



Cohort 2023

### Message

India's agricultural future lies at the intersection of technology and innovation. These handpicked startups, representing the best of our nation, are shaping the world through their transformative ideas. By leveraging technology, they aim to revolutionise farming practices, enhance productivity, and ensure food security.

I am proud of how Pusa Krishi is serving as an empowering ecosystem, providing startups with support, guidance, and resources to flourish. Together, we will harness the power of technology to drive sustainable growth, benefitting our farmers and propelling India to the forefront of agricultural development.

Congratulations to the startups of the 2023 cohort! I urge each startup to envision the profound impact they can have on the future of Indian agriculture. Embrace the inherent challenges as opportunities for growth, navigate uncharted territories with courage, and never lose sight of the transformative power your ideas possess.

Together, let us forge a future where technology and agriculture harmoniously coexist, shaping a prosperous and sustainable India.

Dr. A. K. Singh Director ICAR - IARI

### Message

Research and technology are the twin engines propelling the evolution of agriculture. These startups, carefully chosen for their synergy of research insights and technological innovation, are poised to drive substantial change. Pusa Krishi is more than an incubator; it's a crucible where research meets entrepreneurship, resulting in solutions that will redefine farming's future.

Our commitment to fostering a culture of inquiry, coupled with cutting-edge technology, will yield breakthroughs addressing the complex challenges our farmers face. To the 2023 cohort, your dedication to blending research with entrepreneurship is commendable. Together, we envision a future where technology not only augments farming but transforms it.

Congratulations on being the trailblazers of this transformation. Your journey is the beacon illuminating a path toward research-driven agricultural advancement.

Dr C Viswanathan
Joint Director (Research)

### Message

I am delighted to extend a warm welcome to the 2023 cohort of Pusa Krishi. These 35 handpicked startups, chosen through a rigorous selection process, represent the finest changemakers in India's agriculture domain.

In this land of rich agricultural heritage, we believe that innovation and entrepreneurship hold the key to transforming the sector. You, the selected startups, embody the spirit of progress and have shown unwavering dedication to driving positive change in Indian agriculture.

Pusa Krishi is more than an incubator; it is an ecosystem designed to nurture talent, facilitate collaboration, and provide the resources you need to succeed. Together, we can overcome challenges, optimise resource management, adopt advanced technologies, and ensure food security for our nation.

As we embark on this transformative journey, remember that success comes through perseverance, resilience, and a passion for innovation. Embrace the opportunities, forge partnerships, and seize every moment that comes your way.

On behalf of the entire Pusa Krishi family, I extend my heartfelt congratulations to the startups of the 2023 cohort. May our collective efforts sow the seeds of innovation and reap a bountiful harvest of success for Indian agriculture.

Dr. Akriti Sharma CEO Pusa Krishi, ICAR - IARI





# **Axom Farm Machinery Pvt. Ltd.**

Driving mass adoption of digital agriculture



Sarat Chandra Das



Swakshar Chakravarty



**Location:** Guwahati, Assam

Foundation Year: 2021 Phone No.: 7755941519

### **Tech Brief**

The startup has developed multifunctional cost-effective customized products for multiple farm activities like cultivation (tiller), weeding, and harvesting practices to meet the requirements of small and marginal farmers.



# Harvest Global (SSP) Pvt. Ltd.

**VCIS** 

Segment Specific
Subscription Tools

Value Chain – Assessment, Analytics and Al www.hgsystems.in



Preeti Chaudhary

Email: support@hgsystems.in

preeti@hgsystems.in

**Location:** Gurgaon, Haryana

Foundation Year: 2021

**Phone No.:** 9821206807

### **Tech Brief**

The startup has developed a platform that uses cutting edge technologies like Computer Vision & Machine Learning (CVML) for analyzing satellite data, on-ground data, and historical crop data, to perform yield estimation, resource (water and energy) optimization, acreage assessment, and value chain assessment. The models can be integrated with enterprise systems for managing supply chains, procurements, and trades.



# Physiz Agtech Pvt. Ltd.

Data driven farming platform www.phyfarm.com







Siddharth Naik



Email: naveen@phyfarm.com

Location: Mumbai, Maharashtra

Foundation Year: 2017

Phone No.: 9920227994

### **Tech Brief**

The startup has built a crop production management platform with integrated wireless sensing and control system that caters to greenhouses, row crops and fruit growers.



# Rowbotix Agtech Pvt. Ltd.

Robotics enabled farm machinery www.rowbotix.in



Deepak S. Reddy



Avinash Pandurang Karale



Email: deepak.rowbotix@gmail.com

**Location:** Pune, Maharashtra

Foundation Year: 2022

**Phone No.:** 7972353055

### **Tech Brief**

The startup has developed a tractor-driven electronic cotton sowing machine. The robotic machinery is enabling row-wise sowing of the seeds at a pre-set distance, which will increase the productivity of cotton.



# Verdant Impact Pvt. Ltd.

Most Comprehensive Tech-Stack in Livestock Healthcare Ecosystem www.animal.icu



Maya Meena



Manish Kumar Meena



Email: manishk.jaipur@gmail.com

Location: Jaipur, Rajasthan

Foundation Year: 2020

Phone No.: 9672025828

### **Tech Brief**

Startup is providing an online platform for health-related services, credit, insurance, certification, catering to the day-to-day needs of the farmers. It has provided credit and insurance facilities to 2500 farmers and treated over 6,00,000 cattle.



### **Dhenoo Tech Solutions Pvt. Ltd.**

Smartphones- based digital platform for small & marginal Dairy Farmers www.dhenoo.com









∠ PLATFORM



e platform will be available in all Indian local langua









**Ganpat Jaywant** Dahe

Email: info@dhenoo.com

Location: Pune, Maharashtra

Foundation Year: 2019

Phone No.: 7720022641

### **Tech Brief**

The startup has developed a deep learning and machine learning-enabled platform for providing real-time animal health information to the farmers. The platform also provides advice from domain experts and experienced farmers, as well as access to quality products and services.



# Gramshree Agri Services Pvt. Ltd.

A technology based one stop solution in Animal Husbandry and Fishery www.gramshreeagri.in



Priyadarshi Puneet



Aastha Singh



Email: gramshreeagri@gmail.com

**Location:** Patna, Bihar

Foundation Year: 2019

Phone No.: 9608600960

### **Tech Brief**

The startup has developed a technology-based mobile platform 'Gramshree Kisan' for animal husbandry and fisheries sector for buying and selling of livestock, input supplies, tools and equipment, and online-offline training, consultancy and veterinary services.



# Treekisan Pvt. Ltd. (Tentative)

Greening the timber supply chain www.treekisan.com



**Rohit Kansay** 

Email: kanseytrust@gmail.com

Location: Yamuna Nagar, Haryana

Foundation Year: 2022

Phone No.: 6306890430

### **Tech Brief**

The startup has developed an Artificial Intelligence-based mobile-app solution for tree-weight and value estimation. It provides farmers with an accurate value for their tree crop and also functions as a virtual mandi connecting farmers with buyers. It also provides quality reports and predicts the demand-supply of the trees in various states.



# M-Lense Research Pvt. Ltd.

PaperPro: A Milk-Adulteration Testing Card www.mlense.in

Defergent







Rajat Jain





Location: Dehradun, Uttarakhand

Foundation Year: 2020 Phone No.: 9536454911

### **Tech Brief**

The startup has developed a milk adulteration testing card that can detect multiple adulterants in a sample, and gives instant & accurate results.



# **Engrave Bio Labs Pvt. Ltd.**

Designing Biological Solutions www.engravebiolabs.com







Sunita Gorthy

**Email:** sashibrao@gmail.com

**Location:** Hyderabad, Telangana

Foundation Year: 2019

**Phone No.:** 8008997373

### **Tech Brief**

The startup developed a BM5 protein or peptide-based ELISA and Lateral Flow Assay that could detect Brucellosis in animals and humans with high sensitivity, specificity and DIVA capability.

# BRUCELLA RAPID KIT

( DIVA CAPABILITY)
DIFFERENTIATES S19- VACCINATED
FROM NATURALLY INFECTED CATTI



# Klonec Automation Systems Pvt. Ltd.

Harvesting Happiness www.krishitantra.com



Sandeep Nagesh Kondaji



Vishnuprasad V. Bhat



**Email:** mallikarjun.g@krishitantra.com

Location: Mangalore, Karnataka

**Foundation Year: 2017** 

Phone No.: 7660945868

### **Tech Brief**

The startup has developed an automated, portable, soil testing solution 'RASTAA' (Rapid Automated Soil Testing with Agronomy Advisory) which can test the soil quality instantly and provide recommendations to the farmers.



# Kawak Greentech Pvt. Ltd.

Revolutionizing the world of packaging with an eco friendly & affordable solution for a sustainable present and for the vision of a better tomorrow www.kawak.in



Namrata Deo



Manisha **Tidke** 





Location: Pune, Maharashtra

Foundation Year: 2022

Phone No.: 9529544189

### **Tech Brief**

The startup has produced a biodegradable and sustainable replacement for thermocol and thermos foam to be used as a packaging material.



# Agnys Waste Management Pvt. Ltd.

My Waste My Responsibility www.agnys.in







Kumar



Email: agnyswaste@gmail.com

Location: Patna, Bihar

Foundation Year: 2018

Phone No.: 8960619145

### **Tech Brief**

The startup is developing a solar-based waste composter 'BHOOMI' which can compost horticulture and organic waste into manure and organic fertilizer. It is equipped with sensors and mechanical parts that standardize physio chemical parameters such as shredding, mixing, aerobic nature, and temperature.



# Biorith Techno Products Pvt. Ltd.

Trust us with your needs www.biorith.com



Subbaiyan Rubayathi



Ayyappadasan Ganesan



Location: Coimbatore, Tamil Nadu

Foundation Year: 2022

**Phone No.:** 8778001341

### **Tech Brief**

The startup is manufacturing millet-husk-based bricks which are reinforced and strengthened with plant extracts like acacia gum and can be used to make houses.



# Thinkgenix Biotech Pvt. Ltd.

Regenerating Biomolecules www.thinkgenixbio.com







Mrutyunjay **Dutta Mishra** 





Email: thinkgenix@gmail.com

Location: Khandagiri, Bhubaneswar

Foundation Year: 2020

**Phone No.:** 9437019686

### **Tech Brief**

The startup is recycling fish waste into organic fertilizers though biorefinery technology. The products have been found to be highly effective as per the field trial report shared by the startup.

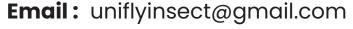


# Unifly Insect Technology (OPC) Pvt. Ltd.

Bringing the insect revolution in India www.uniflyinsect.com



Rohit Verma



Location: Kanghawala, New Delhi

Foundation Year: 2019

Phone No.: 9999968191

### **Tech Brief**

The startup is farming black soldier flies at an industrial scale and processing them to produce feeds for poultry and aquaculture sectors, and converting the insect excreta into organic fertilizers with NPK values similar to those of vermi compost-based fertilizers. The fly larvae feed on food and agriculture waste, thus also addressing the waste disposal issue.



### Bharatkrushi Seva Pvt. Ltd.

We are on a Mission to drive the mass adoption of Digital Agriculture www.bharatkrushiseva.com







Sharayu Hemant Shantaram Lande Tukaram Dhole

Email: sharayu@bharatkrushiseva.com

Location: Pune, Maharastra

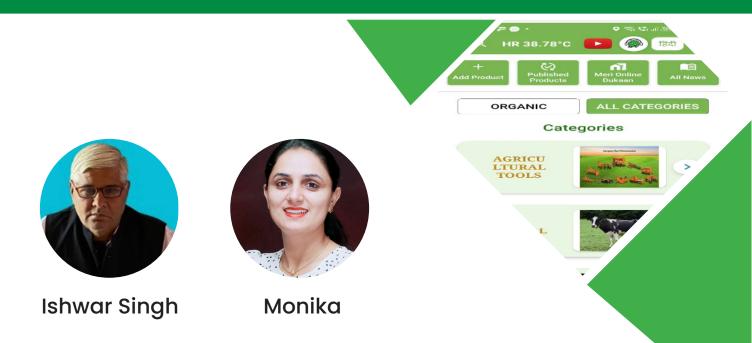
Foundation Year: 2021

**Phone No.:** 7755941519

### **Tech Brief**

Startup has developed an app-based platform that is providing the farmers with customized advisory, automated weather alerts, and agri-inputs delivery within 24-hours through a local dealer network.





Email: coo@f2df.com

Location: Rohtak, Haryana

Foundation Year: 2021

Phone No.: 9138111855

### **Tech Brief**

The startup has developed a mobile application for farmers through which they can buy low-cost inputs, sell their output at the highest available rates, rent new and old products, and access informative content.



# Rootsgoods (OPC) Pvt. Ltd.

Al-Deep learning for market intervention SAAS platform for agriculture commodities like maize www.rootsgoods.com



Sachin H.D.



Email: general@rootsgoods.com

Location: Shivamogga, Karnataka

Foundation Year: 2018

**Phone No.:** 9483004926

### **Tech Brief**

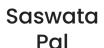
Startup has developed an AI enabled SaaS platform 'RootsGoods' for quality assessment of crops. It is providing Quality Assessment Certificate for the crops as well as market linkages for selling of produce.



# **Tea Inntech Services**

Augmenting tea with innovation and technology www.teainntech.com







Sougata Pal



Email: teainntech@gmail.com

**Location:** Kolkata, West Bengal

Foundation Year: 2021

Phone No.: 8981868889

### **Tech Brief**

Startup has developed a supplier-to-buyer model 'Tea Inntech' which is eliminating middlemen, and increasing the efficiency of the supply chain, and maximizing the profitability of the farmers and suppliers.



# **Newndra Innovations Pvt. Ltd**

Easing farmers' hardships www.newndra.com



Ganesh Ram Jangir



Ratan Lal



Email: ganesh@newndra.com

Location: Jaipur, Rajasthan

Foundation Year: 2014

Phone No.: 9461552772

#### **Tech Brief**

The startup has developed a lightweight, and universal size, multi-purpose exoskeleton 'KishanEx' for farmers that reduces physical pain, fatigue and prevents musculo skeletal disorder while improving work efficiency.



# Navdurga Agri Implements Pvt. Ltd.

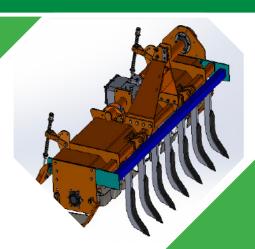
Think farming think cavlo www.ndai.in



Vandana Bansal



Alok Bansal



Email: vandana.bansal@ndai.in

**Location:** Gurgaon, Haryana

Foundation Year: 2021 Phone No.: 9810677889

### **Tech Brief**

Startup has developed a 'Cultirovator' which is a combination of cultivator and rotavator and can carry out the functions of both simultaneously making the soil more porous, resulting in improved water absorption and lower consumption of urea.



# Payoja Agri Innovations LLP

Smart Onion & Garlic Stalk Cutter Machine



Vaibhav Balu Wagaskar



Email: vaibhavwagaskar0000@gmail.com

Location: Ahmed Nagar, Maharashtra

Foundation Year: 2022

**Phone No.:** 9130678734

### **Tech Brief**

The startup has developed a machine for the removal of onion stalk which is a labor-intensive manual activity.



# Themma Prakritik Ecosystems (OPC) Pvt. Ltd.

System of Water for Agriculture Rejuvenation (SWAR) www.cechyderabad.org



K S Gopal



#### How it works

SWAR is a moisture diffuser embedded at plant root zone. A special dripper is connected to drip lateral and water is sent via a micro-tube into a uniquely designed box containing granular cut size quartz, to slowly release water with widest moisture spread.

Using design software and field testing led to ideal box size, shape, and height and release water slowly and maximize moisture spread.

Root zone moisture levels vide portable moisture probe or embedded sensors for data on phone w' remote pump switch on-off mechanisms.

Living Compost advisory guides to prapply as inoculums to promote native Soil Microbes & Mychorisae.

Email: cecgopal@yahoo.com

Location: Hyderabad, Telangana

Foundation Year: 2022

**Phone No.:** 9848127794

### **Tech Brief**

Startup's solution 'System of Water for Agriculture Re juvenation' measures the moisture level at plant root zone and provides a smooth flow of water and nutrients through a subterranean water diffuser.



# Indijan Activated Agrifood Pvt. Ltd.

Transforming food systems www.indijanglobal.com



Sharad Kumar Nirala





Email: indijanglobal@gmail.com

Location: Begusarai, Bihar

Foundation Year: 2020

**Phone No.:** 9508482336

### **Tech Brief**

The startup has developed tech-enabled online and offline procurement centers, through which it procures directly from farmers at the farmgate and also works with small food processors for product development, providing them an option to sell & market their produce.



# Kirat Biotech Pvt. Ltd.

Building a better tomorrow www.kiratbiotech.com



Pramila Choudhury



Manish Choudhury



Email: pramilachoudhury@gmail.com

**Location:** Kamrup, Assam

Foundation Year: 2022

**Phone No.:** 7670003112

### **Tech Brief**

Startup is procuring medicinal plant raw material from farmers for extracting Sugandhmantri Oil and Curcumin Extract and supplying to Pharmaceutical, Cosmetics, and Perfumery companies.



# **Azeedo Pvt. Ltd.**

Protecting crops, enhancing life www.azeedoagritech.com



Koushik Bose



Himansu Sekhar Dash



Email: founder\_azeedo@outlook.com

**Location:** Dhanbad, Jharkhand

Foundation Year: 2019

**Phone No.:** 7077566993

### **Tech Brief**

The startup has developed weed phytochemical extract-based crop protectant products that can protect crops from pests, insects, and fungal infections and increase crop productivity.

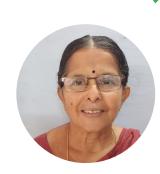


# Hooga Farms Pvt. Ltd.

HOOGA SEED KEEPERS COLLECTIVE Conserving endangered, foraging extinct www.hoogaseeds.com







Savithri Balasubramaniam



Email: sowmyakbb@gmail.com

**Location:** Erode, Tamil Nadu

Foundation Year: 2021

**Phone No.:** 8925254885

### **Tech Brief**

Startup is identifying native seed varieties that have better production capability and are climate resilient. It also has climate conditioned seed storage facilities for conserving rare seeds, poly house seed production unit for native heirloom seeds and is conducting seed yatra to identify rare perennial high yielding vegetable seeds.



# Vanproz Agrovet LLP

Sustainable Solutions for Agriculture www.vanproz.com







Vandana Tripathi Mishra



Email: vanprozagrovet@gmail.com

**Location:** Bhopal

Foundation Year: 2017

**Phone No.:** 9900624393

### **Tech Brief**

The startup has developed a pilot scale plant of Potassium Humate, which helps in adding carbon to the soil, enhancing the population of beneficial microbes & increasing the nutrient absorption by plant roots, enhancing yield, improving soil, and reducing the need for fertilizer usage.





D. Karthik Kumar R. Ranjithkumar

Email: savethenature4@gmail.com

Location: Coimbatore, Tamil Nadu

Foundation Year: 2021 Phone No.: 8248217205

### **Tech Brief**

The startup's product is providing non-toxic and efficient nano-formulated plant growth nutrients made from sustainable raw materials. It promotes the uptake of macro and micronutrients, improves the metabolic activities of plants, and improves the quality of fruits by stimulating photosynthesis.



# Ksheera Park Farms & Agri Solutions Pvt. Ltd.

Biodegradable Products from Agri Waste www.ksheerapark.in



Saneesh K.M.



Prasad P.A.





Email: sanu0487@gmail.com

**Location:** Marathakkara, Thrissur, Kerala

Foundation Year: 2021

Phone No.: 8289948560

### **Tech Brief**

The startup is utilizing agricultural wastage of banana trees, for the production of cattle feed and biodegradable products.



# **Greensupply Agro Pvt. Ltd.**

Non stop solution for farmers under one roof www.greensupply.co.in



Rajesh Kumar



Ritesh Kumar



Email: greensupplyagro@gmail.com

**Location:** Patna, Bihar

Foundation Year: 2020

**Phone No.:** 8770302825

### **Tech Brief**

The startup is providing services such as Agri inputs, latest technologies, market linkage and advisories, through its Suvidha Kendra, located at the village level.









Ankit Ajay Mudpe

Priyadharsini S.

Email: ankitmudpe@gmail.com

Location: Gandhinagar, Gujarat

Foundation Year: 2021

Phone No.: 7066744494

### **Tech Brief**

The startup is providing rural clinic services for the retailers to support the farmers with required advisories and active input transactions.



# **Auto Focus Technologies Pvt. Ltd.**

Source unlimited ww.wikoindia.com



Tushar Ashok Chaudhari



Jay Ramchandra Bhandure



Email: tushar.autofocus@gmail.com

Location: Nashik, Maharashtra

Foundation Year: 2020

**Phone No.:** 8554004000

### **Tech Brief**

The startup is providing an online platform for the transaction between farmers and exporters, with payment security by the Bank and KYC verified buyers. The platform will help the users with easy logistics, to buy or sell the right product of the right quality at the right price.



# Ramraj Services Pvt. Ltd.

Connecting Farmer Fraternity www.ramrajservices.in



Avinash Kumar Shukla



Email: avinashkshukla.rbl@gmail.com

**Location:** Lucknow, Uttar Pradesh

Foundation Year: 2016 Phone No.: 9369104104

### **Tech Brief**

The startup is providing a platform that connects manufacturers, wholesalers, retailers, service providers, channel partners and farmers under one roof.



ZTM BPD, IARI Pusa Campus, Delhi 110012 011-25843542 | zonaltech@gmail.com