mm part.

The plate was developed using a mobile phase consisting of *toluene: ethyl acetate* (7:5v/v). Linear ascending development was carried out in a 20x20cm twin through glass chamber equilibrated with the mobile phase. The optimized chamber saturation time for the mobile phase (20 ml) was 30 min at room temperature. The length of the chromatogram run was 85 cm. Subsequent to the development, a thin layer of chromatography plate was dried at room temperature. The peak area for samples and standards were recorded with the camera photo documentation system Camag Reprostar 3 and the plate was scanned densitometrically with the help of Scanner 4. Record the respective areas and prepare a calibration curve by plotting peak area *vs* concentration of standard markers Ferullic acid and Quercetin. Major spots R_f values with colour were recorded before derivatization at 254nm. Major spots of R_f values before derivatization at 254nm major spots R_f values are 0.32 light black, *Ampelocissus latifolia* root, stem and leaf with Ferulic acid standard marker, 0.26 light black *Ampelocissus latifolia* root with quercetin standard marker. It is observed that Ferulic acid is higher present in *Ampelocissus latifolia* root than the stem and leaf, while Ferulic acid was present higher in *Ampelocissus latifolia* root but absent in stem and leaf.

HPTLC Fingerprint profile of test solution of *Ampelocissus latifolia* (Root, Stem & Leaf) at 254nm before derivatization



List of Trainees /students (Dissertation/PhD Scholars/Trainings in general techniques)

We have conducted young scientists training/ dissertation/ research work of 21 UG/P. G. students & Research scholars from Life Science and Employees from different Pharmacies in different fields of Ayurveda & life sciences. Beneficiaries name and address are given below.

S. No	Name of students	Qualification	Name of Institutes/Universities Name
1.	Vikash Singraul	B. Pharmacy	Shri Rama Krishna group of Pharmacy, Satna
2.	ShivamTiwari	B. Pharmacy	Shri Rama Krishna group of Pharmacy, Satna
3.	Deepesh Singh	B. Pharmacy	Shri Rama Krishna group of Pharmacy, Satna
4	Juli Singh	B. Pharmacy	Shri Rama Krishna group of Pharmacy, Satna
5	Swati Singh	B. Pharmacy	Shri Rama Krishna group of Pharmacy, Satna
6	Astha Agrawal	B. Pharmacy	Shri Rama Krishna group of Pharmacy, Satna
7	Firdous Alam	B. Pharmacy	Shri Rama Krishna group of Pharmacy, Satna
8	Tarannum Bano	B. Pharmacy	Shri Rama Krishna group of Pharmacy, Satna
9	Sadhna Patel	B. Pharmacy	Shri Rama Krishna group of Pharmacy, Satna
10	Nitin Shukla	B. Pharmacy	Rajiv Gandhi Institute of Pharmacy, Satna (M.P.)
11	Bhupendra Mourya	B. Pharmacy	Rajiv Gandhi Institute of Pharmacy, Satna (M.P.)
12	Ravendra Kumar Dahiya	B. Pharmacy	Rajiv Gandhi Institute of Pharmacy, Satna (M.P.)
13	Lavlesh Kumar Kushwaha	B. Pharmacy	Rajiv Gandhi Institute of Pharmacy, Satna (M.P.)
14	Shivansh Yadav	B. Pharmacy	Rajiv Gandhi Institute of Pharmacy, Satna (M.P.)
15	Srashti Tripathi	B. Pharmacy	Rajiv Gandhi Institute of Pharmacy, Satna (M.P.)
16	Atul Kumar Maurya	B. Pharmacy	Rajiv Gandhi Institute of Pharmacy, Satna (M.P.)
17	Sumit Chaturvedi	B. Pharmacy	Rajiv Gandhi Institute of Pharmacy, Satna (M.P.)
18	Kirti Patel	M.Sc. Biot.	Shri Rama Krishna college, Satna
19	Swati Vishwakarma	M.Sc. Biot.	Shri Rama Krishna college, Satna
20	Shweta Pandey	M.Sc. Biot.	Shri Rama Krishna college, Satna
21	Keertika Tripathi	M.Sc. Biot.	Shri Rama Krishna college, Satna
22	Gajal Singh	M.Sc. Biot.	Shri Rama Krishna college, Satna
23	Anshika Dwivedi	M.Sc. Biot.	Shri Rama Krishna college, Satna
24	Neha Prajapati	M.Sc. Biot.	Shri Rama Krishna college, Satna
25	Narayan Pandey	M.Sc. Biot.	Shri Rama Krishna college, Satna
26	Shivansh Tiwari	M.Sc. Biot.	Shri Rama Krishna college, Satna
27	Vidyasagar Tripathi	M.Sc. Biot.	Shri Rama Krishna college, Satna
28	Sandeep Mishra	M.Sc. Biot.	Shri Rama Krishna college, Satna
29	Swati Singh	M.Sc. Biot.	Shri Rama Krishna college, Satna
30	Vishal Singh	M.Sc. Biot.	Shri Rama Krishna college, Satna

Dental Department

The Dental Department of Arogyadham has gained the trust of the people of the region due to State of Art equipment, world-class treatment, and above all selfless service of the staff. There were no dental facilities in adjoining areas of Chitrakoot before the opening of the dental unit in Arogyadham. Before the establishment of the DRI Dental unit, the nearest centers for dental facilities were located at Satna and Allahabad where most of the villagers were unable to go to these places as they were not in a position to afford the expenses of traveling even to talk about the costly charges of private dental practice. A dental unit was set up in April 2001, to treat dental patients as well as to spread knowledge of dental care and hygiene in villages located close to Chitrakoot. The dental department renders its selfless services to the person standing in the last strata of society with dedication and excellent services in the region. At present Dental unit has 7 dental surgeries, an X-ray unit, and a dental laboratory and denture lab at Arogyadham.

Identification of most popular dental diseases in rural areas. The diseases predominant in a village or community are identified by surveys carried out in the villages and schools. The diseases that have been identified through these surveys are (a) periodontal and (b) Caries. The reasons for these diseases are found to be due to the excess use of tobacco & pan, smoking, alcohol, and improper dietary intake. Among children, caries is the most common disease. Thereason for this appears to be the excess intake of sweets and lack of oral hygiene measures.

The process of providing lifelong dental health is carried out in three phases:

- Proper diagnosis & treatment of existing diseases.
- Prevention of predominant diseases.
- Maintaining proper oral hygiene status.

Before going for treatment, the case histories of patients are properly recorded. The investigation is carried out by various means like Radiography, Bite test, Percussion test, Thermal test, etc, and depending on the results of such tests diagnosis is finalized. After the diagnosis, proper treatment is administered or carried out. For the prevention of these diseases, the dental department is trying to educate and motivate villagers on oral hygiene, cleaning of teeth, and course proper diet through organizing dental health and awareness camps in rural areas.

The dentists have been providing excellent treatment to those who come to Arogyadham. The unit has now developed a reputation as a 'Centre of Excellence' and patients are coming from far places. Whilst this is very good for the reputation of the unit it was of concern that the department could treat only those patients who could afford to travel to the unit. Given this, a "Mobile Dental Clinic" was set up in February 2005 to serve the villages around Chitrakoot for the people who are most in need of dental treatment. This mobile dental clinic is called the "Dental Van" and it has been imported from Denmark and the UK. It's being widely used in various developing countries with great success. This is a state-of-the-art folding unit that can fit into any vehicle and is easily assembled in any village. This is battery-operated and has all theattachments like the high and slow dental hand pieces, scalar, suction unit, etc. This unit can be used in most of the advanced dental treatments like ultrasonic scaling, fillings, extractions.

Even aesthetic dentistry. From time-to-time doctors from abroad (UK and other countries) visit our dental unit in Arogyadham and they take an active part in the treatment of the patients at village levels as well as in the OPD of the Dental unit.

Every year increasing number of patients are coming to the dental unit for their treatment as can be seen from the pictorial diagram.

Activities undertaken by the Dental Department to achieve the objectives:

S.No.	Project Output	Actual
1	Dental Registration (New)	14255
2	Dental Registration (old)	2910
3	R.C.T.	746
4	Dental X-Ray	1750
5	Filling	1613
6	Extraction	7614
7	Surgery (Minor/Major)	242
8	Scaling & Polishing	1040
9	Denture (RPD)	285
10	Denture (FPD)	421
11	Complete Denture	124
12	School Health Awareness Camp	5
13	Rural Health Awareness Camp	112

Plastic Surgery camp organized on 19-25 December, 2023 in association with SEVA UK

Registered patients -123no. Treated patients- 68no.

Ramnath Arogyadham, Gonda: - This Ayurvedic hospital situated at Jaiprabha Gram, Jankinagar, Gonda, (U.P.) is providing healthcare facilities in this rural area. Besides general healthcare this hospital also consists of a modern eye-care unit, child welfare unit and a pharmacy. Major activities undertaken by this center are;

Activities to achieve the objectives: -

S. N	Activities	Target	Achieved
1	Registration	2600	1891
2	O.P.D. Ayurved	6000	6585
3	Health Camp	03	00
4	Vaiday Sammelans	1	0

Gramin Swasthya: -
Activities to achieve the objectives: -

S. N	Activities	Target	Achieved
1	Model nursery	15	25
2	Plantation of medicinal plants	450	650
3	Awareness	450	650
4	Patient treated by Herbs	850	950
5	Cleanliness programme	760	960
6	Monthly meeting	12	12
7	Patients treated by Batua	3000	4050

Major Achievement:

- Treatment of 4050 people with a locally available herb.
- Awareness campaign among 650 families regarding sanitation and health.
- Treatment of 960 patients through Dadi Ma ka Batua.

Matru & Shishu Kalyan Kendra (MSKK): -

Activities to achieve the objectives: -

S. N	Activities	Target	Achieved
A	OPD	300	364
1	Registration	180	500
2	Total Patients	2041	1635
3	Health gosthi	1913	923
4	Health check-up	4	6
B	Vaccination	298	219
1	Pregnant	36	28
2	Children	2041	1635
C	Health camp In School	1913	923

Major Achievement:

Patients Treated through Pradhan Mantri Jan Aushadhi Kendra:

नाम – विन्दू देवी
उम्र – 28 वर्श
ग्राम – मधवानगर
रोग – बवासीर
उपचार – नीम पत्ती का 01 माह सेवन करने से रोग ठीक हो गया।

नाम – राजन पाल
उम्र – 02 वर्श
ग्राम – गर्दनपुरवा
रोग – आग से जलने पर
उपचार – घृतकुमारी का गूदा लगाने से बच्चा ठीक हो गया।

नाम – उर्मिला देवी
उम्र – 60 वर्श
ग्राम – फरेंदी
रोग – पेट दर्द, आंव बनना
उपचार – 10 10 ग्राम गुनगुने पानी से घृतकुमारी का 2 माह सेवन किया। आज वो पूर्णरूप से ठीक है।

नाम – भगामा देवी
उम्र – 35 वर्श
ग्राम – शिवपुरा
रोग – साइटिका रोग
उपचार – इन्होने हरसिंगार की पत्ती का काढा 50 50 ग्राम तथा भृलहर तेल मालिस साइटिका चूर्ण 5 5 ग्राम 40 दिन सेवन करने से वो पूर्णरूप से ठीक है।

Gramodaya Rasshala: -

Activities to achieve the objectives: -

S. N	Activities	Target	Achieved
1	Medicine manufacturing	150 types	150 types
2	Exhibition	02	00
3	Conservation of medicinal herbs	24 types	25 types

Major Achievement:

ARK manufacturing was introduced in last year which is going popular and demand has increased.

Sr.	Ark	Quantity	Income
1-	अमृता	102.5 L.	38437.00
2-	मकोय	134.5 L.	50437.00
3-	पुर्ननवा	6 L.	2250.00
4-	तुलसी	21.5. L.	8063.00
5-	गोझरण	08 L.	3000.00
		275.5 L.	1225437.00

Activities:




Education

Education

Education has been a key factor to make an individual conscious of his role in society. Hence it is essential to provide equal opportunities of education to all children without any discrimination. Integrity, unity, progress, and prosperity of any nation depend on this very factor. The present day education system suffers from many drawbacks. There is a flood of more and more expensive public schools with their ravaging waves sweeping even the small towns. The children of poor families cannot even think of securing admission to these schools because of their high fees. These expensive schools are sowing seeds of social discontentment and creating wider and wider gulf in society right from childhood. Even after many years of independence, we are still in a precarious educational atmosphere. The new generation is growing into self- centered individuals. They don't feel as part of our society or our country. In this situation, who will build the future of our country?

Krishna Devi Banvasi Balika Awasiya Vidyalaya: -

The school is situated about 1 km from Majhgawan, surrounded by the lush green fields of Krishi Vigyan Kendra of Majhgawan. The school is residential and meant for girls of scheduled tribes. Presently around 150 students stay in the premises studying from class-1 to class 10. Apart from the syllabus prescribed by the MP Govt. various extra-curricular activities are undertaken by the staff members to enable the student to develop in various fields. All efforts are made to develop students' personalities and mental abilities to enable them to compete with students of other castes once they reach the high school level.

Objectives

1. Holistic development of the downtrodden scheduled tribes' students through education, training and good conduct.
2. Extension and dissemination of education in tribal villages so as to join them with the national stream.
3. To develop the school as a model of ideal education.

Activities during the year: 2023-2024

During the year under report 150 girls' students were provided the residential facilities. These girls' students were from 147 families of 62 tribal villages. Out of the 100 % girls studying the school, 68% girls belong to Gond tribe,15.33% to Kol and 16.67% to Mawasi tribe.

Students participated in Shardotsav program

Kalas Yatra

Guardian Contact at Village level

Surya Namaskar on the celebration of Swami Vivekanand ji Jayanti, 12 January 2024

Health checkup of students

Organize vocational training for students

Gurukul Sankul: -

Deendayal Research Institute has established Gurukul Sankul at Chitrakoot, the land where Lord Rama showed his devotion and dedication to the people. The aim of setting up such an institutional complex at DRI's campus in Chitrakoot, is to introduce and implement such changes in the school syllabus, which if imbibed by the students, can help in the revival of our golden heritage of Gurukuls where the teaching of humanism was truly imparted to future generations.

Special Features of the Gurukuls:

- Educational pattern based on total development of children, as perceived in Indian Culture.
- Major thrust on character building, surcharged by the spirit of nationalism.
- Moral education, in addition to education relating to general knowledge.
- Development of hobbies.
- Personal attention to personality development of the students.
- Residential arrangements with all the facilities needed for comfortable living.
- Computer education.
- Motivational force for a socially oriented life pattern.
- Facility for learning handicrafts at Udyamita Vidyapeeth.
- A library and reading room for promoting the habit of reading.
- Well-planned and systematically arranged programs for creating a sense of responsibility, and developing a decision-making ability in the students.

This year 102 students have been provided residential facility in the Sankul. This type of revival of ancient gurukul system has tremendously helped students, which is evident from the fact that the residential students not only topped their respective classes in the school, but also brought a rich haul of prizes from the competitions, wherever and whenever they attended.

Major Accomplishment of the year:-

- 100% results in board exam, out of 34 students 34 got Ist Division in high school Board exam.
- 84% results in board exam, out of 39 students 33 got Ist Division in higher secondary Board Exam.
- The students have been provided the knowledge and usage of green and fresh medicines.
- Poor but brilliant students of rural areas have been provided with moral and financial support. They were provided admission in the school and gurukul.

No. of villages covered during 2023-24

Total Student-102, Total Village-63, Total District-11 Jayantiya-04, Utsav-04

Participated in Swami Vivekanand Jayanti

Participated in ‘Rashtra Rishi’ Nanaji Deshmukh Punyatithi

Surendra Paul Gramodaya Vidyalaya: -

The education system now prevailing is only a mechanism to enable people to earn income. The people have lost their sensibilities and social responsibilities and developed tendencies and attitudes that are unbecoming of a man.

Aims & Objectives of project

- Social reconstruction in keeping with the time through education.
- All round development of the students.
- To promote a scientific approach and a sense of creativity among the students.
- To conduct various programmes to enable the students to gain in physical capacity and realize the significance of labour.
- To have an interaction with teachers, thought and the guardians and local community.

Salient Achievements during year 2023-24.

- 29 students selected in CM Laptop Yojna.
- Sh. Pushpendra Yadav participated in the state level 55 kg. free style wrestling competition and gained third place.
- Sh. Dharmendra Kushwaha and Sh. Ajaydeep Pal participated in the State Level Athletic and Swimming competition.

Educational tour from 3rd to 6th November, 2023

Social Services by students during Diwali Mela from 10th to 14th November, 2023

Sports competition at Sagar and Gwalior from 11th to 16th Dec, 2023

Matdata Jagrukta Abhiyaan 2023

Republic Day 26 January, 2024

Students participated in External Sports Competition at Rewa

Raksha Bandhan Programme- Girl students tying a thread of love on the wrist of boys and students taking a pledge to protect them.

Sh. Karan Paul and his wife participated as a chief guest in Annual Function of the school, 2023

Meritorious students' toppers of Board Exam honoured by Sh. Abhay Mahajan and Janpad Panchayat Adhyaksha, Majhgawan, Satna.

ATC-NCC. 2023

1100 Cadets of Sagar group participated in the ATC –NCC Camp and learnt different activities.

150 guardians participated Parents' Teachers Meet and shared their experiences and tips for the upgradation of their dear ones.

Teachers Day Celebration Dated: 5th Sept, 2023
School teachers remembered Dr. Sarvepalli Radhakrishnan the great teacher and second president of India they also paid deep tribute.

Panchami Kushti Competition 21-08-2023

Balmiki River 18 &19-10-2023

Parmanand Ashram Padhati Vidyalaya:-

This school was started on 9th July 2000 at Ganivan village. The school provides co-education with separate residential accommodation to boys and girls. There are about 100 students in the school.

Objective: -

° To provide life beneficial character and moral building education for primary level.
° To create the favourable atmosphere of education for the overall development of SC boys and girls.

Achievement during the year 2023-24:-

In order to create interest amidst children in agriculture, the children are being regularly imparted training on various agricultural activities like fruit plant plantation, backyard gardening, vermicomposting, seasonal vegetable cultivation, flower bed raising rally etc. Such an experiment have greatly helped the children to learn about the crops by seeing all the operations from time to time.

Vidyarambh Sanskar (Pothipoojan & Havan) 06-07-2023

Hindi writing 11-10-2023

Arts 19-10-2023

English writing 19-11-2023

Ramnath Ashramshala: -

This school was established on 15th August 1992. Ramnath Ashramshala, Chitrakoot actively engaged in the all-round personality development of the young generation of tribal people. It provides completely free of cost residential education, boarding and lodging facilities to 300 tribal boys and girls. It is committed to the cause of inculcating the sense of social sensitivity in the parents and daughters of the tribal people.

Aims and objectives: -

- Within 50 km radius of Chitrakoot, generating awareness in the tribal society to motivate themselves for providing education to their children.
- Well cultured, self-reliant and good citizens.
- Holistic development of the tribal society with the cooperation of the teachers, guardians and students.
- 12-15 students of every village in this area have given free facility of residential education from primary level.

Achievements:-

Distribution of books and teaching material to the students during covid 19 period from School.

Social Activities:- To inculcate the social and moral values in students, several social activities such as cleanliness, plantations, medical services etc. have been carried out, by organizing a fortnight during Gramodaya Pakhwada.

Student participated on Block 15, Dist. 11, Division 2, State 1, level sports competition.

Trees were planted by students

Organized by Deendayal Research Institute at student participated in PDC (Personality Development Camp)

Chinmay Gramodaya Shishu/Vidya Mandir Inter Collage: -

Activities to achieve the objectives: -

Sl. No.	Activities	Achieved
1	No. of Student	**800**
2	Teaching	95%
3	Examination	04
4	Science practical	90
5	Cultural programme	12
6	Health checkup	04
7	National days celebration	02
8	Children assembly	04
9	Practical education	07
10	Educational tour	01
11	Annual Function	01

Tiranga Shobha Yatra: -

Jai HanumanVanvasi Hostel for Tribal boys:-

Activities to achieve the objectives: -

Sl. No.	Activities	Unit of Measure	Achieved
1	Entrance procedure	Month	**50**
2	Entrance exam	Month	**50**
3	Education	Month	**60**
4	Monthly exam	Month	**40**
5	Session starting	Month	**1**
6	Annual festival	Month	**1**
7	Sports	Month	**10**
8	Sports competition	Number	**1**
9	Cultural activities	Month	**10**
10	Horticulture	Month	**1**
11	Sincerity attitude	Month	**6**
12	Educational tour	Month	**10**
13	Parents contact	Family	**10**
14	Savings	Month	**1**
15	Prayer	Month	**220**
16	Fooding	Month	**10**
17	Bag observation	Month	**10**
18	Arts competition	Month	**10**
19	Essay competition	Month	**1**
20	Singing	Month	**1**
21	Writing skill	Month	**1**
22	Speech competition	Month	**1**
23	Parents day	Month	**1**

Maharana Pratap Gramodaya Vidyalaya:-

Activities to achieve the objectives: -

Sl. No.	Activities	Unit of Measure	Achieved
1	Entrance procedure		
	Days	Number	28
	Village		55
	Family		495
2	Entrance		
	Old students	Number	96
	New students		61
3	Tuition work		
	Staff no.	Number	06
	Lesson plan		100%
4	Exam		
	Two monthly	Number	2
	Half yearly		1
	Annual		1
	Evaluation		4
	Exam results		4
	Annual results and Prize distribution		1
5	Session evaluation	Number	1
6	National day celebration	Number	2
7	Day's celebration	Number	6
8	Sports activities	Number	1
9	Annual festival	Number	1
10	Gardening		
	Plantation	Plants	100
11	Education development	Number	4
12	Children committee	Number	10

13	Library	Number	156
14	Parents contact	Family	160
15	Feedback	Month	11
16	Accounting	Month	12

Social Conscientiousness

Social Consciousness

What make us all human is our capacity for language, empathy, internal dialogue and emotions. However, before we are capable of such characteristics, we first needed to develop consciousness that establishes our understanding of ourselves and others. How we interact with others depends upon our upbringing, our inherent nature, mood and surroundings. 70% of Indian populace lives in villages.

The villagers live in societies. Togetherness and brotherhood have been a basic human need. But the social consciousness among the villagers has changed. Society is divided in to castes. The villagers have become superstitious and self-centered. A wide gap has appeared between rich and poor, higher society and lower society, upper caste and lower caste, male and female, etc. Today, there are lakhs of people in authority and engaged in politics, business or other walks of life. Almost all of them are concerned only about themselves and their families and only few have the social conscious. The main cause of all the evils in the society is the lack of sense of social responsibility. Every individual has to recognize his duty to society and understand that without society he cannot lead a peaceful and happy life.

The social survey conducted by our Research Institute revealed the following reasons for lack of Social Consciousness in villagers.

- Superstitious Behavior
- Self–centered Behavior
- Social Disparity
- Encroachment
- Gender Issue
- Dowry and Divorce
- Unhealthy Habits
- Child Labour
- Caste Divisions activities undertaken to awaken social consciousness.

Activities organized by SSD at village level

S.N.	Activities	Unit of Measure	Achieved
1	Establishment of Gramodaya Nidhi	No. of Centres	140
2	Handi-Craft Trainings	No. of Trainees	1951
3	Garbhasth Shishu Sanskar	No. of Pregnant	1492
4	Kishori Sangoshthi	No. of Program	248
5	Mahila Sangoshthi	No. of Program	192
6	Healthy child competition	No. of Program	141
7	De Addiction Program	No. of Schools	345
8	Malnutrition	No. of Program	221
9	Awareness for safe drinking water	No. of Centres	239
10	Kitchen Garden	No. of Centre	164
11	Vidyarambh Sanskar (New Admissions)	No. of School	394
12	Bal Sanskar Kendra	No. of Classes	5082
13	Bal Shivir (Sankul)	No. of Centre	8
14	Selection of Balmitra/Kishori Didi / Paryawaran Mitra	Students	19
15	Extra Classes	No. of Classes	4908
16	Neat & clean home competition	No of Centre	46
17	Plantation of multipurpose trees	No. of Centres	118
18	Wall Writing	No. of Villages	455
19	Panchwati Plantation	No. of Centres	66
20	No new registration of cases	No. of Cases	5
21	Mangal Milan (Men, Women)	No of Program	3655
22	Cultural, religious and national festival	No. of Program	1435
23	Motivation Program for Neat & Clean Public Places	No. of Villages	768
24	Shradha parv	No. of Centres	67
25	Kalash Yatra	No. of Centres	135
26	Collective Participation on Happy and sorrow moments	No. of Centres	496
27	Organize sports competition	No. of Sankul	41
28	SSD Meeting	No. of Meeting	6
29	Meeting with, Sahyogi Karyakarta (Quarterly)	No. of Meeting	1328
30	Meeting with, Kishori Mandal (Quarterly)	No. of Meeting	1116
31	SSD trainings	No. of Training	0
32	Selection for New SSD	No. of Selection process	1
33	Project Core committee Meeting (Quarterly)	No. of meetings	4

Mahila Sammelans a Women Empowerment activity organized at Village level

Baal Shivir an educational activity organized at Village level

Meeting with Sahyogi Volunteers

Healthy Child Competitions

Ramdarshan

Ramdarshan, a unique museum that highlights socially relevant aspects of Lord Rama's life helps villagers inculcate human values to encourage them to live in a spirit of co-operation and harmony with each other.

The Ramayana is one of the five great epics of Indian literature. It is famous not only in India, but the world over. It is a part of the life of people in more than half the world.

It is not called an epic because it is the story of Maryada Purushottam Ram, but as it is the treatise of *Brahma Vidya. Brahma Vidya* is the knowledge of the 'Supreme Being'. This knowledge stops a man from craving further knowledge, and leads towards a peaceful and harmonious life.

Moral values are the basic steps of life, that enable a person to enter into the kingdom of *Integral Humanism*, wherein his multi-dimensional and multi-faceted development attains its epitome position, leaving him at a dynamic equilibrium with nature and society.

These finer points have been taken into consideration and presented through superb artistic renderings in Ramdarshan. Yes, in fact, it is a temple but without *puja* and offerings.

Ramdarshan is a modern temple with a difference - once visited its memories can never be erased from man's inner eye. Ramdarshan constitutes the human and cultural aspects of integrated development effort that not only provide a glimpse of Lord Ram, but also gives a deep insight into his exemplary life and character in the highly volatile dynamics of time and interpersonal relationship. Ram 's character is the only factor that is incessantly constant. Ram - The most dignified and the best among men - excels as an ideal role model in every respect and remain a timeless source of inspiration for mankind.

The aim of the Ramdarshan is spreading the message of Ramayana so that masses can get inspired to a social consciousness, and help make their villages dispute free.

Lakhs of visitors from different walks of life visited Ramdarshan. This includes children from schools, Govt. officials, sages and poor people. On the occasions of *Amavasya's*, especially on Diwali day, the number of visitors increases greatly.

A feedback counter is established here. The suggestions provided by the visitors are given serious thought and if the suggestion is viable than it is implemented.

Taking inspiration from Ramdarshan, the replication of this model is being done at other places too.

Ramdarshan also plays an important part in the Self-Reliance Campaign for making Villages dispute free. The volunteers with the help of local Samaj Shilpi Dampatti intervenes to resolve the disputes amicably through the moral authority. Self-reliance centres have also been trying to develop their garden and museum on a small scale on the Ramdarshan pattern. At Self-Reliance Centres, many age-old disputes have been resolved creating a harmonious environment that is the basis for the development of the society.

Neglect of People's Power

The talents and sense of responsibility of the general citizen, especially young men and women is not being put to the use of national reconstruction. The leadership of the country is suffering from total misconception that with the tasks of national reconstruction, social restructuring can be done by the bureaucracy. The country has been suffering the consequence of this misconstruction for the last 50 years. Even then the leadership has not opened its eyes.

On account of the power gained at the cost of the division of the country, all the activities are controlled by the political power. Ever changing political power can hardly comprehend the necessity of a stable society. It is unfortunate that even Lord Rama who remained untouched by political power and who propagated people's power has become an object of controversy in the present-day politics.

This polluted mentality has become all pervasive. The general public is suffering day after day from the partisan acts of the Administration. Even the educational institution established for the specific purpose of giving new direction to the younger generation has to remained untouched, without changing the direction of this baneful tendency neither democracy can survive nor the future of common man bright. The only redeeming feature is that in spite of pervasive polluted atmosphere the common man has unlimited faith in Lord Rama. The life of Lord Rama can provide guidance for solving various problems afflicting our modern society. However, the deep faith has adopted only form of Bhakti. On the other hand, it is necessary to make Lord Rama's life, a source of inspiration in our day-to-day life.

For attaining the aforesaid object, Ramdarshan has been erected in Chitrakoot. Lord Rama had effortlessly given up the State power on getting signals from his mother Kaikeyi. Thereafter he organized with the cooperation of the exploited, uneducated and neglected section of the society people's power and which was the basis of the national life. He showed the way to attain the ideal happiness for all. For him no class of society was inferior. All citizen by being mutual complimentary to each other can make the social life happy and prosperous. Lord Rama had made this ideal attainable. Independent India has the shining example of the ideals of Lord Rama but, the political and social leadership has not thought it fit to adopt this priceless legacy.

Their sole aim is to secure political power, the attainment of which is considered to be the only aim in life. It is however, encouraging to find that in spite of the neglect of this legacy by the leadership; the general public does not suffer from the same attitude. Amongst the common people there is unshakable faith in Lord Rama. This deep faith can prove to be a blessing for making India's future bright. It is this faith for invoking the people' power which has acted as source of inspiration for establishing Ramdarshan Temple.

In the modern times, the life of human beings throughout the world is, losing any direction. The family life has been deprived of its elements of togetherness. The social life is devoid of integrity. Day after day mutual distrust is increasing. Common man has lost faith in his own future. For attaining the momentary pleasure most of the people are prepared to commit any sins.

To overcome this tragic situation, the only method is to follow in our daily life the live principles enunciated by lord Rama. Lord Rama's personality and his family, social and political life is worthy of emulation from every angle. Lord Rama's life will eternally remain relevant. It is not enough to keep it limited to Katha's and Kirtans. The need of the hour to put the teaching of the Lord Rama's life to practical use for the all-round development of the common man. As a matter of fact, Lord Rama was born in human form. He gave a shining example as to how each person must act in different situations. He had taken birth only for guiding the humanity. Thus, proper conduct is the best form of worship of Lord Rama.

In Ramdarshan various episodes of Lord Rama have been exhibited through the medium of various art from which can prove to be a source of inspiration to the people. Deep reverence and faith is shown by people around the world in various countries towards Lord Rama which shows that Lord Rama was not the symbol of any particular religion or class. The living examples of this fact have been depicted in the Ramdarshan.

Sr. No.	Project Output	Action
1	Security maintenance & cleanliness of Ramdarshan *Parisar*	Continue….
2	Entry Fees, Donation, Bank Interest	Adult-305273 Child 19664Total 324937 visitors by ticket coupon 2023-24
3	Ramkatha at Ramdarshan	Every Tuesday Sundarkand Path.
4	Self-Reliance Campaign	
a	Villagers visit in Ramdarshan According to the Plan	Continue….
b	Monitoring for dispute free, neat & clean village	Regular Visit
c	Action Plan to Bhajan Mandali Program Daily, Weekly, Monthly & Annually	Continue….

Pujya Riteshwar ji Maharaj Visited Rmdarshan

Resource Center

Controls the inputs of the Samaj Shilpi Dampatti – (The Graduate Couples) that live in the village and serve as the catalyst of change in the self-reliance campaign. They are the nodal point through which all interventions of DRI flow to the villagers in the self-reliance campaign.

Organize ISO 9001:2015 Recertification Audit by DNV Auditor, 25 -27April 2023

Organized four management review meeting during this year

Organized Smart Board Training Program for School Teachers

Volunteers from Nasik visited DRI 08.02.2024

SUSTAINABLE DEVELOPMENT GOALS

sdginterventions.org

DECENT WORK AND ECONOMIC GROWTH

Sustainable Development Goal 08

Organization Name: Deendayal Research Institute, INDIA

Name of Intervention: Amla Juice

Summary

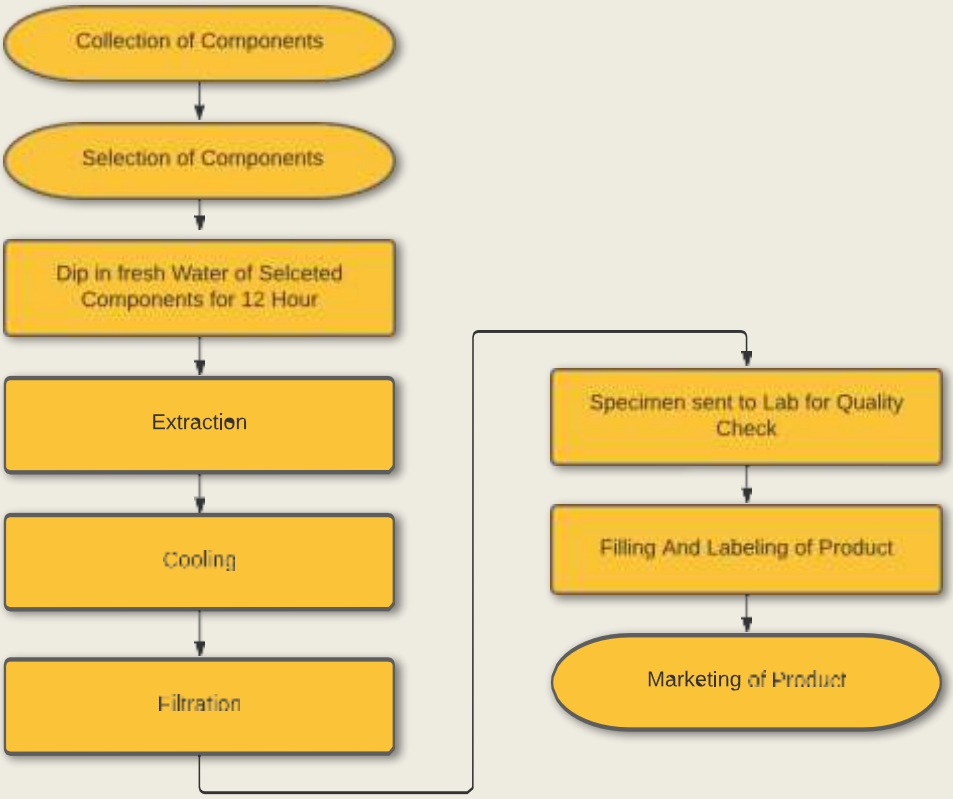
Vision to develop a society with a healthy mind and body.

"Amla Juice" is enriched with all natural organic ingredients of Amla.*The production process* for making Amla Juice is for people to become healthier. This unit can provide well health and employment opportunity among rural youth and old-age in the village that's help in increasing health rate of family. Amla Juice is a reputed polyherbal formulation of Ayurveda. It is prescribed for the treatment of immune function. Amla juice is a great source of vitamin C, which is a water-soluble vitamin that acts as an antioxidant, enhances liver health, supports healthy digestion, promotes heart health, may increase hair growth, improves kidney health.

Responsibility

Overall responsibility of planning, organising, managing, and doing the activities of *"Amla Juice"* lies with *"master trainer" , "field worker"* of the Rasshala.

Learn more about *"master trainer"*, "field worker"



LIVE

Webinar, Workshop Conferences Seminars & Trainings

Workshop, Conferences and Seminars Year 2023-24

During the year the Institute has organized webinars, Hybrid Webinars, Conferences, Seminars and Workshops on diverse subjects. In the year Institute has organized a series of webinars on various aspects of SDGs, which were culminated in 3- day International Seminar on SDGs. The outcome of these seminar has been reported as under. Institute has also organized seminars/workshops on Agriculture, Farmers' right, FPOs, Entrepreneurship Development, Organic Farming etc.

Sl. No.	Name of Workshop, Conferences and Seminars	Date	No. of Participants
1	A Webinar on "Lifestyle for Environment (Life) and SDG"	27th May 2023	100
2	A Webinar on "Partnership for Development "	24th June 2023	62
3	A Webinar on "Climate Change-What Individual Can Do"	29th July 2023	49
4	A Webinar on "Technology and SDG's"	26th August 2023	44
5	A Webinar on "Innovative Financing for SDG Acceleration "	30th September 2023	39
6	A Webinar on "Sustainable Consumption and Sustainable Production"	28th October 2023	38
7	A Webinar on "Strong Local Governance Institutions for Effective Skill Development"	25th November 2023	59
8	3rd International Conference on Sustainable Development Goals (SDG 2 Zero Hunger, SDG 4 Quality Education)	25, 26, 27 February 2024	250
9	Soil and Human Health Through Indian Natural Farming	26-27th February 2024	450
10	Organized Workshop entitled "Maatru Shakti Ke Uttam Swasthya evm Poshan me Poshak Anaajon ka Mahatva"	26-27th February 2024	227
11	Organized Seminar entitled Protection and Registration in Traditional Farmers Varieties	26-27th February 2024	435
11	Organized Seminar entitled Protection and Registration in Traditional Farmers Varieties	26-27th February 2024	435
12	Skill promotion and entrepreneurship among farmers' producer organization volunteers	26-27th February 2024	165
13	Mahila Sashaktikaran Ewam Swam Sahayata Samuho Ka Swarojgaar Vardhan hetu Unmukhikaran	26-27th February 2024	227
14	Rain Water Conservation & Management campaign		857

15	Scope and prospects of Nutri-cereal production in Satna District (“Shree ANN”)	11.05.2023	210
16	Livelihood promotion and nutritional security to schedule caste farmers	03.06.2023	165
17	Production technology of “Shree ANN” “Veerangana Durgawati Balidan Diwas”	24.06.2023	467
18	Internship program of students (AKS University Satna & PG College ATTRA, Banda (UP)		241
19	Crop diversification	25.09.2023	125
20	Organized workshop Prompting Production & Consumption of Fruits to Reducing Malnutrition.	05.10.2023	525
21	Tilhan Utpadan Sangosthie	11.10.2023	265
22	Vandhan Training Programs (No. 6)	20.02.2024 to 31.03.2024	1800
23	Health workers Training on Krishi Vigyan Kendra Ganiwan, U.P.	11-12 October, 2023	68
24	Making of Incense sticks and fragrant Cones from offered flowers	03 June 2023	136
25	National Workshop on Entrepreneurship development on organic farming, beekeeping, vermicomposting and cultivation and standardization of medicinal plants	21st March, 2024	102
26	PM Kisan Samman Nidhi		56
27	Food security and Soil testing		113
28	Organic farming		160
29	Integrated crop management in cotton		186
30	PMFME for entrepreneurship development		50
31	Bee Keeping farmers - Honey marketing		11
32	Pre Kharif-Farmer Workshop		35
33	Workshop for FPC BoD on business planning		20
34	Workshop for FPC BoD on business planning		22
35	Beekeeper-farmer meeting		12
36	Farmer Scientist Interaction		107

- **“Lifestyle for Environment (LiFE) and SDGs - India’s role in its Acceptance and Propagation”**

Webinar Outcomes held at the G. Parthasarathi Conference Hall, RIS, New Delhi on 27th May, 2023.

The hybrid mode webinar brought together India’s thought leaders on SDGs and international partners with a countrywide (and global) audience to discuss practical solutions and pathways for their replication and upscaling. The webinar – the first in a series for the WSF triggered online and offline conversations among like-minded people who so far might be working in diverse silos and geographies.

This meeting was hosted at Delhi by LiFE vertical of the G20 (as Secretariat), RIS (as anchor for T20) and DRI (as the catalyst for WSF).

DRI, RIS, the C20 LiFE Working Group and Yojak partnered to design and host a hybrid mode Seminar on LiFE and SDGs on 27th May 2023 entitled, “Lifestyle for Environment (LiFE) and SDGs - India’s role in its Acceptance and Propagation”. The topic was chosen based on the Prime Minister’s call at Glasgow COP to focus on Lifestyle for Environment (LiFE) as a major pathway for tackling climate change and ensuring progress towards SDGs. India’s G20 Presidency spotlights LiFE (Lifestyle for Environment), with its associated, environmentally sustainable and responsible choices, both at the level of individual lifestyles as well as national development, leading to globally transformative actions resulting in a cleaner, greener and bluer future.

The idea behind LiFE is to evolve an international mass movement towards “mindful and deliberate utilisation, instead of mindless and destructive consumption” to protect and preserve the environment. Given that nearly two-thirds of carbon emission today occurs at the household level, the imperative of LiFE cannot be over-emphasised. India has emerged as the largest country and is slated to become the

third largest economy in a few years. Despite, India's significant development needs, India is championing sustainable lifestyles as a global movement as the only way to survive climate change.

The objective of this session, therefore, was to share the Indian traditions within which concepts like LiFE, circularity and sustainability have been practiced in everyday life. The precepts enunciated in the Chitrakoot Declaration and the launch of the World SDG Forum (WSF) were also shared.

The seminar – the first in a series for the WSF – aimed to trigger online and offline conversations among like-minded people who thus far might be working in diverse silos and geographies. This would not only strengthen the conviction but would give enormous opportunities of peer learning and advocacy.

The keynote speakers at the seminar included think-tank leaders who reflected on Indian ethos of sustainability and its current salience, social scientists working on the relationship between *Ekatm Manav Darshan* (Integral Humanism), G20 and SDGs, distinguished diplomats with experience in multilateralism and India's legacy and leadership; and SDG literati and practitioners.

The major points from the keynote remarks, Q&A and the online interventions were as follows:

- The concept and practice of LiFE have been rooted in indigenous traditions across civilisations but eroded and marginalised by the provenance of capitalism and industrial society. The current crisis – banking crisis, climate change, inequality, and conflict raging simultaneously – offers an opportunity to re-cast everyday behaviour and rediscover the spiritual and moral drivers of human action.

- The philosophy of Integral Humanism enunciated by Pandit Deendayal Upadhyaya and put into practice by Rashtra Rishi Nanaji Deshmukh provides both an example of and a foundation for LiFE – working with very poor, tribal people and communities in most remote regions of India. It is imperative to go beyond discussions on GDP and economic growth to focus on sustainable human development approaches that build the capabilities of people with regard to their social integration. Any appraisal for human progress should have parameters to cover loss of biodiversity and loss of other species and plants. The Chitrakoot model is absolutely clear as to how human beings, nature and biodiversity may all be brought together and can be reconciled in the development model.

- The Chitrakoot Model of rural upliftment has been sustained and validated as a best practice. The task ahead is replicate and upscale - to share the practice and the processes with a very wide audience and expand the open-source knowledge platform www.sdginterventions.org.

- The Chitrakoot Declaration is a brave and practical commitment to bring together SDG practitioners and interventions from across the globe under the aegis of the World SDG Forum (WSF). The G20 presidency of India and the troika (Indonesia, India and Brazil) is an important platform to highlight the urgency of accelerating progress towards SDGs not only till 2030, but also beyond.

- The resurgence of the Global South is evident, and India is today among the leaders of world based both on its demographic size as also track record in economic growth and poverty reduction. The WSF must seize the opportunity and showcase its promise, with more effective outreach of the concept and knowledge network. National and international consultations can help achieve this, at prominent international forums including at the UN. Upcoming events such as the SDG Summit and Summit of the Future can be leveraged for this. Global network and

visibility will propel ever greater number of interventions to join WSF and indeed promote Chitrakoot as the Davos of SDGs.

The seminar affirmed the relevance of the WSF and provided the following pointers for the way forward:

- Leverage the global perception change regarding India, reflected very well in India's G20 Presidency, to drive the global conversation on SDGs and beyond.
- We must evolve WSF as a global collective to accelerate the achievement of SDGs which can happen only when interventions happen on the ground and not confined to expert level dialogues.
- Expand the set of interlocutors for the WSF seminars with greater representation and participation of international partners such as the UN, World Bank and other multilateral organisations.
- Sustain outreach to embassies, permanent missions and diaspora to bring in more and more SDG interventions and practitioners from across the globe.
- Maintain the momentum with regular seminars and webinars focusing on accelerating SDGs, leading up to the Third International Conference on SDGs.
- Partner with more organisations – national and international – working on SDG solutions and capacity building.

- **Webinar on Partnerships for Development**

On 24 June 2023, Deendayal Research Institute (DRI) anchored the second webinar of the World SDG Forum Webinar series. The theme of the conversation was Partnerships to Accelerate the Achievement of SDGs.

In view of the impact of the Covid-19 Pandemic and the eruption of conflicts in Eastern Europe and elsewhere, the already slowing pace of progress towards the achievement of the SDGs has suffered a severe jolt.

We are now at the mid-point of the time-frame for the SDGs. Progress has been slowed if not retarded by the concurrent impact of Covid-19 Pandemic, war in Ukraine, banking crisis in US and Europe and ongoing conflicts in Africa and Middle East and slowdown of growth momentum.

The UNSG Special SDG Progress Report 2023 draft states "… halfway to 2030 that promise is in peril. The Sustainable Development Goals (SDGs) are disappearing in the rear-view mirror – and with them the hope and rights of current and future generations. A fundamental shift in needed – in commitment, solidarity, financing and action - to put the world on a better path. And it is needed now."

The scale of the challenge requires all hands on deck. It is time to now assess how new partnerships (including old ones with new stakeholders) for development can enable speedier recovery and impart fresh momentum for SDGs (and beyond). "It require different sectors and actors working together in an integrated manner by pooling financial resources, knowledge and expertise."

Cross-sectoral and innovative multi-stakeholder partnerships will play a crucial role not only for accelerating progress but also catalysing dialogue for post-2030 scenario, including on climate justice and net-zero transitions.

Multi-stakeholder partnerships for SDGs need very large-scale connection between grassroots interventions and local champions for change - going beyond the usual desultory philippics of UN agencies talking to governments, NGOs and select private sector organisations. The conversations

between these solution networks could inter alia be around mobilizing and sharing knowledge, expertise, technologies and financial resources.

Accordingly, the WSF webinar on partnerships triggered a conversation on new partnerships for sustainable development. – with keynote speakers, online and offline interlocutors and attendees from Indian and international CSOs, private sector and UN agencies.

The speakers at the 24th June Webinar included CSR scholar-practitioners, best practice exemplars in remote areas, serving and retired UN officials, UN Resident Coordinator for India, thought leaders on Indic roots of sustainability, and a representative array of civil society in the interactive Q&A.

This hybrid mode confab is inspired by late Pandit Deendayal Upadhyaya's credo of Integral Humanism (Ekatma Manav Darshan) and the Chitrakoot Declaration for a World SDG Forum (WSF) as a platform for practitioners.

The seminar brought together global thought leaders on SDGs and international partners with a countrywide (and global) audience to discuss practical solutions and pathways for their replication and upscaling.

The grassroots to global orientation has been a pillar of the current Indian Development model with its emphasis on 'Antyodaya' – reaching the last man; and Gramodaya se Sarvodaya (From Rural Upliftment to Upliftment for All).

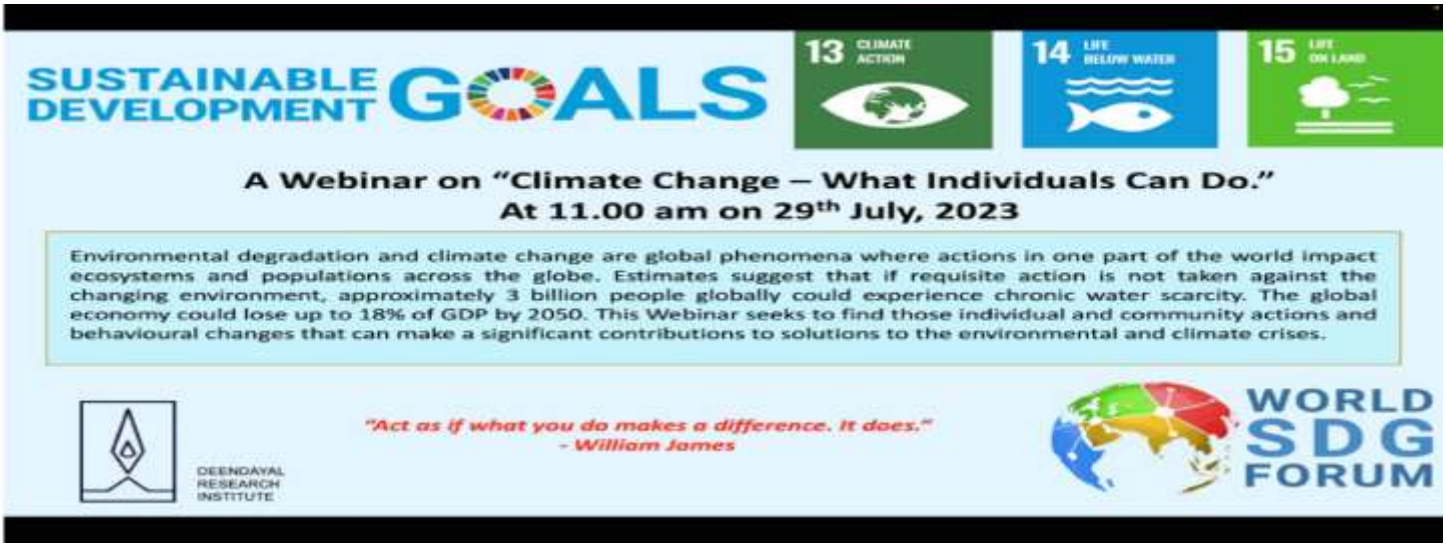
The Chitrakoot Declaration adopted at the Second International Conference on SDGs states: "Realising the inadequacy of the present global economic binaries in the progression towards achieving the Sustainable Development Goals, it is imperative for India and the global South, to initiate efforts for a new and inclusive world economic order, which will hasten the process of fulfilling SDGs in a cooperative economic architecture… the World SDG Forum (WSF) will eventually transform into a global forum for all, with every stakeholder as a partner, participant and beneficiary".

Link to our Website: www.sdginterventions.org

Twitter account: https://twitter.com/worldsdgforum and

Facebook page: https://www.facebook.com/profile.php?id=100094180692768

- **Webinar WSF 'Climate Change – What Individuals Can do' Webinar 29 July 2023**



The containment of the increase in global temperatures to below 1.5 degrees Celsius (2.7 degrees Fahrenheit) by 2030 is at the heart of the SDGs. It is well understood that this is not only a matter of climate science and technology but a fundamental change in lifestyle for individuals, households, communities, economies, and nations – while ending the development deficit in terms of poverty, hunger & malnutrition, ill-health, illiteracy, gender discrimination, basic services and an entire gamut of growth and equity issues and governance challenges.

Sustainability is at the heart of it all. The concept and practices of sustainability are of course grounded in indigenous traditions and scriptures across the globe. Within the Indic civilizational sphere, the relationship between Prakriti and Purusha (Nature and Humanity) is one of mutual sustenance and beneficiation.

The World SDG Forum (WSF) is based on this very understanding and aims to build up a global alliance of SDG interventions (and interventionists), distinct from the exalted circle of policy gurus, experts, national and global agencies, etc.

As a community of practitioners (www.sdginterventions.org), the WSF has its mandate and vision enshrined in the Chitrakoot Declaration, driven by successive International Conferences on SDGs, held at Chitrakoot in April 2022 and February 2023. Under the aegis of the WSF, the webinar series is intended to build up the conversations on how to learn from practice and accelerate the achievement of SDGs.

Under the rubric of the SDGs, three goals focus specifically on environment and ecology – climate change (Goal 13), life under water (Goal 14) and life on land (Goal 15). These three goals are of course related to progress under the social development, and economic growth goals, the targets for climate change action, ocean conservation and protection of land ecosystems (water, forests, and land) have a direct bearing on arresting climate change. These three goals are also the intersection between the Paris Treaty under the UNFCC and the 2030 Agenda under the UNGA Resolution.

“Taking urgent action to combat climate change and its devastating impacts is therefore imperative to save lives and livelihood, and key to making the 2030 Agenda for Sustainable Development and its 17 Goals – the blueprint for a better future – a reality”.

Comparatively less attention is given to the role of individuals in tackling climate change. India has taken up the credo of LiFE (Lifestyle for Environment) and the High Principles for LiFE under the G20 consultations have indeed amplified the imperative for a new mode of lifestyles.

It is therefore timely and moot to focus on the role of individuals to arrest the spiral of climate change – to reduce the carbon footprint, clean up the oceans and stop the degradation of land, water bodies and forests.

The keynote speakers at the webinar included practitioners of volunteer-based beach cleanup, forest restoration and private sector partnership to remove ocean plastics and practice leaders from UN and international agencies. We also heard from grassroots interventions from the Indian hinterland and an interactive discussion regarding what works and how to obtain a way forward for replication and upscaling.

Sh. Nick Anthony, co-founder of SEEK provided insights into removal of micro plastics from oceans, mountainsides, and urban gutters. shared his journey towards climate change adaptation working in 25 countries (beginning with Phuket in Thailand) with beach and mountain communities and experience in

removing ocean plastic, including in partnership with Health ministry's that tend be stable despite changes in political regime. Individual action against climate change is relevant as it is context specific – across religions, cultures and countries. In India, plastic waste especially micro plastics that last for over 500 years, gets accumulated not only in cities and plains but also at riverheads and riverbanks. It is a moving tapestry. For India, four geography-based (mountain, rural, urban, and coastal) solutions can be found and individuals triggered to act – from the Himalayas to the Oceans. He stated that sustainable solutions require cohesive communities – and Chitrakoot model for fostering community solidarity can be most suitable.

Sh. Sarabjeet Singh Sahota, UNICEF shared his experience with UNICEF working on Behaviour Change Communication in urban settings. He spoke on scaling down to scale up – arguing that the in case of climate change the risk is global but resilience has to be local – hence individuals have a key role. The solutions have to be at two levels – changes in individual behaviour and changes in social norms. Mission LiFE focus on 75 behaviours and these must become default behaviours.

Agriculture (and allied industries including animal husbandry) not only accounts for nearly a third of global emissions but also provides employment to more than half the world's population and food and feed or the entire planet (human and animal population in toto).

Dr M Prabhakar (Indian Council of Agricultural Research's Central Institute for Dryland Agriculture/ ICAR-CRIDA) shared perspective as to how farmers as individuals and risk taking entrepreneurs can combat climate change. He explained that farmers can adopt climate resilient technologies on their fields and that this has already been undertaken under the ICAR project on Climate Resilient Villages – 446 villages in 151 village clusters with demonstrated success of 352 technologies benefiting 183, 752 households. It would now be critical to understand the process and share it under the umbrella of the World SDG Forum (WSF).

Sh. Mayank Gandhi shared his perspectives for SDG interventions based on his experience of very large-scale afforestation. He showed that a sustained collective of individuals drawn from local communities can go well beyond the performance of government agencies. He explained that while climate change seems to be on a roll, individuals can make a big difference as they have a key role in promoting partnerships across civil society organisations as also demanding accountability from large programs and projects.

Padmashri Umashankar Pandey, a SDG interventionist mentored by Nanaji Deshmukh and Deendayal Research Institute, shared his experience of combating climate change in Banda district, UP. He pointed out that growing up in a water-scarce landscape where daily availability of water was 100 gm – hardly enough to even bathe oneself, he had understood the importance of water conservation and revival of water bodies. The initiative "Medh per Ped" – Tree on Field Boundary – had succeeded on a very large scale and now the focus was also on fruit bearing trees that would totally transform the arid landscape in this part of Bundelkhand.

The Q&A and open discussion at the Webinar affirmed that individuals – as consumers and producers and community leaders- have a central role in combating climate change and it would now be important to sustain engagement and build platforms for sharing knowledge and processes of good practices. WSF and its partners need to understand process, map them and disseminate widely both online and through its offline and hybrid mode consultations and knowledge management forum.

World SDG Forum Webinar on Technology and SDGs

The Sustainable Development Goals (SDGs) signal a concerted international commitment to a set of normative principles, motivated by an urgent need to end destitution, disease and degradation and deprivation sustainably. By ratifying the declaration, the global community has agreed to act, collectively and individually, to achieve economic, environmental, and social goals in an integrated manner. The SDGs build upon earlier work particularly the Millennium Declaration (UN 2000) and the earlier Copenhagen World Summit for Social Development (WSSD) which had emphasized international development and poverty alleviation, peace and security, human rights and environmental conservation as major objectives for the international community.

Under its webinar series of the World SDG Forum, DRI along with its partners hosted a conversation on Technology and SDGs. Speakers and discussants at the webinar shared experiences regarding the use of technological advances and innovation to accelerate progress that arise when the 2030 Agenda for Sustainable Development is translated into an action agenda by member countries and SDG interventions across the globe.

The achievement of SDGs has suffered a setback due to the cumulative global impact of Covid and Conflict in Ukraine. The "polycrisis" is now abating or at least metastasizing and the economic growth globally is picking up – with India, US and Western Europe rebounding significantly. Accelerating progress toward the 2030 targets – and beyond - requires harnessing technological advancements for grassroots communities, enterprises and households at the bottom of the pyramid. The Antyodaya philosophy enshrined in the Chitrakoot Declaration is more relevant now than ever before. SDGs offer not only a greater sense of urgency and scope for convergence but also a fresh set of ideas and opportunities to tackle 21st century challenges, technological innovations, including innovation in data use and visualisation for action.

Technological innovation of course will contribute to greater efficiency in operations – whether in agriculture, forestry, wetland conservation, healthcare, school education, income & employment

generation, justice and human rights. However, the relationship is predicated on universal accessibility and utility of the technological innovations.

Technology can enable but the lack of access to it can disable the poor and disadvantaged groups and people living in India's remote locations. If the digital divide has to be bridged, the SDG credo of "No One Left Behind" must be the objective of all stakeholders – government, private sector, civil society, scientific & research institutions and of course the tech leaders. Technology is of course a double edged sword – AI can and will displace existing jobs and nanotech can provide people with ready access to sex selection and worsen the sex ratio. While one cannot be a Luddite and resist the insertion of disruptive innovation in homes, workplaces and public spaces, it is important to ensure a focus on the grassroots.

For this to happen issues aligned to SDGs – in education, healthcare, rural development, slum upgradation, grievance redressal and community monitoring of basic services need to be addressed with a technology lens, for the world to successfully accelerate its progress towards achieving the SDGs.

Keynote speakers at the webinar highlighted specific cases from the social development sectors. The gave examples of harnessing the potential for leveraging technology trends (Promise)– including the new world of work fashioned by AI/Machine Learning, to strengthen implementation mechanisms. The speakers and participants reflected on the current state of play (Performance) and highlighted opportunities, challenges and risks (Prospects).

The webinar brought together multiple perspectives that connect the SDG interventions with tech and private sector. The keynote speakers and discussants from grassroots innovator, tech sector, multilateral organisations and youth leaders only shared experiences and critiques but also identified practical way forward to ensure that the race to achieve SDGs in the aggregate does not leave the poorest folk behind. India is a global exemplar with its emphasis on Digital Public Infrastructure (DPI) that overlays the existing IT infrastructures to deliver directly to households and businesses across the country. It would be timely to build on this success to evolve Digital Infrastructures for specific SDGs such as Health and other Social Sector goals. The network of SDG interventions with due process mapping and systematic convening under the rubric of World SDG Forum (WSF) can deliver precisely this for the planet and its people.

- **<u>World SDG Forum Webinar on 'Innovative Financing for SDG Acceleration'</u>**

Globally, people are becoming more aware that a time of reckoning is imminent. They are slowly acknowledging that the global financial system is fundamentally flawed and not just going through a cyclical low. We are also more skeptical now about the ability of the prevailing market culture to ensure even basic well- being for the seven billion people who inhabit the earth. Without immediate course correction and acceleration of progress toward achieving the SDGs, our world is destined to face continued poverty, prolonged periods of crisis and growing uncertainty. There are efforts under way globally to achieve the 2030 Agenda and the Addis Ababa Action Agenda, including through SDG investments, reforming the international financial architecture, supporting SDG interventions on the ground to accelerate sustainable development. The UN Secretary General has indeed proposed a SDG Stimulus Fund.

The World SDG Forum (WSF) is based on this very understanding and aims to build up a global alliance of SDG interventions (and interventionists), linking them to each other and to finance and markets. As a community of practitioners (www.sdginterventions.org), the WSF has its mandate and vision enshrined in the Chitrakoot Declaration, driven by successive International Conferences on SDGs, held at Chitrakoot in April 2022 and February 2023.

Under the aegis of the WSF, the webinar series is intended to build up the conversations on how to learn from practice, build coalitions of like-minded people and accelerate the achievement of SDGs. We now need to harness the growing interest among the investor community and sharper edge requirements of financial market regulators to identify specific modalities whereby the energy and resources of financial markets can be hitched as financing instruments (social stock exchanges, impact funds etc) for SDG interventions on the ground.

In the light of the above, a 2-hour webinar was held on 30 September 2023, with the topic on "what can the Financial Market sector do to accelerate progress towards the SDGs and beyond".The webinar garnered perspectives from a non-traditional community as far as the dialogue on SDGs is concerned, viz,. financial market players (including regulators mandating sustainability reporting), leaders of ESG work mandated by the boards, associations of Social entrepreneurs and connect them with on the ground interventions in social sectors. The webinar would also bring in perspectives from relevant UN agencies working on innovative finance.

As we move from UN Climate Week to COP28 in Dubai later this year, we must stop the "green wishing" and "green washing" and start thinking about the instruments that will enable the private sector and private investors to channel more capital toward climate resilience and sustainable development. While the public sector has an important role to play in this respect, scalable solutions require significant commitments of private-sector resources. With climate change already wreaking havoc on poor and rich countries alike, unlocking this largely untapped pool of capital has become an urgent priority.

Many investors associate climate-centric investments with "social impact" and reduced profitability. While sophisticated investors have the means to deploy their capital profitably toward decarbonization, the energy transition, and other climate-related sectors, such investments tend to be illiquid. They remain tightly wound up in private-equity funds, and thus inaccessible to the ordinary investors and savers who are most exposed to climate-driven food, water and energy insecurity.

The solution is to create climate investments that are profitable, liquid, and accessible to all. COP28 offers an opportunity to rethink how we deliver such market solutions, and how we can harness digital innovation to scale up promising models. To mobilize capital at scale, we must draw on the global savings of individual investors as well as institutions such as pension funds, insurers and sovereign funds. Risk diversification can be achieved through retail-friendly, liquid, easily accessible instruments such as exchange-traded funds (ETFs). The sensible way to construct a profitable, long-term, climate-aligned, widely accessibleinvestment strategy is to develop a diversified portfolio of assets that directly or indirectly support climate financing. For investors with a long-term horizon, a portfolio that meets these requirements should be composed of three main asset types.

The first is climate-resilient real estate and infrastructure – meaning assets in weather- proof, stable geographies that have low climate exposure. Real-estate and infrastructure valuations in such regions are poised to appreciate significantly on the back of population shifts from high-risk areas across the Southern Hemisphere to more resilient communities in North America, Northern Eurasia, and select geographies in the Global South. Real Estate Investment Trusts (REITs) and exposure to Greenfield developments through ETFs are two ways to secure reliable returns from climate-adaptation efforts. And as an added bonus, such investments offer broader economic and societal benefits, including productivity growth, job creation, and the provision of employment and housing for migrating populations.

The second component is green commodities. An orderly transition to a more resilient future requires massive investments not only in energy, food and water assets, but also in the metals and critical minerals used in renewable energy and electric vehicles (EVs). These include commodities such as soy, wheat, copper, rare-earth elements, cobalt, lithium, and so forth. To avoid "greenflation" (inflation caused by decarbonization efforts) and supply bottlenecks, we urgently need to boost production and lower the cost of securing these commodities.

Finally, a sensible climate-aligned portfolio should include assets that provide a hedge against inflation and geo-economic risks, such as short-term and inflation-indexed sovereign bonds and gold. Not only does the negative correlation between these assets and other climate-related investments offer extra ballast, but it also provides liquidity and low volatility to meet the needs of many individual investors, pensioners and savers. And again, there is an added bonus: greater investments in inflation-proof sovereign assets will allow governments to do more to finance the green transition.

The challenge lies in working out how both technology and business models can be positioned to alter the structure of the economy – transform it from a pyramid to what Gandhi visualised as 'oceanic circles'

- **<u>Webinar on 'Sustainable Consumption and Sustainable Production'</u>**

The World SDG Forum's Webinar series has been trying to conduct a conversation on the issues around the SDGs and draw like-minded individuals and organisations to explore avenues that would help accelerate the achievement of the SDGs as well as to create a community of practitioners that would nudge the current process.

This webinar, the sixth in the series, takes its lead from the outcome of the fifth Webinar on Innovative Financing for SDGs that concluded that without Sustainable Consumption and Production, the financing of SDGs would not achieve the results we require.The SDG 12 Webinar brought together the voices that articulate the different elements required to achieve this Goal as well as practitioners who have succeeded in the endeavour to create sustainable consumption and production models.

The speakers from the world of civil society, spiritual guidance, industry and rural development shared their experiences and perspectives – with a common refrain being the mutually reinforcing relationship between production and consumption so that while all needs are met but the focus is on responsivity towards nature today and future generations tomorrow.

"Civilization, in the real sense of the term, consists not in the multiplication, but in the deliberate and voluntary reduction of wants". As the Buddha once said ""No sorrow can come to those who do not try to possess things or people as their own." The challenge is to translate credo into conviction and ambition into intent for implementation. Spirituality can play a major role to catalyse sustainable consumption as well as sustainable production. Ethics provides the pathway for spirituality into everyday life and action.

As a champion of the waste to wealth concept, Union Road Transport and Highways Minister Sh. Nitin Gadkari recently at an event in Delhi, "Conversion of waste into wealth can generate Rs. 10 lakh crore per annum for the Indian economy'. At the heart of the efforts to achieve the Sustainable Development Goals, is the message encapsulated in SDG 12 – 'Ensure Sustainable Consumption and Production Patterns" or more succinctly, 'Sustainable Consumption and Sustainable Production'. Without it, nothing will be achieved. It is at the core of all the 17 Goals, 169 targets and 232 indicators.

Pt. Deendayal Upadhyay's philosophy of 'Integral Humanism' articulated the idea more clearly. Among the numerous quotes on the subject, the clearest was, "It is essential, therefore, to use up that portion of the available natural resources which nature itself will be able to recoup easily. … The industrialist provides for a depreciation fund to replace machines when they are worn out. Then how can we neglect the depreciation fund for nature? From this point of view, it must be realised that the object of our economic system should not be to make extravagant use but a well-regulated use of available resources… It will not be wise, however, to engage in a blind rat-race of consumption and production.. Such a system alone can be called civilization. This system will not thrive on the exploitation of nature, but will sustain nature, and will in turn itself be nourished. Milking, rather than exploitation, should be our aim. The system should be such that overflow from nature is used to sustain our lives.

Ati Sarvatra Varjayet

(Excess of anything is bad).

- **<u>Webinar on 'Strong Local Governance Institutions for Effective Skill Development'</u>**

The global conversation on sustainable livelihoods for the population entering the workforce – India alone has nearly a billion people in the working age cohort who need to be productive and profitably employed. If the youth dividend is to be harnessed, high-quality human capital with the right mix of skill, attitude and orientation is required else many countries with a young population today will not reap benefits. "They might get old before they get rich." Government cannot provide jobs on scale, but it can provide policy signals and fiscal incentives for the private sector to do so – including through the PPP modality.

While there is a large body of work and corpus of practices on vocational training and technical education, it might be useful to begin a dialogue on new avenues of skill development – FinTech, GovTech, Digital Economy, etc. - and the role that local governance institutions can play – and how to leverage climate finance for these.

Skill development in FinTech is a case in point. To achieve maximum impact, the climate-investment instruments must be made available to the average investor on liquid, low-cost terms. While ETFs can help, not everyone has a brokerage account, or even a bank account. We tend to overlook the unbanked populations of the Global South, as well as the younger generations for whom digital may be more appealing. According to the World Bank 1.4 billion adults are unbanked globally, and the share of the unbanked population exceeds 50% in several Middle Eastern, Asian, and African countries with larger youth ("digital native") populations.

Accordingly, WSF team hosted a webinar in November 2023 on new and innovative areas for skill development and the role that local governance institutions – both urban and rural – can play. There is now a significant body of work on local governance and SDGs – including SDG plans for rural councils and urban local bodies. It is time now to bring the body of work on local planning for SDGs to bear on

innovative and effective pathways for skill development and higher quality of human capital.

The webinar brought together sustainability and digital economy experts and grassroots practitioners working on skill development, including in sunrise sectors such as financial services, logistics sector (India's Gati Shakti for example) and infrastructure workers, etc. The conversation at the webinar reflected diverse perspectives with a common purpose – showing how to yoke skill development initiatives – both on national scale and local actions- to accelerate progress towards SDGs – go beyond.

- To build climate-resilient communities, encourage cross-border public-private partnerships, secure critical green supplies, and accommodate climate-driven population shifts around the world, policymakers and asset owners urgently need to rethink how we channel capital towards skill development at scale.
- With climate-driven costs escalating rapidly, innovation (both technological and financial) remains the most powerful tool at our disposal. Innovation of course requires local action, and this is where local governance institutions can play a catalytic role. They can provide the on-ground momentum to replicate and upscale successful practices in skill development.
- Currently, the roles for skill development missions and those of local bodies tend to be silo-ed. These silos need to be converged. This challenge is global but the opportunities to resolve it are local. Convergence to achieve SDGs through skill development is an imperative.
- Given the flexibility and resources – and technical experience- of skill development missions, the convergence with PRIs can radically transform the quality of human capital and boost India's progress towards SDGs and its leadership role as lodestar for SDG interventions globally.

- **<u>3rd INTERNATIONAL SDG CONFERENCE, 25th-27th February 2024, CHITRAKOOT</u>**

FOREWORD

Deendayal Research Institute (DRI), founded by Bharat Ratna Rashtrarishi Nanaji Deshmukh in 1968, is an independent "think-and-do tank" devoted to rural upliftment and empowerment of all! Given that nearly two-thirds of carbon emission today occurs at the household level, the imperative of LiFE cannot be overemphasized. Since the Hon Prime Minister, Shri Narendra Modi's speech at the COP 20 on the 1st of November, 2021 in Glasgow where he introduced the idea of LiFE – Lifestyles for Environment, and called upon the global community of individuals and institutions to drive LiFE as an international mass movement towards "mindful and deliberate utilisation, instead of mindless and destructive consumption" to protect and preserve the environment, there has been a major conversation around the concept, at both the individual level as well as the national and international arenas. He added that LiFE

puts individual and collective duty on everyone to live a life that is in tune with Earth and does not harm it. During India's G-20 presidency, there was a large, concerted effort to ensure that LiFE took centre stage in the discussions of the C-20.

The Varanasi Development Ministerial Meeting on 12 June 2023, produced a document "G20 High Level Principles on Lifestyles for Sustainable Development" that articulated the Lifestyles for Sustainable Development Approach that called for an embodiment of the spirit of One Earth. One Family. One Future. 1. Respectful, responsible conservation, sustainable use and regeneration of natural resources is at the heart of environmentally conscious lifestyles as well as consumer choices – One Earth. 2. Requires collective and coherent actions, collaboration and coordination amongst stakeholders at all levels, including individuals, communities, academia, media, civil society, government, international organisations, private sector, and industry to combat land degradation and desertification, halt and reverse biodiversity loss by 2030, reduce environmental pollution, and achieve global net zero greenhouse gas emissions by or around mid-century, through low GHG emissions/low-carbon, climate resilient and environmentally sustainable development pathways, taking into account different national circumstances, and capacities – One Family. 3. Integrated approach for achieving our shared goals on development, environment and climate with human beings at the centre of our actions, leaving no one behind – One Future. The last official G20 program of the India Presidency was a 'Global Summit on LiFE Economy: From Principles to Action' conducted by Research and Information System for Developing Countries (RIS) at the Vigyan Bhavan in Delhi from the 26th to 28th November 2023, where delegates tried to address the elephants. In the room, and looked to initiate a paradigm shift in the thinking of Global economies, its objectives and measurement systems. This is easier said than done and will not happen by itself. People need to be aware of concepts like LIFE, circularity and sustainability – and then practice these in everyday life. Global fora will take time to absorb and trickle down messages and money for everyday practice by people. We now need to build dialogue on large scale public action that is unfettered by the constraints of government and intergovernmental bodies. Deendayal Research Institute with its MOU partners at the World SDG Forum, whose 'Chitrakoot Declaration', adopted at is 2nd International SDG Conference in Chitrakoot, called for 'India and the global South, to initiate efforts for a new and inclusive world economic order, which will hasten the process of fulfilling SDGs in a cooperative economic architecture'. In May 2023, a hybrid WSF webinar was hosted by DRI along with RIS. It precisely flagged this aspect for the realization of LIFE. The objective was also to share the Indian tradition within which concepts like LIFE, circularity and sustainability have been practiced in everyday life.

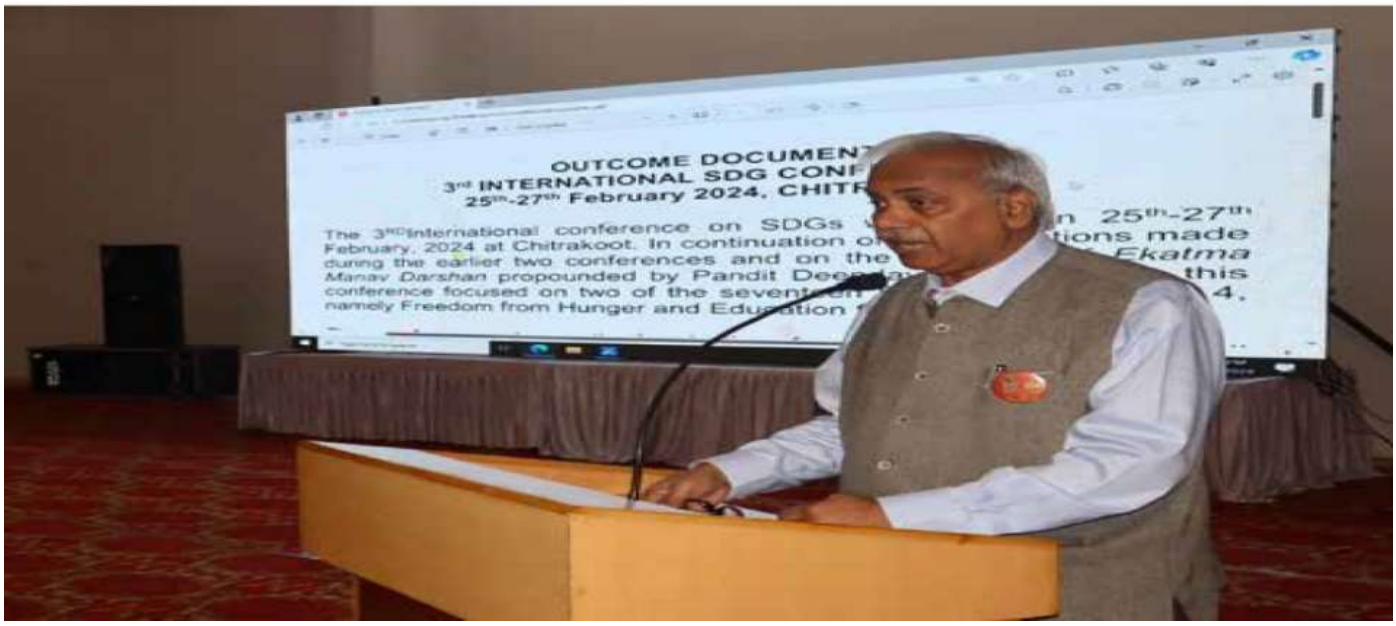
The major points from the keynote remarks, Q&A and the online interventions were as follows: - The concept and practice of LiFE have been rooted in indigenous traditions across civilisations, but eroded and marginalised by the provenance of capitalism and industrial society. The current crisis – banking crisis, climate change, inequality and conflict ongoing simultaneously – offers an opportunity to re-cast everyday behaviour and find again the spiritual and moral basis for action. The New Washington Consensus is an example of this quest. - The philosophy of Integral Humanism enunciated by Pandit Deendayal Upadhyay and put into practice by Nanaji Deshhmukh at Chitrakoot, provides both an example of and a foundation for LiFE – working with very poor, tribal people and communities in most remote regions of India, to build a society based on cooperation and integration of each human being, where each is responsible for the welfare of all others, where the distinction between self and society is obliterated and life is based upon interdependence and complementarity. The Chitrakoot Declaration is a brave yet practical commitment to bring together SDG practitioners and interventions from across the

globe under the aegis of the World SDG Forum (WSF). The G20 presidency of India and the troika (Indonesia, India and Brazil) is an important platform to highlight the urgency of accelerating progress towards SDGs not only till 2030 but also beyond. - The resurgence of the Global South is evident, and India is today among the leaders of world based both on its demographic size as also track record in economic growth and poverty reduction. The WSF must seize the opportunity offered by this fortunate conjuncture and showcase its promise with more effective outreach of the concept and knowledge network. National and international consultations can help achieve this as also international and UN partnerships. to join WSF and indeed build up Chitrakoot as the Davos of SDGs. The Conference started with a Keynote address from Dr. Naresh Singh, Professor and Executive Dean, Jindal School of Government and Public Policy; Director, Centre for Complexity Economics, Applied Spirituality and Public Policy, amongst others. Dr. Naresh emphasized the need to include Spirituality in Sustainable Development Policy and an Integrated Public Policy approach, if progress was to be made on achieving the SDGs. Other speakers addressed the need for a LiFE Society in pursuit of the SDGs. The plenary and closing sessions book-ended the parallel sessions on SDGs 2 (End Hunger, Achieve Food Security, Improve Nutrition and Promote Sustainable Agriculture) and SDG 4 (Ensure Quality and Inclusive Education for All and Promote Lifelong Learning). The conference brought together global experts, national advisors, state and district administration, civil society, as well as the actual beneficiaries on the single platform of the World SDG Forum.

OUTCOME DOCUMENT 3rd INTERNATIONAL SDG CONFERENCE, 25th-27th February 2024, CHITRAKOOT

The 3rd International Conference on SDGs was held on 25th-27th February 2024 at Chitrakoot. In continuation of the resolutions made during the earlier two conferences and on the template of Ekatm Manav Darshan (Integral Humanism) as propounded by Pandit Deendayal Upadhyaya, this conference focused on two of the seventeen SDGs, SDG 2 and 4, namely Freedom from Hunger and Education for All. The 3rd Conference plenary session examined the concept of Lifestyle for Environment (Life) propounded by the Prime Minister Sh. Narendra Modi at the Glasgow Conference of Parties and a highlight of the G-20 Summit deliberations and declarations. The keynote remarks and interventions at the opening plenary highlighted the imperative of going beyond economistic approaches and instead having a comprehensive social transformation approach where human development and spiritual well-being of the individual, the household, and the community were at the center stage and models of growth-focused on sustainability instead of more and more mindless extraction and increased consumerism, to create a Life Society. The speakers stressed the ever-more urgency of action on the ground, building alliances and networks for SDG interventions. The conference draws its inspiration from Rashtrarishi Nanaji Deshmukh whose Punya Tithi falls on 27th February. His seminal work in providing a working platform for the philosophy of Ekatma Manav Darshan in the form of the all-round development of villages around Chitrakoot is illuminating our path in the ongoing process and activities of the World SDG Forum undertaken by Deendayal Research Institute (DRI), established in 1968. The technical sessions on SDG 2 “End hunger, achieve food security and improved nutrition and promote sustainable agriculture”; and SDG 4 “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”, discussed and deliberated on all the aspects of these two important areas. The scholarly gathering of eminent educationists, economists, agricultural experts and practitioners drawn from nearby villages suggested a way forward concerning these two SDGs: 1. There is an urgent need to re-look at the fundamentals of the problems concerning eradication of hunger. While food production could have gone up marginally and new techniques of increasing the per acre yield of

food grains are being implemented, the quality of output seems to have deteriorated. 2. There is a need to find ways and means to educate people, and incorporate certain corrective action regarding food waste, which according to some experts, form nearly fifty percent of the total waste, both bio-degradable and otherwise. 3. Agricultural practices are increasingly becoming dependent on chemical fertilizers and pesticides which leave harmful substances as residue in the farm products leading to harmful consequences to health and environment. Based on the "Chitrakoot Model of Farming", a more structured and practical way of organic farming should be promoted. 4. A more nuanced view and action plan is needed to devise a workable strategy for not only zero hunger, but more importantly, zero malnutrition. 5. As far as education is concerned, much needs to be done on the three aspects of what we learn, how we learn and where we learn. As such, education does not have a universally accepted definition. The need and steps in education is different for every person and society. One pattern cannot



fit all countries universally. It is therefore necessary to consider the following: 5.1 Include spirituality, moral and ethical values in primary, secondary and higher education by integrating appropriate course material in the pedagogy at these levels. 5.2 Teach about Indian Knowledge Systems and inculcate a sense of belonging to the society so as to strengthen social bonding. This will help bridge the gap between problems and solutions. The conference called upon the participants to take the philosophy of Ekatma Manav Darshan propounded by Pandit Deendayal ji and its practical application as is evident in Chitrakoot initiative of Rashtrarishi Nanaji Deshmukh to all the stakeholders and policy makers for inclusion and implementation through Public Policy.

- **Workshop on Soil and Human Health through Indian Natural Farming 26 February 2024**

The session started after lighting the lamp in Vivekananda Auditorium under the chairmanship of the Honorable Vice President of Deendayal Research Institute, Mr. Nikhil Prabhakar Mundle. In his address, Shri Nikhil Ji said that our mother earth is full of nutrition and needs to maintain nutrition stability.

Welcoming everyone, he said we are confident that all of us will take something away from this workshop. In this program, Dr. Sushil Kumar Chaturvedi, Dean of Rani Lakshmi Bai Central Agricultural University, Jhansi, drew everyone's attention to the usefulness of natural farming.

While speaking in the workshop, Dr. Shiv Shankar Singh, Professor of Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot, while speaking on "Possibilities and Utility of Natural Farming" said that Natural Farming is an agricultural system in which farmers do not use any harmful

chemicals. Using edible plants, only natural ingredients are used. Major examples include the use of cow dung, the selection of seeds and plants according to climate, and natural pest-disease control techniques. Natural Farming alone is not only a source of good food production, but it also helps conserve natural resources. Practicing this type of farming can mitigate climate change, promote the conservation of natural flora and fauna, and conserve water and soil.

Acharya Shyam Bihari Gupta, the founder of Kisan Samridhi Vidyapeeth, Jhansi, said on human nutrition from cow-based natural farming products that cow dung is rich in nutrients and bacteria which provide nutrition to the soil. It can help kill germs and fungi, reducing the need for pesticides. Cow urine has antibacterial properties, which can kill germs and protect healthy crops in farming. It can be used for water conservation and enhancing soil quality. Cow dung and cow urine can be used as natural fertilizers in natural farming. Natural farming products provide us with a diet that balances our physical and mental health. These products contain high amounts of vitamins, proteins, and other nutrients, which provide us with energy and protect us from physical diseases.

Mr. Aslam Khan, Director, Bundelkhand Naturals, shared his experiences on the information required to market the products obtained from natural farming. He said that natural farming is an alternative and sensitive farming system that conserves the environment instead of harming it. When we do this kind of farming, we also have to take a special approach to marketing the products. Here are some important points to keep in mind:

Proof of quality: The high quality of natural products is a major selling factor. Products may be certified for quality control to ensure quality, such as by obtaining organic or other certifications.

Manufacturer Organization: It is important to select a sustainable and reliable manufacturer organization for selling natural products. Building relationships with customers requires educating them about the products' quality, health benefits, and benefits of naturalness.

Medium of Marketing: Products can be marketed through local markets, online marketing, farmers' markets, and union grocery associations. Here, it is important to choose a good platform to sell the products.

Dr. Amit Jha, Professor of Agriculture, Jawahar Lal Nehru University, Jabalpur, while discussing the quality management of products, said that while marketing natural products, attention should also be paid to their branding and promotion. A good branding and promotional campaign can increase the sales of products. If products are prepared and marketed as per demand, good profits can be obtained. The session ended after a vote of thanks; 450 farmers participated in the workshop.

- **Workshop entitled "*Maatru Shakti Ke Uttam Swasthya evm Poshan me Poshak Anaajon ka Mahatva"26-27* February *2024***

- **seminar entitled Protection and Registration of Traditional Farmers Varieties on 26-27th February 2024**

- **Seminar on Skill promotion and entrepreneurship among farmers Producer Organization Volunteers 26-27 February 2024**

The national workshop organized on the 14th death anniversary of 'Bharat Ratna' Rashtrarishi Nanaji Deshmukh was held on 26 February 2024 among the workers of Farmer Producer Organization on the topic of Skill Sarvadhan and Entrepreneurship, which was inaugurated and the lamp was lit by Sh. Abhay Mahajan, Organizing Secretary, Deendayal Research Institute, Hon. Sh. Nikhil Prabhakar Mundle, Vice President, Deendayal Research Institute, Dr. Bharat Mishra, Vice Chancellor Mahatma Gandhi Chitrakoot Gramodaya University, Sh. Amitabh Vashistha, General Manager Deendayal Research Institute, and Smt. Anuja Parchure, Member Deendayal Research Institute.

The guests sitting on the stage were welcomed with flower bunches, Ramnami Gamchha, and mementos. After that, a book written on bees published by Deendayal Research Institute was released and the products manufactured by Farmer Producer Organization - Tomato Ketchup and Multigrain Flour products were launched.

In the first session of the workshop, the session was chaired by Shri Uttam Kumar Tripathi, and the stage was conducted by Hon. Shri Rajesh Mahajan, Secretary, Deendayal Research Institute. In which chief guest Sau. Anuja Parchure and key speakers Mr. Anil Shukla and Dr. Prabha Shankar Shukla were present. All these dignitaries shared their views on the responsibility of workers of the Farmer Producer Organization and the management of accounts and finance of FPO.

In the second session, the forum on the topic of agricultural product selection and market management and opportunities for origin from farming in FPO was conducted by Dr. Sunil Dubey and was presided over by Sh. Ramakrishna Tiwari. In which the chief guest was Dr. Vikrama Prasad Pandey and the main speaker was Dr. Chandramani Tripathi. He reiterated the thoughts of respected Nanaji and gave guidance on how to make the village self-reliant and on the subject of FPO.

On the concluding occasion of the second session, Honorable Shri Atul Jain, General Secretary, Deendayal Research Institute, remembering Revered Nanaji, shared his basic mantra and told the farmers that it is important to decide their role in society and it is mandatory to have a spirit of

cooperation. The third session of the workshop was presided over by Mr. Vipin Virat ji, in which the chief guest was Mr. Rajesh Khandelwal and Mr. Rakesh Nagpal and Mr. K.K. Sharma were the main speakers. All these dignitaries provided financial information to the farmers regarding the application of FPO, CBBO management cost, utilization of cost amount and financial support and loan.In this session, Dr. Rajendra Singh Thakur ji informed the farmers about the food processing scheme of the Government of India. Honorable Shri Vasant Pandit, Treasurer, DRI said that the Government of India is also working as per the thinking of Nana Ji. Deendayal Research Institute is always ready to help all the farmers.

The fourth session of the workshop was presided over by Dr. Upendra Kulkarni, the main guide in this session was Mrs. Suruchi Nagpal and the main speaker was Dr. Amit Goswami, and the session was conducted by Dr. Rajeev Singh, in this session progressive farmer Mr. Omprakash Pandey ji discussed the problems faced in FPO and Shri Tarachandra Bel ji provided the basic mantra of how farmers can get more economic benefits through natural farming. After this session, Dr. Upendra Kulkarni suggested the FPO work in Shree Grain Product Processing.

Chief Executive Officer of Farmer Producer Organization, Accountant, CBBO representative, scientists, and in-charges of Krishi Vigyan Kendra under the chairmanship of Shri Rakesh Nagpal and presence of Shri K.K. Sharma as subject expert along with efficient operation and simple process. A working meeting was organized in the market basic management in which a detailed discussion was held regarding the curiosity of the workers, solutions, and the direction of companies becoming self-reliant. In this important meeting, 26 workers holding the above responsibilities were present, along with 18 workers of the Farmer Producer Organization running under the leadership of Dr. Rajeev Singh, scientist of Jawaharlal Nehru Agricultural University, Agricultural Science Center, Chhatarpur were present.

- **Mahila Sashaktikaran ewam Swam Sahayata Samuho Ka Swarojgaar Vardhan hetu Unmukhikaran, 26-27th February 2024**

- **Farmer's Felicitation programme on February 27, 2024**

1. Sumati Tai Suklikar Mahila Sashaktikaran Samman- 03 Farm women
2. Rajabai Deshmukh Mahila Swablamban Samman-02 Farm women
3. Rashtrarishi Nana ji Deshmukh Krashak Samman-10 Farmers

- **<u>National Workshop on Entrepreneurship development on organic farming, beekeeping, vermicomposting and cultivation and standardization of medicinal plants on 21st March, 2024</u>**

The workshop was inaugurated by Shri Abhay Mahajan ji, Hon'ble Organizing Secretary, Deendayal Research Institute, Prof. Bharat Mishra ji Hon'ble Vice-chancellor, Mahatma Gandhi, Chitrakoot Gramodaya University, Chitrakoot, Satna (M.P.) and Shri Vasant Raj Pandit ji, Hon'ble Treasurer, Deendayal Research Institute. In the technical session, practical training and lecture delivered by Dr. Manoj Tripathi, SRO & Head (R&D Division), Arogyadham, DRI, Chitrakoot on vermin technology, vermin composting, and organic farming-a present-day need. Dr. Amit Shrivastav, Prof. Nand Kishor Pharmacy College, Naini delivered the lecture on cultivation and standardization of medicinal plants, and Shri Praveen Shukla –Director, Kritika Herbals Rewa provided hands-on training on beekeeping. About 100 participants including graduate & postgraduate students, farmers, and rural youth participated.

With agriculture being highly vulnerable to climate change, tribal farm families, particularly, the marginal landholders and landless are finding it difficult to meet their annual family requirements. The Livelihood Security of the majority of these resource-poor tribal farm families is threatened in view of small landholdings becoming nonviable and uneconomical resulting in large-scale increases in unemployment and migration of these farm families due to the reduction of livelihood opportunities in rural areas. In this backdrop, the interest of the marginal farmers in farming is reducing and the farmers are quitting farming and migrating towards cities. Most of these farm families are crippled by poverty, unemployment, inequality and other such challenges. Out of the total tribal households in the Majhgawan block of the district, about 75 % of the households are below the poverty line and 34 % are absolutely landless. These tribal families are dependent on subsistence Agriculture. The major contribution to their livelihood is from forest produce collection and small livestock rearing like goat and backyard poultry. Seasonal agriculture is unable to employ farm families. Therefore, there is a

dependency on nonfarm activities like grocery and poultry for supplementary income. Backyard poultry farming hardly requires any infrastructure set-up and seems to be a potent tool for the upliftment of the poorest of the poor tribal farm families. Besides, providing employment, this will also generate additional income for the households. This will also encourage the unemployed educated youths in a greater manner to be involved in this enterprise. Backyard poultry farming will prove a viable enterprise for mostly the landless tribal families below the poverty line the tribal farm women need to be mobilized, organized, and equipped with knowledge/information and skills that will empower them to actively engage in subsidiary enterprises viz., poultry farming, Mushroom production, and vermin-composting. So, to improve the economic and social status of these targeted groups of farming communities, we have proposed to impart training on essential skills to backyard poultry (Kekadnath), Mushroom production, and vermin-composting.

Vermicomposting: There is soil deterioration due to un-judicious use of chemical fertilizers. In order to prevent the further deterioration of the soil and to make farming as profitable business, this enterprise will prove a milestone for the farmers in the district. Nowadays there is tremendous demand for organic food products which is produced by using organic manure and biopesticide. And the consumers are ready to pay higher price for organic food. Under this project vermes as well as vermicompost will be mass-produced by DRI, Chitrakoot from farm waste and dung. The Rural youths, farm women and practicing farmers will be trained for the production and utilization of vermicompost. The vermes of improved species will be procured from JNKVV, Jabalpur and IVRI, Itanagar and a mass multiplication program of these vermes will be undertaken. The technology for vermicomposting will also be demonstrated to the farmers. Vermi compost production will also generate gainful employment in rural areas. The vermes will be distributed to the rural youths and the mass production of vermes and compost will be undertaken by the farmers after getting training on vermicompost production technology.

रिक्शा रन 2023

SEWA UK

RICKSHAW RUN

CHITRAKOOT TO KUTCH 2023

DEENDAYAL RESEARCH INSTITUTE, CHITRAKOOT

11 December 2023

Rickshaw Run 2023 to support DRI's Arogyadham project for enhancing infrastructure especially for dental unit and other outreach activities.

Deendayal Research Institute, founded by Nanaji, has been working in more than 500 villages around Chitrakoot for the last three decades based on the philosophy of holistic rural development. With the main goals of keeping no one poor, no one unemployed, no one unhealthy, no one uneducated and dispute free villages, the Institute is running *'Swavalamban Abhiyan*' in the villages. Thousands of patients are treated every year through Arogyadham located in Chitrakoot. Apart from this, medical services are also provided in remote villages through mobile hospitals. Recently, the Institute has established a high-level Neurology Department, and the current dental unit is being upgraded as well as expanded. The Institute also organizes a completely free medical camp for plastic surgery of cleft lips etc. every year.

Sewa UK is providing adequate support to the efforts to create new infrastructure and increase outreach with a view to providing integrated, accessible high-level medical services. In this regard, a large number of NRIs joined it. Under this scheme, 125 respected NRIs from four Countries (U.K.,CANADA, AUSTRALIA and KENYA) organized a special auto rickshaw run from Chitrakoot (Uttar Pradesh) to Dholavira (Gujarat) from 12 December 2023 to 25 December 2023 with the Deendayal Research Institute. Covering a distance of more than 2000 km in 12 days, 36 auto rickshaws completed the journey from Chitrakoot to Kutch.

During the yatra, the NRIs have got glimpse of the culture and rural lifestyle of different states and seeing and understanding the service projects at the local level.

In December 2021, a series of meetings and preparations were started through online mediums under the leadership of Shri Bharat ji. A dry run was conducted in October 2022 in which the places, roads and routes falling between the rickshaw run journey were surveyed. In September 2023, concrete unit visits were made and program planning was done in which the responsibilities and workload of the workers were explained to them.

On the occasion of inauguration of new dental department in Arogya Dham, Dr. Milind Devgaonkar, Director Arogya Dham said that the aim of the institute is to upgrade medical services by coordinating between modern and traditional medical system and provide affordable and better health facilities to the local people. For this, it is being further improved by Sewa UK.

Dr. Naresh Sharma, Vice President of Deendayal Research Institute and senior dentist serving in London, while providing detailed information about the work being done by Sewa UK in medical service for the past 25 years, also provided information about providing support for necessary resources to further improve the health camps being run by Deendayal Research Institute in 500 village settlements.

Shri Abhay Mahajan, Organising Secretary of Deendayal Research Institute said that cooperation, culture, dedication and service spirit should be the basic nature of all of us because this is the foundation stone of the development of a better society.

Inauguration of state-of-the-art new dental department in Arogya Dham

Before the start of the auto rickshaw run, the new dental department was inaugurated in Arogya Dham. A new building has been constructed to upgrade and make the dental department of Arogya Dham paperless, in which an operation theatre with state-of-the-art facilities and a modern CT scan machine for full face examination have been installed. Arogya Dham is improving dental practice for rural areas. Apart from this, medical services are also being provided in remote villages through mobile hospitals.

In their experience, the NRIs said that it was a very good experience to understand the art of India, the culture of the village. For the first time some people went to the village, saw the village, saw how our ancestors lived. Mr. Bharat ji of Seva International said that there is a lot of challenge in the journey but the support of Deendayal Shodh Sansthan is incomparable. I would like that the way India is progressing, it will become the world leader again in the next four-five years. Shri Arvind Shukla, Vice Chancellor of Rajmata Scindia Agricultural University said that your journey from Chitrakoot to Kutch Gujarat is a very challenging journey. You will see various places of India, India's biodiversity, India's environment, India's culture, agriculture, you will see everything. Best wishes for a pleasant journey.

Conclusion

Organising Secretary Sh. Abhay Mahajan ji said that this auto rickshaw run journey, carried out by Sewa UK with the aim to support DRI's Arogyadham project for enhancing infrastructure especially for dental unit and other outreach activities. The NRIs were able to see the rich and diverse heritage, culture, Biodiversity, archaeological sites of India in the form of adventure.

Bharat Jivan Barkul, the Yatra Pramukh from UK, said that through this Yatra, along with creating public awareness among people, we NRIs are also able to see our country closely, which is incomparable for us. All the NRIs participating in this two-week long rickshaw run said that they were able to see the places of archaeological importance in India with a special purpose and also the places of religious importance, which was a matter of great fortune for them. On 23 December, this auto rickshaw run yatra concluded in Kutch.

He said that this effort of “Sewa UK” was aimed to generate funds for creating state of the art Medical facilities in Chitrakoot and also to create public awareness at the global level for health, education, tribal welfare and women empowerment. He said that through the auto rickshaw run, we closely observed the farming and crop diversity of different regions. We also came across the traditional way of saving water in the desert and took complete information like a curious person. He was very overwhelmed by the hospitality he received in India. He said, when someone comes to India, he comes as a tourist, but when he sees India's culture and unity in diversity, when one gets a chance to understand the family, one feels like a part of a family.

DRI Delhi Project

Delhi office besides overseeing and coordinating the activities of all centres of DRI, also provides logistical support to all units in their endeavour of social reconstruction. It acts as a centre of intellectual activities organizing discussions and seminars on developmental issues. Following are the major programs held under DRI Delhi project;

- Webinar on **"Lifestyle for Environment (LiFE) and SDGs - India's role in its Acceptance and Propagation"** G. Parthasarathi Hall, RIS, Lodhi Road, New Delhi at 11.00am on 27th May, 2023.

- **11th NanaJi Memorial Lecture - "Sharing Best Development Practices"** By **Dr. Vinay Sahasrabuddhe Ji**, Hon'ble President, ICCR **Chair: Sh.Vinay Kumar Saxena Ji**, Hon'ble Lieutenant Governor, Union Territory of Delhi - 5.30pm, Sunday 2 July, 2023.

- **Akhand Bharat Parisamvaad "Map of Akhand Bharat in New Parliament House", Speakers were Shri Arjun Ram Meghwal**, Law & Justice Minister, Govt. of India, **Shri Sabir Ali,** Ex Member of Parliament Rajya Sabha, **Dr. Pushkar Mishr**, President, Ashram Parampara Pratisthan & Coordinator Niti Anusandhan Vibhag, BJP (UP) at 10.30am on 15 August, 2023.

Project – Understanding Governance through Bharatiya Civilizational Wisdom

Introduction

As Bhārata heralds the 'Amrit Kaal', an era of national rejuvenation, Prime Minister Sh. Narendra Modi has emphasized the importance of 'atmanirbharta' and 'janbhagidhari' time and again in various parliamentary addresses, as well as at national and international platforms and in his popular episodes of the Mann Ki Baat.

His government's policies such as 'Amrit Sarovar', 'Vishwakarma Yojana', 'Atmanirbhar Bharat', etc. have thus focused on inculcating the spirit of 'Vocal for Local', 'Ek Bharat Shrestha Bharat' and empower Bhārata's collective consciousness to rise up to challenges and embody the ideal of 'janshakti.'

A billion plus strong society that is in the throes of rediscovering its lost civilizational ethos, is at this moment also deeply inspired by an echoing reminder of its history, culture, traditions and its vast heritage. Through his public outreach efforts and initiatives, PM Modi has attempted to traverse across the culture and history of Bharata and take his ideas of governing a rising India to the people in the farthest corners of the nation.

The development of the NIGAM Model (New India Governance Assessment Model) through the joint endeavours of the Bharath Gyan, Bṛhat and Deendayal Research Institute (DRI) teams and

ably supported by the team at the Capacity Building Commission, follows this line of vision of an atmanirbhar Bharata and aims to aid the attempt to assess and enhance governance anchored in civilizational wisdom and the varied lived experiences of the people of India.

In terms of efforts to assess governance in modern times, numerous indicators have been devised and utilised to evaluate and compare the performance of nations. They are categorized largely as:-

- Composite indices which measure Governance as a whole from different dimensions such as Worldwide Governance Indicators (WGI), Sustainable Governance Indicators (SGI), Bertelsmann Transformation Index (BTI) etc.1
- Sector-specific indices
- Democracy indices which look at the narrow aspect of Democracy alone (Croissant & Pelke 2022).

Worldwide Governance Indicators (WGI) - provide a ranking of 215 countries' territories based on six dimensions of governance. Sustainable Governance Indicators (SGI) - studies 41 member countries of OECD and EU for sustainable governance practices. Bertelsmann Transformation Index (BTI) - a collaboration of nearly 300 experts across countries to analyze and compare transformation processes towards democracy and a market economy worldwide.

NIGAM – New India Governance Assessment Model

However, these composite indicators are inherently focused on measuring and analysing the shortcomings of a nation from their own yardstick and therefore can be best used as indicators of issues or how far a nation is from achieving a globally standardised benchmark of per capita income.

In recent times, key voices within India such as Dr. Bibek Debroy and Shri Sanjeev Sanyal (EAC - PM), have undertaken a comprehensive re-examination of India's development estimates by international organisations and their indicators (Sanyal & Arora, 2022). India has been conducting a critical study of the methods being used to compile global indices by reputed institutions such as the World Bank, World Economic Forum (WEF) and the United Nations Development Programme (UNDP).

Reporting and rating countries based on the various Governance and Democracy indicators published so far, continues unabated amidst the current debates, critiques and explanations over these indicators, their comprehensiveness, relevance, methodologies, correctness and their intentions.

It is pertinent to note at this stage, that India i.e. Bharat has been a continuously living civilization, which has enjoyed sustained prosperity as leader of World Trade and GDP for over 2 millennia as per Angus Maddison's report "The World Economy – A Millennial Perspective" published by OECD (Maddison, 2001). Sir Charles Metcalfe, a British administrator in India from the 1830s, has famously said as a testament to the sustained self-reliance in Indian village communities, "The village communities are little republics, having nearly everything they want. They seem to last where nothing else lasts."

The intent of this study has thus been to arrive at a conceptual model that focuses on assessing development using local yardsticks, and support the preservation of the resources, assets and the civilizational, self-reliant culture of the nation. It sought to enhance our understanding and application of effective, traditional governance principles in a Governance and Assessment framework that

- is Contextually Relevant,
- is measurable using Appropriate Metrics,
- is based on Decolonized Knowledge,
- addresses Development Priorities and
- ensures Ownership and Participation from all segments of people.

These 5 attributes are also closely aligned with the 'Pancha Pran' for Amrit Kaal, as declared by PM Modi on 15th Aug, 2022, during the 75th anniversary of India's independence.

NIGAM – New India Governance Assessment Model

This document entails the observations and recommendations arrived at after the conduct of the first Pilot on a few villages across 7 districts in India. Post data-mapping into the NIGAM model, it lists the findings from the pilot in terms of the:

1. NIGAM data model

2. NIGAM operational model

3. Government Structures and Interface with NIGAM

4. Wisdom Module that provides a way to include Civilizational Wisdom and Global Technology practices in Governance besides Policy Mandates.

NIGAM model, with the associated change in Governance style it enforces, can help usher in a reversal in mindshift of the people to make India a World leader once again by moving it to state of Viksit Bharat through,

- Participative Governance (Janbhagidhari)
- Self-reliance (Atmanirbharta) and
- Aspirations (Sankalpa).

The findings and observations from the pilot study in the villages of Bharata, draws out a rudimentary roadmap of policies at play in each of them, the aspirations of the people vis-a-vis ground realities and the impact that civilizational practices continue to have in their life and living. The study has also resulted in an understanding of the operationality, verifiability and flexibility of the pancakosha-based NIGAM model and the phased manner in which it can be rolled out.

If we were to attempt to understand the thought process behind Hon'ble PM Modi's resolute call for "atmanirbharta" and "swatantrata", we must realize that the essence of such self-reliance and complete freedom, lies in reclaiming the nation's indigenous traditions and sciences.

Bhārata as a political economy that is truly swatantra and vikasit, will emerge from governance mechanisms that are grounded in the lived experiences and realities of its age-old civilization and

anchored by leaders who recognize, honor and work alongside with and for the protection and nourishment of the ideals of the people.

This is not a utopian vision. In recent times, the Lok Sabha passed the Bharatiya Nyaya Sanhita Bill 2023 as a replacement to the colonial Indian Penal Code. The Mann Ki Baat series and its consequent policy implications have been visible to us through a growing assertion of India's own knowledge systems and the collective capability of its diversity. The Panchayat system of local governance continues to be a testament to the svavritti or self-reliance that sustained this civilization until 200 years before. Mission Karma Yogi, is yet another initiative by the Capacity Building Commission that seeks to infuse the traditional ideas of seva for civil services.

In what was simultaneously a cosmic and civilizational moment, as stated by PM Modi himself, the consecration of Sri Rama's grand temple at Ayodhya, speaks to us of a nation that looks ahead at a bright future built on and strengthened by the auspices of a great past. In PM Modi's call for Sri Rama Rajya, he stated that the Ram Mandir is a temple of India's vision, philosophy and direction. It is a temple of national consciousness in the form of Sri Rama.The ideal of *atmanirbharta* and *svatantrata*, lies at the heart of the idea of Rama Rajya. This project stands amongst other small yet significant attempts to further establish governance and **NIGAM – New India Governance Assessment Model** policies that emerge from the aspirations and wisdom of the people and enable flourishing grounded in the inspiration of two-thousand-year-old living civilization.

Celebrating Nutrition(Poshan Utsav)

The very mention of the word ‘food’ brings all our senses to life, evoking heavenly fragrances and mouthwatering flavours. Visions of appetizing delicacies float before our eyes, and the stomach yearns for them. Nostalgic memories surface, of our mothers and grandmothers singing songs celebrating the joys of food, and of festive occasions when an array of tantalizing dishes was prepared for our delectation. India’s culture is inextricably linked with food, nutrition and the culinary arts.

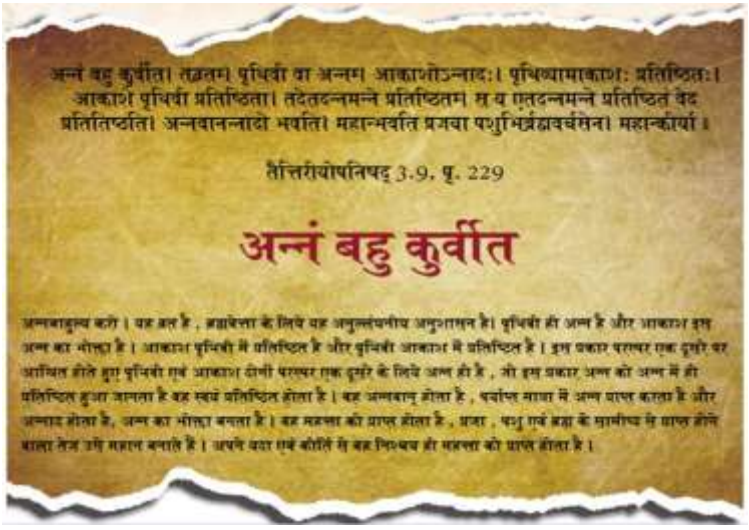
Conversations revolve around foodstuffs: the different diets to be followed in winter and summer, the most appropriate fare for each season, nutrition for newborns and their mothers, the fussy food habits of children, the nutritional needs of moody adolescents, the whims and fancies of youth, domestic compromises on culinary preferences, older folk revisiting their childhood food cravings and so on. Exhaustive discussions are held on food science, from the rules laid out in the ancient texts to the opinions of contemporary nutritionists. Life centres around food and its preparation.

It manifests the Indian tradition of taking pleasure in all aspects of life. Be it childhood capers or students’ pranks, acquiring learning or striving for prosperity, our everyday lives are suffused with cheer. And food is the crowning pleasure. Where there is food, there is celebration. And where there is celebration, there must be food. Birthdays call for a festive repast, and death for a tender farewell to the departed soul with kheer-pua (sweets).

The Indian diet nourishes not only the body, but the mind, intellect and soul as well. It is imbued with taste, 1. flavors 2. juices joy, colour, sacrifice, penance, art, science, bio-diversity and harmony. It is in accordance with Indian sociology and in consonance with Indian economics. The Indian food culture has its own philosophical basis, in keeping with which cultural traditions have evolved - spontaneously, naturally, harmoniously. Food is not meant merely to fill the stomach; it is linked to nutrition, knowledge, sociology, environment, emotion and spirituality. It represents the fulfilment of the four purusharths or aims of life – dharam, arth, kaam and moksha. For the benefit of the current generation, it must be pointed out that the meaning of 'dharam' is rather more extensive than ethics. 'Arth' is a broad representation of economic principles. 'Kaam' expresses the material pleasures of life. 'Moksha' signifies a pinnacle of perfection. Our cuisine is an amalgamation of them all. Every housewife is proficient in the culinary arts. Her mother's kitchen serves as her school, her aunts are her teachers, and her friend's mother her tutor. From childhood up, through a process of osmosis, Indian women reflexively absorb a knowledge of cooking. A young girl, while preparing savories for her older sister's wedding, may hear the women from her family or the neighborhood singing; unconsciously, she begins to sing along, not realizing that she is absorbing elements of folk wisdom. Over time, she becomes increasingly proficient.

Our food culture is in keeping with our traditions and core beliefs. All sixteen sanskars (rites of passage) are expressed in the assimilation of food. Thus, nutrition accords with an individual's constitution, with the season and the region.

India has two ancient traditions related to food. Indeed, they are better referred to as philosophies of well-being. The first is centered around the idea of *Annam bahu kurvita* (grow food in abundance). The second follows from the concept of *Tena tyakten bhunjitah,* interpreted as consumption in tandem with renunciation, that is, consuming what is allotted and not what is available, so that no one is in want. Everyone gets an equal share. The principle of growing food in abundance is found in our scriptures, notably in the shloka *Annam buhu kurvita* from the *Taittirīya Upanishad*.



Thus, an allusion to the tradition of renunciation in the mantra *Tena tyakten bhunjitah* Sages and communities seamlessly integrated this elevated principle in our culture. A beautiful example is found in folk songs -

In Rajasthan, when a farming couple ploughs their field, they chant a song together, in 1. honour of 2. homage to the deity '*Syawad Mata'* (Mother Goddess):

स्यावड़ माता रो सिमरण

स्यावड़ माता सतकरी
दाणा-फाका भोत करी
बैण-सुभासणी रै भाग रो
देईचीड़ी-कमेड़ी रै राग रो देई

राही-भाई रो देई
ध्यांणी अर जवांई रो देई
घर आयो साधु भूखो न जा
बामण दादो धाप र खा
सुन्ना डांगर खा धापै
चोर चकोर लेज्या आपै
कारूँआ रै भेले ने देई
राजाजी रै से लै ने देई
सुणीजै माता सरी
छत्तीस कौमां पूरी
फेर तेरी बखारी में ऊबरै
ते मेरे टाबरा नै ई देई
स्यावड़ माता, सत की दाता

(अर्थात्, हे सत् करने वाली स्यावड़ माता!
पर्याप्त खाद्यान्न उत्पन्न करना.
ससुराल गई बहन-बुवा के भाग्य का देना,
पक्षियों की आवश्कता को पूरा करना. राहगीर भाई- बंधुओं के लिए देना. अपने जँवाइयों के लिए देना. आवारा पशु भी पूरा खा सकें. चोर-चकोर भी अपनी जरूरत पूरी कर सकें. कारू अर्थात् खेती न करने वाले कुम्हार, नाई, खाती आदि इनके लिए भी देना, शासन अच्छा चले, उनके लिए भी देना है. हे सब की माता ! सुनो, छत्तीस कौमों की जरूरत पूरी करो. उसके बाद तुम्हारे भंडार में कुछ बचे तो मेरे बच्चों के लिए भी देना. हे स्यावड़ माता ! तुम्हीं सब को सत् देने वाली हो.)

A homage to Syawad Mata

O Mother Syawad, benefactress supreme
Bring forth food in abundance for all beings
Let sisters and aunts in the husband's home have their share
Fulfil the needs of the birds of the air
Bestow enough for brothers passing by
And sons-in-law, to satisfy
Let no holy man leave our home hungry still
The brahmin, too, must have his fill
Grant enough for stray cattle to eat
Even thieves and robbers must meet their needs
Let it suffice for those who do not till and reap
To maintain order and keep the peace
O Mother!
Fulfill the wants of all 36 communities, we beseech
And what is left over
Let my children receive
O Mother Syawad, benefactress supreme.

Even if food is available in abundance, letting it go waste is unacceptable. A number of wedding songs roundly censure those who leave uneaten portions on their plates (at the wedding feast). The so-called uneducated sections of society have come up with 1.meaningful 2. eloquent reprimands to inculcate respect for food. And the same so-called rustics convey those reprimands through the power of song.Indian tradition has it that food should be received in the spirit of prasad (sacrament), that it should be shared and enjoyed in a festive spirit, and that nutritious food should be consumed. All temples and Gurudwaras (Sikh temples) in the country prepare and distribute the most heavenly prasad. Deeming the prasad a gift of nature, communities have evolved their traditional cuisines in consonance with it.

The vast panoply of Indian cuisine is a result of many different religious, cultural and ethnic influences. If one attempts to count the number of festivals celebrated by the various communities in different parts of the country, the number will cross 365. Each of these festivals calls for its own delicacies. And each dish marks a particular festival. All of them are based on the specific biodiversity, climate and geographical conditions of the region.

Indian society has its own food-related rituals. A vast corpus on nutrition is contained in the scriptures, in folk traditions and popular literature. These traditions have equal regard for all sections of society. Just as humans have three traits – *satvik, rajsik* and *tamsi*k – so do all forms of nutrition. It is believed that our mental and physical makeup is based on our diet. Hence the proverb*: jaisa khao ann, vaisa ho-a man* (how you feel is what you eat). It is in this form that the

1. nutrition-centric
2. nutritionally superior food culture of India is expressed.

Our grandmothers, mothers, aunts and other elders of the household approach foodstuffs and their preparation with a wealth of knowledge and wisdom. This knowledge is not 'cooked up' so to speak, but is a legacy of generations of experience; a treasure-trove of wellness and nutrition, such that the slightest taste of it imparts a massive nutritional boost and enables a healthful, disease-free life.

Modern medicine acknowledges that most ailments are related to improper diet, and excessive indulgence in palate-pleasing (but nutritionally empty) foods. By becoming slaves to taste, people end up consuming all manner of items that are not suited to the human body. Today's consumerist generation mocks the traditional knowledge and the experience of their elders. They believe the older generation has no idea of food protocols or dietary norms.

This is, of course, incorrect. In villages, one can still find people whose health and longevity belie their age, whereas the so-called progressive urban youth is subject to all manner of ailments. Their diet is determined by TV advertisements, and has little to do with the life sciences.

- Deendayal Research Institute takes pride in announcing the **LAUNCH of *Poshan Utsav Coffee Table Book (Poshan Atlas)*** Hon'ble Minister Smt Smriti Irani and Mr. Bill Gates on Wednesday 1 March, 2024.

- Deendayal Research Institute's General Secretary Shri Atul Jain has delivered keynote speech in the National Conclave on "Promotion of Millets (Shree Anna) for Sustainable Agriculture and Nutritional Security towards Global Prosperity: Key Challenges and Future Prospects" on 30th October to 1st November, 2023 organised by Sardarkrushinagar Dantiwada Agriculture University in collaboration with Gujarat Society of Genetics and Plant Breeding & Deendayal Research Institute (DRI).

- Shri Atul Jain, General Secretary, Deendayal Research Institute has delivered lecture in International Conference on Future of Water Resources on January 18-20, 2024 organised by Indian Water Resources Society (IWRS) & Department of Water Resources Development & Management, IIT Roorkee.

MoU signed with Culture Department, Government of Uttar Pradesh for running Tharu Tribes Cultural Museum, Imiliya Koder, Balrampur and for promotion and conservation Tharu culture.

- Keynote speech delivered by General Secretary Sh. Atul Jain in a seminar organised by Mehrangarh Forte Museum, Jodhpur on “Traditions of Water Conservation in the special reference to Luni River, 4-5 October 2023.

- Keynote speech delivered at National Seminar on Transformative Agriculture and Sustainable Development Maharana Pratap University of Agriculture & Technology, Udaipur on 5th March, 2024

- Partnered in the North Regional Farmers’ Fair & Farm Exhibition and Seminar on Empowering Farmers , Attracting Investors on 23-25 June, 2023 CAU Imphal, Umium campus

Publications

Research Paper Publish Year 2023-24

S. No	Author	Year	Title	National/International
1	Aarti Sharma, Shivesh Pratap Singh & Manoj Tripathi	2024	Formulation and Pharmacognostic investigation of folklore practices with special reference to anemia control at Chitrakoot region of Madhya Pradesh.	International Journal of Advanced Research and Review, 9(3): 06-16
2	Soni, Rashmi Singh & Manoj Tripathi	2024	Pharmacognostic study and quantification of marker compound through HPTLC technique in Kukroundha (Blumealacera (Burm. F.) DC.-Root.	Journal of Adwanced Research & Review, 9(3): 2024; 32-41.
3	Asmita Soni, Rashmi Singh, Manoj Tripathi	2024	Physicochemical Evaluation and Pharmacognostic Study of Panibel (Ampelocissus latifolia) (Roxb.) –Stem.	International Journal of Pharmacy and Analytical Research (IJPAR). 13(1) 2024 [23-29]
4	Roshni Satnami, Chhama Tripathi & Manoj Tripathi	2024	Pharmacognostic study and physicochemical analysis of Ashwagandha (Withania somnifera linn.)- root.	International Journal of Advanced Research & Review, 9(4):1-8.
5	Sharma Aarti, Singh SP, Singh Rashmi, and Tripathi Manoj	2023	Documentation, standardization, and nutritional value analysis of selected folklore formulation used for malnutrition control in Chitrakoot region, Satna (M.P.)	Journal of Pharmacognosy and Phytochemistry 12(6): 35-41.
6	Tripathi Manoj	2023	Preliminary phytochemical investigation and pharmacogenetic study of Karpas a (Gossypium herbaceum L.-(Root),	India Secure@75, 93rd Annual session of National Academy of Sciences India (NASI), Support to Atma Nirbhar Bharat org. By NASI at Bhabha Atomic Research Centre, Anushaktinagar, Mumbai. 3-5Dec., 2023.
7	Neelesh Kumar Tiwari, Anju Kol, Jaya Singh Bisen & Tripathi Manoj	2023	Pharmacognostic study and physicochemical analysis of Punarnawa (Boerhaviadiffusa Linn.) - A promising herbal drug	World Journal of Pharmaceutical Research, Vol.12(13):1089-1092 (ISSN-2277-7105).

8	Firdous Alam, Tarannum Bano, Rajeev Mishra & Tripathi Manoj	2023	Formulation and quality analysis of polyherbal face pack powder	World Journal of Pharmaceutical Research, Vol.12(13) 2023, pp.952-960 (ISSN-2277-7105).
9	Resham Fatma, Archana Nigam, Rashmi Singh & Tripathi Manoj	2023	Biochemical Analysis and Pharmacognostic Study of Prasarini (Paederiafoetida Linn.)- Stem.	International Journal of Sciences & Applied Research Vol. 10, Issue 8, 2023, pp 08-15. web. www.ijsar.in
10	Sandeep Kumar Mishra, Rajeev Mishra, Amit Pandey & Tripathi Manoj	2023	Formulation and Quality testing of polyherbal Dantdhawan churna used as teeth cleaner	European Journal of Biomedical & Pharmaceutical Science vol.10(8), 2023; pp. 146-149 web. http://www.ejbps.com
11	Tripathi Manoj, Singh Rashmi & Shukla P. K.	2023	Documentation, formulation, and standardization of folklore herbal formulation (Kajal) used for eye care	The Chitrakoot region, Madhya Pradesh, National Journal of Life Sciences, vol.189(1&2) 2023, pp.15-24 (ISSN-0972-995X (Print), 2321-7960 (Online).
12	Pooja Patel, Resham Fatma, Archana Nigam, and Tripathi Manoj	2023	Biochemical investigation and physicochemical study on Jamun (Syzygiumcumimi Linn.) leaves- A promising antidiabetic drug.	World Journal of Pharmaceutical Research Vol. 12, Issue 9, 2023, pp 2625-2634. ISSN 2277– 7105 webs. www.wjpr.net.
13	Ravendra Bunkar, Lavali Yadav, Jaya Singh Bisen & Tripathi Manoj	2023	Physicochemical study and Biochemical investigation of Babool (Acacia nilotica L.) – Stem bark	International Journal of Sciences & Applied Research vol.10(5), 2023; pp. 53-61 web. www.ijsar.in
14	KS Shukla, CM Tripathi, Shrishti Mishra	December 2023	Effect of farm-made feed on growth, yield, and income of Indian major carps- A Front line Demo	International Journal of Multidisciplinary Research and Development Volume 10, Issue 12, 2023, Page No. 27-29
15	K S Shukla, C M Tripathi, Shrishti Mishra	December 2023	Growth performance of pangasianodon hypothalamus at different stocking densities in Chitrakoot district of UP	International Journal of Fisheries and Aquatic Research Volume 8, Issue 2, 2023, Page No. 10-12

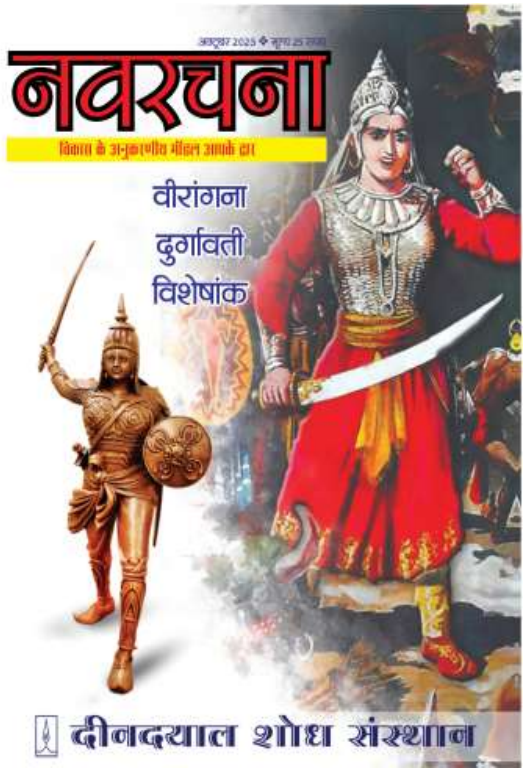
16	Pooshpendra Singh Dixit	December 2023	Revolutionary Role of Trichoderma in Sustainable Plant Health Management: A Review	International Journal of Environment and Climate Change Volume 13, Issue 11, Page 4203-4217, 2023; Article no. IJECC.109441
17	Manoj Kumar	December 2023	Effect of different methods of rice establishment and organic and inorganic source of nutrients on yield and economics of rice (Oryza sativa L.)	Current Advances in Agricultural Sciences 15(2): 135-139 (December 2023)
18	Pushpendra Singh,	Feb 2024	Application of unnamed aerial vehicles in smart agricultural	Bhumi Publishing India, Advances in Agriculture Science Volume -I
19	Pushpendra Singh Dixit, Ankit Kumar Singh, C. M. Tripathi, Raghvendra Singh and Prabhat Kumar	November 2023	A Review on Protected Cultivation of Vegetables: Opportunities and Challenges	International Journal of Environment and Climate Change Volume 13, Issue 11, Page 3371-3380, 2023; Article no. IJECC.105528
20	Ravi Pratap Singh, Arun Kumar Singh, and Pushpendra Singh Dixit	January ,2024	Ameliorate chemical quality through different pruning times, pruning intensities, and bagging of fruit in Mrig Bahar guava cv. Sardar (L-49)	International Journal of Advanced Biochemistry Research 2024; 8(2): 47-53
21	Ravi Pratap Singh, Arun Kumar Singh, and Pooshpendra Singh Dixit	December 2023	A consequence of different pruning times, pruning intensity and bagging on physical parameters of Guava cv. Sardar (L-49)	International Journal of Advanced Biochemistry Research 2024; 8(2): 39-46
22	Ravi Pratap Singh, Pooshpendra Singh Dixit and Digvijay Singh	Feb 2024	Concealing of Ocimum gratissimum germplasms in natural field conditions against leaf spot disease caused by *Alternaria alternata*	International Journal of Agriculture Extension and Social Development Volume 7; Issue 2; Feb 2024; Page No. 109-111
23	Suhas K Panke Vasant A Deshmukh Krushna M Kardile	2023	Awareness of agro input dealers about insecticide label claims	Gujarat Journal of Extension Education (ISSN 2322-0678) Volume 35
24	Suhas K Panke Upendra D Kulkarni Vasant A Deshmukh Krushna M Kardile	2023	Awareness of Agro Input Dealers about Insecticide Label Claims in Beed district	Paper presented in National Seminar on "Evolving Extension Science Towards Secondary Agriculture for Sustainable Development" 2023

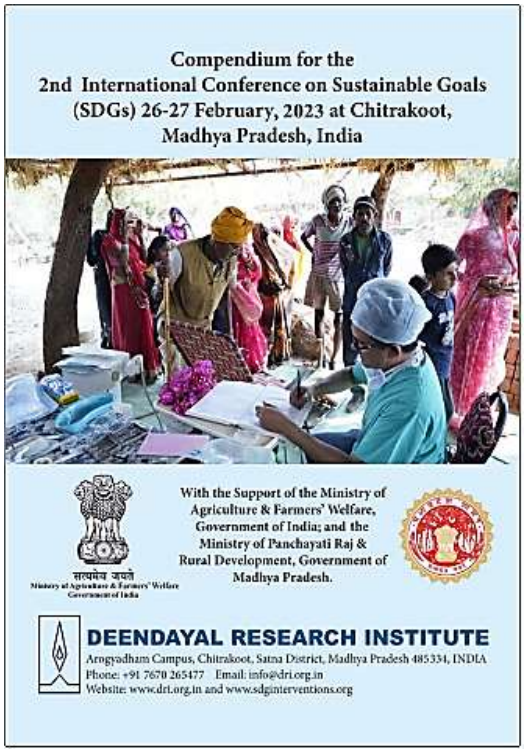
25	Suhas K Panke Upendra D Kulkarni Vasant A Deshmukh	2023	Impact of training for rural youth in agriculture for self-employment generation	Abstract presented in National Seminar on "Evolving Extension Science Towards Secondary Agriculture for Sustainable Development" 2023
26	Narendra Joshi	2023	Effect of various mulching materials on physical attributes of acid lime	The Scientist ISSN: 08903670|NAAS: 6.85 Page No.811 https://www.thescientist.online/
27	Pandey, A. K.; Sharma, S.; Pandey, D. K.	2023	Effect of some fungicides, botanicals, and bio-agents in the treatment of the Alternaria blight of Indian mustard	The Pharma Innovation Journal, 12(2): 1367-1372.
28	Sudhanshu;Tiwari, Ankit; Mishra,Abhishek; Pandey, Ashish Kumar; Gurjar Pushpendra Singh; Jha, Mithilesh Kumar; Singh UpendraNath	2023	Socio-economic profile of women dairy farmers: An exploration study in Deoghar, Jharkhand.	The Pharma Innovation Journal, 12(5): 1051-1054.
29	Mishra, Abhishek; Sudhanshu; Tiwari, Ankit; Pandey, Ashish Kumar; Gurjar, Pushpendra Singh; Jha, Mithilesh Kumar; Singh, Upendra Nath; Shukla, Rahul	2023	Milk Badi prepared by using buffalo milk and wheat flour.	The Pharma Innovation Journal, 12(5): 3780-3783.
30	Sudhanshu; Tiwari, Ankit; Mishra, Abhishek; Pandey, Ashish Kumar; Gurjar, Pushpendra Singh; Jha, Mithilesh Kumar; Singh, Upendra Nath	2023	Fundamentals and Principal of Agriculture Extension Education	Advanced Trends in Agricultural Ext. (Volume - 6), Pp. 63-75. Integrated Publications (ISBN: 798-93-95118-31-6)
31	Pandey, Ashish Kumar; Sudhanshu; Gurjar, Pushpendra Singh; Tiwari, Ankit; Mishra, Abhishek; Jha, Mithilesh Kumar; Singh, UpendraNath; Shukla, Rahul; Tripathi, S. K.	2023	Important Plant Pathogenic Organisms - Different Groups - Fungi, Bacteria, Fastidious Vesicular Bacteria, Phytoplasmas, Spiroplasmas, Viruses, Viriods, Algae, Protozo and Phanerogamic Parasites with Examples of Diseases Caused by Them	Research Trends and Innovations in Plant Pathology (Vol - 6). (Acceptance- Ref. RTIPP-06-04) Integrated Publications

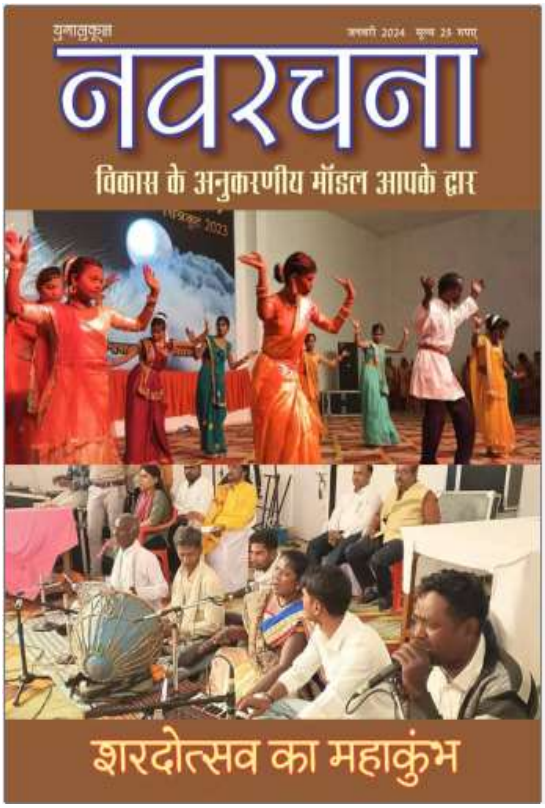
32	Gurjar, Pushpendra Singh; Sudhanshu; Pandey, Ashish Kumar; Tiwari, Ankit; Mishra, Abhishek; Jha, Mithilesh Kumar; Singh, Upendra Nath; Shukla, Rahul	2023	Genesis, Region, Yielding, Diversity, Package of Practices for Okra	Advances in Genetics and Plant Breeding (Volume - 22). (Acceptance- Ref. AGPB-22-05) AkiNik Publications
33	Tiwari, Ankit; Mishra, Abhishek; Sudhanshu; Pandey, Ashish Kumar; Gurjar Pushpendra Singh; Jha, Mithilesh Kumar; Singh, Upendra Nath; Shukla, Rahul	2023	Prakritik Kheti – Kam Laagat evam SwasthAahar	Madhya Bharat Krishak Bharti,17 (12): 40. (ISSN:2582-5976)
34	Mishra, Abhishek; Tiwari, Ankit; Sudhanshu; Pandey, Ashish Kumar; Gurjar; Pushpendra Singh; Jha, Mithilesh Kumar	2023	Pashuon main Santulit Aahar kaMahatwa	Madhya Bharat Krishak Bharti,18 (01): 29. (ISSN:2582-5976)
35	Gurjar, Pushpendra Singh; Pandey, Ashish Kumar; Tiwari, Ankit; Mishra, Abhishek; Sudhanshu; Jha, Mithilesh Kumar; Singh,Upendra Nath	2023	Bhindi ki Vaigyanik Kheti	Krishak Nidaan
36	Gurjar,Pushpendra Singh; Pandey, Ashish Kumar; Tiwari, Ankit; Mishra, Abhishek; Sudhanshu; Jha, Mithilesh Kumar; Singh, Upendra Nath	2023	Amrud ki Vaigyanik Kheti	Madhya Bharat Krishak Bharti,18 (02): 20. (ISSN:2582-5976)
37	Sudhanshu; Tiwari, Ankit; Mishra, Abhishek; Pandey, Ashish Kumar; Gurjar, Pushpendra Singh; Jha, Mithilesh Kumar; Singh, Upendra Nath; Shukla, Rahul	2023	Vermi Compost Kya Hai\	Madhya Bharat KrishakBharti,18 (02): 36. (ISSN:2582-5976)

38	Sudhanshu; Tiwari, Ankit; Mishra, Abhishek; Pandey, Ashish Kumar; Gurjar, Pushpendra Singh; Jha, Mithilesh Kumar; Singh, Upendra Nath; Shukla, Rahul	2023	Kheti se Judi Har Samasya ka Hoga Samadhan, Yaha Call karne par 22 Bhasao main Milegi Jankari	Krishak Aradhna, (ISSN:2582-7286)
39	Sudhanshu; Tiwari, Ankit; Mishra, Abhishek; Pandey, Ashish Kumar; Gurjar, Pushpendra Singh; Jha, Mithilesh Kumar; Singh, Upendra Nath; Shukla, Rahul	2023	Farmer Producer Organization	Krishak Aradhana, (ISSN:2582-7286)
40	Sudhanshu; Tiwari, Ankit; Mishra, Abhishek; Pandey, Ashish Kumar; Gurjar, Pushpendra Singh; Jha, Mithilesh Kumar; Singh, Upendra Nath; Shukla, Rahul	2023	Neem ke vanaspati utpadan aur unka rognintrayan may mahtav	Krishak Aradhna, (ISSN:2582-7286)
41	Jagre A and Negi R.S.	2023	Assessment of Nutritional Status of 3–8-year Mawasi Tribal Children using Anthropometric Indices.	Journal of Scientific Research and Reports (NAAS: 5.17)
42	Jagre A and Negi R.S.	2023	A Study on the Health and Nutritional Status of Mawasi Tribal Women in Villages of Chitrakoot Region in Madhya Pradesh, India	Advances in Research (NAAS: 4.76)
43	Chourasiya Ajay, Chauriha Satyam and Dwivedi Hemraj	2023	Assessment of Rice-mustard & Rice-chickpea cropping sequence through Conservation Agricultural Practices under Rice-Fallow Cropping System in Satna District of Madhya Pradesh, India.	International Journal of Plant & Soil Science: 36 (2): 96-100 (NAAS: 5.07)
44	V.Prajapati, Narendra Singh Gurjer	2023	Assessing the effect of climate change on dairy cow production system a review of emerging challenges.	International journal of Advanced Research in Science Communication and Technology. Vol. 03(2)
45	V. Prajapati, Narendra Singh Gurjer	2023	An Analysis of the Potential for Organic Dairy Farming in India in the future	International Journal of Advanced Research in Science Communication and Technology. Vol. 03(2)

DRI Publications







NIGAM – New India Governance Assessment Model

Project Report –

Understanding Governance

Through Bharatiya Civilizational Wisdom

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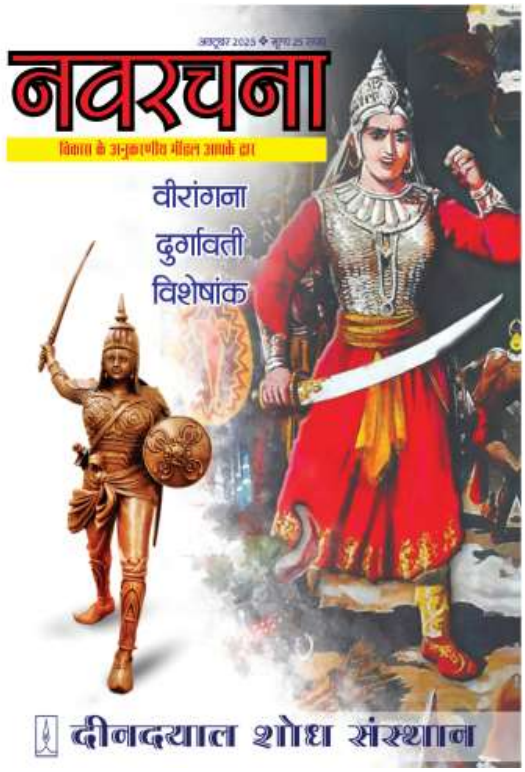

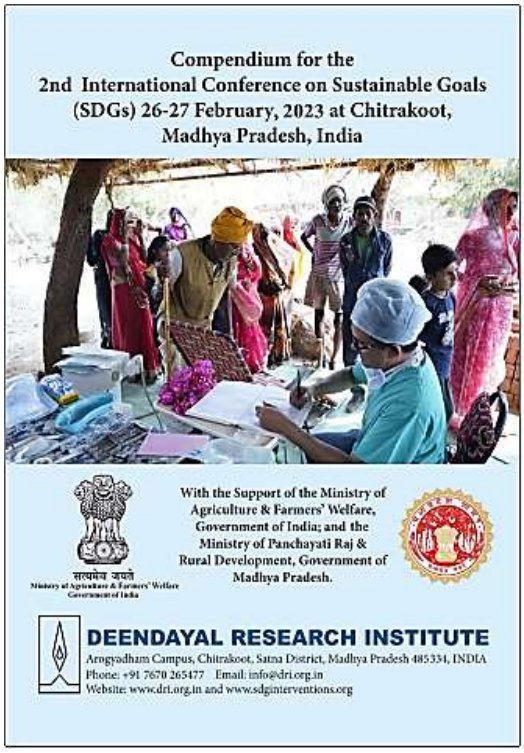

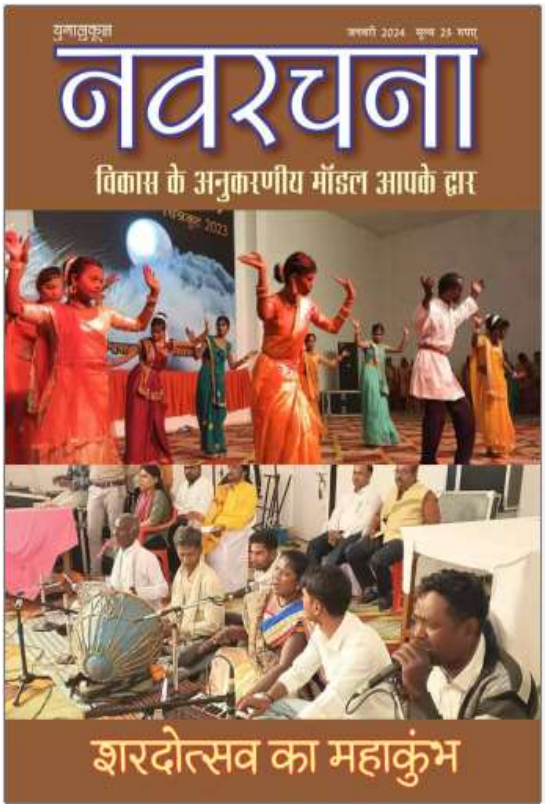

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चित्रकूट गौरव दिवस : दीनदयाल शोध संस्थान ने किया आयोजन

1 लाख 1 हजार दीपों से जगमग चित्रकूट

राम नवमी पर आस्था के दीपों से जगमगा उठी धर्म नगरी

दैनिक मीडिया गैलरी › भोपाल

डॉ. दीपक राय

18 अप्रैल 2024

चित्रकूट। विश्व प्रसिद्ध तीर्थक्षेत्र चित्रकूट में इस बार रामनवमी महोत्सव का भव्य आयोजन श्रद्धालुओं को गदगद कर गया। हालांकि रामनवमी महोत्सव पिछले कई वर्षों से धर्मनगरी में मनाया जा रहा है। लेकिन इस बार शासन के प्रयासों और संत समाज एवं क्षेत्र के समाजसेवियों के साथ मिलकर श्रद्धालुओं ने इसको ऐतिहासिक रूप दे दिया। धर्म नगरी में जन सहभागिता से इस तरह का यह तीसरा आयोजन था, जिसमें समाज की पहल पर सरकार की भी सहभागिता रही, और दोनों राज्यों का प्रशासन पूरी मुस्तैदी से जुटा रहा।

महात्मा गांधी चित्रकूट ग्रामोदय विश्वविद्यालय में कुछ इस तरह रामनवमी मनाई गई

पवित्र एवं धार्मिक नगरी चित्रकूट का गौरव दिवस मर्यादा पुरुषोत्तम प्रभु श्री राम के प्राकट्य दिवस रामनवमी के दिन 17 अप्रैल को मनाया गया। गौरव दिवस के अवसर पर शासन-प्रशासन एवं संत महात्माओं तथा समाज के सहयोग से पूरे चित्रकूट शहर के प्रमुख स्थानों पर 11 लाख दीप प्रज्वलित किये गए, जिससे पूरा चित्रकूट जगमगा गया। सभी संस्थाओं, मंदिर, आश्रमों, कार्यालयों को दीप प्रज्वलित करने के लक्ष्य निर्धारित किए गए थे जिसमें से दीनदयाल शोध संस्थान को 1 लाख 1 हजार दीप प्रज्वलन का लक्ष्य था। डीआरआई के द्वारा सुरेन्द्रपाल ग्रामोदय विद्यालय गेट व राम दर्शन से लेकर उद्यमिता विद्यापीठ, आरोग्य धाम गेट तक तथा पंचवटी घाट, आरोग्य धाम परिसर, सियाराम कुटीर सहित रामनाथ गोयनका घाट, रामनाथ आश्रमशाला परिसर, वाल्मीकि परिसर मझगवां, तुलसी परिसर गनीवां पर 1 लाख से अधिक दीप प्रज्वलित किये गए, जिसके लिए संस्थान के लगभग 500 कार्यकर्ता अपने पूरे परिवार सहित चिन्हित स्थानों पर शाम 5 बजे से ही तैयारी में जुट गए थे पूर्व निर्धारित समयानुसार सांय 7 बजे से दीप प्रज्वलित होना शुरू हो गये।

दीपों की टिमटिमाती रोशनी से सजी धर्मनगरी

11 लाख दीप जलाकर मनाया गया चित्रकूट गौरव दिवस

लोक भारती न्यूज ब्यूरो

चित्रकूट। श्रीराम नवमी पर्व में भगवान श्रीराम की तपोभूमि में चित्रकूट गौरव दिवस मनाया गया। जिसमें एक साथ 11 लाख दीए रामघाट से लेकर विभिन्न तीर्थ स्थानों, परिक्रमा मार्ग में जलाये गए। जिससे तीर्थ क्षेत्र में ऐसा लग रहा था कि मानो आकाश से एक साथ लाखों तारे उतर आए हों। दीपों की रोशनी से मंदाकिनी नदी झिलमिला उठी। चित्रकूट तीर्थ स्थल पर यूपी व एमपी सीमा में दोनों जिला प्रशासन के सहयोग से विभिन्न संस्थान के कार्यकर्ता व मठमंदिरों ने सहयोग किया। परिक्रमा मार्ग में कामदगिरी प्रमुख द्वार पीठाधीश्वर श्रीराम स्वरूपाचार्य व संत मदन गोपालदास के नेतृत्व में दिए जलाए गए। इसी तरह से गायत्री शक्तिपीठ के डा.रामनारायण त्रिपाठी व कार्यकर्ताओं ने भी दिए जलाए। धर्मनगरी के सभी के निवासियों ने भी अपने अपने घरों में दिए जलाए। जिसमें एमपी क्षेत्र में दीनदयाल शोध संस्थान के संगठन महासचिव अभय महाजन के नेतृत्व में कार्यकर्ताओं ने दीप जलाए। सबसे अधिक मंदाकिनी नदी के तट पर रामघाट व भरत घाट में दिए जलाए गए।

दीपों से जगमगाता रामघाट।

महिलाओं ने किया हवन, बधाई गीतों की रही धूम

कार्यक्रम में संबोधित करती जिला प्रभारी मंजू केसरवानी।

चित्रकूट। पतंजलि योग समिति के तत्वावधान में रामनवमी महोत्सव मनाया गया। जनपद के धूस मैदान में महिलाओं ने राम जी की झांकी सजाकर वैदिक मंत्रों से हवन किया। कीर्तन भजन राम स्तुति कर प्रभु श्री राम जी के चरणों में बधाई अर्पित की। जिला प्रभारी मंजू केसरवानी ने बताया कि हरिद्वार स्थित पतंजलि योग पीठ में आज के दिन योग ऋषि स्वामी रामदेव ने देश के लगभग एक सैकड़ा युवक-युवतियों को दीक्षा दिया। इस अवसर पर सरोज जैन, नीलम, ज्योति, मंजू, एकता अग्रवाल, माधुरी, मीना, मधु, मीरा श्रीवास्तव, पदमा, अनीता सिंह, शिवानी, निर्मला पांडेय, निर्मला आर्य, विमला आदि महिलाएं मौजूद रहीं।

सुरेन्द्रपाल ग्रामोदय विद्यालय में वार्षिक गृह परीक्षा परिणाम की घोषणा व मेधावी छात्र सम्मान समारोह

प्रदेश टुडे संवाददाता सतना। दीनदयाल शोध संस्थान द्वारा संचालित सुरेंद्रपाल ग्रामोदय उच्चतर माध्यमिक विद्यालय में शनिवार को वार्षिक गृह परीक्षा परिणाम की घोषणा तथा मेधावी छात्र सम्मान समारोह का भव्य आयोजन किया गया। मुख्य अतिथि महात्मा गांधी ग्रामोदय विश्वविद्यालय के कुलपति प्रो. भरत मिश्रा ने बच्चों को पुरस्कार देते हुए उनके मंगलमय भविष्य की कामना की। गायत्री शक्तिपीठ के व्यवस्थापक डॉ. राम नारायण त्रिपाठी ने भी बच्चों के उत्साह में प्रेरक प्रसंग के माध्यम से उन्हें प्रोत्साहन दिया। इस अवसर पर दीनदयाल शोध संस्थान के राष्ट्रीय संगठन सचिव अभय महाजन की भी गरिमामयी उपस्थिति रही। महाजन ने बच्चों को सम्बोधित करते हुए उनके मंगलमय भविष्य की कामना की। उन्होंने बताया कि बालिकाओं की शिक्षा को प्रोत्साहित करने के लिए संस्थान ने यह निर्णय किया है कि उनके वाहन शुल्क में 50% की छूट दी जाएगी यह आगामी सत्र से लागू भी हो जाएगा। छात्र-छात्राओं को कक्षा में सर्वोच्च स्थान प्राप्त करने पर कक्षा में सर्वाधिक अनुशासित छात्र के रूप में अपना नाम दर्ज करने पर तथा कक्षा में सर्वाधिक उपस्थिति दर्ज करने के लिए मंच से पुरस्कृत किया गया। इसके साथ सत्र

2023-24 में आयोजित होने वाली विद्यालय स्तर की लगभग 17 प्रतियोगिताओं के 400 से अधिक प्रतिभागी विजेता बालक बालिकाओं को भी पुरस्कार दिया गया। कार्यक्रम का संचालन विद्यालय के व्याख्याता अशोक दीक्षित ने किया। इससे पूर्व विद्यालय के प्राचार्य मदन तिवारी ने विद्यालय का परीक्षा फल एक दृष्टि में सभी के सम्मुख रखा। विद्यालय के सचिव डॉ. अशोक पांडेय विद्यालय के प्रधानाचार्य अंशुमान पाठक तथा वरिष्ठ व्याख्याता जितेंद्र श्रीवास्तव भुवनेश मिश्रा रामवीर सक्सेना शिव शंकर पांडे आदि की उपस्थिति रही।

प्रशिक्षण

स्वावलंबन केन्द्र भरगवां में वन धन विकास केंद्र का शुभारंभ

वन धन स्वयं सहायता समूहों को किया जा रहा प्रशिक्षित

चित्रकूट,(नव स्वदेश)।

दीनदयाल शोध संस्थान के स्वावलंबन केन्द्र भरगवां में प्रधानमंत्री वन धन योजना के अंतर्गत वन धन विकास केंद्र का शुभारंभ नानाजी श्रद्धा केंद्र में गुरुवार को मुख्य अतिथि सतना सांसद गणेश सिंह, विशिष्ट अतिथि विधायक सुरेंद्र सिंह गहरवार, कलेक्टर सतना अनुराग वर्मा, वन अनुभागीय अधिकारी अभिषेक तिवारी, तहसीलदार जितेंद्र तिवारी, दीनदयाल शोध संस्थान के कोषाध्यक्ष वसंत पंडित एवं दीनदयाल शोध संस्थान के राष्ट्रीय संगठन सचिव अभय महाजन की अध्यक्षता में कार्यक्रम संपन्न हुआ। इस अवसर पर सरपंच श्रीमती रामा यादव, श्रीमती अंजुला झा, एनआरएलएम की जिला प्रोजेक्ट मैनेजर, कृषि विज्ञान केन्द्र के प्रभारी डॉ राजेन्द्र सिंह नेगी भी उपस्थित रहे।

इस दौरान प्रधानमंत्री वन धन विकास केन्द्र योजनान्तर्गत दीनदयाल शोध संस्थान एवं मध्य प्रदेश राज्य लघु वनोपज संघ, भोपाल द्वारा वन धन स्वयं सहायता समूहों का चार दिवसीय प्रशिक्षण कार्यक्रम वनोपज एकत्रीकरण, प्रसंस्करण एवं मूल्यवर्धन पर 20 फरवरी से 23 फरवरी तक आयोजित किया गया है। इस कायक्रम में वन धन स्वयं सहायता समूहों द्वारा पलास के फूलों से बने गुलाल चंकंदर हल्दी महिलाओं द्वारा बनाया गया जो कि कलेक्टर श्री वर्मा और सभी अतिथियों को भेट की गई।

किसने क्या कहा-

गणेश सिंह, सांसद- प्रधानमंत्री नरेन्द्र मोदी के मार्गदर्शन में देश का विकास हो रहा है, मोदी जी ने वनवासी भाई बहनों के लिए कई योजनाएं शुरू की है। योजना भारत सरकार द्वारा वनांचल में रहने वाले बंधु-भगिनीयों के उत्थान की दृष्टि से शुरू की गई।

अभय महाजन, संगठन सचिव डीआरआई- वन-धन योजना के माध्यम से जनजाति लोगों को जानकारी, उपकरण और सुचनाओं से सशक्त करना है ताकि वे अपने कार्यो को अधिक क्रमबद्ध और वैज्ञानिक तरीके से कर सके।

अनुराग वर्मा, कलेक्टर- वनों को न काटे एवं उनसे लघु वनोपज का एकत्रीकरण करें जिससे आपको लोगों की आय में वृद्धि होगी। साथ ही इन प्रशिक्षणों से आपका क्षमता विकास होगा उसके लिए नाना जी की परिकल्पना मै आपने लिए नहीं आपनों के लिए हूँ, ऐसे सफल प्रयास दीनदयाल शोध संस्थान ही कर सकता है।

ये रहे मौजूद

इस अवसर पर दीनदयाल शोध संस्थान के प्रशिक्षक विनीत श्रीवास्तव, डॉ मनोज त्रिपाठी, हेमराज द्विवेदी, मनोज सैनी, राजेन्द्र पटेल, नत्थू विश्वकर्मा, निखिल मिश्रा, हरीश नापित, नत्थू कुशवाहा, बुद्धि विलास यादव, उमेश कुमार प्रजापति, हरेन्द्र गुप्ता, सतीश मालवीय, दीपेन्द्र द्विवेदी, अशोक शर्मा, वीरेंद्र प्रजापति, अभिषेक, सुरेन्द्र प्रमुख रूप से उपस्थित रहे।

व्यक्तित्व विकास के लिए बाल शिविरों का आयोजन सम्पन्न

0 स्कूली बच्चों ने दिखाई मेधा प्रतिभा

चित्रकूट,(प्रचण्ड शक्ति न्यूज)। बढ़े चलो तुम, बढ़े चलो तुम, मंजिल दूर नहीं साथी ऐसा भाव दीनदयाल शोध संस्थान चित्रकूट द्वारा गांव-गांव चल रहे बाल शिविरों में दिखाई देने लगा है। दीनदयाल शोध संस्थान द्वारा प्रत्येक संकुल स्तर पर बाल शिविर का आयोजन किया जा रहा है।

जनपद के अन्तर्गत भरतकूप संकुल के स्वावलंबन केंद्र लूक पतौड़ा में तीन दिवसीय बाल शिविर का आयोजन किया गया। जिसमें स्वावलंबन केंद्र टिटिहिया, धौरही, करारी एवं लूक पतौड़ा केंद्र के 108 शिविरार्थी बच्चों ने सहभागिता की। जिसमें 14 ग्राम आबादियों से 60 बालक व 48 बालिकाओं ने शिविर में भाग लिया। शिविर का समापन एवं प्रदर्शन कार्यक्रम उच्च प्राथमिक विद्यालय पतौड़ा में सम्पन्न हुआ। बाल शिविर के समापन समारोह में प्रमुख रूप से कमलाकांत उपाध्याय सह सम्पर्क प्रमुख राष्ट्रीय स्वयंसेवक संघ कानपुर प्रांत, दीनदयाल शोध संस्थान से राजेंद्र सिंह, हरीराम सोनी, पतौड़ा विद्यालय के प्रधानाध्यापक राजकरण शुक्ला, ग्राम प्रधान लूक चंद्रभान सिंह यादव, टिटिहिया के सरपंच हेम सिंह, मऊ प्रधान अत्रि मुनि, धौरही प्रधान देवीदीन, करारी प्रधान शिवकुमार, लूक से सूरजभान सिंह की गरिमामयी उपस्थिति रही। सभी जनप्रतिनिधियों के सहयोग से सभी शिविरार्थी बच्चों को पुरस्कार वितरण किया गया।

डीआरआई के कार्यकर्ता राजेन्द्र सिंह ने बताया कि बालकों के अन्दर छिपी प्रतिभा का आंकलन कर उसका समुचित विकास करना व इन प्रशिक्षित बालकों के द्वारा अल्प अवधि में ग्राम में रहकर ग्रामीण क्षमताओं का विकास करना ही शिविर का उद्देश्य है। जिससे बच्चों में ग्राम के पर्वों, श्रद्धा केन्द्रों व अपने बुजुर्गों के प्रति आदर की भावना का विकास हो सके। समाज शिल्पी दंपति प्रभारी हरीराम सोनी ने बताया कि दीनदयाल शोध संस्थान द्वारा प्रत्येक विद्यार्थी के अन्दर व्यक्तित्व विकास के साथ समाज मूलक बातों की जागरूकता हेतु समाजशिल्पी दम्पति व सहयोगी कार्यकर्ताओं के माध्यम से संकुल केन्द्रों पर यह बाल शिविर के आयोजन क्रमशः सम्पन्न किये जा रहे है।

भगवान बिरसा मुण्डा के जीवन पर कृष्णा देवी वनवासी बालिका विद्यालय में व्याख्यानमाला आयोजित

सांस्कृतिक प्रदर्शन, प्रदर्शनियां और व्याख्यान कार्यक्रमों से भावी पीढ़ी को किया जा रहा जागरूक

मझगवां, एमपीजेएस न्यूज

जनजातीय गौरव दिवस कार्यक्रमों के अंतर्गत बुधवार को दीनदयाल शोध संस्थान द्वारा संचालित कृष्णा देवी वनवासी बालिका आवासीय विद्यालय मझगवां के सभागार में भगवान बिरसा मुण्डा के जीवन पर आधारित व्याख्यानमाला आयोजित की गई। संस्थान द्वारा 15 से 26 नवम्बर तक जनजातीय आबादी की अनूठी परंपराओं और रीति-रिवाजों के प्रति जागरूकता और प्रशंसा को बढ़ावा देने के लिए सांस्कृतिक प्रदर्शन, प्रदर्शनियां और चर्चाओं वाले विभिन्न कार्यक्रम आयोजित किए जा रहे है।

कार्यक्रम का शुभारंभ संस्थान के राष्ट्रीय संगठन सचिव अभय महाजन, रानी दुर्गावती शोध समिति के संरक्षक चूड़ामणि सिंह, मझगवां थाना टीआई हेमकरण धुर्वे, अग्रवाल महिला मंडल की अध्यक्ष किरण अग्रवाल एवं नविता अग्रवाल द्वारा भगवान बिरसा मुंडा की प्रतिमा पर पुष्पार्पण एवं दीप प्रज्ज्वलित कर किया गया। उसके बाद कृष्णा देवी वनवासी विद्यालय की जनजातीय बालिकाओं द्वारा अपने पारंपरिक पोषाक और परिवेश में जनजातीय समाज की सांस्कृतिक विरासत को प्रदर्शित करने वाले सांस्कृतिक कार्यक्रमों की प्रस्तुति की गई।

इस अवसर पर जनजातीय बालिकाओं को भगवान बिरसा मुण्डा के जीवन पर आधारित जानकारी दी गई तथा आदिवासी समाज एवं विभिन्न वंचित वर्गों के उत्थान हेतु उनके द्वारा किये गए कार्यों पर प्रकाश डाला गया। अध्यक्षता करते हुए श्री महाजन ने बताया कि संस्थान द्वारा आने वाली पीढ़ियों को देश के लिए जनजातीय समाज के बलिदान के बारे में जागरूक करने के लिए, जनजातीय समुदायों के गौरवशाली इतिहास और सांस्कृतिक विरासत की विविधता और देश के इतिहास में जनजातीय समुदायों के योगदान को प्रदर्शित करके एकता और गौरव की भावना को बढ़ावा देने के लिए विभिन्न कार्यक्रम एवं गतिविधियां आयोजित की जा रही हैं।

इस अवसर पर टीआई श्री धुर्वे ने जनजातीय गौरव पर आयोजित इस कार्यक्रम में अपने विचार व्यक्त करते हुए भगवान बिरसा मुण्डा के जीवन से जुड़ी विभिन्न घटनाओं से बच्चियों को अवगत कराया तथा स्वतंत्रता आंदोलन में उनके योगदान पर विभिन्न जानकारियां सभी से साझा की। कार्यक्रम में कृषि विज्ञान केन्द्र एवं विद्यालय के कार्यकर्ताओं के अलावा कई ग्रामों से आएं अभिभावकों सहित जनजातीय समाज के लगभग 2 सौ महिला-पुरुष उपस्थित रहे।

रामनाथ आश्रमशाला में शुभकामना कार्यक्रम आयोजित

▶ परीक्षोपरांत हाईस्कूल छात्रों के उज्ज्वल भविष्य के लिए की गई कामना.

नवभारत न्यूज

चित्रकूट 14 मार्च, दीनदयाल शोध संस्थान द्वारा संचालित रामनाथ आश्रमशाला के कक्षा 10वीं के छात्रों का परीक्षोपरांत विद्यालय के सभागार में गुरुवार को शुभकामना कार्यक्रम द्वारा उनके उज्ज्वल भविष्य की कामना की गई।

कार्यक्रम का शुभारंभ पंडित दीनदयाल उपाध्याय एवं राष्ट्र ऋषि नानाजी देशमुख के चित्र पर माल्यार्पण एवं दीप प्रज्ज्वलन से हुआ। विद्यालय के प्राचार्य गंगाराम यादव ने कहा विपरीत परिस्थितियों से डरना नहीं है। दीनदयाल शोध संस्थान द्वारा प्राप्त सर्वांगीण विकास का प्रयोग जीवन के प्रत्येक क्षेत्र में करना है। समाज शिल्पी दंपत्ति प्रभारी हरीराम सोनी ने कहा कि समाज की अशोक पाण्डेय ने छात्रों द्वारा टेक्निकल कोर्सों के भविष्य में सम्भावनाओं के बारे में बताया। डीआरआई के वरिष्ठ कार्यकर्ता राजेन्द्र सिंह ने कहा कि दीनदयाल शोध संस्थान के छात्र एवं कार्यकर्ता लालटेन की तरह होना चाहिए जिसमें तेल बाती एवं छात्रों को लालटेन की तरह जलकर दूसरों को प्रकाशित करना चाहिए। शैक्षणिक अनुसंधान केंद्र के संयोजक कालिका प्रसाद श्रीवास्तव ने छात्रों को अपने मार्ग दर्शन में कहा कि अपने लक्ष्य के प्रति समर्पण धैर्य एवं कड़ी मेहनत होनी चाहिए तथा विद्यालय द्वारा प्राप्त शिक्षा को समाज में फैलाना चाहिए। जीवन का लक्ष्य सामाजिक कार्यों को करते रहना चाहिए। कार्यक्रम के अन्त में रामनाथ आश्रमशाला के सचिव डॉ0 अमरजीत सिंह ने कहा कि शिक्षा का उद्देश्य नौकरी प्राप्त करना नहीं होना चाहिए। हमें समाज में अच्छी गतिविधियों का संचालन करना चाहिए।

शिक्षकों की स्किल और मैनेजमेंट क्वालिटी में इजाफा करने दीनदयाल शोध संस्थान में हुआ प्रशिक्षण

डीआरआई में इंडक्शन प्रोग्राम के तहत शिक्षकों को शिक्षा के नवीन तकनीकी व शैक्षिक पहलुओं पर किया पारंगत, शिक्षक को जीवन पर्यन्त नवाचार सीखते रहना चाहिए : अभय महाजन

नवभारत न्यूज

चित्रकूट 16 नवंबर, दीनदयाल शोध संस्थान द्वारा नवनियुक्त अध्यापकों के समक्ष आने वाली भावनात्मक, कार्यक्षमता और कार्यशैली के साथ-साथ अकादमिक, मनोवैज्ञानिक चुनौतियों को दूर करने की दिशा में दो दिवसीय इंडक्शन ट्रेनिंग प्रोग्राम आयोजित किया गया.

जिसका समापन गुरुवार को उद्यमिता विद्यापीठ के सभागार में दीनदयाल शोध संस्थान के राष्ट्रीय संगठन सचिव अभय महाजन और उपाध्यक्ष डॉ नरेश शर्मा के द्वारा किया गया। दीनदयाल शोध संस्थान द्वारा

अपने शैक्षणिक प्रकल्पों में नवीन शिक्षण पाठ्यक्रम से संबंधित दो दिवसीय इंडक्शन प्रोग्राम शिक्षकों के लिए 15 नवम्बर को शुरू किया गया। जिसमें संस्थान द्वारा संचालित सुरेन्द्रपाल ग्रामोदय विद्यालय के 37, रामनाथ आश्रमशाला के 11, कृष्णा देवी वनवासी बालिका विद्यालय मझगवां के 9 तथा परमानन्द विद्यालय गनीया के 4 शिक्षकों ने भाग लिया। इस प्रकार कुल 61 शिक्षक- शिक्षिकाओं ने भाग लिया। प्रशिक्षक के रूप में सेन्ट्रल एकेडमी जबलपुर से आस्मा जान (प्राचार्या), अर्चना सिन्दे, सुलभा सिन्दे, रमनदीप मनुजा, तनुश्री राय, दीपशिखा तिवारी, ललित कुमार, नीतेश शुक्ला तथा अनन्या शर्मा ने एन.ई.पी. से संबंधित गतिविधियों की जानकारी प्रदान की। उद्घाटन सत्र में प्रो0 भगत सिंह कुलपति महात्मा गाँधी चित्रकूट ग्रामोदय विश्वविद्यालय, प्रो0 योगेशचन्द्र दुबे पूर्व कुलपति जगतगुरु रामभद्राचार्य दिव्यांग राज्य विश्वविद्यालय तथा सुरेन्द्रपाल ग्रामोदय विद्यालय के प्राचार्य मदन तिवारी उपस्थित रहे। इस दौरान नवीन शिक्षक प्रशिक्षण की मॉर्निंग आस्था शैक्षणिक अनुसंधान केन्द्र के संयोजक श्री कालिका प्रसाद श्रीवास्तव ने प्रस्तुत की। उन्होंने बताया कि राष्ट्रऋषि नानाजी देशमुख ने 1992 में शिक्षा, स्वावलम्बन, स्वास्थ्यरक्षण एवं सदाचार 4 आयामों को लेकर कार्य का प्रारम्भ किया, उसी समय से केजी टू पीजी शिक्षा की संकल्पना एक ही परिसर में रखकर नवीन शिक्षा नीति की शुरुआत नही दुनिया मे हो गयी थी। जिसकी शुरुआत सरकार ने 2020 में की है, उसे अद्वैत नानाजी ने उसी समय प्रारम्भ कर दिया था। कुलपति डॉ0 भगत सिंह ने बताया कि चित्रकूट के हर प्रकल्प को देखकर ऐसा लगता है कि अद्वैत नानाजी ने एन.ई.पी. को शुरुआत पूर्व में ही कर दी थी। चाहे वह ग्राम स्वावलंबन का कार्य हो या शिक्षा या सदाचार हर दिशा की सीख अद्वैत नानाजी ने कार्यकर्ताओं को उसी समय से देना प्रारम्भ कर दिया था।

प्रगतिशील महिला–पुरुष कृषकों को नानाजी के श्रद्धांजलि समारोह में किया गया सम्मानित

नवभारत न्यूज

चित्रकूट। भारत रत्न राष्ट्रऋषि नानाजी की 14 वीं पुण्यतिथि पर श्रद्धांजलि समारोह में जिले के प्रगतिशील महिला-पुरुष कृषकों को कृषि विज्ञान केंद्र मझगवां के माध्यम से भारतरत्न राष्ट्रऋषि नानाजी देशमुख उत्कृष्ट कृषक सम्मान, सुमति ताई सुकलीकर महिला सशक्तिकरण सम्मान, राजा बाई देशमुख महिला स्वावलंबन सम्मान से सम्मानित किया गया।

सतना जिले के ऐसे उन्नतशील कृषक जिन्होंने खेती को लाभ का धंधा बनाने, परंपरागत पोषकीय अनाज उत्पादन, पशु पालन, परंपरागत किस्मों का संरक्षण, जलवायु अनुकूल कृषि आदि क्षेत्रों में उल्लेखनीय कार्य किया है, उन कृषकों को यह सम्मान मंचासीन अतिथि मध्य प्रदेश सरकार के मंत्री नरेंद्र शिवाजी पटेल, सतना सांसद गणेश सिंह, सीधी विधायक रीति पाठक, संत समाज से पून्य संत राम जी दास जी महाराज, कामदगिरि प्रमुख द्वार से मदन गोपाल दास जी महाराज, दिव्य जीवन दास जी महाराज, सीता शरण दास जी, सती अनसुईया आश्रम से पवन बाबा, गायत्री शक्तिपीठ से डॉ रामनारायण त्रिपाठी, मंडला से मदन मोहन गिरी जी महाराज एवं राष्ट्रीय बाल अधिकार संरक्षण आयोग की सदस्य डॉ दिव्या गुप्ता एवं दीनदयाल शोध संस्थान प्रबंध मंडल की सदस्य श्रीमती अनुजा ताई परचुरे एवं कुमुद सिंह द्वारा प्रदान दिया गया। कृषि विज्ञान केंद्र मझगवां द्वारा ग्रामीण अंचल में बालिकाओं को उच्च शिक्षा के लिए प्रेरित करने हेतु श्रीमती मैना सिंह बरहत पछीत, सामाजिक कार्यों में सहभागिता हेतु ग्रामीण महिलाओं को प्रेरित करने के लिए श्रीमती कमलेश कुमारी गौतम बरौंधा, महिला कृषकों को कृषि क्षेत्र में नवीनतम तकनीक अपनाने के लिए प्रोत्साहित करने हेतु श्रीमती पुष्पा सोनी ताला अमरपाटन को 'सुमती ताई सुकलीकर महिला सशक्तिकरण सम्मान' दिया गया।

वहीं विषम परिस्थितियों में परिवार की आर्थिक स्थिति को सुधारने हेतु सराहनीय एवं अनुकरणीय कार्य करने के लिए श्रीमती शुभा मवासी देवलहा एवं श्रीमती फूला देवी कन्दर को राजा बाई देशमुख महिला स्वावलंबन सम्मान प्रदान किया गया। नानाजी देशमुख उत्कृष्ट कृषक सम्मान-2024' के अन्तर्गत गोपालन आधारित प्राकृतिक खेती हेतु दीपेंद्र जायसवाल हिरौंदी, पोषक अनाजों की खेती हेतु लालमन कुशवाहा खूजा बिहटा, फसल विविधीकरण हेतु नरेन्द्र प्रताप सिंह अमहा टेढ़ी पतवनिया, जैव विविधता संरक्षण हेतु चन्दन सिंह सोहास सोहावल, 1.5 एकड़ समेकित खेती पद्धति के लिए इंद्रपाल कुशवाहा पगार कला, सब्जी व मसाला उत्पादन पर कार्य हेतु श्रीमती सुमित्रा देवी कुशवाहा लालपुर अमरपाटन, बकरी पालन के लिए श्रीमती चुनकी सतनामी मोटवा भरगवां, मशरूम उत्पादन में श्रीमती पूनम कुशवाहा डेलनी पिपरीकला, सीमित संसाधनों में अधिक आय सृजन हेतु लक्ष्मी प्रसाद कुशवाहा बम्हौरी तिलाई रामपुर बघेलान, वर्षा जल संरक्षण उपायों हेतु रामकुशल कोल करारिया खो?री तथा सामाजिक कार्यों में पहल व सहभागिता के लिए कृष्ण कुमार गौतम पटनी पटनाखुर्द को राष्ट्रऋषि नाना जी देशमुख उत्कृष्ट कृषक अवार्ड से सम्मानित किया गया।

वॉयस ऑफ अमेठी अमेठी, बुधवार, 22 नवंबर 2023 चित्रकूट / बलर

जनजातीय गौरव दिवस पर केवीके एवं जेएसएस ने विकसित भारत संकल्प यात्रा का किया आयोजन

भारत के स्वतंत्रता संग्राम में जनजातीय समुदाय का उल्लेखनीय योगदान - अभय महाजन

चित्रकूट । दीनदयाल शोध संस्थान कृषि विज्ञान केंद्र गनीवां एवं जन शिक्षण संस्थान चित्रकूट द्वारा जनजातीय गौरव दिवस एवं विकसित भारत संकल्प यात्रा कार्यक्रम का आयोजन ग्राम गोपीपुर ब्लाक मानिकपुर में सम्पन्न हुआ। कार्यक्रम का शुभारंभ अध्यक्षता कर रहे दीनदयाल शोध संस्थान के राष्ट्रीय संगठन सचिव अभय महाजन, बालकृष्ण त्रिपाठी मंडलायुक्त चित्रकूट धाम मण्डल बाँदा, विपिन कुमार मिश्रा उपमहानिदेशक पुलिस चित्रकूटधाम रेंज बाँदा, सुश्रीअमृतपाल कौर मुख्य विकास अधिकारी चित्रकूट, रामजन्म यादव उपजिलाधिकारी मानिकपुर, ग्राम प्रधान श्यामलाल कोल एवं कृषि विज्ञान केंद्र के वरिष्ठ वैज्ञानिक एवं प्रमुख डा चंद्रमणि त्रिपाठी तथा जन शिक्षण संस्थान के निदेशक अनिल कुमार सिंह द्वारा बीर बिरसा मुंडा जी की प्रतिमा के समक्ष दीपप्रज्वलन व माल्यार्पण से हुआ। कार्यक्रम की रूपरेखा पर प्रकाश डालते हुए वरिष्ठ वैज्ञानिक एवं प्रमुख डा चंद्रमणि त्रिपाठी ने कहा कि भारत का जनजाति समाज अपनी आध्यात्मिक परंपराओं विशिष्ट संस्कृति और श्रेष्ठ जीवन मूल्यों के साथ भारतीय सभ्यता और संस्कृति का अभिन्न अंग रहा है, जब जब देश की सुरक्षा पर संकट आया जनजाति समाज ने अपने त्याग और बलिदान से राष्ट्र की रक्षा में अपना संपूर्ण योगदान दिया है। साथ ही विकसित भारत संकल्प यात्रा के अंतर्गत किसानों को जल एवं वन संरक्षण के लिए शिक्षित करना उन्हें बिना पानी को बर्बाद किए होने वाली सिंचाई तकनीक से अवगत कराना और जलाशयों पर निर्भर रहने के स्थान पर उन्हें वर्ष भर के लिए जल संरक्षण करना तथा उसका सिंचाई में अधिकाधिक उपयोग करने की तकनीक बताना भी इस कार्यक्रम का उद्देश्य रहा। इस अवसर पर टी एस पी परियोजना अंतर्गत संस्थान द्वारा किये जा रहे कार्यों, गतिविधियों एवं उनके परिणामों की जानकारी प्रस्तुत की। वैज्ञानिक उत्तम त्रिपाठी ने कहा कि जनजाति समाज के द्वारा किए गए योगदान संघर्ष और बलिदान के स्मरण के लिए भगवान बिरसा मुंडा के जन्मदिवस को जनजाति गौरव दिवस के रूप में हम सभी मना रहे हैं। जनजाति समाज ने कभी भी अंग्रेजों की दासता को स्वीकार नहीं किया है, समय-समय पर विद्रोह और संघर्ष कर समाज को संगठित व सजग करने का अथक प्रयास किया है, हमें उनके जीवन से सीख लेकर अपने समाज व राष्ट्र को आगे बढ़ाना होगा। जन शिक्षण संस्थान के निदेशक अनिल कुमार सिंह ने कौशल विकास एवं उद्यमशीलता मंत्रालय द्वारा संचालित की जा रही विभिन्न रोजगार परक प्रशिक्षण कार्यक्रमों व अन्य गतिविधियों की विस्तृत जानकारी प्रदान कर

स्वावलंबी बनने की बात कही, साथ ही स्थानीय स्तर पर उपलब्ध संसाधनों के आधार पर हम स्वयं आत्मनिर्भर बनकर आत्मनिर्भर समाज तथा आत्मनिर्भर भारत का निर्माण करें, हम सभी व्यक्तिगत जीवन मे स्वावलम्बी एवं सामाजिक जीवन मे परस्परावलम्बी बनें। सुश्री अमृतपाल कौर मुख्य विकास अधिकारी ने कहा कि आप सबकी ऊर्जा, उत्साह उत्तम है शासन की योजनाएं आप तक पहुँचाने का कार्य हो रहा है। अभी भी नशा रूपी एक सामाजिक बुराई यहाँ बहुतायत में दिखाई पड़ती है आप सभी से आग्रह है कि आज आप सभी यह संकल्प ले कि इस बुराई का समूल नाश सभी ग्रामवासी सामूहिक प्रयत्न से जड़ से समाप्त कर देंगे जिससे आप सभी को बेहतर स्वास्थ्य मिलेगा एवम इसमें व्यय होने वाली धनराशि आपके परिवारों की अन्य सुविधाओं के काम आएगी उन्होंने ग्रामीणों द्वारा चेकडैम के मरम्मतीकरण एवम एक फेस विद्युतीकरण को तीन फेस मे परिवर्तित करने का कार्य शीघ्र योजना बनाकर पूर्ण करवाने का भरोसा दिलाया। विपिन कुमार मिश्रा उपमहानिदेशक पुलिस ने अपने पूर्व के अनुभवों को साझा करते हुए कहा कि यहाँ के वनवासी बन्धु /भगनी सदैव स्वाभिमान पूर्वक अपना जीवन निर्वाह करने हेतु प्रयत्नशील रहे है वे सदैव विपरीत परिस्थितियों में भी समाज के अभिन्न अंग बनकर जल, जंगल जमीन की सुरक्षा हेतु करते रहे हैं आप सभी शासन की विभिन्न योजनाओं का लाभ लेकर आत्मनिर्भर बन अपनी आय में वृद्धि करिए साथ ही विपणन एवम प्रसंस्करण को भी उन्नत बनाइये। प्रशासन सदैव आपके सहयोग के लिए तत्पर रहेगा। मुख्य अतिथि बालकृष्ण त्रिपाठी मंडलायुक्त ने कहा कि भारतरत्न नाना जी देशमुख की सोच कितनी दूरदर्शी थी वे कहते थे कि मर्यादा पुरुषोत्तम राम मानव समाज के लिए संकल्प है जैसे राम ने लंका विजय के लिए स्थानीय समाज को एकजुट करके लंका पर विजय प्राप्त की उसी प्रकार हम सब भी संगठित होकर सामूहिक प्रयास से अपने परिवार, समाज एवम राष्ट्र को बेहतर बनाने हेतु कृत संकल्पित हों। संस्थान आज भी राष्ट्रऋषि नाना जी की उस परम्परा का निर्वहन कर सामाजिक विकास के लिए सतत प्रयत्नशील है और यह प्रतिबद्धता आगे भी बनी रहेगी ऐसी अपेक्षा एवम विश्वास है। उन्होंने मुख्य विकास अधिकारी से अपेक्षा की संस्थान जिन ग्राम आबादियों में सघनीभूत होकर कार्य कर रहा है वहाँ कैम्प लगाकर शासन की सभी योजनाओं एवम प्रक्रियाओं की विस्तृत जानकारी उपलब्ध कराएं जिससे सभी को बेहतर लाभ प्राप्त हो सके। अध्यक्षीय उद्बोधन करते हुए अभय महाजन राष्ट्रीय संगठन सचिव दीनदयाल शोध संस्थान ने कहा कि जनजातीय नायकों को और उनके योगदान को याद करने के लिए ये दिन बेहद खास है। भारत के स्वतंत्रता संग्राम में जनजातीय समुदाय का उल्लेखनीय योगदान रहा है। पूर्वजों की परंपरा, रीति रिवाज, संस्कृति की रक्षा करना हम सबका धर्म है। हजारों वर्षों की साधना से धर्म, परंपरा व संस्कृति का विकास हुआ है। हमारी परंपरा से हमें जीवन में संघर्ष करने की प्रेरणा व शक्ति मिलती है। उन्होंने कहा कि नाना जी सदैव कहते थे कि व्यक्ति जब तक स्वावलंबी नहीं होगा तब तक वह स्वाभिमानी नहीं बनेगा स्वयं के पुरुषार्थ के बल पर हमें आत्मनिर्भर बनना है, जनता की पहल, सहभागिता एवं पुरुषार्थ के आधार पर किया गया कार्य ही टिकाऊ होता है।

भूमि का सुपोषण एवं संरक्षण हम सभी भारतीयों का सामूहिक उत्तरदायित्व : अभय महाजन

ग्राम कुई में हुआ भूमि सुपोषण कार्यक्रम का आयोजन, किसानों द्वारा खेतों से कलश में मिट्टी भरकर विधिवत पूजन के उपरांत मिट्टी को खेतों में किया गया छिड़काव

नवभारत न्यूज

चित्रकूट 13 अप्रैल, भारतीय कृषि चिंतन में भूमि को धरती माता ऐसे संबोधित किया है। हमारे प्राचीन ग्रंथो में इसके उदाहरण सहजता से पाए जाते है। अथर्वेद के भूमि सूक्त मे कहा गया है, 'माता भूमि: पुत्रो अहं पृथिव्या:।' इसका भावार्थ है कि भूमि हमारी माता है एवं हम उस के पुत्र। तात्पर्य, भूमि के पोषण कि व्यवस्था करना हमारा कर्तव्य है।

इन्हीं सब बातों को ध्यान में रखकर शनिवार को चित्रकूट जनपद के ग्राम कुई में दीनदयाल शोध संस्थान कृषि विज्ञान केंद्र गनीवां, चित्रकूट के द्वारा भूमि सुपोषण कार्यक्रम का आयोजन किया गया। जिसमें ग्राम पंचायत कुई के कृषकों एवं महिलाओं द्वारा अपने-अपने खेतों से कलश में मिट्टी भरकर कार्यक्रम स्थल तक लाया गया और

यहां उनका विधिवत पूजन कार्यक्रम संपन्न हुआ। पूजन के उपरांत उस मिट्टी को अपने अपने खेतों में छिड़काव किया गया। इस कार्यक्रम में कंचन डु मंजू, देवमानी -छेदिलाल ने सापत्नीक जोड़ों के साथ एवं गांव के अन्य परिवार की महिलाएं पुरुष बच्चे बुजुर्ग आदि उपस्थित होकर इस कार्यक्रम में विधि विधान पूर्वक गौ माता एवं पृथ्वी माता का पूजन में उपस्थित रहे। यह कार्यक्रम पारंपरिक लोक रीतियों को प्रकृति परंपरा से जोड़ते हुए हमारे दैनिक जीवन में उसके महत्व एवं उपयोग की व्याख्या करते हुए संपन्न किया गया। कृषि विज्ञान केंद्र के वैज्ञानिक श्री विजय गौतम के द्वारा भूमि सुपोषण शब्द का शाब्दिक अर्थ समझाते हुए भूमि की उर्वरा शक्ति एवं किए जाने वाले भूमि संरक्षण हेतु आवश्यक प्रयासों के बारे में विस्तृत जानकारी बताई गई साथ ही इसके साथ पारंपरिक रीतियों एवं उनके महत्व के बारे मे भी बताया। इस कार्यक्रम में मुख्य रूप से दीनदयाल शोध संस्थान के संगठन सचिव श्री अभय महाजन उपस्थित रहे। दीनदयाल शोध संस्थान के संगठन सचिव श्री अभय महाजन ने कहा कि संस्थान के कार्यकर्ता प्रत्येक ग्राम स्तर तक जाकर इस कार्यक्रम में ग्रामीणों की सहभागिता सुनिश्चित कर रहे हैं। इस अभियान का मुख्य उद्देश्य भारतीय कृषि चिंतन, भूमि सुपोषण एवं संरक्षण इन संकल्पनाओं को कृषि क्षेत्र में पुन:स्थापित करना है। जन अभियान में प्राधान्यत: भूमि सुपोषण, जन जागरण एवं भारतीय कृषि चिंतन एवं भूमि सुपोषण को बढ़ावा देने संबंधित कार्यक्रम किए जा रहे है। श्री महाजन ने कहा कि हमारी भूमि का सुपोषण करना यह मात्र कृषकों का उत्तरदायित्व नहीं है। इस जन अभियान की मुख्य संकल्पना है कि भूमि सुपोषण एवं संरक्षण यह हम सभी भारतीयों का सामूहिक उत्तरदायित्व है। इसी के साथ आगामी आने वाले मतदान में शत प्रतिशत मतदान करने एवं करवाने के लिए अपील भी की गई। इस दौरान गत दिनों ग्राम की कुछ महिलाओं के द्वारा पूर्व में जिला स्तरीय खाद्य संस्करण के अंतर्गत श्रीअन्न से बने हुए उत्पादों की प्रदर्शनी में जिला स्तरीय प्रथम पुरस्कार प्राप्त हुआ था, जिसको केंद्र की गृह विज्ञान वैज्ञानिक श्रीमती ममता त्रिपाठी एवं श्री अभय महाजन के द्वारा महिलाओं को पुरस्कृत किया गया। केंद्र के प्रभारी वैज्ञानिक डॉ कमला शंकर शुक्ला के द्वारा किसानों को भूमि सुपोषण का संकल्प दोहराया गया, पूजन के पश्चात किसान शेष मिट्टी को अपने अपने घर लेकर गए जिसको वो अपने खेतों मे मिलाकर अपनी भूमि के सुपोषण का संकल्प लेंगे। इस कार्यक्रम की अध्यक्षता श्री भगवानदीन वर्मा निवासी ग्राम कुई ने की। इस अवसर पर पर्यावरणविद विज्ञान भारती जबलपुर के संरक्षक श्री संत कुमार गौतम, श्री अंकित राय एवं श्री आदित्य विश्वास उपस्थित रहे। केंद्र से प्रमुख रूप से डॉ मनोज शर्मा, अभय शुक्ला सहित कृषि विज्ञान केंद्र के कार्यकर्ता और प्रमुख गांव वासी 57 महिला पुरुष किसान सम्मिलित रहे।

चित्रकूट मेला में लगे कार्यकर्ताओं का डीआरआई ने किया सम्मान

समय-समय पर अपनी भूमिका निभाते हैं संस्थान के कार्यकर्ता: अभय

चित्रकूट, (नव स्वदेश)।

धर्म नगरी चित्रकूट में दीपावली पर सुप्रसिद्ध अमावस्या मेला में प्रशासनिक अधिकारियों एवं कर्मचारियों के साथ सहयोग की दृष्टि से दीनदयाल शोध संस्थान के विविध प्रकल्पों से लगभग 60 कार्यकर्ताओं को मेला व्यवस्था में लगाया गया, उन सभी कार्यकर्ताओं की समीक्षा बैठक मंगलवार को उद्यमिता विद्यापीठ में दीनदयाल शोध संस्थान के राष्ट्रीय संगठन सचिव अभय महाजन की उपस्थिति में की गई। समीक्षा बैठक में श्री महाजन ने कार्यकर्ताओं को संबोधित करते हुए कहा कि भारत रत्न राष्ट्र ऋषि नानाजी देशमुख का कथन मैं अपने लिए नहीं अपनों के लिए हूं, अपने वे हैं जो पीड़ित और अपेक्षित है! को चरितार्थ करते हुए संस्थान के कार्यकर्ता समय-समय पर जरूरत पड़ने पर अपनी भूमिका सुनिश्चित करते हैं। जहां कम-वहां हम का भाव एक उत्कृष्ट कार्यकर्ता की पहचान है। ऐसे सभी कार्यकर्ता जिन्होंने दीपावली जैसे त्योहार पर अपने घर से दूर रहकर जरूरत के समय मिली जिम्मेदारी को निष्ठा पूर्वक निर्वहन किया, वे सभी कार्यकर्ता सम्मान योग्य है।

इन स्थानों पर दी सेवा

दीपावली मेला के दौरान 11 से 13 नवंबर तक चित्रकूट के प्रमुख स्थलों जिसमें भरतघाट, द्वितीय मुखारविंद, परिक्रमा पथ, गुप्त गोदावरी, हनुमान धारा, मेला कंट्रोल रूम व खोया पाया केन्द्र, पीली कोठी चौराहा, रजौला बस स्टैंड तथा रेस्ट हाउस आदि स्थानों पर दीनदयाल शोध संस्थान द्वारा अपने चयनित कार्यकर्ताओं को प्रशासनिक सहयोग के लिए लगाया गया। इन सभी कार्यकर्ताओं का डीआरआई के संगठन सचिव अभय महाजन द्वारा रोली-टीका लगाकर उपहार स्वरूप कंबल भेटकर सम्मानित किया गया। इस अवसर पर सभी कार्यकर्ताओं ने अपने-अपने पाइंट के व्यवस्था से जुड़े अपने अनुभवों व कठिनाइयों को भी समीक्षा बैठक में सभी के समझ रखा।

आरोग्य धाम परिसर की गौशाला सहित स्वावलम्बन केन्द्रों में मनायी गयी गोपाष्टमी

डीआरआई के संगठन सचिव अभय महाजन ने गाय व बछड़े को गुड़ खिलाकर किया गोपाष्टमी का पूजन

पूजा

तेजस टूडे ब्यूरो, शिवमंगल अग्रहरि

चित्रकूट। दीनदयाल शोध संस्थान के प्रकल्पों में कार्तिक माह के शुक्ल पक्ष की अष्टमी को गोपाष्टमी का पर्व धूमधाम से मनाया गया। इस अवसर पर आरोग्यधाम परिसर में स्थित गौवंश विकास एवं अनुसंधान केन्द्र, कृषि विज्ञान केन्द्र मझगवां व गनीवां की गौ-शालाओं सहित ग्रामीण स्वावलम्बन केन्द्रों पर भी पूजा-अर्चना का कार्यक्रम आयोजित किया गया। जिसमें दीनदयाल शोध संस्थान के संगठन सचिव अभय महाजन की उपस्थिति में वैदिक मंत्रोच्चार के साथ विधि-विधान से गौ-पूजन एवं हवन सम्पन्न कराया गया।

इसके बाद गोशाला में गाय, बछड़े और नंदी को गुड़ खिलाने के उपरांत माला पहनाकर पूजा-पाठ किया गया। गौशाला परिसर में कलश और दीप जलाकर विधिवत पूजा के बाद हवन किया गया। इस मौके पर दीनदयाल शोध संस्थान के राष्ट्रीय संगठन सचिव अभय महाजन ने कहा कि कार्तिक माह की शुक्ल पक्ष की अष्टमी को गोपाष्टमी मनाया जा रहा है। आदिकाल से ही भारत में भारतीय गौवंश का महत्व रहा है, वेदों में गाय के दूध को अमृत और गाय को कामधेनु की संज्ञा मिली है। बैलों का महत्व समाज में स्थापित करने के लिए भगवान शंकर ने भी नंदी को अपना वाहन बनाया था।

गोशाला के प्रभारी डा. रामप्रकाश शर्मा ने बताया कि गाय का गोबर, गोमूत्र, गोघृत, गोधी, गोदही आदि सभी पंचगव्य अक्षरशः मानव स्वास्थ्य संबंधी अनेक असाध्य बीमारियों की चिकित्सा में अत्यंत प्रभावी पाए गए हैं और आधुनिक चिकित्सा विज्ञान ने भी पंचगव्य के कारगर प्रभाव को स्वीकार किया है। इन्हीं सब बातों को ध्यान में रखकर भारत रत्न नानाजी देशमुख ने देशी नस्लों की गायों के संरक्षण एवं संवर्धन और पंचगव्य आधारित स्वदेशी उत्पादों के निर्माण के लिए आरोग्यधाम परिसर में गौवंश विकास एवं अनुसंधान केन्द्र की शुरूआत की थी। इस मौके पर दीनदयाल शोध संस्थान के वरिष्ठ कार्यकर्ता राजेन्द्र सिंह, शैक्षणिक अनुसंधान केंद्र के प्रभारी कालिका प्रसाद श्रीवास्तव, समाज शिल्पी दंपति प्रकल्प प्रभारी हरीराम सोनी, ज्ञान शिक्षण संस्थान के निदेशक अनिल सिंह, बनारसी लाल पांडेय, आरोग्यधाम के डा. नरेंद्र द्विवेदी सहित गौशाला के प्रभारी डा. रामप्रकाश शर्मा व गोशाला परिवार के सभी लोगों ने पूजन में सहभागिता की। इसके अलावा पंचकोशाधारित गुरुकुल मुंबई के बच्चे भी गोपाष्टमी कार्यक्रम में सहभागी रहे।

महिलाओं को उद्यमी के साथ स्वावलम्बी बनाना : अभय महाजन

स्टार समाचार | चित्रकूट

भगवान को अर्पित फूलों से सुगंधित अगरबत्ती एवं कोन बनाने का डीआरआई में हुआ प्रशिक्षण

दीनदयाल शोध संस्थान उद्यमिता विद्यापीठ में शनिवार को एक दिवसीय प्रशिक्षण (अर्पित फूलों से सुगंधित अगरबत्ती एवं कोन बनाना) विषय पर प्रशिक्षण सह प्रदर्शन का आयोजन सीएसआईआर केन्द्रीय औषधि एवं सुगंध पौधा संस्थान (सीमैप) लखनऊ के सहयोग से सम्पन्न हुआ। जिसमें प्रमुख रूप से अभय महाजन, राष्ट्रीय संगठन सचिव दीनदयाल शोध संस्थान, डॉ. रमेश कुमार श्रीवास्तव-प्रधान वैज्ञानिक एवं प्रमुख व्यापार विकास संघ सीमैप लखनऊ तथा डॉ. अमित गोस्वामी-प्रमुख वैज्ञानिक, राष्ट्रीय कृषि अनुसंधान संस्थान, नई दिल्ली की गरिमामयी उपस्थित रही। कार्यक्रम का संचालन डॉ. योगेश त्रिपाठी-वरिष्ठ शोध अधिकारी एवं प्रमुख शोध आरोग्यधाम द्वारा किया गया। प्रशिक्षण में 50 से अधिक महिलाओं ने चित्रकूट की 50 किमी की परिधि में आने वाले गांवों से सहभागिता की जिसमें सुवीतियों की भूमिका सहत्वपूर्ण रही। प्रशिक्षण कार्यक्रम के उद्देश्यों की जानकारी देते हुये डॉ. रमेश श्रीवास्तव ने बताया कि देश के विभिन्न राज्यों के प्रमुख मंदिरों जैसे कि वैष्णो देवी मंदिर, सिद्धी साईं बाबा, उज्जैन महाकाल, मैहर शारदा माता आदि जगहों पर भगवान को अर्पित फूलों से सुगंधित अगरबत्ती बनाने का प्रशिक्षण दिया जा चुका है और वहां कि महिलाओं द्वारा यह कार्य प्रारम्भ कर दिया गया है वर्तमान में आठ हजार से अधिक महिलायें अपने घरेलू कार्यों के साथ-साथ अगरबत्ती बनाने का कार्य कर रही हैं और अतिरिक्त आय को अर्जित कर अपना एवं अपने परिवार का भरण पोषण भी कर रही है इसके साथ ही स्वावलंबी होकर स्वाधिष्ठान के साथ जीवन यापन कर रही हैं।

डॉ. अमित गोस्वामी ने अपने उद्बोधन में बताया कि हम लोग आगे भी और कई प्रकार के प्रशिक्षण आयोजित कर ग्रामीण महिलाओं को उद्यमी के साथ स्वावलंबी बनाने का कार्य करते रहेंगे। दीनदयाल शोध संस्थान के संगठन सचिव अभय सहाजन ने बताया कि राष्ट्रऋषी नानाजी का विचार हमेशा से यही रहा है और हम सब उनके बताये हुये रास्ते पर चलकर ग्राम स्वावलंबन का कार्य कर रहे हैं। आपने बताया कि नानाजी कहते थे कि स्थानीय स्तर पर उपलब्ध संसाधनों के माध्यमों से ही उद्यमी बनना है। भगवान को पुष्प अर्पित करने के पश्चात नदी में प्रवाहित कर दिये जाते हैं जिससे जल प्रदूषण एवं वायु प्रदूषण होता है इसके अतिरिक्त ये पुष्प सड़क में फेंक दिये जाते हैं जो कि कूड़े के रूप में पैरों में भी लगते हैं जिससे हमारी शुद्धा एवं भावना को ठेस पहुंचती है। अगर यह उद्यम प्रारम्भ कर दिया जायेगा तो एक ओर प्रदूषण नहीं होगा एवं हमारी भावना भी आहत नहीं होगी और महिलाएं उद्यमी बनकर स्वाधिमान के साथ स्वावलम्बी बन सकेंगी। उनके परिवार की आमदनी भी बढ़ेगी और जीवन भी खुशहाल रहेगा। ये तो ऐसा हुआ कि आम के आम गोठलियों के दाम वाली कहावत चरितार्थ हुई। आपने डॉ. रमेश श्रीवास्तव को इस पहल के लिये धन्यवाद दिया। और कहा कि हम ग्राम विकास के लिये आपके साथ हमेशा खड़े रहेंगे हमारी जबभी जहां भी आपको आवश्यकता होगी हम आपके साथ होंगे। प्रशिक्षण के दौरान विभिन्न प्रकल्पों के प्रकल्प प्रभारी एवं कार्यकर्ता भी उपस्थित रहे। यह प्रशिक्षण कार्यक्रम लेकम आर्किड कंसल्टिंग प्राईवे. नई दिल्ली के वित्तीय सहयोग से सम्पन्न हुआ।

सरसंघचालक भागवत जी करेंगे रानी दुर्गावती की प्रतिमा का अनावरण

■ सतना, (नव स्वदेश)।

जिले के मझगंवा में प्रत्येक वर्ष वीरांगना रानी दुर्गावती की जयंती जन सहयोग से मनाई जाती रही है। इसी क्रम में इस वर्ष 500वीं जयंती मनाई जाएगी। इस अवसर पर दीनदयाल शोध संस्थान वाल्मीकि परिसर मझगवां में 1 अप्रैल को रा. स्व. संघ के परम पूज्य सरसंघचालक डॉ. मोहनराव भागवत जी एवं दीनदयाल शोध संस्थान के अध्यक्ष वीरेंद्र पराक्रमादित्य के कर कमलों से वीरांगना रानी दुर्गावती प्रतिमा का अनावरण किया जाएगा। और स्वतंत्रता के अमृत महोत्सव एवं श्री अन्न-पोषक अनाजों (मोटे अनाज) के मूल्य वर्धित पदार्थों की आकर्षक प्रदर्शनी के साथ ही ग्रामीण क्षेत्र की विरासत एवं परम्परा पर सांस्कृतिक कार्यक्रम आयोजित होंगे। इस शुभ अवसर पर पूज्य संत महात्माओं का दर्शन प्राप्त होगा। कार्यक्रम के पश्चात सहभोज का आयोजन किया जाएगा। यह जानकारी रविवार को दीनदयाल शोध संस्थान के संगठन सचिव अभय महाजन ने भरहुत होटल में आयोजित एक कार्यक्रम में दी। आगे श्री महाजन ने बताया कि उक्त कार्यक्रम को लेकर तैयारियां जोरो से चल रही है, प्रतिमा भी बनकर तैयार हो गई, इसके साथ ही जहां प्रतिमा को स्थापित किया जाना है उसका स्ट्रक्चर भी बनकर तैयार हो गया है।

ऐसा होगा कार्यक्रम

श्री महाजन ने बताया कि 1 अप्रैल को सुबह 10 से 11 बजे प्रदर्शनी अवलोकन, 11 बजे सांस्कृतिक कार्यक्रम, 12 बजे प्रतिमा अनावरण पश्चात् मुख्य कार्यक्रम आरम्भ होगा। 2 बजे कार्यक्रम समाप्ति के पश्चात् सभी उपस्थित जनों का सहभोज कार्यक्रम संपन्न होगा।

10 रुपए का स्वैच्छिक आर्थिक सहयोग

श्री महाजन ने बताया कि इस मौके पर विशाल भंडारा भी होगा जिसमें सहभागिता के लिए गांव-गांव कार्यकर्ताओं की टीम निमंत्रण दे रही है। जन सहयोग से आयोजित कार्यक्रम में जन सहभागिता के लिए लोगों से 10 रुपए का स्वैच्छिक आर्थिक सहयोग भी लिया जा रहा है। आगे उन्होंने कहा कि 19 जनवरी को प्रतिमा स्थल का भूमि पूजन किया गया था। कार्यक्रम की तैयारी के लिए लगभग मझगवां क्षेत्र के जनजाति बाहुल्य 74 गांवों में 200 से अधिक लोगों के साथ बैठकें की गई और सुझाव लिए गए। उन्होंने बताया कि डीआरआई द्वारा संचालित कृष्णा देवी वनवासी आवासीय विद्यालय में पढ़ने वाली बनांचल की बेटियां देश और प्रदेश में चित्रकूट को गौरवान्वित कर रही हैं।

जीवन चरित्र पुस्तिका का वितरण

दीनदयाल शोध संस्थान के संगठन सचिव अभय महाजन ने जानकारी देते हुए बताया कि कार्यक्रम को लेकर मझगंवा विकासखंड के 96 पंचायतों के 368 राजस्व ग्रामों में संपर्क करके सभी परिवारों में वीरांगना रानी दुर्गावती जी की जीवन चरित्र पुस्तिका एवं कैलेंडर घर-घर पहुंचाने एवं कार्यक्रम में आमंत्रित करने का अभियान चलाया गया है। वहीं वीरांगना रानी दुर्गावती जी की प्रतिमा अनावरण कार्यक्रम को सफल बनाने एवं गतिविधियों के संचालन हेतु दीनदयाल शोध संस्थान कृषि विज्ञान केंद्र मझगवां में कार्यालय का शुभारंभ विधि-विधान पूर्वक किया गया। साथ ही संत महात्माओं के कर कमलों द्वारा वीरांगना रानी दुर्गावती जी के प्रचार-प्रसार एवं कार्यक्रम के आमंत्रण स्वरूप कैलेंडर एवं पत्रक का विमोचन भी किया गया। जिसमे पूज्य संत राम हृदय दास महाराज, रामायणी कुटी, संत श्री दिव्य जीवन दास महाराज भरत मंदिर, संत श्री मदन गोपाल दास जी कामतानाथ प्रथम मुखारविंद, संत श्री नागा राघवेंद्र दास की पावन उपस्थिति में संस्थान के संगठन सचिव अभय महाजन वीरांगना रानी दुर्गावती शोध समिति पटना कला के अध्यक्ष रामराज सिंह, सचिव सीताराम विश्वकर्मा सहित अन्य जनजाति कार्यकर्ता एवं संस्थान के समस्त कार्यकर्ताओं की उपस्थिति में हुआ।

नवभारत सतना, गुरुवार 25 मई, 2023

सतना

आरोग्यधाम चित्रकूट में 150 किलोवाट क्षमता का सोलर पावर प्लांट लगा

एनएचपीसी ने सीएसआर मद से कराया स्थापना, पूर्व ऊर्जा मंत्री राजेन्द्र शुक्ल ने किया लोकार्पण

नवभारत न्यूज

चित्रकूट 24 मई, नेशनल हाइड्रो पावर कार्पोरेशन लिमिटेड (एन.एच.पी.सी.) द्वारा दीनदयाल शोध संस्थान आरोग्यधाम परिसर चित्रकूट में निगमित सामाजिक दायित्व के अंतर्गत 150 किलो वाट के सोलर पावर प्लांट का स्थापना करवाया गया है जिसका लोकार्पण राजेंद्र शुक्ला , पूर्व ऊर्जा मंत्री, मध्यप्रदेश शासन गोरेलाल वारचे वरिष्ठ कार्यकर्ता भोपाल , डॉ भरत मिश्रा कुलपति म. गा.चि. ग्रा.विश्वविद्यालय सदस्य उत्तम बनर्जी ,डॉ सपना सिंह ,डॉ मिलिंद देवगावकर, दीनदयाल शोध संस्थान के संगठन सचिव अभय महाजन, कोषाध्यक्ष बसन्त पंडित, सदस्य जयदेव ताम्रकार, तहसीलदार सुमित गुर्जर द्वारा ज्येष्ठ शुक्ल पंचमी युगब्द 5125 दिनाँक 24 मई 2024 को विधि विधान से पूजार्चन

के साथ किया गया।

प्रबन्ध मण्डल के सदस्य जयदेव ताम्रकार ने बताया कि 150 किलोवाट के इस संयन्त्र में लगभग 277 आधुनिक तकनीकी से बनी मोनोक्रूस्टलाइन सोलर प्लेटस का उपयोग किया गया है प्रत्येक सोलर प्लेट 5.5 किलोवाट की है इसके लिए 3 अलग अलग क्षमता के इन्वर्टर लगाए गए हैं । हम सभी भी अपने अपने घरों में जितना जल्दी से जल्दी हो सके अपनी सुविधा एवम आवश्यकतानुसार इसको स्थापना करवा लें यह हम सब के लिए उपयोगी रहेगा।

मुख्य अतिथि राजेंद्र शुक्ला , पूर्व ऊर्जा मंत्री, मध्यप्रदेश शासन ने कहा कि समाज एवम पर्यावरण की दृष्टि से जो भी नवाचार विश्व स्तर पर हो रहे हैं उनको अपनाने में संस्थान सदैव अग्रणी रहा है संस्थान लोगों को सदैव रचनात्मक कार्य करने की प्रेरणा देता है । आज पर्यावरणीय दृष्टिकोण से यह अत्यंत आवश्यक हो गया कि हम सभी सोलर पैनल अपनी छतों पर लगवाकर

तापीय , थर्मल , पेट्रोलियम ईंधन पर सामूहिक निर्भरता कम कर सकते हैं व प्रदूषण को भी कम करने में सहायक हो सकते हैं साथ ही यह आमदनी का जरिया भी बनाया जा सकता है यदि विद्युत उत्पादन करके हम ग्रिड को देते है तो महीने भर में हम जितना विद्युत उपभोग करते हैं उसको हमारे उत्पादन से समायोजित करके शेष यदि उत्पादन अधिक हुआ है तो उसका आपको भुगतान प्राप्त हो जाता है । संगठन सचिव अभय महाजन ने कहा कि दीनदयाल शोध संस्थान सदैव समाजोपयोगी नवाचारों को अपनाकर बेहतर समावेशी समाज की कल्पना करता है । ऐसे संयन्त्र संस्थान के अन्य प्रकल्पों में भी स्थापित करने का प्रयत्न किया जाएगा क्योंकि सौर प्रकाश पूरी तरह से एक अक्षय ऊर्जा स्रोत, अर्थात सूर्य के प्रकाश द्वारा निर्जीवित होता है। यह पर्याप्त मात्रा में ऊर्जा को बचत करते हुए स्थिरता को प्रोत्साहित करता है। सभी सम्मानित अतिथियों का मार्गदर्शन एवम सकारात्मक सहयोग के लिए बहुत बहुत बधाई एवम हम इसके लिए संस्थान की ओर से कृतज्ञता ज्ञापित करते है ।

लोकार्पण कार्यक्रम में संस्थान के उप महाप्रबंधक डॉ अनिल जायसवाल इं राजेश त्रिपाठी सहित सभी प्रकल्पों के प्रकल्प प्रभारी एवम कार्यकर्ता उपस्थित रहे ।

एन.एच.पी.सी ने सामाजिक दायित्व का किया निर्वहन

इसके पूर्व भी एनएचपीसी द्वारा सीएसआर के तहत मझगवां के कृष्णा देवी वनवासी बालिका आवासीय विद्यालय, पीली कोठी स्थित चित्रकूट के रामनाथ आश्रम पद्धति विद्यालय एवम परमानन्द आश्रम पद्धति विद्यालय गनीवां-चित्रकूट में अभिभावक प्रतीक्षा कक्षों का निर्माण कराया गया है।

वीरांगना रानी दुर्गावती के शौर्य व पराक्रम के कारण ही आक्रांता इस क्षेत्र को तीन दशकों तक स्पर्श भी नहीं कर सके-डॉ भागवत

व्यक्तिगत स्वार्थों के लिए देश को आहत करने के बारे में कभी नहीं सोचना चाहिए - डॉ भागवत

महासमुंद, 01 अप्रैल 2023/ वीरांगना रानी दुर्गावती के शौर्य एवं पराक्रम के कारण इस क्षेत्र को हमारे पूर्वजों के अलावा दूसरे आक्रांताओं को दो से तीन दशक तक का समय लग गया। रानी दुर्गावती के महिमामय एवं कार्यशैली से प्रभावित चाहे वे लोदी ने अकबर के विरोधी थे तू उनका विरोधियों से सख्त संघर्ष किया। चाहे वे लोदी ने अपने छोटे-छोटे महिमामय सपनों के लिए बनाये गये देश का अहित करने की नहीं सोचा इस आधार के बिना राष्ट्रीय स्वयंसेवक संघ के सरसंघचालक डॉ मोहन राव भागवत ने छत्तीसगढ़ के जनजातीय बहुल क्षेत्र महासमुंद-संबलपुर में स्थित पहाड़ी चारमोड़िया परिसर देवदासन तीर्थ संस्थान में नव स्थापित वीरांगना रानी दुर्गावती की प्रतिमा का अनावरण करने के बाद उपस्थित विशाल जनसमूह को संबोधित करते हुए व्यक्त किए।

कार्यक्रम में डॉ मोहनराव भागवत, सरसंघचालक राष्ट्रीय स्वयंसेवक संघ के साथ मंच में मंगलम के शिवधर स्वामी सदन शेखर गिरी महाराज, वीरांद पाकशाहीवान अन्नदा देवदासन तीर्थ संस्थान, चूड़ामणि सिंह (सांसदीय कार्यमंत्री), बृजेश सक्सेरी, बेदुई बाबा (वनवासी देवदासन के सामाजिक कार्यकर्ता), रामाधार सिंह (सांसदीय कार्यकर्ता), अनुज जैन उपस्थित देवदासन तीर्थ संस्थान रहे।

सरसंघचालक डॉ भागवत ने अपने उद्बोधन के दौरान रानी दुर्गावती के वीरांगना पर प्रकाश डालते हुए कहा कि रानी दुर्गावती के जीवन से हमें सीख लेनी चाहिए कि राष्ट्र की रक्षा और राष्ट्र का सम्मान सर्वोपरी होता है, महिमामय सपनों के लिए देश को आहत करने की भी कभी नहीं सोचना चाहिए। राष्ट्र के विकास में सरकार के साथ कंधे कंधा मिलाकर चलना होता है।

उन्होंने वीरांगना रानी दुर्गावती के जीवन प्रसंगों से जुड़ी अनेक ज्ञानवर्धक बातें बताते हुए वे महान से कहा कि वीरांगना रानी दुर्गावती ने अपने पुत्र को उत्तराधिकारी एवं सक्षम बनाने प्रजा के कल्याण के लिए साहसिक कार्य किए।

डॉ मोहन भागवत ने आगे कहा कि मोहनदास रानी दुर्गावती का एक संघर्षपूर्ण दौर था। पर - पाप से परिपूर्ण था। पति के बाद रानी दुर्गावती ने पहिला की प्रतिष्ठा लगाने से उनकी अधिक जनप्रियता में निरंतर इजाफा होने और लोग उनकी सहयोगात्मक से सहज प्रेमित होने लगे।

डॉ मोहन भागवत ने वीरांगना रानी दुर्गावती के बलिदान को बताते हुए कहा कि यह प्रजावत्सल एवं प्रजा की हितैषी तथा न्याय पालक थीं। उन्होंने विधवा होने के बाद महिमामय पुत्र में आने की नहीं सकल्प बल्कि अपने प्रजा के कल्याण एवं प्रजा के हित में अपना संपूर्ण जीवन समर्पित कर दिए, कियाः। परिणाम यह रहा कि आक्रांताओं को इस क्षेत्र में कब्जा पाने के लिए 20 से 30 वर्षों की प्रतीक्षा करनी पड़ी।

रानी दुर्गावती अपने लोगों द्वारा की गई किसी गलती के लिए उन्हें दंडित करने की क्षमता नहीं बल्कि उसे सुधार का पूरा सुधारने की हिमायती थीं। वीरांगना रानी दुर्गावती अपनी वीरता के कारण कभी किसी से पराजित नहीं हुई बल्कि विश्वासघात की शिकार हुई। इससे सीख लेना चाहिए कि हम सभी लोग प्रेमीजनों का रक्षित होता है कि देश हित में कभी भी कोई विश्वासघात न करे पाए।

भारतरत्न राष्ट्र कवि नानाजी देशमुख ने अपने जीवन के अंतिम वर्षों को इस क्षेत्र के सेवा में समर्पित कर दिया। यहां के निवासियों को स्वावलम्बी एवं स्वनिर्भरी बनाने के लिए प्रेरणा दिया है। जनजातीय, वनवासियों बन्धुओं को यही आव्हान करते हुए इस क्षेत्र में प्रभु श्री राम ने अपने 14 वर्षों के वनवासकाल में से सबसे ज्यादा वर्ष का समय व्यतीत किया है। डॉ मोहन भागवत ने वीरांगना रानी दुर्गावती के शौर्य एवं पराक्रम की गाथा बताते हुए उनके जीवन से जुड़े विभिन्न प्रसंगों को रखते किया और कहा कि महान रानी की भूमि के बारे वीरांगना दुर्गावती ने अपने पुत्र को उत्तराधिकारी एवं सक्षम बनाने प्रजा के कल्याण के लिए साहसिक कार्य किए।

डॉ मोहन भागवत ने आगे कहा कि मोहनदास रानी दुर्गावती का एक संघर्षपूर्ण दौर था। पर - पाप से परिपूर्ण था। पति के बाद रानी दुर्गावती ने पहिला के साथ में राज संचालन का प्रजा की सुरक्षा, समृद्धि और सम्मान दिया। राज की आर्थिक समृद्धि का ध्यान रखा। इसी साथ वैचारिक रूप जन-जन से परिचित बनाने के लिए रानी दुर्गावती की प्रतिमा स्थापित की गई है। वीरांगना रानी द्वारा की गई लड़ाई में सुलभवान भी रहीमन थे, चाहे किसी परिवाद के राष्ट्र के कल्याण एवं सुरक्षा के लिए आगे बढ़ना चाहिए उन्होंने कहा कि पाप विभिन्नताओं का देश है तब इसमें अलग नहीं है।

इस दौरान देवदासन तीर्थ संस्थान के अध्यक्ष श्री चौंड़ पाकशाहीवान द्वारा स्वागत भाषण दिया गया। मंडल ने रानी दुर्गावती संग्रहालय सिंघी महाराज ने अपने आशीर्वचन में कहा कि हमारे देश में सरकार चाहे सरकार रहे, हम पाप पैमाने को प्रजा की हमेशा लिए सबको प्रणाम से जुटना होगा।

कार्यक्रम के अंत में देवदासन तीर्थ संस्थान के राष्ट्रीय संगठन सचिव श्री अनंत पहाल ने धन्यवाद ज्ञापित करते हुए बताया कि चिखलट्-महासमुंद जनसंसदीय बहुजन क्षेत्र है। कल जो ने इसी सब लोगों को साथ लेकर उनकी पहल पुरुषार्थ से ही सेवा का प्रकाश खड़ा किया है।

पूर्वजों को के जीवन पर साहित्य, कैलेंडर, बुकेट से लाख की संख्या में सीमन से प्रेम हुए हैं, जिसे पूरे क्षेत्र के प्रत्येक घरों तक पहुंचने का काम हुआ है। संपूर्ण कार्यक्रम का संचालन से आयोजित किया गया है। महासमुंद क्षेत्र के 50 हजार पीसों से लगातार सेवा 11 लाख रुपए संकलन कर में भी प्रेम हुए हैं।

कार्यक्रम को प्रमुख उपस्थिति

• प्रतिमा स्थान को दिया गया वर्तमान स्वरूप में उन्हीं एवं पोंडेवाले की बेटी एवं पोंडेवाले की महारानी दुर्गावती।

• दुर्गावती के जीवन से जुड़े विभिन्न प्रसंग-अनसुने पहलुओं का चारमोड़िया परिसर में देखने को मिला किसे के रोमांच पर चुप्पी और छोटी छोटी कर वीरांगना दुर्गावती की आकर्षक प्रतिमा का अनावरण किया।पहाड़ी प्रतिमा का अनावरण किया।पहाड़ी उन्हें पावन कार्यक्रम पंच पर पहुंचे। इस दौरान उन्हें दिवंगती के पहाड़ी बाल से बनी टोपी व साल और छत्तीसगढ़ विधविद्यालय के लोगिनवला संग्रहालय के अलावे इस क्षेत्र की नई वीरांगना दुर्गावती की चार प्रतिमा स्थापित किया के बाद पोंडेवाले की नई।

कार्यक्रम को प्रमुख उपस्थिति

• 50 हजार दर्शक पहुंचे थे। कार्यक्रम गया था। पंडाल, सुरक्षा बंध एवं जनसंपर्क संबंध का दिखा प्रतिनिधित्व।

• पहिला में जनसंपर्क पीस एवं पेयजल अलावे पर लगाई गई आपत्तिजनक प्रतिमा।

• प्रवेश स्थान पर आगंतुकों का पेड़ से पुष्प पेड़ा करके सिलक एवं गमछा से स्वागत के साथ दिया गया प्रवेश।

• सुरक्षा बंध के चार स्तरीय बल था संग सघन का बंध और पूरा आस था सांस्कृतिक संध्या, यहां से जनजातीय विलास एवं परंपरा को प्रदर्शित करने वाले सांस्कृतिक कार्यक्रमों की हुई प्रस्तुति।

• कार्यक्रम के उपरांत हुआ सहभोज का आयोजन, हजारों की संख्या में आए जनजाती बंधुओं एवं पुरुषों ने आए लोगों ने किया प्रसाद ग्रहण।

• सरसंघचालक के साथ जनसंसदीय सचिव एवं विभिन्न क्षेत्र देवदासन से जुड़े 29 लोग थे सहभोज में सहित।

जनसंसदीय सचिवों एवं सीमन-पेयजल अलावे की उपस्थिति वाले कार्यक्रम का केंद्र।

सांस्कृतिक संध्या में स्थानीय लोक में जनजाति परंपरा का पोंडेवाले की प्रस्तुति अखिल भारतीय जनजाती कल्याण परिषद द्वारा लगाई गई। जिसमें जनजाति समूह के लगभग 40 परंपरा का जीवन चूल प्रदर्शित किया गया, साथ ही स्थापत्य संस्थान, संस्कृति विभाग छत्तीसगढ़ शासन द्वारा वीरांगना दुर्गावती की के जीवन चरित्र पर एक चलचित्र प्रदर्शनी लगाई गई।

सेवाभारती छत्तीसगढ़ विभिन्न जगहों की प्रदर्शनी में दुर्ग से जिले की 13 बेटियों पीछड़ा है, अंतर्राष्ट्रीय पेयजल अलावे वर्ष 2023 के लिए 4 अलावे- बाजार, पानी, मुटाबी, सहित, ग्लास, बगरी, चीन और कोटी को सहित किया गया है उनको चुना प्रदर्शनी मूर्ति विज्ञान केंद्र गवेषक, महासमुंद, दिल्ली, संग्रहालय एवं अध्ययन मूर्ति सिंघ विज्ञानम के अंतर्गत आने वाले मूर्ति विज्ञान केंद्रों ने प्रदर्शित की।

दी नहीं महासमुंद पोंडे विश्वसुर प्रवेशन सिंघ विज्ञानम के सहार आदि सिंघारा द्वारा अपना सहेली एवं कॉलाहिनों के लिये की प्रदर्शनी प्रदर्शित की गई।

यहीं दुर्गावती और आक्रांता का आपस महोत्सव अंतर्गत पहार की सांस्कृतिक-सांस्कृतिक, राजनैतिक और सामाजिक पहलुओं को प्रति की ओर ले जाने वाले प्रदर्शनी लगाई गई।

प्रतिमा अनावरण कार्यक्रम में विधायक, सांसद, मंडे गणे सहित महानुभवों के सभी पंच-सरपंच और कई जिलों से जनपद अध्यक्ष, जिला पंचायत अध्यक्ष, पंचायत जन और भारी संख्या में जनजातीय समाज के महिला पुरुष और क्षेत्र के अन्य प्रबोधन जन उपस्थित रहे।

कानडी बदन येथे शंखीगोगलगाय नियंत्रण मार्गदर्शन व प्रात्यक्षिक कार्यक्रम संपन्न

आत्माराम एकशोरा

केज/ प्रतीनीधी / केज तालुक्यातील कानडी बदन येथे शंखीगोगलगाय चा सोयाबीन पिकावर प्रादुर्भाव मोठ्या प्रमाणात दिसून येत असून यामुळे शेतकरीवर्ग मोठ्या चिंतेत आहे ,याचे नीयंत्रन करने मोठे जीकरीचे होऊन बसले आहे .एक तर उशिरा पेरा पावसाची उघडझाप या मुळे शेतकरीवर्ग चिंतेत असुन काळजावर दगड ठेवून कमी ओलीवर हि सोयाबीन पेरा केला ,सोयाबीन पिकावर सुरवातीपासून शंखीगोगलगाय ने हल्ला चढवला यात शेत भस्म सात होत आहेत. याची पहानी करन्यासाठी व नियंत्रण प्रात्यक्षिक कार्यक्रम आयोजित करण्यासाठी

तालुका कृषी कार्यालय केज व कृषी विज्ञान केंद्र डिघोळ आंबा यांच्या कर्मचाऱ्यामार्फत मौजे कानडी बदन येथे गोगलगायी नियंत्रणाबाबत मार्गदर्शन व प्रात्यक्षिक कार्यक्रम घेण्यात आला त्या कार्यक्रमासाठी पुढील व्यक्ती उपस्थित होते गावातील सरपंच श्री.... तसेच कृषी शास्त्रज्ञ सांगळे साहेब कृषी सहाय्यक घाटुळे साहेब हे उपस्थित होते श्री सांगळे साहेब यांनी गोगलगाय जीवनक्रम व

त्यावर उपाययोजना याबा सविस्तर असे मार्गदर्शन केले तसेच घाटुळे साहेब यांनी शेतावर प्रात्यक्षिक करून दाखवले.यात सरपंच दिगांबर पांचाळ, विकास साखरे,रजनीकांत साखरे, महादेव साखरे, अनिल दळवे, दत्ता जगदाळे, टोणगे यादव सुरवसे आदि शंखीगोगलगाय ने सोयाबीन पिकावर प्रादुर्भाव झालेले शेतकरीवर्ग उपस्थित होते .

मराठवाडा दै. ॲग्रोवन
दि. 26/4/2023

चुकीच्या मशागत पद्धतीमुळे जमिनी चिभड होत आहेत

विनोद स्वामी : ट्रॅक्टरचलित सब-सॉयलर यंत्र वापराचा सल्ला

अंबाजोगाई, जि. बीड : चुकीच्या मशागत पद्धतीमुळे जमिनीत सहा इंच खोलीवर कडक थर तयार होत आहे. त्यामुळे जमिनी खराब होत आहेत. अशा चिभड जमिनींची सुधारणा करण्यासाठी ट्रॅक्टरचलित सब-सॉयलर यंत्राचा वापर करावा, असा सल्ला दीर्घ अंडो टेक्नॉलॉजीचे व्यवस्थापक विनोद स्वामी यांनी दिला.

दीनदयाळ शोध संस्थान कृषी विज्ञान केंद्र डिघोळअंबा यांच्या माध्यमातून राजेवाडी (ता. अंबाजोगाई) येथे शेतकरी क्षमता बांधणी प्रशिक्षण कार्यक्रम आयोजित करण्यात आला होता. याप्रसंगी नानाजी राष्ट्रीय हवामान संवेदनशील कृषी नवकल्पना प्रकल्प (निक्रा) अंतर्गत ग्राम समितीचे अध्यक्ष भास्कर काशीद, विनोद स्वामी, संदीप निकम व केंद्राचे कृषी अभियंता प्रमोद रेणापूरकर यांची उपस्थिती होती. सब-सॉयलर यंत्र ३५ हॉर्सपॉवर क्षमतेच्या पुढील ट्रॅक्टरसाठी योग्य असून जमिनीत दीड ते अडीच फूट खोल जमीन फाडणे व जमीन मोकळी, भुसभुशीत करते. योग्य मशागतीमुळे पिकाची वाढ व उत्पादन चांगले आढळते, असे स्वामी यांनी सांगितले.

अंबाजोगाई : शेतकऱ्यांना प्रात्यक्षिक दाखविताना कृषी विज्ञान केंद्राचे कृषी अभियंता प्रमोद रेणापूरकर, विनोद स्वामी.

कृषी अभियंता रेणापूरकर म्हणाले, की प्रत्येक गावामध्ये अवजारे सेवा केंद्र स्थापने आवश्यक असून यामध्ये शेतकऱ्यांकरिता पीक पद्धतीनुसार गरजेची सर्व आधुनिक अवजारे असणे जरुरीचे आहे. यामधील अवजारांचा भाडेतत्त्वावर अल्पभूधारक व लहान शेतकऱ्यांना पुरवठा केल्यास शेतीमधील कामे वेळेवर पूर्ण करण्यास मदत होईल. कृषी यांत्रिकीकरणामुळे वेळेची बचत होऊन कमी खर्चात अधिक उत्पादन वाढ लाभदायक ठरेल. केंद्राच्या माध्यमातून गावांमध्ये अवजारे सेवा केंद्र स्थापन केले असून पेरणीपूर्व जमिनीच्या मशागतीसाठी, रानबांधणीसाठी तसेच पेरणीसाठी आवश्यक आधुनिक अवजारे यांचा समावेश आहे. या सुविधेचा पंचक्रोशीतील शेतकऱ्यांनी लाभ घ्यावा. प्रशिक्षणदरम्यान शेतकऱ्यांना अवजारांचे प्रात्यक्षिकही दाखवण्यात आले. कार्यक्रमाचे संचलन बालाजी बोबडे (निक्रा प्रकल्प-वरिष्ठ सहायोगिक) यांनी केले.

पुण्य नगरी

कुंबेफळ येथे गोगलगाय व्यवस्थापनासाठी शास्त्रज्ञ बांधावर

सामूहिक पद्धतीने गोगलगायींचे व्यवस्थापन करा : वडखेलकर

अंबाजोगाई/प्रतिनिधी: तालुक्यात गोगलगायींचा प्रादुर्भाव होऊ नये या हेतूने गोगलगाय व्यवस्थापनासाठी कृषी विभाग, कृषी विद्यापीठ, कृषी विज्ञान केंद्र यांच्यावतीने व्यापक जनजागृती मोहीम राबवण्यात येत आहे. त्याचाच एक भाग म्हणून तालुका कृषी अधिकारी सूर्यकांत वडखेलकर, कृषी विद्यापीठाचे शास्त्रज्ञ डॉ. वसंत सूर्यवंशी हे शेतकऱ्यांच्या शेतावर जाऊन मार्गदर्शन करत आहेत. दि.८ जुलै रोजी कुंबेफळ येथे शेतकऱ्यांच्या मेळाव्याचे आयोजन करुन मार्गदर्शन केले.

तालुक्यात सद्यस्थितीत मागील आठवड्यामध्ये पडलेल्या पावसामुळे शेतकऱ्यांनी सोयाबीन पेरणीस प्रारंभ केला आहे. मागील वर्षी काही भागांमध्ये गोगलगायींचा प्रादुर्भाव होऊन शेतकऱ्यांना दुबार पेरणी करावी लागली होती, यावर्षी गोगलगायींचा प्रादुर्भाव होऊ नये या हेतूने गोगलगाय व्यवस्थापनासाठी शेतकऱ्यांनी करावयाच्या उपाययोजनांची माहिती देण्याच्या हेतूने कृषी विद्यापीठ, कृषी विज्ञान केंद्र यांच्यावतीने व्यापक जनजागृती मोहीम राबवण्यात येत आहे. त्याचाच एक भाग म्हणून तालुका कृषी अधिकारी सूर्यकांत वडखेलकर, कृषी विद्यापीठाचे शास्त्रज्ञ डॉ. वसंत सूर्यवंशी हे शेतकऱ्यांच्या शेतावर जाऊन मार्गदर्शन करत आहेत. चोपनवाडी, घाटनांदूर, हातोला, कुंबेफळ, राडी या गावातील शेतकऱ्यांच्या शेतावर जाऊन मार्गदर्शन केले आहे.

दि.८ जुलै रोजी कुंबेफळ येथे शेतकऱ्यांच्या मेळाव्याचे आयोजन करण्यात आले होते. कार्यक्रमात कृषी विज्ञान केंद्र डिघोळ अंबा येथील कीटक शास्त्रज्ञ डॉ. प्रदीप सांगळे यांनी एकात्मिक पद्धतीने गोगलगायींचे व्यवस्थापन करण्यासंदर्भात विस्तृतपणे माहिती दिली, त्यामध्ये सकाळी लवकर शेतामध्ये जाऊन गोगलगायी वेचाव्यात, शेतामध्ये गुळाच्या पाण्यात भिजवलेले कलताची पोते ठेवून त्यामध्ये जमा झालेल्या गोगलगायी वेचून मिठाच्या पाण्यामध्ये नष्ट कराव्यात, रासायनिक पद्धतीने गोगलगायचे व्यवस्थापन करण्यासाठी मेटाल्डिहाईड २.५ टक्के गोळ्यांचा वापर करावा याची माहिती दिली.उपविभागीय कृषी अधिकारी सूर्यकांत वडखेलकर यांनी शेतकऱ्यांसोबत संवाद साधून शेतकऱ्यांचे अनुभव जाणून घेतले गोगलगाय वेचणी करताना हातमोजे वापरावेत तसेच गोगलगाईच्या व्यवस्थापनासाठी सामूहिक प्रयत्न करून उपाययोजना करण्याचे आवाहन केले. कृषी सहायक पंडित कांबळे यांनी शेतकऱ्यांना रुंद वरंबा तंत्रज्ञानाचा अवलंब करून पेरणी करण्याचे आवाहन केले. उपविभागीय तंत्रज्ञान समन्वयक शिवप्रसाद येळकर यांनी सोयाबीन पिकामधील खोडमाशी व्यवस्थापनासाठी अझाडिरॅक्टिन २.५ टक्के अधिक थायोफिनेट मिथाईल ११.२५ टक्के अधिक थायामेथोक्सम २५ टक्के एफएस या संयुक्त घटकांशक व कीटकनाशकाची ५ मिली प्रति १ किलो बियाणे याप्रमाणे बीजप्रक्रिया करण्याची माहिती दिली. प्रगतिशील शेतकरी गोविंद जाधव यांनी मागील वर्षी गोगलगाय व्यवस्थापनासाठी केलेल्या उपाययोजनांचे अनुभव उपस्थित शेतकऱ्यांसमोर कथन केले.कार्यक्रमाचे सूत्रसंचालन मंडळ कृषी अधिकारी सतीश नारायणकर यांनी तर नियोजन कृषी सहायक किशोर आडागळे यांनी केले. यावेळी कृषी विभागाचे संबंधित गावातील अधिकारी कर्मचारी तसेच शेतकरी मोठ्या संख्येने उपस्थित होते.

किसान
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कमी खर्चाचे पाणी साठवण हौद शेतकऱ्यांसाठी उपयुक्त-व्ही.चारी

अंबाजोगाई (प्रतिनिधी) अंबाजोगाई शेतकरी कुटुंबाने लघु व्यवसाय उभारणीस अल्प दरात कर्ज प्राप्तीसाठी कॅनरा बँक व पंजाब नॅशनल बँक यांच्याद्वारे वित्तीय कर्जाचा लाभ घ्यावा व कौटुंबिक विकास साधावा असे प्रतिपादन राष्ट्रीय पीछडा वर्ग वित्त व विकास निगम (छडउक्ड्ढ) नवी दिल्ली चे वरिष्ठ व्यवस्थापक व्ही. चारी यांनी केले. दीनदयाल शोध संस्थान, कृषि विज्ञान केंद्र, डिघोळआंबा यांच्या माध्यमातून एन.बी.सी.एफ.डी.सी. यांच्या सौजन्याने बीड जिल्ह्यातील पाच तालुक्यातील अकरा गावांमध्ये उभारलेल्या एकूण १८ नारळ काथ्या-सिमेंट निर्मित जमिनीखालील पाणी साठवण हौदाचे पाहणी त्यांनी केली. याप्रसंगी जलबर्धिनी प्रतिष्ठान मुंबईचे अभियंते उल्हास परांजपे, नाना पालकर समितीचे प्रमुख डॉ. अमर बहादुर ठाकूर, कृषी विज्ञान केंद्राचे प्रमुख व वरिष्ठ शास्त्रज्ञ डॉ. वसंत देशमुख, कृषि अभियंता प्रमोद रेनापूरकर उपस्थित होते. या नारळ काथ्या - सिमेंट हौदातील पाण्याचा उपयोग करून अनेक शेतकऱ्यांनी भाजीपाला, फळझाडे जोपासत पशुधनाच्या पाणी पिण्यासाठी व घरगुती वापरही केल्याचे पाहून चारी यांनी समाधान व्यक्त केले.

शेतकऱ्यांनी स्वावलंबी होण्यासाठी प्रयत्नशील राहावे असे सांगून एकत्रित येऊन प्रगत तंत्रज्ञानाचा वापर करून स्वत:चा व एकंदरीतच ग्राम विकास साधावा असे आवाहन ठाकूर यांनी केले. प्रत्येक शेतकऱ्याकडे पाणी साठवणुकीची व्यवस्था असावी या हेतूने कमी खर्चाच्या नारळ काथ्या सिमेंट निर्मित पाणी साठवन तंत्रज्ञानाचे हे संशोधन केले असून बीड जिल्ह्यातील विविध अल्पभूधारक शेतकऱ्यांकडे कृषी विज्ञान केंद्राच्या माध्यमातून उभारणी केल्याचे परांजपे यांनी सांगितले. वापुढील काळात बदलत्या वातावरणाच्या परिस्थितीवर मात करण्यासाठी जलसाठे निर्मितीसाठी फेरो सिमेंट तंत्रज्ञानावरही भर देणार असल्याचे डॉ. देशमुख यांनी सांगितले.

संकेत

मानवी आरोग्य अबाधित राखण्यासाठी सैंद्रिय शेती काळाची गरज-डॉ.बसंत देशमुख

मानवी आरोग्य अबाधित राखण्यासाठी...

त्यापासून जास्तीत जास्त नफा कसा मिळेल याविषयी शेतकऱ्यांना मार्गदर्शन केले. यावेळी ओम प्रकाश वायबसे यांनी शून्यमशागत तंत्रज्ञान याविषयी शेतकऱ्यांना मार्गदर्शन केले कार्यक्रमाचे अध्यक्ष म्हणून ऑ.प्रमोद मुळे सरपंच हे उपस्थित होते यावेळी उपसरपंच राजेंद्र जगताप, नवनाथ यादव, शिरीष घनगाव आणि गावातील शेतकरी मोठ्या प्रमाणावर उपस्थित होते. कार्यक्रमाचे प्रस्ताविक गोपीनाथ पवार तालुका तंत्रज्ञान व्यवस्थापक माजलगाव यांनी केले व आभार चेतन तौर मुख्य कार्यकारी अधिकारी विश्वबलभ शे.उ. कंपनी यांनी मानले.

Prominent Visitors & Views

आज दिनॉक 13.09.2023 को उपजिलाधिकारी महोदय, राजापुर, चित्रकूट के साथ विद्यालय का निरीक्षण किया। विद्यालय की साफ–सफाई व्यवस्था अच्छी पायी गयी। भोजन कक्ष में सभी छात्र भोजन कर रहे थे। छात्रों को परोसा गया भोजन अच्छा था। सभी शिक्षक उपस्थित थे। विद्यालय का शैक्षणिक वातावरण गुणवत्तापूर्ण पाया गया। ड्रापआउट छात्रों के काउन्सलिंग किये जाने के निर्देश दिये गये। भोजन हाल में एक्जास्ट पंखे लगवाये जाने के निर्देश दिये गये। कुल मिलाकर विद्यालय का शैक्षणिक वातावरण एवं अन्य व्यवस्था गुणवत्ता पूर्ण है। हम उनके उज्जवलभविष्य की कामना करते हैं।

श्री प्रमोद कुमार झा, उपजिलाधिकारी, राजापुर चित्रकूट उ0प्र0,
श्री ज्ञानेन्द्र सिंह भदौरिया, जिला समाज कल्याण
अधिकारी चित्रकूट उ0प्र0,13 सितम्बर 2023

आश्रमशाला के पुरातन छात्र एवं अभिभावक सम्मेलन में सम्मिलित होने का सुअवसर प्राप्त हुआ। कार्यक्रम अवलोकन निश्चित रूप से सराहनीय है। बच्चों को ढेर सारी शुभकामनाएं तथा सभी स्टाफ सदस्यों को धन्यवाद।

जिला शिक्षा अधिकारी सतना 22 दिसम्बर 2023

जन शिक्षण संस्थान के द्वारा संचालित स्वावलम्बन हेतु प्रशिक्षण केन्द्रों के माध्यम से ग्रामीण भारत समृद्धि की दिशा में अग्रसर हो रहा है। यहाँ के सभी प्रबन्धक, शिक्षक व अन्य सभी कार्यकर्ता बधाई के पात्र हैं। ईश्वर सभी को और अधिक क्षमतावान, ऊर्जावान और कुशल बनने के लिए अपना आशीर्वाद प्रदान करें, ऐसी प्रार्थना है।

श्री सुधीर कुमार, अ.भा. संगठन मंत्री,
राष्ट्रीय सेवा भारती, नई दिल्ली

जन शिक्षण संस्थान के द्वारा प्रशिक्षण का कार्य ग्रामीण क्षेत्र में किया जा रहा है। यह एक स्तुत्य उपक्रम है। इसके द्वारा प्रशिक्षित युवा एवं युवतियों को स्वावलम्बी होने में बहुत मदद मिल रही है। इस कार्यक्रम को हार्दिक शुभकामनाएँ।

डॉ0 सतीश महाजन, उप अधिष्ठाता,
जवाहरलाल नेहरू मेडिकल कालेज सावंगी, मेघे, वर्धा

जे.एस.एस. का विजिट काफी अच्छा रहा। यह जानकर प्रसन्नता हुई कि पं0 दीनदयाल और नानाजी के विचारों को किस प्रकार धरातल पर उतारा जा सकता है। आभार एवं अभिनन्दन।

श्री अखिल सिंह, ऋषिहुड विश्वविद्यालय, सोनीपत,
हरियाणा

KVK is doing a great job in incubatory various breeds of locally relevant crops. The technology experiments including acroponics, greenhouse and vermicompost are really true demonstration of capable of KVK staff. I wish all success to KVK.

Mr. Ved Mani Tiwari, CEO/NSDC 9773754141,
20.08.2023

It is really inspiring model for our society, rising human values and life goals.

Mr. Subhash Chandra Pandey 9466993456, 20.08.2023

Had the privilege of visiting DRI-Deendayal Research Institute, KVK Chitrakoot and Majhgawan, M.P. Have been hearing about his esteemed institute for many years conceptualized & instituted by Hon. Nanaji Deshmukh. In the heartland of dainty filled jungles this was started to conserve save & develop new variety for forests. The hard work & R & D, the new concept development is exemplary working the best as the role its new India is important.

Jai Kumar Rawal Dondaigha,
(MLA, Ex Minister, Govt. of (Maharashtra)
Distt. Dhule Maharastra, 23.08.2023

Beautiful introduction and very communicated skill. The best JSS. I have ever run, Best of luck.

Mr. Vedmani Tiwari, CEO, NSDC

K.V.K. is organizing lab to land programme in very extensive manner by covering agriculture, horticulture, animal husbandry sector. All the programmes are giving direct benefit to farmers to improve their livelihood and production performance by using technology provided and given by KVK, Majhgawan. Excellent contribution of all scientist of KVK Majhgawan running by D.R.I. Chitrakoot.

Dr. Bakul Lad, Asstt. Manager,
M.P. State Biodiversity Board, Bhopal
9644004105, 11.11.2023

आज दिनांक 06.06.2023 को तुलसी कृषि विज्ञान केन्द्र गनीवां में अनुसूचितजाति एवं अनुसूचितजनजाति के गरीब किसानों हेतु विशेष कृषि यंत्रों का वितरण किया गया। गरीब किसानों को स्वावलम्बी एवं आत्मनिर्भर बनाने हेतु भैंसो का वितरण किया गया। साथ में उ0प्र0 सरकार जलशक्ति मंत्री तथा साथ में दीनदयाल शोध संस्थान के संगठनमंत्री श्री अभय जी महाजन भाईसाहब का आर्शीवचन प्राप्त हुआ। श्रद्धेय नानाजी के द्वारा स्थापित इस कृषि विज्ञान केन्द्र से क्षेत्र के किसानों को नई दिशा देने का कार्य हुआ है। श्रद्धेय नानाजी देशमुख को सादर श्रद्धा सुमन अर्पित है ।

मा0 आर0 के0 सिंह पटेल, सांसद, बांदा–चित्रकूट 06 मई2023

आज दिनांक 8/5/2023 को दीनदयाल कृषि विज्ञान केन्द्र गनीवां चित्रकूट का भ्रमण करने का मौका मिला। इस कृषि विज्ञान केन्द्र के बारे में 10–15 साल से सुनने में आ रहा था कि ये के0वी0के0 एक यूनिक के0वी0के0 है। इसका आभास मुझे आज हुआ। यह शहर से 35 कि0मी0 दूर एक देहात में बसा है। इसके सभी वैज्ञानिक एवं कर्मचारी इस देहात में रहकर किसानों को मजबूत करने के लिए काम कर रहे हैं जिसका परिणाम अब दिखने लगा है। मैं इस के0वी0के0 के सभी वैज्ञानिकों एवं कर्मचारियों के साथ सुन्दर भविष्य की कामना करता हूँ।

डा. संजय सिंह, महानिदेशक, उपकार, लखनऊ 08 मई 2023

आज 06.06.2023 को तुलसी कृषि विज्ञान केन्द्र, गनीवां में आकर देखा कि संस्थान यहां किसानों को आत्मनिर्भर बनाने की दिशा में लगातार कारगर साबित हो रहा है । कृषि क्षेत्र में केंद्र मील का पत्थर है।

मा0 रामकेश निषाद, जलशक्ति मंत्री उत्तर प्रदेश सरकार 06 जून 2023

Dr. Tripathi your KVK is really very informatics and knowledgeable. We all scientist learn a lot very nice demonstration especially women empowerment and entrepreneurship training for development of rural youth girls. I really congratulate you for your efforts and my best wishes for your further plan.

Dr. Sammuel Deepak Me Carty
Head & Sr. Scientist, KVK, Praygraj 10 August 2023

किसानों को केन्द्र रखकर एक स्वयं में सक्षम एवं कुशलतंत्र बनाकर कैसे देश में विकास से ग्राम्य भारत कैसे कदमताल कर सकता है इसकी एक झलक मिली। सराहनीय एवं ज्ञानवर्धक विजिट रही।

श्री चक्रपाणी त्रिपाठी, एडिशनल एसपी, चित्रकूट 28 सितम्बर 2023

प्रभु श्रीराम का जीवन जैसा, हमारे हृदय में पहले से परिकल्पित था, उससें भी बेहतर, आस्था के अनुरूप साकार कर मन को प्रफुल्लित कर साधुवाद स्वरूप आप सभी को सतत विचारधारा आस्था, शाश्वत धर्म, नर नारायण सेवा हेतु कार्य इसी तरह करते रहें ऐसी कामना एवं आर्शीवाद।

संत श्री मदन दिंगबर गिरी महाराज 26.2.2024

सनातन संस्कृति रामराज्य ग्रामोदय के द्वारा समस्त नागरिकों को पवित्र आचरण से ही सम्भव है। यह दूरदर्शिता भारत के राष्ट्रऋषि नानाजी देशमुख जी के हृदय में मिलती गहराई से अंकित है यह देखकर आनंद से भर गया। जाने अनजाने में वही कार्य कर रहा हूँ जो नानाजी के हृदय में व कर्म मे ंथा।

ऋतेश्वर जी महाराज 29.2.2024

Sri Mahendra Singh Sisodia Gramin Vikash Mantri U.P

Hon'ble Governor of M.P. Sri Mangu Bhai Patel ji

Sri Ramesh Pokharial Nishank Ex CM Uttarakhand

Shri Bala Ji Sarkar, Balaji Dham, Chhatarpur

Distinctions and Achievements

This report includes research and developmental activities carried out at our projects in the field and laboratories. Our Institute efficiently channelized its research endeavors towards various problems of rural masses. We successfully executed various projects granted by Government agencies. During its existence of over five decades, the DRI, as it is commonly known, the Institute has done pioneering research on various issues and subjects touching rural lives. Impact occurs when research generates benefits (health, economic, cultural) in addition to building the academic knowledge base. Its mechanisms are complex and reflect the multiple ways in which knowledge is generated and utilised. Much progress has been made in measuring both the outcomes of research and the processes and activities through which these are achieved, The results achieved are always unique, astonishingly successful and even amazing some times. All this was and is possible with due participation of the common man, the beneficiary of the projects.

Since 1991, our projects and interventions, that are measurable, sustainable and replicable, are particularly focused on agriculture (particularly doubling farm income), climate resilient agriculture/forestry, income generation and financial stability, water and sanitation, health and knowledge co-creation, and these are being actively replicated in Beed and Gonda.

Having worked amongst villagers on a holistic model of development for over 50 years, The Institute in these days also engaged in the Documentation of Cultural Practices and traditional wisdom around WATER and NUTRITION to reinforce their emotional and cultural bonding with the society. The Institute also hopes to take lead worldwide for the dialogue on SDGs by hosting and curating a Global Platform for proven interventions that help achieve the SDGs through the participation of our beneficiaries, community-based organisations, extension workers and their experiences at the grassroots, as well as experts and practitioners to contribute wholly to global knowledge on meeting the 2030 Agenda.

3rd International SDG Conference held from the **25th to 27th of February 2024 at** Chitrakoot discussed "LiFE Society to accelerate the achievement of the Sustainable Development Goals' as well as interventions and solutions for SDGs 2 and 4, in the context of the LiFE Society, with all stakeholders from the village to the Administration to policy makers and Institutions involved in the planning and implementation of schemes and interventions. The 3rd International Conference on SDGs is our ongoing effort at building local to global linkages and accelerating the progress toward the SDGs.

As Bhārata heralds the 'Amrit Kaal', an era of national rejuvenation, Prime Minister Shri Narendra Modi has emphasized the importance of 'atmanirbharta' and 'janbhagidhari' time and again. A billion plus strong society that is in the throes of rediscovering its lost civilizational ethos, is at this moment also deeply inspired by an echoing reminder of its history, culture, traditions and its vast heritage. Through his public outreach efforts and initiatives, PM Modi has attempted to traverse across the culture and history of Bharata and take his ideas of governing a rising India to the people in the farthest corners of the nation. **Deendayal Research**

Institute (DRI) through the joint endeavours of the **Bharath Gyan** and **Bṛhat** and ably supported by the team at the **Capacity Building Commission** has started working on the development of the NIGAM Model (New India Governance Assessment Model), which follows the line of vision of an *atmanirbhar bharata* and aims to aid the attempt to assess and enhance governance anchored in civilizational wisdom and the varied lived experiences of the people of India.

The Institute has done pioneering research and published a Coffee Table Book based on the cultural traditions and practices of nutrition, titled **'Poshan Utsav'**. The book provides a detailed scientific analysis of how nutrition was ensured in the country, especially through Prasad at various temples. 'Poshan Utsav' is a comprehensive documentation of the traditional wisdom vis-à-vis food and nutritional practices across the country. It's the outcome of a painstaking research of our researchers and volunteers over the last few years. This emanates from the wisdom of our countrymen, particularly those in the villages. They articulate this wisdom through their cultural practices - through social customs, rituals, festivals, prasad, and more widely through folk songs, folklores, etc. We have given a pictorial and textual expression to this wisdom through this coffee table book, in Hindi and English. ***Poshan Utsav*** is a celebration of food and nutrition in India. It captures the art and spirit of sharing nutrition with one and all, drawing from Bharat's traditional wisdom and cultural practices. The book describes how nutritional wisdom is beautifully manifested in social customs, rituals, folk songs, folklore, festivals and other forms of cultural expression, through which knowledge and skills are passed from one generation to the next.

Our National Award Winning Krishi Vigyan Kendras (KVKs), that also act as a nodal agency for the Self Reliance Campaign. At DRI's KVKs, motivated agriculture scientists provide support to over 418 Krishi Gyan Doots or model farmers in person, via call and through village level meetings. Through practical cost-benefit related advice for income-generation, weather updates and other advisories, we have earned the trust and support of drought impacted farmers and other stakeholders. DRI is also at the forefront of promoting and conserving traditional varieties of seeds, indigenous breeds of livestock and seed banks.

Deendayal Research Institute has enhanced list of its partners. The prominent among them are ICAR, Ministry of Agriculture, SFAC, Ministry of Tribal Affairs, ICCR & IGNCA, Ministry of Culture, Sewa International, Capacity Building Commission of India, KIIT and various universities. We also acknowledge the cooperation of various ministries, organizations and people for their support in our endeavors. The following MoUs have been signed with various organizations:

- MoU signed with Indian Institute of Technology (IIT), Roorkee for collaborative Research, Training and Education for promoting rural infrastructure and Livelihood enhancement of Rural Communities and also for promoting Incubation and startups in Natural Resources, Water and Agriculture.

- MoU signed with Rani Laxmi Bai Central Agricultural University (RLBCAU), Jhansi for academic research, student training, extension education, social activities and cultural interactions.
- MoU signed with Culture Department of Govt. of U.P. for running Tharu Museum at Imalia Kodar (Balrampur) and R&D in preserving folk arts, culture and artisanship of Tharu tribe on 4th September 2023.
- MoU signed with Veterinary Welfare Trust of Indian Veterinary Association for Research and Development on Livestock sector, Agriculture and Allied Activities on 21 March 2024

DRI, with its large presence in rural India has been designing and developing innovative and cost-effective models that are measurable, sustainable and replicable. Health, income generation and social work are our strength and catalysts in the transformation toward self-reliance villages. The interventions aim for total transformation through total participation of all the village households, irrespective of age and gender, to give the villagers a sense of belonging, ownership and responsibility.

Atul Jain
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