Taksay
Taknique se Vyavsay

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PUSA KRISHI

1. SAMARTH 2024-25: Empowering Agri-Startups & Launch of Techtonic

PUSA Krishi, successfully hosted SAMARTH 2024-25: Empowering the Incubators on 6th-7th November 2024 at NASC Complex, New Delhi. The two-day event fostered collaboration among key stakeholders, incubators and experts, focusing on sustainable innovation in agriculture and provided a comprehensive platform for discussions on market access, funding avenues and impactful stakeholder partnerships to strengthen the agri-startup ecosystem. A key highlight was the launch of Techtonic: Innovation for Climate-Resilient Agriculture, an initiative by Social Alpha, with PUSA Krishi as a strategic partner. Techtonic aims to scout and support cutting-edge agri-tech solutions for small and marginal farmers, bridging the gap between research innovations and market needs. The event featured panel discussions, expert sessions and mentorship interactions, covering topics such as technology-driven agricultural transformation, market access, agri-business incubation best practices, funding strategies and collaborative opportunities.

In This Issue
HIGHLIGHTS

Key speakers and panelists included Dr. R.B. Singh (Chancellor, CAU, Imphal), Mr. Manoj Kumar (Founder, Social Alpha), Dr. R. N. Sahoo (Principal Scientist, Division of Agricultural Physics, IARI), Mr. Satish Chandra Chintamani (Executive Director, IATFM), Mr. V. K. Sharma (Joint Director, RKVY), Dr. K. Suresh Kumar (Executive Director, PSG-STEP), Mr. Prasad Shetty (VP, SINE, IIT-Bombay), Dr. Mrutyunjay Suar (Chairman, Bhubaneswar City Knowledge Innovation Cluster), Mr. Srihari Chity (Integrator-Partnerships, PRADAN), Mr. Onkar Pandey (Director, Livelihoods & Prosperity, Social Alpha), Mr. Kirti Prasanna Mishra (Co-Founder, Ecociate) and Mr. Vikas Mishra (Business Director, EIP) with the sessions emceed by Manisha Mani from PUSA Krishi. SAMARTH 2024-25 concluded with actionable insights, capacity-building workshops and a shared vision for empowering agri-entrepreneurs through strategic partnerships, incubation support, and scalable innovations.

2. Startups' Participation in PUSA Krishi Vigyan Mela 2025

During the Pusa Krishi Vigyan Mela held from 22nd to 24th February 2025, over 30 startups incubated by Pusa Krishi showcased their innovative agricultural solutions. Union Agriculture Minister, Shri Shivraj Singh Chouhan, visited their stalls, exploring the groundbreaking technologies aimed at transforming farming practices. He praised the startups for their role in advancing sustainable and efficient farming methods. The event highlighted how these startups are shaping the future of agriculture by empowering farmers with cutting-edge solutions. This initiative demonstrates the government's support for innovation in the agricultural sector.

3. Pusa Krishi's Startup Accelerator Program

Pusa Krishi- ICAR-IARI, in partnership with HDFC Bank, launched the Startup Accelerator Program on 20th January 2025, designed to empower high-potential agritech startups. With CSR funding of Rs. 1.5 crore, the program offered startups financial support, expert mentorship and valuable networking opportunities to drive innovation in agriculture. Out of 656 applications, 12 startups were shortlisted for evaluation and after a rigorous review, 5 startups were selected for the Cohort 2025, receiving the grant to accelerate their growth. Following this, Pusa Krishi successfully conducted a three-day Startup Capacity Building Program from 17th March to 19th March 2025. The initiative, supported under the HDFC Parivartan Grant Program, aimed to enhance the capabilities of agripreneurs through global networking, industry insights and direct farmer engagement.

The program commenced with the UK-India Agri-Tech Event on 17th March 2025 at Shangri-La Hotel, New Delhi, organized in collaboration with the British High Commission. The event provided a platform for startups to engage with key diplomatic officials, including Mr. Simon McNorton, Head of Science & Technology at the British High Commission. A series of B2B meetings were held between five UK-based agri-tech startups and five HDFC-selected Indian startups, fostering international collaborations and knowledge exchange.

On 18th March 2025, exclusive sessions at IARI with Mr. Ashish Bhargava, Ex-Partner at True North Co., provided startups with valuable insights into market dynamics, fundraising strategies, investor pitching, and business scalability, helping them gain essential tools for growth and sustainability.

The program concluded on 19th March 2025 with a Startup-Farmers Meet at Sungarpur, where entrepreneurs directly engaged with farmers to explore on-ground challenges, technology adoption, and impact-driven solutions. This interaction emphasized practical implementation of agri-tech innovations, bridging the gap between innovation and real-world agricultural practices.

4. Faculty Development Program (FDP) on Innovation & Entrepreneurship

Pusa Krishi, ICAR-IARI, launched a 5-day Faculty Development Program (FDP) on Innovation & Entrepreneurship on Monday, 17th March 2025. Supported by AICTE and the Ministry of Education's Innovation Cell, the program aimed to enhance the capabilities of faculty members and incubation managers to effectively mentor startups.

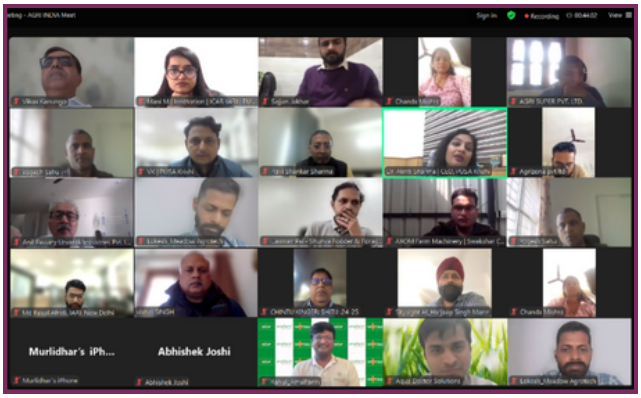
Experts from across India covered a range of topics including cultivating an Entrepreneurial Mindset, Creative Thinking & Idea Generation, Customer Discovery, Value Proposition, Tech Commercialization, Valuation, Pricing & strategies for Pre-Incubation and Incubation.

Further sessions focused on Startup Financing Options, Key Financial Instruments, Business Model Canvas (BMC) and Go to Market Strategy (GTM). Additional sessions covered Pitch Essentials for Investor-Ready Startups, Innovation Ecosystems, Incubation Centre Visits, IP Basics and Use Cases for IP. The program provided participants with valuable insights into entrepreneurship and innovation through interactive sessions, practical learning experiences and real-world case studies. These activities helped attendees refine their skills in mentoring startups and nurturing entrepreneurial thinking. The program also facilitated networking opportunities, enabling faculty members and incubation managers to connect with industry experts and fellow academics. The program concluded on 21st March 2025, with a valedictory function, graced by Dr. Renu Pandey, Head, Plant Physiology, IARI as the chief guest. Participants were awarded certificates of participation during the ceremony. The program successfully equipped attendees with a deeper understanding of current entrepreneurship trends and provided them with practical tools to foster innovation and support early-stage startups at their institutions.

5. Agri India Meet 2025

The fifth edition of the Agri India Meet (AIM 5.0), themed "Revolutionizing Agri-Commerce: Leveraging Digital Platforms for Inclusive Growth," was hosted by Pusa Krishi on February 13, 2025. The event aimed to foster insightful discussions on pressing agricultural issues, provide actionable insights and create collaborative opportunities to drive sectoral progress.

With over 100 participants, the virtual format ensured broad accessibility, transcending geographical boundaries and maximizing participation. As the agricultural landscape continues to evolve, AIM 5.0 proved to be a vital platform for stakeholders across the agri and allied sectors to come together, share ideas and strategize sustainable growth, enhancing resilience within the startup ecosystem.



6. IP Management

Pusa Krishi plays an active role in Intellectual Property Management of ICAR-IARI. In the last quarter, 5 Patents, 3 Copyrights and 2 Trademarks were filed, the details of which are given below:

Name Innovation/ Technology	Details	Status
Variable height real time cutting & plucking force measurement device for fruits & vegetables	The present invention discloses a variable height real-time cutting and plucking force measurement device designed for fruits and vegetables. The device addresses the need for accurate, real-time measurement of the forces required for harvesting, essential for optimizing autonomous harvesting systems.	Patent Filed
Cumin Harvester	The present invention relates to a specialized cumin harvester designed to overcome the challenges associated with harvesting delicate cumin crops, which are highly susceptible to shattering. The harvester integrates several innovative components to enhance efficiency and minimize crop loss.	Patent Filed
Online algorithm on maturity detection of tomatoes	Maturity detection is pivotal in autonomous harvesting systems, driving efficiency and precision. This program code of deep learning model provides a decision support, YOLOv8m, to classify tomato maturity stages with very high accuracy. The model has got accuracy of 99.9% in detecting the maturity levels of tomatoes under protected crop cultivations.	Copyright Filed
Multimodal Drone assisted spray formulation	The present invention discloses a novel multimodal insecticidal drone suitable spray formulation for the effective management of lepidopteran pests & a green process of its preparation thereof and its application in the form of a sprayable oil dispersion, suitable for aerial application via drones.	Patent Filed

Name Innovation/ Technology	Details	Status
System & Method for Testing Seed Viability and Vigour	The present invention relates to the field of seed science. More specifically, the invention focuses on capturing the difference in the carbon dioxide evolution between the viable and non-viable or low vigor seeds, in order determine the viability of the seed(s) under testing. Additionally, the invention relates to a system and composition for measuring the seed viability and the method to use an acid base indicator for detecting seed viability & vigor.	Patent Filed
Indian Plusiinae: a Taxonomic Database for Looper Moths	A taxonomic database on Indian Plusiinae insects is an invaluable tool for enhancing our understanding of these insects, supporting conservation efforts & aiding in the development of effective pest control strategies. By contributing to ecological balance and agricultural sustainability, this database plays a crucial role in maintaining the delicate equilibrium between biodiversity conservation and agricultural productivity in India.	Copyright Filed
Indian Tortricidae: An Online Taxonomic Database	Indian Tortricidae: An online taxonomic database is vital for understanding the diversity & evolution of this moth family in India. It supports conservation efforts by providing critical data on species distribution and by lps in identifying species that may be endangered or of ecological significance.	Copyright Filed
Solar powered variable swath herbicide applicator Robot for Agricultural Application	The invention relates to automation & precession in agri machinery. More specifically, it relates to a solar-powered variable swath herbicide applicator robot for targeted chemical spraying operations for high-value vegetable crops, which mitigates the drudgery and losses over existing methods.	Patent Filed
AGRIINDIA HACKTHON Wordmark	AGRIINDIA HACKATHON has been used in relation to goods & services namely: business support and advisory for agro-businesses; networking and investor matchmaking; market research and branding; funding facilitation; and mentoring for agri start-ups and incubators—by PUSA KRISHI, ICAR–Indian Agricultural Research Institute.	Trademark granted
ARISE Device mark	ARISE Devicemark provides services to the agri start-ups, agri business incubators and technical business incubators towards start-up capacity building programs (workshops/summits/series/trainings) and agricultural ecosystem startup nurturing programs etc.	Trademark granted

7. Technology Commercialization

Tech commercialization plays an important role in making the technologies reach to the end users in an effective and faster way. ICAR-IARI develops technologies with substantial commercial potential that are ready to use by businesses. Under the Lab to Land Initiative, from October 2024 to March 2025, 66 technologies of ICAR-IARI were commercialized to 69 industry partners. The details of the technologies are given below:

S.No	Name Of Technologies	Features
1.	Carrot C.V. Pusa Prateek	Carrot C.V. Pusa Prateek is a tropical variety perfect for early sowing. It produces smooth, cylindrical roots with a deep orange color, rich in beta-carotene. It matures in 90-100 days and offers high yield potential and thrives in both tropical and subtropical conditions, making it highly adaptable.
2.	Cucumber c.v. Pusa Gynoecious Cucumber Hybrid -18	Cucumber C.V. Pusa Gynoecious Cucumber Hybrid-18 is a high-yielding hybrid with predominantly female flowers, ensuring better fruit production. It produces medium-long, dark green, smooth fruits and is adaptable to open field and protected cultivation.
3.	HD 3086	HD 3086 is a high-yielding, semi-dwarf wheat variety ideal for timely sowing in the irrigated regions of the North Western Plains Zone (NWPZ). It boasts excellent grain quality with high protein content and is resistant to rust diseases and lodging, ensuring strong performance under high input conditions.
4.	HD 3385	HD 3385 is a high-yielding, lodging-tolerant and disease-resistant wheat variety with superior yield and resilience, making it a valuable addition for the Northern Plains.
5.	HD 3086	It is another high-yielding, disease-resistant wheat variety, optimized for the Northern Plains with a potential yield of 62.5 quintal/hectare.
6.	HD 3390	HD 3390 is a bread wheat variety released for timely sown irrigated conditions of NCT of Delhi with an average yield of 62.4 q/ha. It is highly resistant to all three rusts and carries the stripe rust resistance gene, Yr10.
7.	HD 3410	This bread wheat variety is released for early sowing in irrigated conditions of Madhya Pradesh and NCT of Delhi, yielding an average of 70.4 q/ha in NCT Delhi and 65.9 q/ha in Madhya Pradesh. It is highly resistant to multiple diseases, including all three rusts, Karnal bunt, powdery mildew and foliar head blight.

S.No	Name Of Technologies	Features
8.	HI 1650	HI 1650 (Pusa Ojaswi) is a bread wheat variety released for timely sown, irrigated conditions of the CZ with average yield is 57.2 q/ha. It is highly resistant to stem and leaf rust and contains high zinc (42.7 ppm) and iron (39.5 ppm) content.
9.	Methi c.v. PEB	It is a high-yielding, early-maturing fenugreek variety, producing 700-800 q/ha of flavorful leaves, ideal for year-round cultivation and valued for culinary and medicinal uses.
10.	Palak c.v All green	All Green is a high-yield spinach variety with vibrant leaves, providing 5-6 cuttings at 15-20-day intervals, and a total leaf yield of 500-600 q/ha, perfect for commercial and home cultivation.
11.	Pusa Biofortified Maize Hybrid 3	Pusa Biofortified Maize Hybrid 3 is one of the nutrient-rich maize hybrids developed by the Indian Council of Agricultural Research (ICAR). This hybrid is enriched with essential amino acids, lysine and tryptophan, which are crucial for human nutrition. Additionally, it exhibits enhanced levels of pro-vitamin A, contributing to improved vitamin A intake.
12.	Pusa Mustard 31	Pusa Mustard 31 is a high-yielding, early-maturing variety ideal for timely sowing. Maturing in 125-130 days, it thrives in diverse agro-climatic conditions and is resistant to diseases like white rust and alternaria blight. With bold seeds and high oil content, it is an excellent choice for oilseed production.
13.	Pusa Mustard 32	Pusa Mustard 32 is a high-yielding, early-maturing variety suited for a range of agro-climatic conditions. Maturing in 125-130 days, it is resistant to diseases like white rust and alternaria blight. With high-quality seeds and excellent oil content, it is an ideal choice for oilseed production.
14.	Pusa Mustard 33	Pusa Mustard 33 is a high-yielding, early-maturing variety developed for the North-Western plains zone. It matures in 125-130 days and is resistant to key diseases like white rust and alternaria blight. With high-quality seeds and good oil content, it is perfect for oil extraction.
15.	PUSA Whitefly Attractant	PUSA Whitefly Attractant is a semiochemical-based solution that boosts Yellow Sticky Trap efficiency by 50-300%, effectively attracting and controlling whiteflies in crops. It is eco-friendly, cost-effective & suitable for organic agriculture, reducing the need for insecticides.

S.No	Name Of Technologies	Features
16.	Amaranthus c.v. Pusa Kiran	Amaranthus cultivar 'Pusa Kiran' is a variety of Amaranthus tricolor developed through a natural cross between A. tricolor and A. tristis. It features glossy green leaves with broad, ovate laminae and a leaf-to-stem ratio of 1:4.6. Suited for the kharif season.
17.	Divine dough	A nutrient-rich, low-GI flour blend made with pearl millet, buckwheat, sweet potato resistant starch, chickpea protein, and barnyard millet. Ideal for diabetics and health-conscious individuals, it offers high fiber, protein, iron, and zinc. The flour is chemical-free, supports gut health, and makes soft, gluten-free chapatis with easy dough preparation.
18.	Easy PCR kit for Bhendi yellow vein mosaic Virus (BYVMV)	A user-friendly and rapid diagnostic tool designed for the early detection of BYVMV in bhendi (okra). This ready-to-use PCR kit ensures accurate identification of the virus, enabling timely disease management and helping farmers reduce crop losses. Ideal for use in laboratories, research institutions, and field diagnostics.
19.	Easy PCR kit for Mungbean yellow mosaic India Virus (MYMIV)	A convenient and reliable PCR-based diagnostic kit for the rapid detection of MYMIV in mungbean crops. This ready-to-use kit enables early and accurate identification of the virus, facilitating timely disease control measures. Suitable for use in plant pathology labs, research centers, and field-level diagnostics to support healthy crop production.
20.	Fast Feast: Instant Pearl millet Dalia	A nutritious, ready-to-cook instant dalia made from pearl millet (bajra), developed for quick preparation without compromising on health. Rich in dietary fiber, protein, and essential micronutrients, it supports digestive health and is ideal for health-conscious consumers seeking traditional taste with modern convenience.
21.	PB 1979	Pusa Basmati 1979 is a non-GM, herbicide-tolerant Basmati rice variety developed by ICAR-IARI. It is a near-isogenic line of the popular PB 1121, incorporating a mutated AHAS allele that confers tolerance to the herbicide Imazethapyr 10% SL. This variety matures in approximately 130–133 days and has demonstrated an average yield of 45.77 quintals per hectare under irrigated transplanted conditions.
22.	PB 1985	Pusa Basmati 1985 (IET 28814) is a herbicide-tolerant Basmati rice variety developed through marker-assisted selection from Pusa Basmati 1509. It shows complete tolerance to the herbicide Imazethapyr and is suitable for dry direct seeded rice (DSR) systems.

S.No	Name Of Technologies	Features
		The variety offers high yield potential (up to 4.57 t/ha), excellent grain and cooking quality, early maturity and helps reduce cultivation costs and environmental pollution by enabling timely harvesting and better weed management.
23.	Pusa 1431	Pusa 1431 is a mungbean (Vigna radiata) variety developed by the Indian Agricultural Research Institute (IARI), New Delhi, and released in 2018. It is characterized by a maturity period of 56–66 days and offers a yield potential of 12–14 quintals per hectare. This variety is well-suited for cultivation in the National Capital Territory of Delhi, Haryana, Rajasthan, and Uttar Pradesh, particularly during the spring season. Pusa 1431 exhibits resistance to several diseases, including Mungbean Yellow Mosaic Virus (MYMV), Cercospora Leaf Spot (CLS), Web Blight (WB), Anthracnose, and Urdbean Leaf Crinkle Virus (ULCV).
24.	Pusa Arhar 2017-1	Pusa Arhar 2017-1 is a semi-dwarf, early-maturing pigeonpea (arhar) variety developed by ICAR-IARI. It has a compact plant type and is suitable for mechanized harvesting. The variety matures in approximately 120–130 days, making it ideal for cropping systems that require short-duration legumes. It also offers good resistance to lodging and moderate resistance to wilt.
25.	Pusa Arhar 2018-4	Pusa Arhar 2018-4 is an improved pigeonpea variety bred for better adaptability and yield performance. It features early maturity and a determinate growth habit, making it favorable for intercropping and intensive farming. This variety is also suited for cultivation under irrigated as well as rainfed conditions and exhibits tolerance to major diseases like fusarium wilt and sterility mosaic disease.
26.	Pusa Biofortified Maize Hybrid 3	Pusa Biofortified Maize Hybrid 3 is one of the nutrient-rich maize hybrids developed by the Indian Council of Agricultural Research (ICAR). This hybrid is enriched with essential amino acids, lysine and tryptophan, which are crucial for human nutrition. Additionally, it exhibits enhanced levels of pro-vitamin A, contributing to improved vitamin A intake. The development of such biofortified maize hybrids aims to address nutritional deficiencies and promote sustainable agricultural practices.

S.No	Name Of Technologies	Features
27.	PJHM 1	PJHM 1 is a maize hybrid jointly developed by ICAR-IARI, New Delhi, and Jawaharlal Nehru Krishi Vishwa Vidyalaya (JNKVV), Jabalpur. Released for cultivation in Madhya Pradesh, this hybrid exhibits dark green foliage, slightly upright leaves, and semi-dent, orange-colored kernels. It has an average grain yield of 6.5 tons per hectare, with a potential yield reaching up to 10.2 tons per hectare. Additionally, PJHM 1 shows field tolerance to flowering stalk rot and Rajasthan downy mildew, and its stay-green characteristic makes it suitable for dual-purpose use.
28.	Pusa Bio-surfactant	Pusa Bio-surfactant is an eco-friendly formulation developed by the Indian Council of Agricultural Research (ICAR) to degrade hydrocarbons in contaminated soils. This biosurfactant enhances the bioavailability of hydrophobic pollutants, facilitating their microbial degradation.
29.	Pusa Black Garlic	Pusa Black Garlic is a value-added product developed by the Indian Agricultural Research Institute (IARI).It is produced by aging fresh garlic bulbs under controlled conditions of temperature (60–90 °C) and humidity (70–90%) for several weeks, leading to black cloves with a soft, sticky texture and a sweet, mild flavor reminiscent of balsamic vinegar or molasses. This aging process enhances the garlic's bioactive compounds, resulting in higher antioxidant activity and health-promoting effects compared to raw garlic.
30.	Pusa jawahar Hybrid Maize 2	Pusa Jawahar Hybrid Maize-2 (AH-4271) is a maize hybrid officially released for cultivation in Madhya Pradesh, India.This medium-duration hybrid produces yellow-orange, flint, and round-shaped seeds. It exhibits a multi-cob nature, making it suitable for baby corn production. The average grain yield is reported at 33.34 quintals per hectare, with dry fodder yield reaching up to 70 quintals per hectare. Pusa Jawahar Hybrid Maize-2 is adaptable to both irrigated and rainfed conditions, making it versatile for various farming practices.
31.	PUSA- Nitrogen Prescription Device	A handheld tool developed by ICAR-IARI for real-time nitrogen assessment in crops. It helps farmers apply the right amount of nitrogen fertilizer, improving efficiency, reducing costs, and promoting eco-friendly farming. Ideal for precision nutrient management, especially in crops like direct-seeded rice.

S.No	Name Of Technologies	Features
32.	Speedy seed Viability kit	A quick and efficient solution for assessing the viability of seeds with high accuracy. The Speedy Seed Viability Kit enables rapid testing through a simple protocol, helping farmers, researchers, and seed companies ensure seed quality before sowing or storage. Ideal for field and lab use, it saves time and supports better crop planning.
33.	Vegetable Variety Basket - Bitter gourd c.v. Pusa Vishesh, Bottle gourd c.v. Pusa Naveen, Brinjal c.v. Pusa Uttam, Brinjal c.v. Pusa Ankur, Brinjal c.v. Pusa Ankur, Methi c.v. Pusa Kasuri, Palak c.v. All Green, Pumpkin c.v. Pusa Vishwas Cow pea c.v. Pusa Komal, Onion c.v. Pusa Red, Radish c.v. Pusa Chetki, Redish c.v. Japanese White, Cauliflower c.v. Pusa Deepali, Amaranthus c.v. Pusa Kiran, Capsicum c.v. California, Carrot c.v Nantese, French bean c.v. contender, Lettuce c.v. Great Lakes, Beetroot c.v. Crimson Globe, Broccoli c.v. Pusa Broccoli KTS-1, Cabbage c.v. Golden Acre, Onion c.v. Pusa Red, Onion c.v. Pusa Red, Onion c.v. Pusa Madhavi, Palak c.v. All Green, Tomato c.v. Pusa Ruby, Pumpkin c.v. Pusa Vikas, Sponge gourd c.v. Pusa Sneha, Pumpkin c.v. Pusa Vishwas, Tomato c.v. Pusa Ruby, Bottle gourd c.v. Pusa Santushti, Onion c.v Pusa Red and Onion c.v Pusa Madhvi ---- these are all high yielding as well as disease resistant varieties of different vegetables.	

Corporate Membership

Corporate membership is a way through which we associate with industry to provide them member privileges related to single window clearance, early and quick seed lifting without licensing for established varieties and sharing of our regular information related to innovative technologies. In the past six months, the Unit enrolled 73 new industry partners for membership and renewed the membership of 100 existing industry partners, resulting in a revenue generation of ₹ 7,85,000.

Organized Brinjal & Chilli Field Day to Showcase Advanced Vegetable Varieties

ZTM & BPD Unit in collaboration with the Division of Vegetable Science, ICAR-IARI organized 'Brinjal & Chilli Field Day' on October 25, 2024, a key event showcasing innovative developments in vegetable farming. The event presented advanced brinjal and chilli varieties and hybrids, specifically bred to address critical challenges faced by farmers today, such as resistance to pests and diseases, enhanced tolerance to heat stress and improved market adaptability. Researchers and experts demonstrated the practical applications of these varieties, emphasizing their potential to boost productivity and sustainability in vegetable farming. The event also provided a platform for knowledge exchange and highlighted the role of scientific advancements in improving agricultural practices.

Hosted Startup-Farmers Meet cum Demo Day in Sonipat

A Startup-Farmers Meet cum Demo Day was successfully held on December 17, 2024 at the RuTAGe Smart Village Centre (RVSC), located at Chalis Gaon Vikash Parishan, Mandaura, Sonipat, Haryana. The event provided an excellent platform for startups incubated by Pusa Krishi to showcase their innovative agricultural products, technologies and solutions directly to farmers. With the active participation of around 60-70 farmers and several innovative startups, the event aimed to bridge the gap between agricultural innovation and its practical implementation. Seven of our startups namely; Navork Innovations, Myoho Food and Services Private Limited, PhyFarm (Physiz Agtech Pvt Ltd), Esniff Devices Private Limited, Ekosight Technologies Private Limited, FIB-SOL Life Technologies Private Limited and Digigo Technology Pvt Ltd demonstrated their product and technologies offering farmers valuable insights into the latest advancements in agri-tech. These demonstrations highlighted the potential of these innovations to improve farming practices, enhance productivity and drive sustainable agricultural growth.

8. Incubation Activities

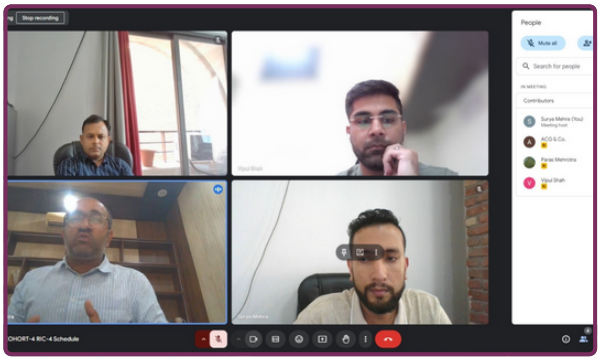
UPJA & ARISE 2024 MoU Signing ceremony: Empowering Agritech Innovation

On 30th December 2024, Pusa Krishi, IARI signed Memorandum of Agreements (MoAs) with 20 selected startups from the UPJA & ARISE 2024 incubation programs, providing grant-in-aid, mentorship and strategic support to drive innovation in the agricultural sector. Subsequently, on 24th February 2025, during the Pusa Krishi Vigyan Mela, MoAs were signed with the remaining 13 agri-startups under the RKVY-RAFTAAR, Pusa Krishi Cohort 2024–25.

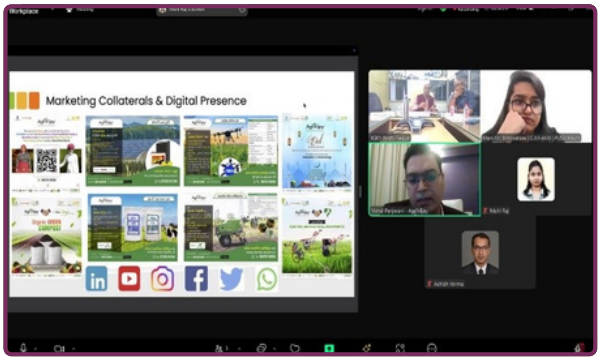
Launched on 1st April 2024, the UPJA & ARISE programs are designed to nurture agritech startups through financial assistance, expert mentorship and access to critical industry networks.

Pusa Krishi at RABI RIC Meetings

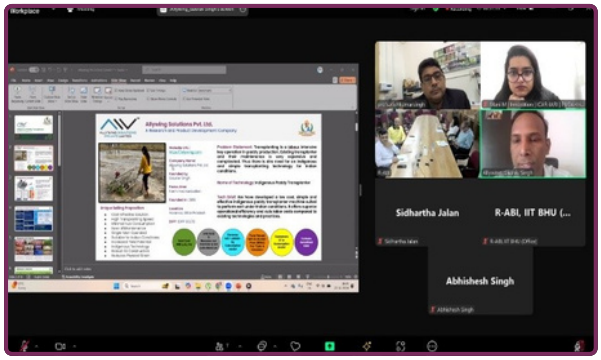
Pusa Krishi, as the Knowledge Partner, was also actively engaged in the RIC meetings held at IGKV, IIT-BHU, PAU, IVRI Bareilly, PAU and IIM-Kashipur, where it played an instrumental role in evaluating and identifying innovative agri-tech startups. After the initial screening phase, Pusa Krishi contributed significantly to the incubatee selection process for its RABIs to recommend these startups for one-month training program and further due diligence, designed to enhance the startups' business models. Furthermore, Pusa Krishi provided well-informed recommendations for startups to be considered for the SIC, ensuring they received the essential support and mentorship required for scaling effectively. The KP nominee's expertise was crucial in guiding these startups towards their next growth phase.



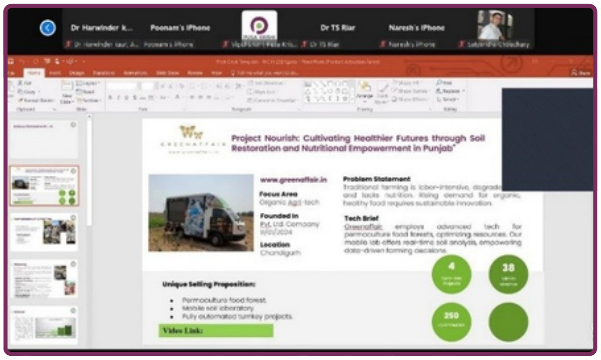
FIED, IIM, Kashipur - 16th October, 2024



IGKV R-ABI, Raipur- 19th November 2024



IIT-BHU, Varanasi - 27th November 2024



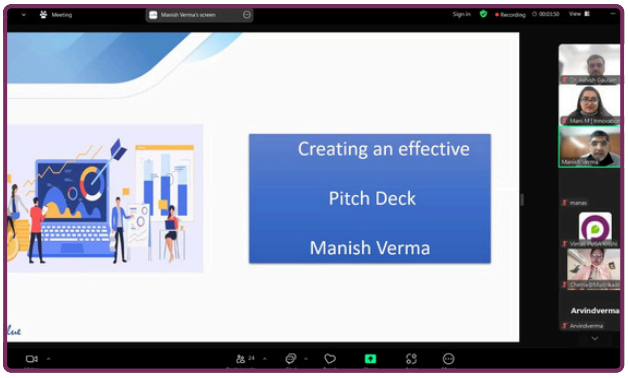
PAU, Punjab - 30th December, 2024

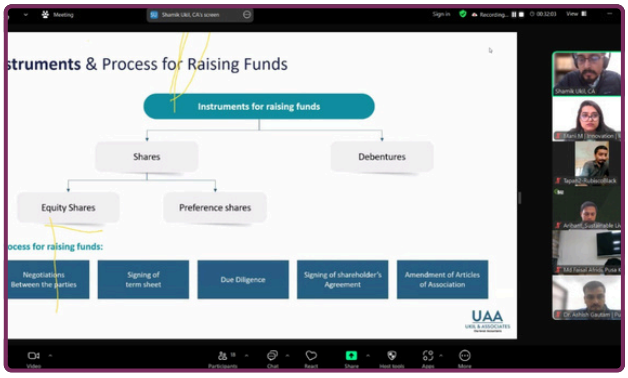
IIM, Kashipur - 12th December, 2024

IVRI, Bareilly – 13th December 2024

SHITIJ 2024 – Phase 2 Primer Sessions

The Phase 2: 4-month primer (Learning + Technical Sessions) under SHITIJ 2024, a year-long incubation program for early-stage startups, commenced on 21st October 2024. The sessions covered a wide range of topics, such as creating pitch decks, securing funding, working capital management, branding, pitching and startup compliance. The program also explored critical areas such as design thinking, intellectual property rights, and business strategy, offering practical insights into government schemes, Startup Compliance: Legal & Regulatory Aspects, as well as startup and MSME registration processes, and much more. Additionally, participants gained hands-on experience with market analysis, growth strategies and leadership development. The comprehensive curriculum is designed to equip entrepreneurs with the skills and knowledge needed to scale their ventures successfully.



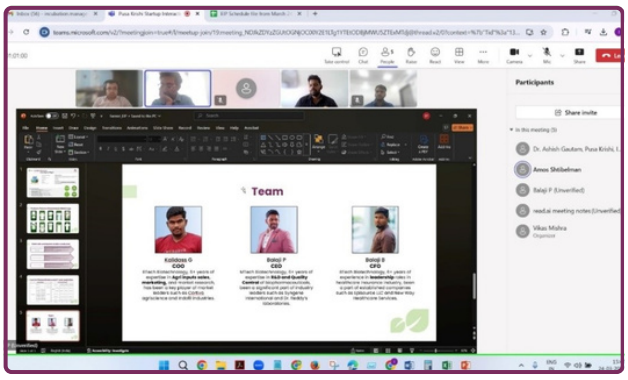


Empowering Startups with Market Linkages and Funding Options

On December 20th, 2024, Pusa Krishi organized an online session with Samunnati for its incubated startups, focusing on Debt-Linked Funding and Climate Smart Agriculture (CSA) Support. This session aimed to provide valuable insights into financing options, mentorship and market linkages. By hosting such programs, Pusa Krishi offers its startups a unique opportunity to explore growth possibilities, enhance their sustainable farming innovations, and build essential connections.

These initiatives reflect Pusa Krishi's commitment to supporting its startups with the resources and guidance needed to thrive in the agri-tech sector.

Pusa Krishi Hosts EIP Program to Help Agritech Startups Validate Technologies & Reach Farmers



Launched on March 24, 2025, in collaboration with Pusa Krishi, ICAR-IARI, the Evergreen Innovation Platform (EIP) Program is a structured support system designed to help agritech startups validate, commercialize, and connect with farmers. From a pool of 74 applications, 25 startups have been shortlisted for the first round of session evaluations, which are currently in progress. EIP is a pioneering initiative committed to introducing climate-smart technologies to smallholder farmers, enhancing their productivity, resilience, and climate adaptation.

In partnership with the Syngenta Foundation for Sustainable Agriculture (SFSA) and the Milken Innovation Centre in Israel, EIP fosters a global innovation ecosystem, enabling entrepreneurs to develop, test, and scale agritech solutions tailored to real-world challenges. The program follows a multi-stage intervention approach, beginning with technical validation on real farms within the AEGF farmer ecosystem, supported by Syngenta Foundation, Tata Trust, and IDH. This phase involves a rigorous testing process, where technical experts design validation frameworks while on-ground personnel oversee pilots, data collection and operations.

9. Agripreneurship Development Programs

Agripreneurship development programs (ADPs) are essential for fostering innovation and promoting sustainable practices within the agriculture industry. Over the past six months, four ADPs have been organized on various topics related to agriculture and allied sectors.

These ADPs have significantly contributed to advancing entrepreneurial skills and promoting sustainable agricultural practices.

Skill Development in Biofertilizer Application & Compost Technology (14th–18th October 2024)

In collaboration with the Division of Microbiology, ICAR-IARI, the unit conducted an ADP focused on biofertilizer application and compost technology. The main objective was to build entrepreneurship around sustainable practices like biofertilizers and composting. To enhance the training, participants visited Rohtak, where they observed practical demonstrations and gained hands-on experience in these environmentally friendly techniques.

Skill Development in Mushroom Cultivation Technology (20th–24th January 2025)

Organized by ZTM & BPD, in collaboration with the Division of Plant Pathology, this ADP aimed to popularize mushroom production as an alternative income generation strategy. The program focused on enhancing participants' skills and knowledge in mushroom cultivation techniques, offering a new avenue for aspiring entrepreneurs and farmers.

Entrepreneurship in Vegetable Seed Production (27th–31st January 2025)

In collaboration with the Division of Vegetable Science, ICAR-IARI, the unit hosted an ADP on fostering entrepreneurship for varietal and hybrid vegetable seed production. The program taught participants the essentials of hybrid seed production, post-harvest handling and regulatory standards for seed production, ensuring participants gained a comprehensive understanding of the process.

Cultivation & Processing of Spirulina Biomass (28th–31st January 2025)

The unit, in association with CCUBGA, organized an ADP on the cultivation and processing of Spirulina biomass for developing value-added products. The program aimed to provide participants with the skills required to process Spirulina and create high-value products, enabling entrepreneurs, farmers, and students to tap into Spirulina's potential in sustainable product development.

10. Participations

Pusa Krishi at ISBACON 2024: Exploring Future Agri-Tech Trends and Global Collaborations

PUSA Krishi participated as a key representative at the 16th edition of ISBACON 2024, held in Hyderabad, wherein it shared valuable insights on innovations in agriculture for sustainable development. The conference brought together over 270 delegates, including investors, 130 incubators, government officials, industry experts, and thought leaders. As part of the event, PUSA Krishi had the opportunity to engage with the Asian Association of Business Incubation

(AABI), fostering discussions on future international collaborations. The event also served as a platform to explore emerging trends in agri-tech and build partnerships for advancing agricultural innovation. The insights and connections made at ISBACON 2024 are expected to further enhance the impact of PUSA Krishi's initiatives in promoting sustainable agriculture.

Pusa Krishi Featured in an Exclusive Interview on DD Kisan's Sarkar Aapke Sath Program

Pusa Krishi was recently featured on DD Kisan's Sarkar Aapke Sath program, which highlights government initiatives supporting the agricultural sector. During the segment, Pusa Krishi discussed the Rashtriya Krishi Vikas Yojana (RKVY) and its key component, the Innovation and Agri-Entrepreneurship Development Programme. The program aims to foster innovation and agri-entrepreneurship by providing funding, technical expertise, and mentorship to agri-tech startups.
Pusa Krishi also shared insights on its various incubation programs, extension services, and activities designed to support agricultural growth and innovation.

11. Startup News & Awards

Fruvetech Private Limited

was honored with the prestigious Fortunna Global Excellence Award as Startup of the Year 2024. The award saw over half a million nominations from 108 countries, highlighting the most innovative startups & influential personalities from 48 nations. Fruvetech's recognition underscores its exceptional impact and success in the global startup ecosystem. Besides, the startup also emerged as the winner of the Tomato Grand Challenge, receiving a ₹3 lakh award for their innovative solutions. The award was presented by Shri B.L. Verma, Hon'ble Minister of State for Consumer Affairs, Food & Public Distribution.

Aumsat Technologies LLP

has won the TechForGood Awards 2024 for its innovative solution that has revolutionized utility management, significantly reducing water losses and ensuring efficient resource allocation in Udaipur, using advanced technologies like a Japanese radar-based satellite with subsurface penetration, IoT, robotics and geophysics. They also secured a funding of Rs. 40 Lakhs under the MeitY TIDE 2.0 Scaleup Investment Scheme.

Advick AgVenture

founder, Nitesh Tank was honored with the Sustainable Leadership Innovation Award for his exceptional contributions to revolutionizing agriculture through technology-driven solutions. The award was presented by renowned actress Munmun Dutta for the startup's unwavering commitment to empowering farmers, promoting sustainable farming practices and driving innovation through satellite-based precision farming solutions.

Chimertech Pvt Ltd

has successfully raised ₹1.25 Cr in investment at Vijay Television's Startup Singam show, marking a significant milestone in its journey. This achievement goes beyond just numbers—it represents a commitment to empowering farmers, driving innovation in the dairy sector, and transforming rural livelihoods through cutting-edge solutions. With this investment, Chimertech aims to scale its operations, enhance technological advancements, and expand its reach to uplift the agricultural community.

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secured a great deal on Shark Tank India 4 with Aman Gupta. They received ₹45 lakhs as debt at a 10% interest rate for two years.

Ukhi

a Faridabad-based biomaterials startup incubated under our Shitij Program, has successfully raised $1.2 million in a pre-seed funding round. Led by 100Unicorns, with participation from Venture Catalysts and angel investor Avtar Monga and debt support from SIDBI, this milestone will help Ukhi scale production, drive R&D into sustainable biomaterials and expand its global presence.

From the Editor's Desk

Dr. Akriti Sharma
CEO, PUSA Krishi, ICAR-IARI

Over the past six months, Pusa Krishi has solidified its position as a leading force in advancing agricultural innovation and empowering agri-entrepreneurs. Through a series of groundbreaking initiatives, it has provided robust support to startups and fostered collaborations that are transforming the agri-tech landscape.

One of the major highlights was the successful hosting of SAMARTH 2024-25, a two-day event that brought together incubators, stakeholders and experts to discuss sustainable innovations in agriculture. The event featured the launch of Techtonic: Innovation for Climate-Resilient Agriculture, an initiative by Social Alpha aimed at bridging the gap between research and market needs for small farmers. This initiative underscores Pusa Krishi's role in supporting climate-resilient agricultural solutions.

The Pusa Krishi Startup Accelerator Program, launched in January 2025 in partnership with HDFC Bank, further demonstrated Pusa Krishi's commitment to fostering high-potential agritech startups. With a grant of ₹1.5 crore, the program provided financial support, mentorship and networking opportunities, helping startups accelerate their growth and reach. Additionally, Pusa Krishi's Faculty Development Program (FDP) in March 2025 equipped faculty members with essential skills in innovation and entrepreneurship, enhancing their ability to mentor future agri-entrepreneurs.

Its flagship incubation programs—UPJA & ARISE 2024 and SHITIJ 2024—have played a critical role in nurturing early-stage startups by offering comprehensive support including funding, capacity building and expert mentorship. These programs have helped startups scale innovative solutions that directly impact farmers and strengthen the agri-startup ecosystem.

Pusa Krishi has also made significant strides in Intellectual Property Management, with multiple patents and trademarks filed in recent months, promoting the commercialization of groundbreaking technologies. Furthermore, its Agripreneurship Development Programs (ADPs) have empowered entrepreneurs with practical skills in biofertilizers, mushroom cultivation and value-added products from Spirulina biomass.

The recognition of Fruvetech Private Limited as the Startup of the Year at the Fortunna Global Excellence Awards and the success of Chimertech Pvt Ltd in raising ₹1.25 Cr through Shark Tank India further highlight the tangible impact of Pusa Krishi's initiatives.

Through strategic partnerships, capacity-building programs and a focus on scalable innovations, Pusa Krishi continues to drive meaningful change in India's agriculture sector, ensuring that it remains at the forefront of sustainable agricultural practices and entrepreneurship.

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