



1. TECHXCHANGE 2024: Empowering Industry with Innovation

In a pioneering initiative aimed at fostering agricultural innovation, the ZTM & BPD unit of the Indian Agricultural Research Institute (IARI) hosted "TechXchange 2024 - Empowering Industry with Innovation" on April 30th, 2024, at the BP Pal Auditorium, Pusa Campus, New Delhi. The main objective of the event was the formal signing of a Memorandum of Agreement (MoA) between the ZTM & BPD unit of IARI and over 100 seed companies, primarily from UP, Punjab and Haryana, for the licensing of the revolutionary HD 3386 Wheat Variety. Eminent personalities, including Dr. T.R. Sharma, Deputy Director General (Crop Science), ICAR, as Chief Guest and Dr. D.K. Yadav, ADG (Seed), ICAR, as Guest of Honor, graced the occasion. Dr. A.K. Singh, Director of IARI, along with Dr. Viswanathan Chinnusamy, Joint Director (Research) and Dr. Gopala Krishnan, Head, the Division of Genetics, were among the esteemed guests.

The event commenced with a ceremonial lamp lighting by Dr. T.R. Sharma, Dr. D.K. Yadav, Dr. A.K. Singh and Dr. V. Chinnusamy, setting a solemn tone. Dr. Akriti Sharma, CEO & Incharge of PUSA Krishi, ZTM-BPD, ICAR-IARI, delivered the welcome address, paving the way for the introduction of HD-3386 by Dr. P.K. Singh. Dr. A.K. Singh elaborated on the strategic policy framework regarding the commercialization of high-demand crops, emphasizing the role of small seed producers in disseminating impactful technologies.



Highlights

- TechXchange 2024
- Agri India Meet 4.0
- Parichay 2024
- IP Management
- Technology Commercialization
- Incubation Programs – Upja, Arise & Shitij
- MoU with EIP, ISBA and PIEDS
- Meetings & Visits
- News & Awards



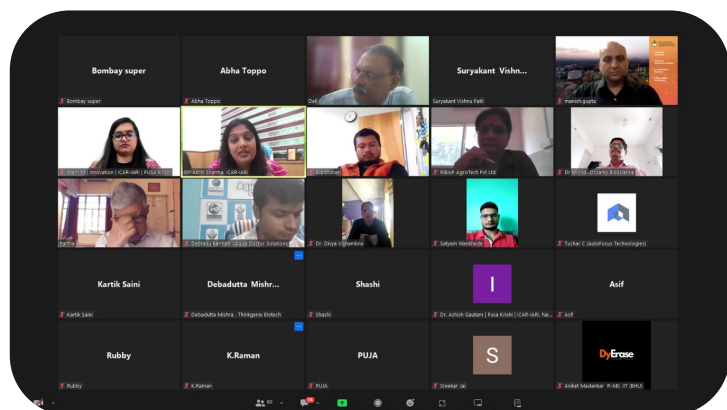
Dr. D.K. Yadav commended the tireless efforts of ICAR-IARI scientists in developing groundbreaking crop varieties, foreseeing their potential to empower farmers and align with national agricultural goals. Chief Guest, Dr. T.R. Sharma, underscored the collaborative efforts required for technology dissemination, applauding IARI's effective role as both technology developer and disseminator. The event concluded with the MoU exchange ceremony, symbolizing the formalization of partnerships between the ZTM & BPD unit and over 100 seed companies.

2. AGRI INDIA MEET 4.0

The fourth edition of the Agri India Meet took place on 10th May 2024, focusing on the theme "Disrupting Agriculture Value Chains: Power of Supply Networks & Logistics." The panel featured distinguished figures including Dr. Partha R DasGupta, Advisor Emeritus at the Syngenta Foundation, who provided insights into the subject - Revolutionizing Agriculture Supply Chains, specifically delving into innovations and strategies within seed systems.

Shri. Dinesh Kumar Kapila, former Chief General Manager at NABARD, talked about Redefining Rural Finance to catalyze the transformation of agricultural value chains, emphasizing the significance of accessible financing and strategic investment. Shri. Manish Gupta, AVP, Deepak Fertilizers and Petrochemicals, assumed the role of moderator for the panel discussion, offering insightful reflections on Input Marketing and Fresh Produce Supply Chain within the Agri Startup Ecosystem. The program hosted by Ms. Manisha Mani from PUSA Krishi, provided attendees with valuable insights into the intricacies of navigating supply chains and marketing dynamics within the agricultural startup landscape.

Furthermore, Dr. Akriti Sharma, CEO of PUSA Krishi, highlighted the pivotal role of PUSA Krishi as an incubation center, shedding light on its contributions to fostering innovation and entrepreneurship in the agricultural sector. The event provided a platform for stakeholders to engage in meaningful discussions, exchange ideas, and explore avenues for collaborative innovation aimed at driving positive change within agricultural value chains.



3. PARICHAY 2024 – STARTUP MEET & GREET EVENT



PUSA Krishi, ICAR-IARI, hosted 'Parichay 2024,' an event that brought together startups, experts and partners from the agriculture and innovation space for a day dedicated to collaboration and growth. Held on 13th May 2024, at the Virology Hall, Plant Pathology Division, the event was thoughtfully designed to foster meaningful connections and showcase the incredible work being done by startups under the Department of Science & Technology's (DST) SHITIJ program.

The day featured insightful discussions, networking opportunities and a chance for over 20 agri-startups to present their innovative solutions. With an enthusiastic crowd of investors, incubation partners, and industry experts, these startups had a platform to not only share their vision but also engage with potential backers to take their ventures to the next level.

Eminent dignitaries like Dr. Viswanathan Chinnusamy, Joint Director (Research), IARI and Mr. Shardul, Scientist-C & Under Secretary at DST, lent their expertise and support to the event, encouraging the entrepreneurial spirit in the room. Incubation partners like EIP, Social Alpha, FAAD, Equity360 and Pedal Start also played a key role in making the event a success by connecting startups with valuable resources and guidance. They have always brought to PUSA Krishi's startups - the invaluable expertise and resources, offering not just financial backing but also mentorship, market access and strategic guidance to help these startups scale their innovations and make a tangible impact in the agricultural sector.

Parichay 2024 wasn't just an event—it was a celebration of collaboration, innovation, and the shared commitment to shaping the future of agriculture. From showcasing cutting-edge products to creating real opportunities for growth, it was a day that inspired both the participants and the wider agri-business community.



4. IP MANAGEMENT

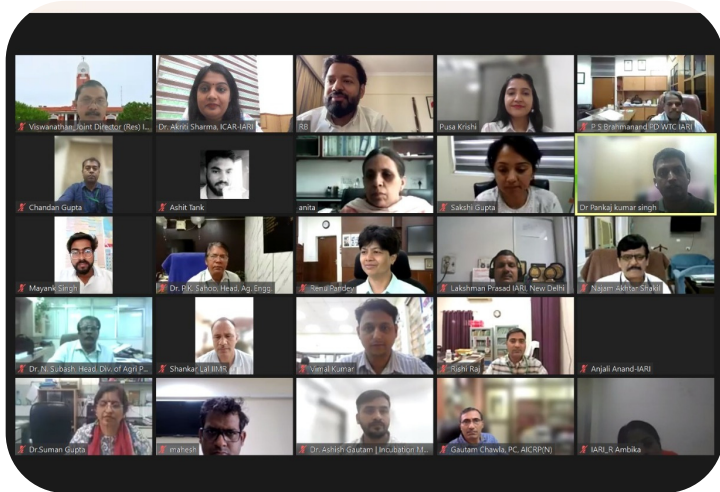
Pusa Krishi plays an active role in Intellectual Property Management of ICAR-IARI. Details of patents, copyrights and trademarks filed, renewed and approved from April to June 2024 are as follows;

IPRs	Application No	Name of Innovation	Date	Status
Patents (4)	2024I1029084	Rapid Nucleic Acid Extraction from Crude Samples for The Detection of Filamentous Fungi in RPA Assay	April 2024	Filed
	2024I1033343	A Rapid, Sensitive, Specific & Field Deployable Diagnostic Process for Chilli Leaf Curl Virus	April 2024	Filed
	2024I1038851	Handheld Nitrogen Assessment & Prescription Device & Method thereof for Cereal Crops	May 2024	Filed
	2024I1043525	Zinc Loaded Bentonite Polymer Based Controlled Release Formulations for Perpetual Zinc Supply SSAC	June 2024	Filed

IPRs	Name of Innovation	Name of Innovator	Date	Status
Copyrights (6)	Pusa N doctor	Dr. Praveen Upadhyay	April 2024	Filed
	Sugar Coaster	Dr. Veda Krishna	May 2024	Filed
	Drought Predictor	Dr. R. Dhandapani	May 2024	Filed
	Nitrogen Assessment	Dr. Manojit	June 2024	Filed
	Wings of Agri Innovate Book	Dr. Neeru Bhooshan	June 2024	Filed
	Startup Book	Dr. Neeru Bhooshan	June 2024	Filed

4.1. Webinar on “Intellectual Property Rights–Promoting Innovation and Creativity for a Sustainable Future”

The ZTM & BPD Unit at IARI hosted a webinar themed “Intellectual Property Rights: Fostering Innovation and Creativity for a Sustainable Future” on the occasion of World IP Day i.e., on 26th April 2024. With over 70 attendees, including Dr. C. Viswanathan, the event provided a forum for insightful discussions. Dr. Akriti Sharma, CEO of Pusa Krishi & ZTM BPD Unit, inaugurated the session, highlighting the significance of IP rights in nurturing innovation. Dr. Viswanathan underlined the important role of IP rights in safeguarding the interests of innovators as well as artists. Renowned patent expert, Mr. Rahul Bagga discussed various aspects of intellectual property rights (IPR), with an emphasis on sustainability in innovation. His adept storytelling and illustrative examples, like CRISPR technology, resonated with the audience, igniting enthusiasm for environmental friendly innovation. The webinar ended with an interactive Q&A session, fostering a vibrant exchange of ideas on the convergence of intellectual property, innovation and sustainability.



5. TECHNOLOGY COMMERCIALIZATION

Tech commercialization plays an important role in making the technologies reach the end users in an effective and faster manner. ICAR-IARI develops technologies with substantial commercial potential that are ready to use by businesses. Under the Lab to Land Initiative, from April to June, 24 technologies from ICAR-IARI were commercialized to 135 industry partners, generating a total revenue of ₹2.56 crore, setting a new record.

5.1. ITMC Meeting

The Institute Technology Management Committee (ITMC) meetings are held to evaluate research outcomes, manage intellectual property portfolios, identify inventions that require protection under intellectual property rights (IPR) and set terms and conditions for the commercialization of new technologies as well as varieties developed by IARI. In the past three months, no ITMC meeting was held.

5.2. Corporate Membership

In the last quarter, the Unit enrolled 9 new industry partners for membership and renewed the membership of 17 existing industry partners, resulting in a revenue generation of ₹1,45, 000.

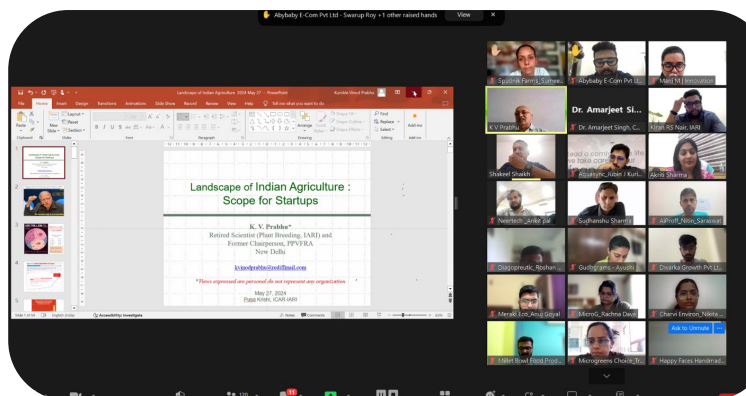
6. INCUBATION ACTIVITIES

6.1. UPJA & ARISE 2024 launched on 1st April

Pusa Krishi, IARI, launched its special startup incubation programs UPJA & ARISE on 1st April, 2024. These programs are meticulously crafted to empower aspiring entrepreneurs by equipping them with essential resources, mentorship, funding, and guidance crucial for turning their innovative ideas into thriving ventures. Under UPJA, a startup can receive funding up to Rs. 25 lakhs while under ARISE, a startup can get funding up to Rs. 5 lakhs. This year, we have extended our support to entrepreneurship-driven students, offering selected candidates Rs. 4,00,000 to develop their products. Furthermore, these programs are open not only to candidates specializing in agriculture but also to individuals from various educational backgrounds who have innovations applicable to agriculture. A total of 1337 applications were received for both the programs, out of which 130 applicants were selected by the pre selection committee for one-month training and mentoring session.

One-month training & mentoring was held from 27th May to 27th June 2024

The one-month incubation program of UPJA and ARISE was held from 27th May to 27th June 2024. Under this, the startups were provided expert guidance to ensure technical mentoring and validation, right product-market fit, financial management, IP management, team building, industry connects, business mentoring, pilot opportunities, investment facilitation and right foundation for a sustainable business.



Boot Camps were organized in Delhi – NCR

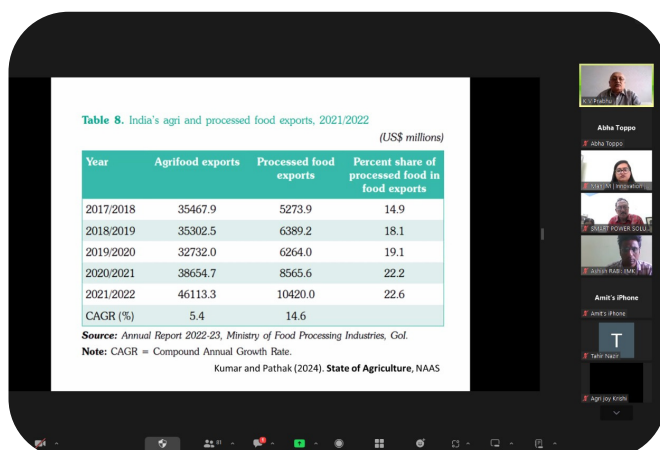
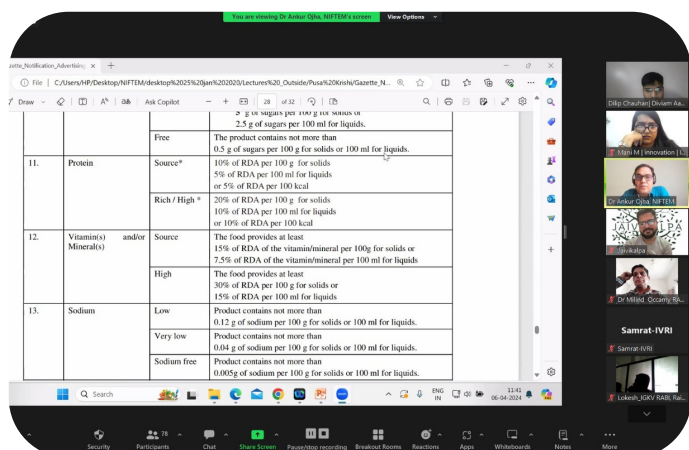
Boot camps were organized in Delhi and NCR with the goal of creating a more personalized and engaging experience for prospective entrepreneurs, to actively involve the student entrepreneurs in the region and provide them in-depth insights into PUSA Krishi's comprehensive incubation programs. These boot camps not only serve as a learning platform but also play a crucial role in nurturing and accelerating the growth of the Agri Startup Ecosystem in India. By directly engaging with student entrepreneurs, a deeper connection can be fostered that can inspire a new wave of innovation and entrepreneurship in the agricultural sector.



Place	Date	Activities Done
Netaji Subhas University of Technology	8th April 2024	 Presentations, quiz and different activities for entrepreneurship development.
PDM, Delhi	9th April 2024	
SGT University	2nd April 2024	
IMS	3rd April 2024	
Apeejay School of Management	8th April 2024	
National Institute of Food Technology, Entrepreneurship and Management	10th April 2024	
Bennett University	12th April 2024	
Indian Agricultural Research Institute	14th April 2024	
Sharda University	16th April 2024	
Lady Sri Ram College	18th April 2024	
Jamia Milia Islamia	24th April 2024	
Doon University	26th April 2024	
Forest Research institute	26th April 2024	



6.2. PUSA Krishi Masterclass Series for RABI Startups



PUSA Krishi's 'Masterclass Series for RABI Startups' under RKVY-RAFTAAR, held online from April 1st to April 12th, 2024, marked a significant milestone in fostering innovation and growth within the agricultural sector. Spanning two weeks, this intensive capsule aimed to empower budding startups with invaluable insights and guidance essential for their journey towards success. Through a series of comprehensive discussions led by esteemed experts from different fields, participants were equipped with a holistic understanding of various facets essential in their growth. As a Knowledge Partner of the Ministry of Agriculture and Farmers Welfare (MoA&FW), PUSA Krishi undertook the responsibility to facilitate startups, including those from the 9 RABI (RAFTAAR Agri Business Incubators) and our incubated startups. The sessions featured distinguished speakers including Dr. K.V. Prabhu, Dr. Alka Arora, Mr. Satish Chandra Chintamani, Mr. Emmanuel Murray, Dr. Ankur Ojha, Dr. Shivam Sharma, Mr. Rajneesh Kumar, Mr. Mittu Tigi etc., who shared their expertise and experiences, offering practical strategies and solutions tailored to the unique challenges faced by agricultural startups. From market trends and technological innovations to funding opportunities and sustainability practices, the masterclass covered a wide array of topics essential for entrepreneurial success in the agricultural domain. Participants had the opportunity to engage in interactive sessions, networking opportunities, and one-on-one consultations, enabling them to forge valuable connections and gain actionable insights to propel their ventures forward. The masterclass series exemplified PUSA Krishi's commitment to nurturing a vibrant ecosystem for agricultural innovation and entrepreneurship, driving positive impact and transformation within the industry. Through collaborative efforts and knowledge-sharing initiatives like these, PUSA Krishi continues to empower aspiring entrepreneurs and contribute towards the advancement of the agricultural sector.

7. COLLABORATIONS TO DRIVE INNOVATION IN AGRICULTURE

7.1. Joined Hands with Evergreen Innovation Platform (EIP)

On June 6th, 2024, Pusa Krishi and Evergreen Innovation Platform (EIP) officially entered into a collaborative agreement aimed at advancing innovation and entrepreneurship in diverse technology domains. This strategic partnership focuses on fostering growth in key areas such as Agriculture, Climate and Sustainability. By leveraging their combined expertise and resources, Pusa Krishi and EIP aim to create a dynamic ecosystem that supports startups through various initiatives. These include rigorous technical validation processes, specialized market access programs and engaging collaborative events. The ultimate goal is to provide fertile ground where startups can flourish, innovate and contribute impactful solutions to pressing global challenges. Through this partnership, both organizations are committed to nurturing and empowering the startup community, driving forward meaningful advancements in technology and sustainability.



7.2 Signed MoU with Pilani Innovation & Entrepreneurship Development Society

On 13th May 2024, PUSA Krishi and Pilani Innovation & Entrepreneurship Development Society (PIEDS), BITS Pilani, came together during the PARICHAY 2024 event to formalize a collaborative partnership. The signing of a Memorandum of Understanding (MoU) marked a significant step towards fostering innovation and entrepreneurship in agricultural technology and allied sectors. With shared objectives, both sides aim to leverage their expertise and resources to drive impactful initiatives that catalyze advancements in agricultural innovation. This partnership signifies a commitment to nurturing a vibrant ecosystem that empowers aspiring entrepreneurs and promotes the adoption of cutting-edge technologies in agriculture. Through collaborative efforts, PUSA Krishi and PIEDS envision a future where innovation flourishes, addressing key challenges and unlocking new opportunities in the agricultural landscape.



7.3 Signed Agreement with Indian STEPs and Business Incubators Association

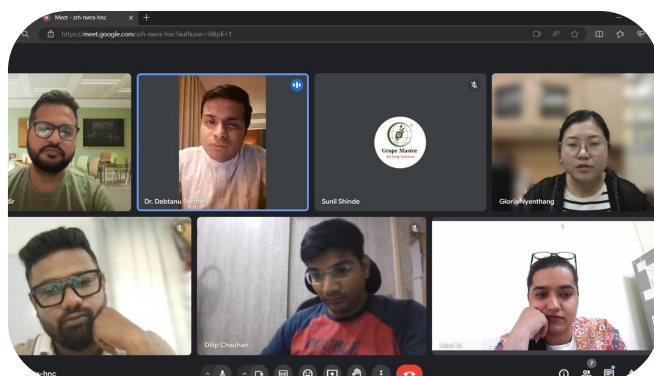
On June 7th, 2024, Pusa Krishi and the Indian STEPs and Business Incubators Association (ISBA) signed an MoU in New Delhi with the aim to foster shared access to mentorship and advisory services, collaborative research & development projects and market research activities. By working together, they will facilitate networking opportunities with startups, entrepreneurs, investors and industry experts. The collaboration will also explore training and educational programs, as well as joint marketing and branding initiatives, all geared towards driving innovation and entrepreneurship in the agriculture industry.



8. STARTUP HANDHOLDING

8.1 Startup One to One Mentoring Session

Pusa Krishi is dedicated to nurturing the growth and success of our startups through a comprehensive One to One Mentoring and Assistance program. This initiative offers personalized guidance and support to budding entrepreneurs, tailored to their specific needs and challenges. Our experienced mentors bring a wealth of knowledge and expertise to the table, helping startups navigate the complexities of the agricultural industry and overcome hurdles along their journey. Through one-to-one sessions, we provide strategic advice, practical insights & valuable networking opportunities, empowering startups to develop innovative solutions, scale their ventures & achieve sustainable impact.



8.2 Provided Office Space & Lab Facility to Startup

In a decisive move to advance agricultural innovation and entrepreneurship, PUSA Krishi has proudly launched a new, top-tier facility designed to provide exceptional office and operational areas for its associate startups. This development is a proof about our commitment to create a dynamic and supportive ecosystem that encourages advancements in the agricultural startup ecosystem.

The innovatively designed space comes fully equipped with the latest in technology and amenities to foster a culture of collaboration and heightened productivity. By establishing this facility, PUSA Krishi aspires to craft a nexus for the exchange of ideas and sharing of resources, positioning its startups for enduring growth. This initiative shows our dedication to weaving together a tight-knit network of support for startups to flourish and our efforts in launching this modern workspace anticipate a bright future for agri-tech innovation within the region. This time an MoU for the same has been signed with the founder of Shroomi Mushrooms- Dr. Gloria Nyenthang.



9. OTHER EVENTS & ACTIVITIES

9.1. SIDBI Co-Incubation Summit for Delhi-NCR Startups

Under the Small Industries Development Bank of India (SIDBI) Cluster Intervention Program, a Co-Incubation Summit was organized on 31st May 2024 at Virology Hall, Plant Pathology Division, IARI, New Delhi in partnership with the Embassy of Israel In India and Indian STEPs and Business Incubators Association (ISBA). The selected 14 startups, each receiving co-incubation support from 5 partner incubators, namely PUSA Krishi, ICAR- IARI, DTU Innovation & Incubation Foundation, NSUT Incubation and Innovation Foundation, Technology Business Incubator – KIET and Indigram Labs Foundation – TBI, supported by DST, Govt. of India showcased their innovations to the panelists that included Israel's Ambassador to India, Mr. Naor Gilon; SIDBI's CGM Mr. Satyaki Rastogi; GM, SIDBI, Mr. Ravindran A Lakshmanan and some prominent investors. Mr. Ravindran AL and Mr. Satyaki Rastogi highlighted the program's innovative activities and the benefits of the co-incubation model for the Delhi-NCR innovation ecosystem, while Mr. Gilon emphasized the complementary strengths of India and Israel in innovation, advocating for more collaborative programs. Three startups were felicitated during the program – Pacing Grass Pvt. Ltd., Chara Bank and Neer Shakti.



With more than 80 participants from the startup, incubator, and investor communities, the summit celebrated co-incubation as a sustainable model for incubation centers. Prior to this, a workshop was held at Pusa Krishi, ZTM BPD unit on 25th April 2024, wherein many startups showcased their innovations to partnered incubators and experts from the Embassy of Israel.



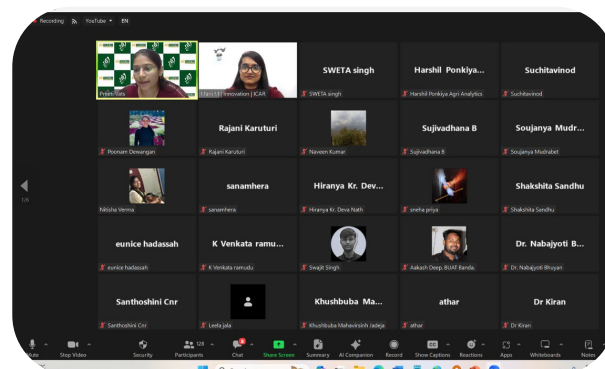
9.2. Students Sensitization Program at PUSA Krishi

Students from the Department of Agri-Business & Rural Management (DAB&RM) at Indira Gandhi Krishi Vishwavidyalaya, Raipur visited PUSA Krishi, ZTM & BPD Unit, IARI on 11th June 2024 wherein they were educated about the technology commercialization and business incubation initiatives of the unit. The session focused on enlightening them about how these activities contribute to bridging the gap between agricultural research and market application. It emphasized the importance of innovation in agribusiness and rural management, showcasing real-world examples of successful commercialization and incubation efforts. The interaction aimed to inspire and equip students with practical insights into transforming agricultural innovations into viable business opportunities, fostering their understanding and interest in entrepreneurial endeavors in the agricultural sector.



9.3. PUSA Krishi Sensitization with Just Agriculture Group

On May 8, 2024, a meeting was conducted with the Just Agriculture Group, where we had the opportunity to introduce over 120 participants to PUSA Krishi's startup incubation programs: Upja, Arise and Shitij. These programs are designed to foster innovation and growth in the agricultural sector by providing crucial support to startups. Manisha Mani represented PUSA Krishi at this event, highlighting how our incubation initiatives can help startups navigate challenges, accelerate development and ultimately contribute to a more sustainable and efficient agricultural industry.



10. NEWS & AWARDS

The awards section highlights the achievements and recognition earned by our vibrant startups. Ranging from industry accolades to community honours, our startups consistently excel and stand out in their respective industries.



Saloni Godbole Tewari, the founder of Occamy Bioscience Pvt Ltd, has been honored with the Entrepreneur Excellence Award 2024 by de Asra. Going beyond the traditional norms, Saloni, leveraging her expertise in microbiology, has spearheaded a groundbreaking initiative in dairy and animal nutrition, reshaping the industry.



Dr. Jagdeesh and Dr. Aprajita Kumari from Fruvetech Pvt. Ltd. received the Award of Excellence from the Ministry of Micro, Small and Medium Enterprises, Government of India Development Forum MASA, which is a Platform for the Recognition of MSME Entrepreneurs & Socialpreneurs.



PhyFarm founder Naveen Singh participated in the SusHi Tech Tokyo 2024 Global Startup Program that was held in Tokyo from 15–16 May, 2024. Several big startups, investors, large corporations, cities and students from Japan and overseas participated and interacted in the two day event. PhyFarm was selected as one of the Hatcher+ Top 100 hashtag#GlobalStartups for June 2024! This prestigious recognition is a testament to their dedication and innovative efforts to transform agriculture with AI-driven solutions.



The CEO & Founder of Gramshree Agri Services Pvt. Ltd., Ms. Aastha Singh was honored with the Women Extraordinary Award by the Times of India, presented by the Secretary of the Agricultural Department, Government of Bihar, Shri. Sanjay Kumar Agarwal, IAS (Bihar 2002). This prestigious accolade solidifies her remarkable impact and influence within the entrepreneurial community.



Aqua Doctor Solutions, has recently signed a Memorandum of Understanding (MOU) with CIFE - the Central Institute of Fisheries Education, Mumbai, aiming to commercialize "Peptide-based Solutions for Male Magur Milt Production without Sacrifice." These pioneering products are poised to catalyze a transformation within the Catfish Hatchery Industry while also contributing to the perspective of biodiversity conservation. This initiative seeks to preserve the germplasm of Desi Magur, marking a significant step towards sustainable aquaculture practices.



From the Editor's Desk



Dr. Akriti Sharma
CEO
Pusa Krishi, ICAR –IARI

Welcome to the latest edition of Taksay – Taknique se Vyavsay. I am delighted to share with our readers the impressive achievements of PUSA Krishi, IARI during the second quarter of 2024.

In the April to June 2024 period, PUSA Krishi has been actively fostering agricultural innovation and entrepreneurship through various impactful initiatives. TechXchange 2024 marked a significant milestone with the formal signing of a Memorandum of Agreement (MoA) between IARI and over 100 seed companies for the HD 3386 Wheat Variety. This event, graced by eminent personalities including Dr. T.R. Sharma and Dr. D.K. Yadav, highlighted our commitment to revolutionizing crop varieties and empowering farmers.

The Agri India Meet 4.0 focused on disrupting agriculture value chains, featuring insightful discussions led by industry experts such as Dr. Partha R DasGupta and Shri. Dinesh Kumar Kapila. This platform underscored the critical role of supply networks and logistics in transforming agricultural practices. 'Parichay 2024,' dedicated to startups incubated under DST's SHITIJ program, provided a vibrant platform for networking and collaboration. The event showcased innovative solutions poised to shape the future of agriculture, reinforcing our dedication to nurturing entrepreneurial talent.

Our robust Intellectual Property Management framework saw significant developments, with multiple patents and copyrights filed during this period. Initiatives like the webinar on World IP Day emphasized the importance of IP rights in fostering creativity and sustainability in innovation.

Through our incubation programs – UPJA & ARISE 2024, PUSA Krishi continues to support aspiring entrepreneurs with funding, mentorship and training opportunities. The one-month incubation program under these initiatives equipped startups with essential skills and industry connections to accelerate their growth. Meanwhile Masterclass Series for RABI Startups provided comprehensive guidance and insights essential for entrepreneurial success in the agricultural sector. Partnering with organizations like PIEDS, ISBA, and Evergreen Innovation Platform further strengthens our ecosystem, fostering collaborative research and development in agriculture and sustainability. Overall, PUSA Krishi's efforts in the last quarter have been instrumental in advancing agricultural technology, promoting sustainable practices and nurturing a dynamic ecosystem for agricultural innovation and entrepreneurship in India.



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