



2024

Volume: 03

Issue: 02

April-June

Content

- ❖ Technologies Evaluated
- ❖ Event Organized and Visits Made
- ❖ Publications/Awards/Invited Lectures

Chief Editor
S.S. Singh
Director Education Extension

Editorial Board:
Shridhar Patil
Brij Bihari Sharma
Pavan Kumar
Sanjeev Kumar
Alka Jain

From the Vice-Chancellor Desk



The size of the Indian economy is currently USD 3.60 trillion. India, with the vision of Viksit Bharat@2047, is poised to become a developed nation by 2047. India is on track to become the world's third-largest economy, with a goal of reaching a USD 30 trillion economy by 2047. Achieving the vision of a 'Viksit Bharat' by 2047 will require 7.6 % of GDP growth and 4.9% of agricultural growth. Agriculture, which is the backbone of the rural economy, can play a significant role in achieving Viksit Bharat vision. It is estimated that even if India's overall GDP and agri-GDP growth rates keep rising as they have during the last 20 years, it is likely that by 2047, agriculture's share in overall GDP may drop to just 7-8% despite engaging more than 30% of the workforce. Therefore, more people need to shift from primary crop production activity to secondary agriculture and other allied activities. The development of skills among rural people is critical for India's rapid growth and urbanization. To step up the agricultural growth rate, we must enhance investment in the agricultural R&D sector, increase area under high value crops, strengthen the agri-value chains, promote agri-entrepreneurship, develop skills among youth for undertaking agri-allied productive activities, enhance resource use efficiency, improve crops' abiotic and biotic stress tolerance capacities in light of changing climate, and develop efficient ICT-based agri-extension systems. Long-term sustainable development also requires efforts to manage soil health, sustain water sources, and promote water-saving techniques in agriculture. Road of Viksit Bharat must envision holistic approach integrating sustainable production, productivity, nutrition, environment and human development.

In this regard, Rani Lakshmi Bai Central Agricultural University has taken several steps, including initiating certificate programs in secondary agriculture and allied activities, developing ICT-based extension models, breeding for stress resistance in crops, helping FPOs in the development of value chains and market linkages, etc. I am confident that with improved planning, coordination, and farmer engagement, the university will make significant contributions towards achieving the goal of Vision Viksit Bharat@2047.

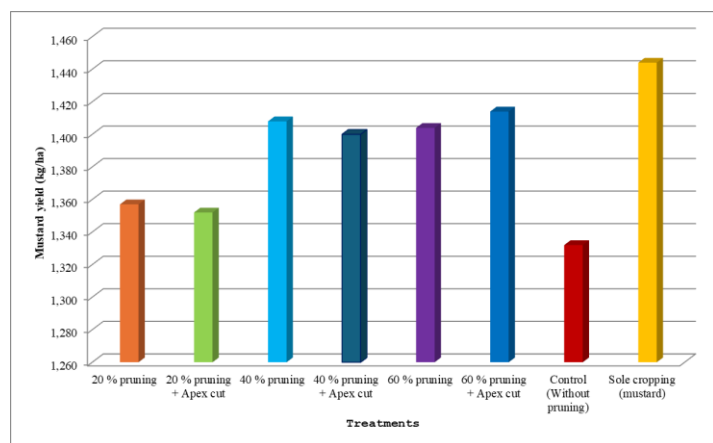


Vice-Chancellor



❖ Performance of mustard under different pruning in neem plantation

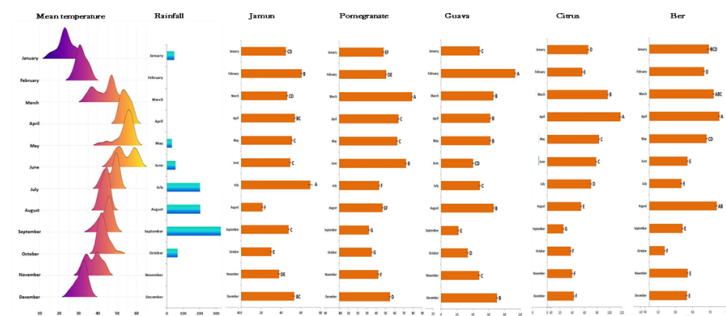
Mustard (cv Giriraj) was evaluated under neem plantation with different pruning management techniques, i.e., 20% pruning, 20% pruning + Apex cut, 40% pruning, 40% pruning + Apex cut, 60% pruning and 60% pruning + Apex cut and these were compared with treatments of control (without pruning) and sole cropping (mustard). Significantly higher mustard grain yield was reported in sole cropping (1,444 kg/ha) compared to control (without pruning) (1,332 kg/ha), 20% pruning (1,357 kg/ha) and 20% pruning + Apex cut (1,352 kg/ha) only (Ram Prakash Yadav, Amey S. Kale, Pavithra BS, Prabhat Tiwari & Manmohan J Dobriyal).



❖ Study of soil microbial biomass carbon in perennial orchards

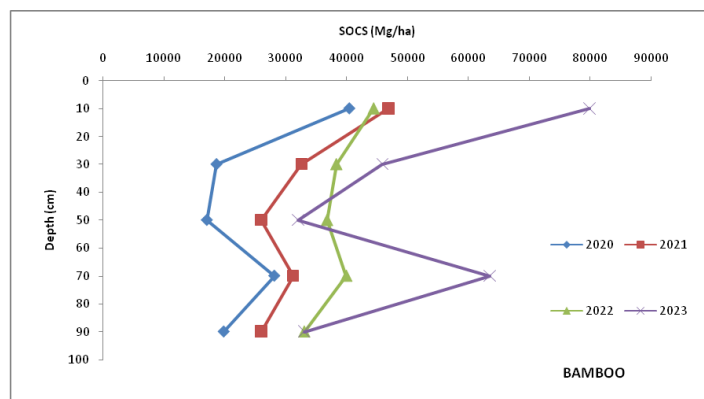
In the experiment, soil microbial biomass carbon (SMBC) was studied in five systems of perennial fruit orchards, namely Jamun, Pomegranate, Guava, Citrus and Ber, every month for a year. Microbial quotients of each system were analysed using soil organic carbon (SOC) data and correlated with mineralisation and immobilisation of nutrients at different times of the year. Other physical and abiotic characteristics like soil texture, bulk density, soil temp., soil moisture, pH, E.C., and rainfall data from meteorological data were observed. The highest SMBC was in April and the lowest in September in almost all the systems. The reason may be high temperatures with no rainfall during April and high moisture with high rainfall, which means poor drainage during September. The microbial quotient gave a more credible idea of soil microbial activity as it considered SOC and SMBC. In all the systems, except pomegranate, the highest microbial quotient was found in pomegranate, though the highest SMBC was in April. The microbial quotient was highest in December, which indicates low SOC content and higher immobilisation potential at this time of the year. A higher microbial quotient means higher microbial activity with low SOC. Therefore, this study analysed the time of the year when the highest microbial quotient was in different

systems. Organic matter like FYM can be incorporated during high microbial quotient values to maintain optimum mineralisation of nutrients in soil throughout the year. This will minimise the chances of immobilising nutrients carried out by microbes and maintain uniform availability of nutrients to the trees (Y. Bijilaxmi Devi, Ranjit Pal, Arpit Suryawanshi).



❖ Effect of various recently established agroforestry systems on soil health.

In the experiment, Neem-based, *Anjan*, and Bamboo agroforestry systems were studied continuously for four years. Soil samples from five different depths (up to 100 cm) were taken from all these systems during December of each year. Soil samples were processed for analysis in the laboratory. Various soil parameters like SOC, SOCS, DHA, sand%, silt% clay%, etc., have been analysed in the laboratory for all these samples. The objective was to study the overall properties of soil of different systems in different depths, select the best indicative parameter using principal component analysis, and calculate the soil quality index of each system each year. After carrying out a principal component analysis of all 14 soil parameters, the three best indicators from each year were chosen, and the soil quality index was calculated using the selected indicator. Overall, all three systems showed relatively stable soil quality index in various depths over the years. Long-term Bamboo agroforestry systems showed an increasing soil quality index in deeper soil layers over the years. Irrespective of depth and system, SOCS increased over the years of plantation and to a maximum in surface soil (Y Bijilaxmi Devi, Swati M Shedage, Susheel K Singh, and Manmohan J Dobriyal).



RLBCAU Hosts International Potato Center (CIP) Director General for collaborative agriculture initiative

The University welcomed esteemed guests Simon Heck, Director General of CIP, and U.S. Singh, Consultant, for a two-day visit to explore collaborative opportunities in agricultural research and development. The visit, spanning April 22-23, 2024, commenced with a formal introduction and felicitation by RLBCAU's Vice Chancellor, A.K. Singh. U.S. Singh initiated discussions with an overview of global and Indian perspectives on root and tuber crops, setting the stage for Simon Heck's presentation. Heck, delivering a lecture under the Atal Jai Vigyan Lecture series showcased CIP's ongoing research initiatives on tuber crops. He highlighted the organisation's efforts in resource-efficient farming practices, climate-resilient crop varieties, and the nutritional benefits of crops like orange-fleshed sweet potatoes and iron-rich varieties.



A.K. Singh expressed RLBCAU's keen interest in collaborating with CIP to enhance research and developmental activities focused on sweet potatoes, potatoes, and taro in the Bundelkhand region. The interactive session on April 23 featured presentations by RLBCAU's experts, including S.K. Chaturvedi, Director of Research, who emphasised the region's potential for promoting potato, sweet potato, and taro cultivation. U.S. Singh shared success stories from CIP-affiliated institutes, highlighting the development of biofortified and climate-smart crop varieties. Key discussions also included S.S. Singh's insights into RLBCAU's extension activities for tuber crops and V.P. Singh's perspective on utilising sweet potato vines as fodder to enhance animal health. Manish Srivastav, Dean of the CoH&F, highlighted research advancements in germplasm collection and genetic improvement tailored to the Bundelkhand region's climatic conditions. Addressing challenges in the horticulture sector, Manish Srivastav underscored issues such as water scarcity, poor soil fertility, and inadequate infrastructure. A.K. Singh emphasised RLBCAU's commitment to enhancing seed production and promoting high-yielding, nutri-dense

varieties of tuber crops. He identified the region's low cropping intensity and abundant fallow lands as opportunities to bolster food security and increase farmer incomes. The visit concluded with Simon Heck and U.S. Singh expressing optimism about initiating joint research projects and collaborations. A.K. Singh reiterated RLBCAU's focus on fostering partnerships that promote sustainable agriculture, food security, and economic growth in the Bundelkhand region. The visit by CIP's leadership marks a significant step towards leveraging international expertise to address local agricultural challenges. RLBCAU looks forward to future collaborations with CIP to advance agricultural innovation and development in tuber crop cultivation.

❖ One-day Brainstorming Session on Sustainable Horticulture Development in Bundelkhand

A brainstorming session on "Sustainable Horticulture Development in Bundelkhand" was organised on April 27 to mark RLBCAU's decade-long establishment at the University. S.K. Chaturvedi, DR, welcomed everyone and provided an overview of the programme. He mentioned that the growth and development of the horticulture section in the Bundelkhand region have vast potential. Manish Srivastav gave a presentation on "Horticulture research and development in Bundelkhand." He highlighted the critical challenges in the horticulture sector in this region – particularly the problem of water scarcity, lack of irrigation facilities, small landholding of the farmers, poor soil fertility status, poor marketing system, lack of availability of quality inputs, non-availability of processing industries, etc. T. Damodaran, Director of ICAR-CISH, Lucknow, and Chief Guest Major Singh, Member of ASRB, New Delhi, delivered keynote addresses. A.K. Singh, gave the presidential address. The panel discussion, chaired by Major Singh and co-chaired by T. Damodaran, featured esteemed scientists discussing fruit, vegetable, and floriculture cultivation strategies (Manish Srivastav, S.K. Chaturvedi, Gaurav Sharma, M.J. Dobriyal, R.K. Singh, Brij Bihari Sharma, and Manoj Kundu).



❖ 27th Atal Jai Vigyan Lecture

The lecture, held at the University campus on April 22, 2024, focused on the pivotal role of root and tuber crops in enhancing food security and driving economic growth. The event featured Simon Heck, the Director General of the International Potato Center (CIP), Peru, as the chief guest, alongside U.S. Singh, former and founding director of the South Asia Regional Centre. Anil Kumar, DE highlighted the importance of root and tuber crops in the agricultural landscape. A.K. Singh graced the program and reinforced the significance of root and tuber crops in ensuring food security and improving the economic status of farmers. The insights Simon Heck and U.S. Singh shared provided valuable guidance for future research and policy initiatives (Shubha Trivedi, Sharwan Shukla, Y. B. Devi & Vaibhav Singh)



❖ World Environment Day

On June 05, 2024, the day was celebrated enthusiastically at the University. The event featured a "Land restoration, desertification, and drought resistance symposium." Hon'ble VC, A.K. Singh, presided over the event. He emphasised the holistic nature of the environment, highlighting its interconnected cycle that includes humans, animals, trees, air, and water. The event's chief guest, A. Arunachalam, Director of the ICAR-CAFRI, mentioned that 26 resolutions were taken on the first World Environment Day, which is being pursued for completion. Manish Srivastava discussed the environmental damage caused by plastic, microplastics, and polluted air from factories. M.J. Dobriyal discussed the work done globally for environmental protection and the individual responsibility towards it (Rakesh Kumar, RamPrakash Yadav, Prabhat Tiwari).



❖ International Day of Yoga

Under the National Service Scheme (NSS), the University in Jhansi observed the International Day of Yoga on June 21, 2024. A mass yoga demonstration was organized, with participation from all university members, including teaching staff, non-teaching staff, and students. All university statutory officers attended the program. A. K. Singh addressed the gathering, emphasizing the importance of yoga in daily life, equating its necessity to food. Mrs. Ruchi Arora, a yoga trainer from Art of Living, was invited to demonstrate various yoga postures. In the lead-up to the event, a lecture on yoga was organized on June 15, featuring Mr. Dilip Kumar Goswami as the guest speaker. NSS volunteers also organized an awareness rally at the university. For the students, competitions included yoga posture demonstrations and a poster-making contest on "Yoga for Women's Empowerment." The poster-making competition saw active participation from many students. (Gaurav Sharma, R P Yadav, Y. Bijilaxmi Devi, Ashutosh Kumar, Rakesh Kumar, Anita Puyam, Ashutosh Srivastava).



❖ Punya Tithi (Balidan Diwas) of Rani Lakshmi Bai

Balidan Diwas of Rani Lakshmi Bai was observed on June 18, 2024, paying homage to the fiery queen of Jhansi, who sacrificed her life for the cause of our country's freedom. The university's National Service Scheme (NSS) unit organized the program under the guidance of A. K. Singh. The university, named after the heroic Rani, is a testament to her contributions to the nation. On the Balidan Diwas, the Hon'ble VC, along with the statutory officers of the university, paid floral tribute to Rani Lakshmi Bai's statue on the campus. Homage was also paid by lighting diyas around the statue. The queen was remembered through the recitation of the poem, 'बुंदेलेहरबोलो के मुंह हमने सुनी कहानी थी, खूब लड़ी मर्दानी वह तो झाँसी वाली रानी थी.' (Gaurav Sharma, R.P. Yadav, Ashutosh Kumar, Rakesh Kumar and Y Bijilaxmi Devi).



❖ Voter Awareness Rally

Under the guidance of A. K. Singh and NSS Programme Coordinator R.P. Yadav, the university's NSS unit in Jhansi organized a voter awareness rally in Simardha and Bhojla Village on May 18, 2024. The students prepared placards and slogans for the rally and interacted with shopkeepers and villagers, emphasizing the importance of voting and selecting the best candidates for the government. NSS volunteers of RLBCAU attended this program (R P Yadav, Ashutosh Srivastava, Rakesh Negi, Y Bijilaxmi Devi, Ashutosh Kumar, and Anita Puyam).



❖ World No Tobacco Day

The University, under the National Service Scheme (NSS) in Jhansi, observed No Tobacco Day on May 31, 2024. The program was organized under the guidance of A.K. Singh. On this occasion, NSS volunteers conducted an awareness rally to highlight the harmful effects of tobacco. A poster-making competition on the theme "Say No to Tobacco" was also organized, with around 20 students participating (RP Yadav, Ashutosh Srivastava, Rakesh Negi, Y Bijilaxmi Devi, Anita Puyam).



❖ Personal Hygiene for Nomadic Labourers and their Children

On June 22, 2024, the NSS unit organized an in-campus program on personal. Essential sanitary items, including hand sanitisers, clothes, soaps, slippers, and oral hygiene kits, were distributed to promote the children's health and well-being. The event was graced by A. K. Singh, statutory officers, staff, NSS coordinators, officers, and volunteers, making it a commendable day. During the event, A. K. Singh commended the NSS volunteers for their dedication and compassion in organizing the program. He highlighted that this initiative not only addresses the immediate sanitary needs of the children but also fosters awareness about the importance of personal hygiene and health. (RP Yadav, Ashutosh Srivastava, Rakesh Negi, Y Bijilaxmi Devi, Anita Puyam).



❖ Organization of plantation drive at Gharmau Lake, Jhansi

On the occasion of Environment day and under Puneet Sagar Abhiyan, the University, Jhansi under the aegis of 32 UP Girls battalion NCC, Jhansi organized tree plantation drive at Gharmau Lake, Jhansi on 5th June . In this program 25 cadets from the University, 50 cadets from Bundelkhand University, Jhansi and 25 cadets Arya Kanya College, Jhansi participated and planted 100 saplings of Karanj (Pongamia pinnata), Shisham (Dalbergia sissoo), Kasod (Cassia siamea) and Gulmohar (Delonix regia) on the periphery of lake. Anita Puyam along with 25 NCC cadets from RLBCAU, Jhansi participated in this programme.



❖ SPARSH Investiture Ceremony

RLBCAU, Jhansi, celebrated the investiture ceremony of SPARSH-Students' Platform of Ag Resources Sustainability for Humanity on 10th May. The event honoured the SPARSH and e-SPARSH committees of the 2022–23 batch for their outstanding contributions and inducted the new committee for the 2023–24 batch, marking the transition of responsibilities with the presentation of SPARSH badges. A. K. Singh, P.L. Gautam, former VC of GBPAUT, Pantnagar, and Anupama Singh, JD Academic, graced the occasion, along with Anil Kumar and other statutory officers of the university. The ceremony underscored the importance of holistic development and active participation in extracurricular activities organized through various clubs.



❖ Employer Round Table Meet “Manthan”

The University in collaboration with Medha Foundation organized the Meet "Manthan" on June 15, 2024. The event aimed to provide students with insights into industry expectations and skill set requirements while discussing strategies for addressing challenges budding entrepreneurs and startups face. Academia, industry leaders, and students shared insights and discussed current trends, challenges, and best practices. A. K. Singh emphasized the importance of consistency, determination, and a willingness to take calculated risks in developing business skills and establishing successful startups. Representatives from the RISE Incubation Center Jhansi, various startups, seeds and pesticides industries, banking agencies, and statutory officers of RLBCAU actively participated in the discussions.



❖ Youthscape Green Fellowship

On June 18, 2024, the 12-month Youthscape Green Fellowship was launched for students of RLBCAU, Jhansi. This fellowship aims to help students currently studying at the university convert their business ideas into viable businesses. Selected students will receive support through skill training, mentorship, incubation, and funding. It was conducted online by A. K. Singh, Medha co-founder Byomkesh Mishra, and Education Director Anil Kumar. The fellowship will also support the National Young Innovators Conclave in December. Anil Kumar emphasized the diverse challenges in the entrepreneurial journey and the importance of innovation in agriculture and related sectors (Ghanshyam Abrol, Chandra Bhushan Singh, and Deep Shikha).

❖ Annual workshop on the Cost of Cultivation Scheme

The cost of Cultivation Scheme (C.S.) under the Directorate of Extension Education, RLBCAU, organised a three-day workshop from 27th-29th June 2024. Seventy-one field functionaries from different selected *tehsils* of U.P., along with all field supervisors and asst. statistician, were registered on the opening day of the workshop, along with handing and checking of previous agricultural year (2023-24), Record Types (R.T.'s) and receiving of new R.T.'s for AY(2024-25). AK Singh emphasised the pivotal role of the C.S. Scheme in determining the minimum support price (MSP) for crops in India. SS Singh, Nodal Officer, reported that the scheme operates in 150 villages across 75 *tehsils* of U.P. Field officer; D.V Singh provided a comprehensive overview of Agricultural Cost Planning, noting that the scheme has been operational since 1971.



❖ Master Trainer Orientation Program on Agroforestry System and Forestry Policies

A Trainer Orientation Program was organised under the aegis of the MoEF & CC-USAID Trees Outside Forests in India (TOFI) Program from June 24th - 28th, 2024. The program was undertaken to train 70 individuals on various topics, including agroforestry systems, Indian forest policies and regulations, carbon market, and nursery management (Manmohan Dobriyal and Forestry faculty).

❖ 4th Extension Education Council Meeting

Rani Lakshmi Bai Central Agricultural University, Jhansi, organised the Fourth Extension Education Council Meeting on June 22, 2024 under the chairmanship of A.K. Singh. S. S. Singh, DEE, welcomed the council members. Subsequently, the council confirmed the third Extension Education Council meeting proceedings. Afterwards, Shridhar Patil, Asso. Prof. presented the action taken report of the previous year (2022-23). S. S. Singh presented the details of extension activities carried out by the University during the last year and also briefed the council about future action plans. Detailed deliberations were held on the action taken report, extension activities carried out by the university, and the proposed action plan for 2024-25.



❖ Fisheries College Students Visit Raikwar Fish Seed Hatchery

On May 15, 2024, first-semester students from the Fisheries College, RLBCAU, Jhansi, visited Raikwar Fish Seed Hatchery in Narayanbagh, Jhansi. During this visit, the students received comprehensive information about various activities related to fish seed production. These activities included administering injections to the fish, maintaining brooders and small fish (spawn), nursery management, fish food management, handling eggs produced in the brooder tank, understanding different species of fish, maintaining fish seed, using various types of fishing jars, catching fish in ponds using jars, and transporting fish seed. The students observed and understood all the activities thoroughly. The director of the hatchery production unit, Akash Raikwar, played a crucial role in making this visit successful (Nilesh Kumar, Sanjeev Kumar and Charan Singh Kushwaha).



❖ Educational Tour to IISWC, Datia

On June 3, 2024, the first year Ph.D. of forestry (SAF) visited the Indian Institute of Soil and Water Conservation, Datia. The students had the opportunity to interact with experts from various fields within the institute and learn about soil and water conservation methods. During the field visit, the students observed rain gauges check dams, spillways, contour bunds, etc. Following the field visit, K. Rajan, Principal Scientist (Soil Science) and I/C Head, delivered a lecture (Y Bijilaxmi Devi and Garima Gupta).



❖ Exposure visit to the CWC, Jhansi

The B.Sc (Ag.) students from the University visited the Central Warehousing Corporation (CWC) in Jhansi to gain practical insights into post-harvest management and storage techniques. The visit allowed students to observe the receiving process of agricultural produce, learn about quality checks and record-keeping, and see integrated pest management practices in action, including pheromone traps and eco-friendly measures (V. David Chella Baskar, Prince Kumar).



❖ 3-Day AR-VR Students' Sensitisation Workshop

A three day AR-VR students' sensitisation workshop was organised in collaboration with NAHEP- ICAR-IASRI from 12-14 June 2024 at RLBCAU. 36UG/PG students benefited from the workshop and received certificates. The workshop aimed to empower students with valuable knowledge and hands-on experience regarding the diverse functionalities of Virtual Reality (V.R.) kits. In addition, special lectures were conducted by IASRI on the various modules developed for educational extension purposes by IASRI-RAES (Anil Kumar, S.S.Kushwaha, Alka Jain, Shailender Kumar).



❖ 4-Day training on Principles and Functioning of Global Positioning System (GPS)

The CoH&F conducted a four-day training programme on from 6th to 9th May 2024 for the frontline staff of the UP Forest Department Bundelkhand zone. The event was organised under the patronage of A.K. Singh. Manish Srivastav and M.J. Dobriyal coordinated the training. Participants were trained in remote sensing technology, satellite imagery interpretation, and remote sensing applications in forest management. Hands-on sessions covered GPS/DGPS software usage, aiming to improve data accuracy and streamline forest management practices. The programme included addresses by distinguished guests, including KK Singh, IFS, CCF, Bundelkhand Zone, and A. Arunachalam, Director, ICAR-CAFRI (Pavan Kumar, Pankaj Lavania).



❖ Five day National training program on “Marketing and Value Chain-based Strategies for Agroforestry Products in India ”

RLBCAU Jhansi and MANAGE partnered to conduct a five-day online training program from May 27-31, 2024. The program targeted stakeholders and extension functionaries from Bundelkhand, attracting over 500 registrations, with 120 participants selected. The inaugural session featured A.K. Singh and P. Chandra Shekara, DG of MANAGE. The training focused on educating participants about agroforestry's market importance, future needs, and economic contributions. It aimed to raise awareness among students, faculty, NGO workers, and stakeholders about agroforestry-based

business potential. Participants gained essential tools and knowledge for enhancing agroforestry product marketing and value chain management. The collaboration between RLBCAU and MANAGE was pivotal to the program's success, with positive feedback indicating a significant impact on participants' professional growth and commitment to sustainable agricultural practices. (Prabhat Tiwari, V.David Chella Bhaskar & R.P.Yadav)



❖ FLD-Aerobic Rice

Team members of FLD-Aerobic Rice under ICAR-IIPR SCSP programme scheme visited Badagaon, Jhansi and distributed seeds of *Sahbhagi Dhan* to 18 farmers on June 15, 2024. In this scientist-farmer interaction cost and benefit ratio, the importance of plant protection chemicals, including pre and post-emergence, etc., were discussed. Soil samples were also collected for further analysis from the farmer's field. Farmers were encouraged to grow aerobic rice compared to transplanted rice as it needed less water and positively impacted soil structure (Gunjan Guleria, Y Bijilaxmi Devi, Alka Jain, Prince Kumar, Kuleshwar Prasad Sahu).



❖ FLD-Animal Husbandry

An FLD was organised on June 20, 2024, CoV&AS on Animal Husbandry in the village Aari of Jhansi where mineral mixture, calcium and vitamin supplements were distributed to small and marginal 40 S.C. farmers under

(SCSP-IIPR Kanpur). In the extension programme, all the newly joined faculty of CoV&AS also participated and briefed farmers about the significance of macro and micro minerals and encouraged them to give regular mineral mixtures to dairy animals as they are crucial to the metabolic processes that sustain the growth, development, immune system function, production, reproductive efficiency and also reduces inter-calving period and prevents metabolic diseases like milk fever in dairy animals (P.K. Soni, Gaurav, Amit Singh Vishen and faculty of CoV&AS).



❖ FLD-Millet

Millet quality seeds and inputs were distributed to 150 farmers for FLDs during 10th to 12 June 2024. Seeds and inputs were distributed to 100 farmers in village Pathakarka, of Mauranipur, Jhansi. Sorhum variety CSV-15, Bajra hybrid HHB67-I and Kodo variety ATL-1 were given to farmers on per acre basis. Quality seeds of Sava (barnyard millet) variety CO KV-2 along with inputs were distributed to 50 farmers of village khajraha bujurg, Jhansi. Kisan ghoshti was also organized and farmers were given training on all aspects of millet cultivation including sowing time, field preparation, seed rate, fertilizer application etc.



❖ FLD-Sesame (AICRP)

To promote sesame cultivation in Bundelkand region and for enhancing farmer's income through quality seed production, seed of sesame variety RT-351 was distributed to the farmers on 18th and 25th June, 2024. Under the programme

50 farmers from Aari, Keshavpur, Hastinapur and Kotbehta villages of Jhansi and 46 farmers from Tindra, Terai, Bamhour, Udgua and Daulata villages of Lalitpur district were selected (Shubha Trivedi, Usha Maurya, Vaibhav Singh, Shiv Vendra Singh and T.T. Meetei)



❖ FLD-Mungbean

Under SCSP Quality Seed Project for Kharif 2024, Mungbean seed of Virat variety (6 kg for 1 acre) was distributed to 360 farmers among S.C. community under SCSP Quality seed project of village Behata, Kot, Imaliya, Amanpura, Chaoukri, Sakrar, Bhitaura Babaltada, Virgua, Palinda, of Jhansi district during June and July months. Farmers were encouraged to grow mungbean crops as they would get higher prices in the market due to the high MSP of Rs 8,558/- per quintal through the high-yielding mungbean variety of Virat. The seed of mungbean of Virat variety was given to the 150 SC farmers in summer as it can be a good fit for a short variety and matures in around 55 to 60 days.

❖ University participation at Joint Kharif production Gosthi 2024

Joint Kharif production Gosthi was organized at Pt. Deendayal sabhagaar Jhansi on 20th June 2024 by district Agriculture department, Jhansi, UP. The occasion was graced by Hon'ble Agriculture minister, UP, Shri Surya Pratap Shahi. Different stakeholder including farmers, FPO representatives, women entrepreneurs and scientist from different institutes joined the occasion. Agricultural scientist Yogeshwar Singh, P P Jambhulkar, Rumana Khan and Anil Kumar Rai represented the university during the Joint Kharif production Gosthi.



❖ Training-cum-demonstration of Bundeli Krishi Vipnan mobile application for SHGs

The University has developed its first mobile application under the NABARD-funded project entitled “Integrated Platform for Agripreneur: A Force Multiplier Forum of Farmers-Consumers-Entrepreneur”. This programme on mobile application was organised among the members of SHGs on July 24, 2024, at Mahroni, Lalitpur, U.P., where more than 70 SHGs women members participated. During this programme, the features and functionalities of the application and the necessary skills to utilise the app effectively for agricultural marketing were emphasised. During the programme, the women downloaded the application on their mobile devices using the Q.R. code and from the Google Play Store. Rajesh Sahu, Gajendra Singh Bundela, Rohit Kumar, etc., were other notable persons present as liaison officers (Sanjeev Kumar, Shailendra Kumar, Tanuj Misra, Saurabh Gaur).



❖ Training-cum-demonstration of Bundeli Krishi Vipnan Mobile Application for FPOs

This training on this mobile application was organised among the members of FPOs/ NGOs/ Progressive farmers on July 26, 2024, at Cooperative Bank Ltd. Sabhagaar, Orai, Jalaun, U.P., where more than 75 FPO members/progressive farmers participated. During this programme, the features and functionalities of the application and the necessary skills to utilise the app effectively for agricultural marketing were emphasised. A farmers-scientist interaction session were also organised. Paritosh Kumar, DDM, NABARD, Lalitpur, Praveebn Jaudoan, Sahkari Bharti; Ram Prakash Daudauriya, Kisan Club Federation; Rajendra Singh Bhaudauriya, Upendra Singh Rajawat were other notable attendees (Sanjeev Kumar, Shailendra Kumar, Tanuj Misra, Saurabh Gaur).

❖ Pilot Study under ICSSR Funded Research Programme

Under the ICSSR Funded Research Program, “Dynamics of Women in Agricultural Livelihood in Bundelkhand Region”, a Pilot study and focused group discussions (FGDs) was carried out on June 11, 2024, at village

Birguan, Badagaon Jhansi. Fifteen women farmers aged 20-75 participated in the group discussion. The study and group discussion aimed to test a tentative questionnaire prepared for the ICSSR women farmers’ survey. The women actively participated in the group discussion. (Alka Jain, David Bhaskar, Ashish Gupta).



❖ Three days residential farmer’s training programme on “Honeybee keeping”

During 01-03rd May, 2024 at RLBCAU, Jhansi campus funded by RKVY, U. P. Under this training programme 50 farmers benefitted from around seven villages (Khurampur, Mauranipur, Madori, Nagri, Ranipur, Magarwara and Khitwas) of Jhansi, Lalitpur and Tikamgarh district. Experts delivered lectures on different topics of Beekeeping such as identification of different species of honeybee, morphology, caste and biology, apiary site selection, bee flora, inspection of bee colony, artificial feeding bees and bee poisoning, controlling, swarming, hive inspection, formation identify and diagnosis the insect pests and diseases of honey bees, knowledge about beekeeping equipments and their uses, extractions of beepollen, extraction of beeswax and extraction of bee propolis, etc. (Usha, Yogendra Kumar Mishra, V. K. Mishra, Sundar Pal, D. B. Ahuja and Hari Chand).



Farmers Advisories

क्र. सं	सलाह	वैज्ञानिक
अप्रैल - 2024		
1.	पर्यावरण, खेत की मिट्टी का स्वास्थ्य बचाने हेतु गेहूँ की पराली न जलाए	सुशील कुमार सिंह , संदीप उपाध्याय
2.	खाली पड़े खेतों में करें गहरी जुताई	अनिल कुमार राय , योगेश्वर सिंह
3.	गर्मियों में पशुपालकों के लिये सलाह	संजीव कुमार , प्रमोद कुमार सोनी
4.	अभी करें महुआ फूलों का संकलन	स्वाती शेगडे , मनमोहन डोबरियाल
5.	सफेद मक्खी के प्रकोप से ग्रीष्म कालीन मूंग का बचाव करें	योगेन्द्र कुमार मिश्रा , मीनाक्षी आय
6.	वृक्षां के बीज संग्रह उचित समय पर करें	पंकज लावानिया , स्वाती शैडगे
7.	बेमौसम हुई बारिश से खराब हुई गेहूँ की फसल को बचाएं	अनिल कुमार राय , योगेश्वर सिंह
8.	किसान कैसे बढ़ाएं भूमि की उर्वरा शक्ति	सुशील कुमार सिंह, योगेश्वर सिंह
9.	गेहूँ को हुआ नुकसान कम करने की सलाह दी	अनिल कुमार राय , योगेश्वर सिंह
10.	गर्मियों के माह में सब्जियों की करें देखभाल	अर्जुन लाल ओला , गौरव शर्मा
11.	जायद मौसम में कद्दू वर्गीय सब्जियों की कीड़ा से करें सुरक्षा	सुन्दर पाल , अर्जुन लाल ओला
12.	जेठमासी मूंग में करें खरपतवार प्रबंधन , देखभाल	अनिल कुमार राय , योगेश्वर सिंह
13.	मृदा स्वास्थ्य के लिये ढेंचा लगायें किसान	सुशील कुमार सिंह , संदीप उपाध्याय
14.	फसल उत्पादन बेचने की आधुनिक विधि अपनाकर अधिक लाभ उठायें किसान	प्रिस कुमार सोम
15.	भिन्डी , कद्दू वर्गीय सब्जियों में रोग , कीट प्रबंधन	अनीता पुयाम , ऊषा
16.	ग्रीष्मकालीन मूंग को कीटों , रोगों से बचाएं	अनीता पुयाम , ऊषा
मई - 2024		
1.	जायद मूंग में जाला बनाने वाली इल्ली से करें सुरक्षा	सुंदर पाल , अंशुमान सिंह
2.	सन्तुलित पोषक आहार से दुधारू पशुओं को बाँझपन रोग से बचाएं	प्रमोद सोनी , वीपी सिंह
3.	गुणवत्तायुक्त बीजों की व्यवस्था कर खरीफ की तैयारी करें	मनोज कुमार सिंह
4.	गर्मियों के मौसम में वनपौधशालाओं की सिंचाई सुनिश्चित करें	पंकज लावानिया , गरिमा गुप्ता
5.	प्राकृतिक खेती अपना कर मृदा को स्वस्थ बनाएं	संदीप उपाध्याय , सुशील कुमार सिंह
6.	बेकार पड़ी ऊसर भूमि का उचित प्रबंधन करके उपजाऊ बनाएं	उमेश पंकज, पीयूष बबेले
7.	गर्मियों में आवश्यक है पौधों की देखभाल	प्रभात तिवारी
8.	गर्मी , लू से मधुमक्खियों को बचाएं	योगेन्द्र कुमार मिश्रा, सुन्दर पाल
9.	ग्रीष्म ऋतु में पशुओं के प्रबंधन हेतु सलाह	गौरव कुमार, अमित विशेन
10.	मिट्टी की जांच के लिए खेत से नमूना लेने का उचित समय	संदीप उपाध्याय, सुशील कुमार सिंह
11.	खरीफ फसलों के लिए तैयार करें खेत	अनिल कुमार राय, योगेश्वर सिंह
12.	हरी घास के लॉन को भीषण गर्मी से बचायें	गौरव शर्मा, प्रियंका शर्मा
13.	ग्रीष्म ऋतु में मछली पालकों के लिए वैज्ञानिक सलाह	नीलेश कुमार , पार्थ सारथी त्रिपाठी
जून - 2024		
1.	वैज्ञानिक तकनीक से करें गोबर खाद का उपयोग	संदीप उपाध्याय , सुशील कुमार सिंह
2.	तालाबों की सफाई के साथ करें गहरीकरण	अनिल कुमार राय, योगेश्वर सिंह

3.	सफेद मूसली की खेती से अधिक मुनाफा कमाएं किसान	डॉ पंकज लावानिया, डॉ विनोद कुमार
4.	खरीफ फसलों की बुआई के पहले करें बीज परीक्षण	अनिल कुमार राय, योगेश्वर सिंह
5.	वैज्ञानिक विधि से करें सांवा , कोदो की खेती	रूमना खान
6.	बाजरा की उन्नत खेती से लाभ कमा सकते हैं किसान	रूमना खान, शैलजा चौहान
7.	बुंदेलखंड क्षेत्र में मूंगफली की खेती किसानों के लिए	राकेश चौधरी, जितेन्द्र कुमार
8.	बीजों के चयन में सावधानी बरतें किसान	मनोज कुमार सिंह, जितेन्द्र कुमार
9.	कम सिंचाई वाले क्षेत्र में अधिक मुनाफे के लिए करें तिल की खेती	राकेश चौधरी
10.	धान की नर्सरी की तैयारी करें किसान	अनिल कुमार राय , योगेश्वर सिंह
11.	बुंदेलखंड में कम पानी में करें एरोबिक धान की बुवाई	गुंजन गुलेरिया , योगेश्वर सिंह
12.	समय से करें खरीफ मक्के की बुवाई	मनोज कुमार सिंह, शैलजा चौहान
13.	जलवायु परिवर्तन के अनुसार करें खरीफ फसलों का चयन	अनिल कुमार राय, योगेश्वर सिंह

Radio Talk

क्र. सं	विषय	विशेषज्ञ	दिनांक
1.	जायद की फसलों में कीट प्रबंधन	विजय मिश्रा	10 April 2024
2.	मधुमक्खी पालन, आवश्यक उपकरण एवं व्यवसाय का एक उत्तम पर्याय	उषा	09 May 2024

Research Papers Published

- ❖ Gautam Jamra, Soma Ghosh, Nidhi Singh, Manas Kumar Tripathy, Aparna Aggarwal, Reema Devi Rajan Singh, Ashish Kumar Srivastava, Anil Kumar, Girdhar K Pandey (2024). Ectopic overexpression of *Eleusine coracana* CAX3 confers tolerance to metal and ion stress in yeast and Arabidopsis. Plant Physiology and Biochemistry.
- ❖ Ajay Kumar Chandra, Dinesh Pandey, Salej Sood, Dinesh Chandra Joshi, Apoorv Tiwari, Divya Sharma, Kavita Gururani, Anil Kumar (2024). Uncovering the genomic regions underlying grain iron and zinc content using genome-wide association mapping in finger millet. 3 Biotech.
- ❖ Jain, A. (2024). The Changing Face of Everyday Communication: Emojis As Catalysts. *Journal of English Language Teaching*, 66(2), 39–43. Retrieved from UGC CARE listed Journal <https://journals.eltai.in/index.php/jelt/article/view/JELT660207>
- ❖ Jackson, K., Changade, N., Meetei, T. T., Devi, H. S., Devi, Y. B., & Bokado, K. (2024). Study soil organic carbon dynamics and its different pools in maize crop (*Zea mays* L.) under different agricultural practices in the Punjab, India semiarid region. *Journal of Applied and Natural Science*, 16(2), 713-721. (NAAS rating – 5.42).

Book Chapters

- ❖ Shashi Prakash Singh, Madhu Rani, Annu Devi, Rashmi Kumari, Moshahid Alam Rizvi, and Anil Kumar (2024). Overview of Mitophagy. Mitophagy and Its Role in Health and Disease.
- ❖ Rashmi Kumari, Madhu Rani, Siya Ram, Moshahid Alam Rizvi, and Anil Kumar (2024). Mechanisms and Role of Mitophagy in Neurodegenerative Diseases. Mitophagy and Its Role in Health and Disease.
- ❖ Madhu Rani, Rashmi Kumari, Moshahid Alam Rizvi, Siya Ram, and Anil Kumar (2024). Mitophagy in Carcinogenesis and Cancer Therapy. Mitophagy and Its Role in Health and Disease.
- ❖ Annu Devi, Madhu Rani, Shashi Prakash Singh, Rashmi Kumari, Asmita Bharti, Moshahid Alam Rizvi, and Anil Kumar (2024). Mitophagy and Stem Cells. Mitophagy and Its Role in Health and Disease.

Book

- ❖ Anil Kumar, Manoj K Tripathi, Devbandha Mahapatra, Ashwani Kumar (2024). AdhbhutPoshak Shree Ann - Ek Gatha Utpadanevam Mulya Samvardhan Ki. Satish Serial Publishing House. ISBN 9789395700320.
- ❖ Alka Jain's (2024). Food For Thought.

Invited Lectures

- ❖ Alka Jain presented a paper, "Addressing individual differences in the digital classroom environment." The abstract was published in the conference proceedings at MATS University, Raipur.
- ❖ Anil Kumar was invited as a Chief Guest. He delivered a lecture in the valedictory function of the training program on "Basic Statistical Tools in Agroforestry, Soil and Water Conservation Research" organised by ICAR-CAFRI on April 10, 2024.
- ❖ Yumnam Bijilaxmi Devi delivered a lecture on 'Role of Biotic Components in Organic Farming' during 30 days International Agriculture Training-cum-Workshop on Prime Minister and Ministry of Agriculture scheme and Agriculture Vision 2050 on April 29 2024 jointly organised by Hindustan Agricultural Research Welfare Society.

Farewell

- ❖ Mukesh Srivastava, The Registrar, retired from the present assignment at RLBCAU, Jhansi, on April 06, 2024
- ❖ Dean of Fisheries Bijay K Behera joined the National Fisheries Development Board, Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, GoI, Hyderabad as CEO.

Joining

- ❖ Manish Srivastav, Dean, College of Horticulture and Forestry-19th April 2024.

College of Veterinary & Animal Sciences, Datia

- ❖ C. S. Patil, Asso. Prof. Animal Genetics and Breeding (AGB)
- ❖ Aditya Kumar, Asso. Prof. Veterinary Anatomy
- ❖ Vivek Kumar Singh, Asso. Prof., Veterinary Biochemistry
- ❖ Vinod Kumar Singh, Asso. Prof., Veterinary Microbiology (VMC)
- ❖ Pramod Kumar Soni, Asst. Prof., Animal Nutrition
- ❖ Gaurav Kumar Veterinary, Asst. Prof., Physiology
- ❖ Amit Singh Vishen, Asst. Prof., Veterinary Anatomy
- ❖ Sushmita Nautiyal, Asst. Prof., Veterinary Microbiology (VMC)
- ❖ Prasanna Vadhana A, Asst. Prof.,
- ❖ Pashupathi M Veterinary, Asst. Prof., Biochemistry
- ❖ Divyanshu Singh Tomar, Asst. Prof., Livestock Production & Management (LPM)
- ❖ Nripendra Pratap Singh, Asst. Prof., Livestock Production & Management (LPM)

College of Fisheries, RLBCAU, Datia

- ❖ Abhishek Shrivastav, Asso. Prof., Dept. of Aquaculture
- ❖ Anuj Tyagi, Asso. Prof., Dept. of Aquatic Animal Health Management
- ❖ Neelesh Kumar, Asst. Prof., Dept. of Aquaculture
- ❖ Partha Sarathi Tripathy, Asst. Prof., Dept. of Fisheries Resource Management (FRM)
- ❖ Tanuj Mishra, Asst. Prof., Dept. of Fisheries Ext. and Statistics (Computer Science)
- ❖ Ganesh Kumar T, Asst. Prof., Dept. of Aquatic Environment Management (AEM)
- ❖ Girija Behere, Asst. Prof., Dept. of Fish Processing Technology (FPT)
- ❖ Sudhanshu Raman, Asst. Prof., Dept. of Aquaculture

