



## This Issue:

# HIGHLIGHTS

LAUNCH OF AGRI INDIA HACKATHON

AGRI INDIA MEET- 1

INCUBATION ACTIVITIES

IP MANAGEMENT

TECHNOLOGY COMMERCIALISATION

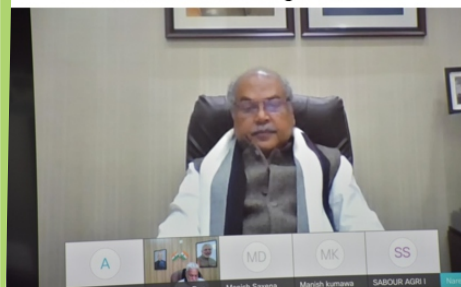
CORPORATE MEMBERSHIPS

NEWS AND AWARDS

## Launch of Agri India Hackathon by MoA&FW

Agri India Hackathon was launched on 31 Dec 2020 at Krishi Bhawan, New Delhi by Hon'ble Minister of Agriculture & Farmers Welfare Shri Narendra Singh Tomar Ji along with Shri Kailash Choudhary Ji, MOS (Agri.& Farmers Welfare), Shri Parshottam Rupala Ji, MOS (Agri.& Farmers Welfare) along with Dr. Trilochan Mohapatra, Secretary (DARE) & DG (ICAR), Ms. Dolly Chakrabarty, Additional Secretary, MoA & FW, Ms Chhavi Jha, Joint Secretary (RKVY), Dr A. K. Singh, Director, ICAR-IARI, Dr Neeru Bhooshan, CEO, Pusa Krishi and Principal Scientist, ZTM & BPD Unit and other official representatives and media personnel. It is the largest virtual gathering to create dialogues and accelerate innovations in agriculture. The Agri India Hackathon is presented by the Ministry of Agriculture & Farmers' Welfare and is organized by Pusa Krishi, ICAR - Indian Agricultural Research Institute (IARI), Indian Council of Agricultural Research (ICAR) & Department of Agriculture, Cooperation & Farmers' Welfare, Ministry of Agriculture & Farmers' Welfare.

Hon'ble Minister (Agri.& Farmers Welfare)  
Shri Narendra Singh Tomar



Hon'ble MOS (Agri.& Farmers Welfare)  
Shri Parshottam Rupala



Hon'ble MOS (Agri.& Farmers Welfare)  
Shri Kailash Choudhary




Agri India  
Hackathon  
आत्मनिर्भर कृषि

[www.agriindiahackathon.in](http://www.agriindiahackathon.in)

Through Agri India Hackathon, the most important stakeholders from industries & government alongside India's young bright minds, creative start-ups, and smart innovators will build new, fast, and frugal agricultural solutions to tackle the big questions we're facing today at this national-level hackathon. The event will be spread over a period of 60 Days, and will be a platform with 3000+ Ideas, 5000+ Participants, 100+ Mentors, more than 1000 Start-Ups & 50+ Speakers from across the world.

The Agri India Hackathon seeks to create an impact in 5 interconnected areas to provide a roadmap for the future and the goal is build an impact with new-age, fast & frugal innovations to navigate these focus areas. These focus areas are primarily: Mechanization of Farming & Allied Activities, Precision Agriculture including applications of sensors, WSN, ICT, Artificial Intelligence, IoT & drone, Supply Chain & Agriculture Logistics, Post-Harvest, Food Technology & Value addition, Waste to Wealth & Green Energy in Agriculture

**ai**  
Agri India  
Hackathon  
आत्मनिर्भर कृषि

PUSA KRISHI मेरी सरकार

## Smart Agriculture Innovation Challenge

### for Self Reliant India

**3 - 5 February 2021**

India's largest online  
agriculture event

INR 1 Lakh to each  
winner

**Breakthrough Ideas & Innovations**

- Incubation Support
- Technical & Business Mentoring
- Field Trial & Tech Validation

Call for Applications

31<sup>th</sup> December 2020

Application Deadline

20<sup>th</sup> January 2021

INVITING SOLUTIONS FOR

Farm Mechanization | Precision Agriculture | Supply Chain & Logistics  
Post-Harvest & Food Tech | Waste to Wealth & Green Energy

## 1.1 Launch of Agri India Meet

More than 40 speakers in 7 power-packed sessions discussing the today & tomorrow of agriculture. Agri India Meets will create meaningful conversations & connections with the most important people in agriculture — from Businesses, Start-ups, Industry to Policy, Education, Media, and others. These meets would create a buzz word around ecosystem so to encourage more and more entrepreneurs to apply under Hackathon and get a chance to win a cash prize of INR 1,00,000 each at the end of event as per the focus area. The winning innovations will get an exclusive preference for incubation support, pre-seed & seed-stage funding of 5 Lakhs & 25 Lakhs respectively at any one of the 29 RABIs, subject to assessment by the independent RABI. The winning innovations will also have the opportunity of field trial and also access technology validation from our network of institutions, if they opt for incubation support.

Launch of Agri India Meet was done by Dr Neeru Bhooshan. Session started with welcoming of Keynote speaker Mr Sameer Goel, MD, Coromandel Group along with Dr. C. Viswanathan, Head, Division of Plant Physiology, ICAR-IARI as moderator of the session and our esteemed panelist were Dr Indra Mani, Head, Division of Agricultural Engineering, Dr R N Sahoo, Principal Scientist, Division of Agricultural Physics, ICAR-IARI, Mr T R Kesavan, Group President (Corporate Relations & Alliances), TAFE, Mr G. Krishna Kumar, Vice President - Crop Operations and Sustainability, ITC Limited, Agri Business Division and Dr Sat Kumar Tomar, Founder, Satyukt Analytics. This 1.5-hour brainstorming panel session took off with a great presentation by Mr Goel, which made a strong foundation for the fellow audience, discussing scope and opportunities under the broad domain of farm mechanization and precision farming with future prospects towards 2nd Green Revolution.

### AGRI INDIA MEET 1:

## Future of Farm Mechanization & Precision Farming

Date: 30<sup>th</sup> December 2020 Time: 4:00 PM – 5:30 PM



**Keynote Speaker**  
**MR. SAMEER GOEL**  
MD, Coromandel Group



**Moderator**  
**DR. C. VISWANATHAN**  
Head, Division of Plant Physiology, ICAR-IARI



**DR. INDRA MANI**  
Head, Division of Agricultural Engineering, ICAR-IARI



**DR. R N SAHOO**  
Principal Scientist, Division of Agricultural Physics, ICAR-IARI



**MR. T R KESAVAN**  
Group President (Corporate Relations & Alliances), TAFE



**MR. G. KRISHNA KUMAR**  
Vice President - Crop Operations and Sustainability, ITC Limited, Agri Business Division



**DR. SAT KUMAR TOMAR**  
Founder, Satyukt Analytics



## 1.2 Incubation Activities at Pusa Krishi

### 1.2.1 RC Meeting of Cohort 2020

RC Meeting of Pusa Krishi for Cohort 2020 was held on 6 Oct 2020. The meeting was chaired by Ms. Chhavi Jha, Joint Secretary, DAC&FW, Chairperson along with Dr. Neeru Bhooshan, In-charge, ZTM&BPD Unit, ICAR- IARI, New Delhi and Member Secretary while members were Dr. Anjani Kumar, Agri-Economist, IFPRI, Dr Naveen P Singh, Principal Scientist (Agri Econ), ICAR-NIAP, Dr. Iyer Krishnan, Advisor, Agri startups and Dr. Sangita Ladha, Ex-Vice President, Jain Irrigation Pvt. Ltd.

31 Startups out of 550 application from ARISE and UPJA program were selected for 2020 cohort for Pre-seed stage and seed stage funding support. After completion of two months Incubation Training Program (i.e., from 6 July to 5 September, 2020), 31 Startups selected for 2020 cohort for pre-seed and seed stage funding support appeared before RIC II selection committee on 10 and 11 September, 2020. Based on the preparedness and stage of startups the RIC- II committee recommended 17 startups for Pre-seed stage grant in aid i.e., up to Rs 5 Lakh per start-up and 9 startups for Seed stage grant in aid support of up to 25.00 Lakhs per startup for the final consideration and approval by virtual RC committee.

RKVY-RAFTAAR Selection & Monitoring Committee (RC) recommended Eleven (11) startups under Pre-Seed stage funding with a total funding support of Rs. 54,00,000 Lakhs and Seven (7) start-ups are supported under Seed Stage Funding with a total funding support of Rs. 1,42,00,000 .

Total Application Received  
**550**

Startups selected in RIC- II  
**31**

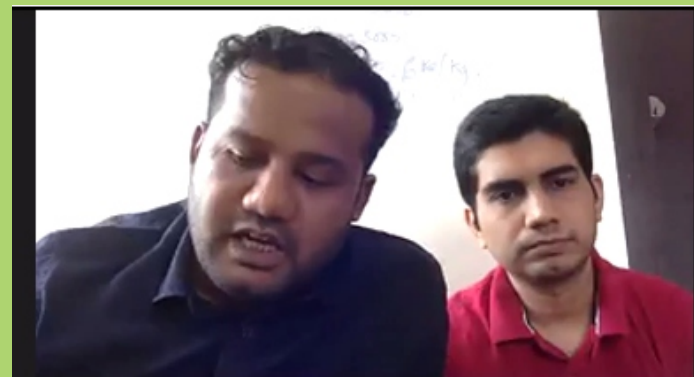
Startups approved in RC meeting  
**18**

Pre-Seed Stage Startups	Seed Stage Startups
11	7
Rs. 54,00,000	Rs. 1,42,00,000

Total fund approved by RC Committee  
**Rs. 1,96,00,000**



SNAPSHOTS OF RC MEETING



## 1.2.2 List of Pre-Seed Startups approved by RC committee

Pre- Seed Stage Startups approved by RC Committee:				
S.No	Start-up Name	Founder Name	Focus Area	Budget Recommendation by RC (Rs in Lakhs)
1	Contrivation Labs Pvt. Ltd.	Mr. Udayagirivenkat Ramesh Rao	Post-Harvest Mechanization	5.00
	Tech Brief	An advanced automation solution for destemming of chilis, including removal of calyx. The solution significantly improves efficiency and effectiveness using optimized engineering techniques.		
2	Infarmsys Technologies Pvt Ltd	Mr. Prakash Vivekananthan	Precision Farming	4.00
	Tech Brief	A Smart affordable & portable IoT based Soil Sensor for precision farming solution with Instant results.		
3	M-Lense	Mr. Dhruv Tomar	Dairying	5.00
	Tech Brief	A thin paper-based detection card to detect all possible kinds of milk adulterations in 5 mins.		
4	Multi-functional agricultural machine	Mr. Shashikant SaudagarKemdarn	Farm Mechanization	5.00
	Tech Brief	Multipurpose agricultural equipment performs many tasks in a single compact equipment like chaff cutting, spraying, milking mechanism, soil driller with flexible shaft, maize peeler and many more		
5	Blue TickMark Communications LLP	Mr. Gaurav	Farm Advisory	5.00
	Tech Brief	Radio Pitaara is a Mobile radio platform, exclusively for Farmers, solving the relevant content access on a simple missed call, accessible to them 24x7 and from any mobile device.		
6	Daybest Research Pvt Ltd.	Mr. Devesh Jha	Precision Farming	5.00
	Tech Brief	Drones, robots & IoT Based Image Analysis, Sensor Analysis, Spectral Analysis for crop monitoring and services to farmers		
7	Emertech Innovations Pvt. Ltd.	Mr. Manish Verma	Blockchain Technology	5.00
	Tech Brief	AgroTrust- Transparent, Effective and Efficient Blockchain based Value Chain		
8	Modiant Solutions	Mr. Jitendra Patel	Farm Mechanization	5.00
	Tech Brief	Innovative seeders for precision sowing of various type of small seed, for nursery preparation and direct in farm		
9	PlasJuvant Techno Health LLP	Mr. Sudhir Bhatt	Agri-Input	5.00
	Tech Brief	Non-thermal gas plasma generated reactive species mediated activation of seeds prior to planting for quick and efficient stimulation of germination.		
10	Tholua Pratisthan Pvt. Ltd.	Mr. Trailukya Dutta	Post-Harvest Technology	5.00
	Tech Brief	Producing Black garlic in a controlled temperature and humidity via contract farming model and enhancing farmers income		
11	Xcell Breeding & Livestock Serv. Pvt Ltd	Dr. G K Bamanian	Animal Husbandary	5.00
	Tech Brief	Adhaar for Cattle (GODHAAR): MUZZLE- Livestock Identification- A Unique Solution for Livestock management.		



### 1.2.3 List of Seed Startups approved by RC committee

Seed Stage Startups approved by RC Committee:				
S. No.	Start-up Name	Founder Name	Focus Area	Budget Recommendation by RC (Rs in Lakhs)
1	Aker Foods Agrotech Pvt. Ltd.	Mr.Suraj Saste	Supply Chain	18.00
	Tech Brief	Aker Foods is creating an AI/ML supply chain platform to procure farm fresh produce directly from the farmers and provide it directly to consumers.		
2	GV Natural Food	Naveen GV	Post-Harvest Technology	10.00
	Tech Brief	Utilizing complete banana stem (pseudo stem) by developing/scaling up technology to make Ready to Cook' Banana Stem and Banana stem-based vermicomposting.		
3	Laymen Agro Ventures	Mr Selvakumar Varadharajan	Supply Chain	18.00
	Tech Brief	An Agtech Startup that connects the farmers and urban consumers through the empowerment of rural youth.		
6	Bio prime Agri solutions Pvt Ltd	Dr. Renuka Karandikar	Agri-Input	24.00
	Tech Brief	Effective & affordable next generation Ag biologicals based on plant physiology response modulation- SNIPR platform (Smart Nanomolecules Induced Response Modulation).		
7	Maclec Technical Project	Mr. Narayan Bhardwaj	Mechanization	24.00
	Tech Brief	SHK-TURBINES are the most affordable, indigenous, modular, scalable, Round the clock, environment-friendly base load Decentralized Renewable-Energy generation system suitable for all kind of running water streams.		
8	Satyukt Analytics Pvt Ltd	Dr. Sat Kumar Tomer	Precision Farming	24.00
	Tech Brief	Satyukt is a business to business (B2B) Agri-tech company that provides insight into the crop area, health, risk, production. This is micro wave based remote sensing.		
9	Whrrl Fintech Solutions	Mr. Ashish Anand	Blockchain Technology	24.00
	Tech Brief	Blockchain Platform for digital lending against warehouse receipts to be supported by IOT devices.		

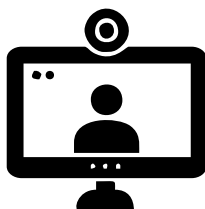


## 1.2 Handholding of RABIs under Samarth

### o RIC -I Meeting

As a leading Knowledge Partner, Pusa Krishi extends its continuous support to nine RABIs through online virtual meeting and monitoring session. This quarter one representative from Pusa Krishi Team attended in the selection panel for selecting startups that has undergone 2- month of intense incubation program for CCS HAU, Hisar and IIT-BHU.

The Agri Business Incubation Centre, CCS HAU, Hisar launched PAHAL -2020 and SAFAL-2020 programme and has received 162 applications out of which after preliminary screening at university level 101 applications were selected for virtual RIC-1 meeting on 7 to 12 October 2020 which was represented by representative from Pusa Krishi.



### o RIC -II Meeting

On December 04, 2020, to evaluate the progress and recommend the incubates under ABHINAV (Pre-Seed Stage) and UDBHAV (Seed Stage) program at Indira Gandhi Krishi Vishwavidyalaya, Raipur. 16 startups have been recommended from Pre-seed stage program and 10 have been recommended from Seed Stage program for CIC meeting.

On December 24, 2020 for SKUAST Jammu under Cohort II of Udgam and Pragati for startups who have completed 2 months training programme. 8 startups were selected under Pre-Seed Stage and 5 Startups under Seed Stage were selected.

On December 28-29, 2020 for Punjab Agricultural University which had received 400 applications for the Cohort II of Uddam and Udaan and after RIC-I, total of 54 candidates were selected for 2 months training programme (September 24, 2020 to November 24, 2020).



Welcome to  
**R-ABI Incubation Committee (RIC)-II Meeting**  
under the RKVY-RAFTAAR Project  
Sponsored by Ministry of Agriculture and Farmers' Welfare, GoI, New Delhi

on  
**24th December 2020**

**UDGAM**  
Agripreneurship Orientation Programme

**PRAGATI**  
Seed Stage Funding

Agri Business Incubator, SKUAST-Jammu  
A Unit of Division of Agricultural Economics & Agri-Business Management  
Sher-e-Kashmir University of Agricultural Sciences & Technology of Jammu, Chatha, 180009

## 2. IP Management

### 2.1 Institutional IP

In the fourth quarter, the Institute has been granted one patent of Division of Agricultural Chemicals, ICAR-IARI. Furthermore, one trademark and six PPVFRs have been registered during this quarter.

Comprehensive IP details are as mentioned below:

IPRs	Application No./ Registration No./ Grant No.	Name of Innovation/ Technology/ Product/ Variety	Date of Filing/ Registration/ Grant	Application Filed/ Granted/ Registered**
Patents	349105 (2964/DEL/2010)	Novel Naphthyridine Based Hydrazines As Potent Agrochemicals	October 13, 2020	Granted
Trade Marks	4430607	SAMARTH	October 03, 2020	Registered
PPV&F Rs	REG/2019/141	Pusa Basmati 1637	October 23, 2020	Registered
	REG/2019/143	Pusa Samba 1850	October 23, 2020	Registered
	REG/2019/142	Pusa Basmati 1609	October 23, 2020	Registered
	-	HD 3117	October 26, 2020	Registered
	-	HD 3171	October 26, 2020	Registered
	REG/2022/389	Bread Wheat HD CSW16	October 26, 2020	Registered



### 2.2 IP Spectra

IP Spectra (Intellectual Property Facilitation Centre established at ZTM & BPD Unit, ICAR-IARI, New Delhi) has facilitated start-ups in various IP related services. In the last quarter (Oct-Dec, 2020) one patent application is submitted and responses to office action were provided for four trademark applications which are under registration process under various classes. A patentability search report related to farm machines was provided to a budding entrepreneur. Two sessions related to “Process of IP Protection” were organised to build IP awareness among start-ups and young entrepreneur for JNKVV, Jabalpur & NSIC, Okla, New Delhi

Detailed List of IP Facilitation Services Provided to Start-Ups/Small Enterprises are as follows:

IPRs	Application No./ Registration No./ Grant No.	Name of Beneficiary	Name of Innovation/	Date	IP Service Facilitated
		Firm Name	Technology/ Product/ Variety		
Trademark	4647583 in class 30	Craftcomm Farms	Mystiq Garden	Nov 27,2020	Response to office action
	4647584 in class 29	Craftcomm Farms	Mystiq Garden	Oct 15, 2020 & Nov 27, 2020	Response to office action
	4647586 in class 31	Craftcomm Farms	Mystiq Garden	Nov 27, 2020	Response to office action
Patent	201911049097	Bonformo (CT)Pvt. Ltd.	Smart Sugarcane Bud-Stalk Extractor	Nov 27, 2020	Filed
		Dr. Shrey	Farm Machine	Oct 2020	Patentability search



## 2.3 Workshop and Annual review Meeting of ITMUs/ ZTMCs and ABIs held during October 09, 2020

A virtual one-day Workshop and Annual Review Meeting for reviewing the activities of ITMUs/ ZTMCs/ ABIs established in Crop Science Divisions of ICAR of North Zone under the NAIF was held on October 09, 2020.

The workshop was inaugurated by Dr. Sanjeev Saxena, ADG (IP & TM) and was chaired by Dr. Trilochan Mohapatra, Secretary, DARE & DG, ICAR as Chairman of the meeting. Dr. T. R. Sharma, DDG (Crop Science) provided the concluding remarks and thanked all the steering committee members for their remarks and ZTMCs for their presentations.

Concluding remarks was made by Dr. A. K. Singh, Director, IARI appreciated the progress made by the participants. Dr. Sanjeev Saxena appreciated IARI's progress and agreed over the committee constitution for guidelines of commercialization.

Dr. Neeru Bhooshan made the closing remarks by thanking the DG, ICAR, ADG (IP&TM), DDG (Crop Science) and other esteemed members of the committee. She further added that if any help is required by any ITMU from IARI's end, she will be glad to help.

### SNAPSHOTS OF ANNUAL REVIEW MEETING



### 3. Technology Commercialisation

This quarter during October-December, Wheat variety HD 3086 was licensed to Twenty-Three (23) Industry Partners generating revenue of **Rs. 5,75,000** (Rs. Five Lakhs Seventy-Five Thousand only). The online MOA and Payment processes were streamlined and strengthened by the Unit to avoid disorder in the peak of Rabi season. Industry partners appreciated Unit's initiative of no contact Online MoA process.

### 5.0 News and Awards

#### 5.1 Satyukt Analytics Pvt Ltd.

- \* Satellite data analytics startup Satyukt has raised **\$500,000 (Rs 3.7 crore)** in seed funding from Nabventures and Social Alpha.
- \* Nabventures is anchored by Nabard (National Bank for Agriculture and Rural Development). It is a venture growth equity fund that invests in agritech, food, agri/rural fintech and rural healthtech and edtech.
- \* Founder Dr Sat Kumar Tomer said, "At Satyukt Analytics, our vision is to bring the latest farm-scale data backed by cutting-edge research on remote sensing, at the fingertips of farmers and other stakeholders in the agricultural sector."



**Dr. GR Chintala**, Chairman of **NABARD** and Nabventures, said, "Satyukt Analytics is one of the few examples of academic research resulting in a successful commercial venture which can generate financial returns to investors and have a significant social impact as well."

### 4. Corporate Membership

Corporate membership allows Industry partners and NGOs direct access to high quality breeder seeds developed by IARI. Corporates can procure the seeds from the institute and its regional stations for further multiplication of the founder (F1) and truthful seed (TL). This quarter, Unit enrolled new membership of 63 industry partners and membership of 29 existing members were renewed for this year generating a revenue of **Rs. 2,57,000**.

#### 5.2 FreshoKartz Agri Products

- \* FreshoKartz Agri Products, an agritech start-up has received **Rs 10 crore (\$1.4 million)** pre-series-A funding from Rajasthan Venture Capital Fund (RVCF) and AWE (Achieving Women Equity) funds to finance its rapid technology rollout while scaling its operations as a provider of premier technology-enabled omnichannel supply chain optimising solutions along with agronomy advisory and output linkages.
- \* According to FreshoKartz, it is operating 40 physical centres in Rajasthan and working with more than 90,000 farmers. The start-up has target to reach 10 lakh farmers in the next 12 to 15 months.



**Gaurav Chowdhry**, VP at **RVCF** said, "It is pertinent for us to look at start-ups which can sustain in these challenging times by differentiation and innovation. By focusing on farmers' multitude of farming needs, Freshokartz is providing full stack solutions for better farm outcomes."

### 5.3 BharatAgri

- \* BharatAgri has raised an undisclosed amount in a pre-Series A funding round from Binny Bansal-backed 021 Capital and existing investor India Quotient.
- \* Founded in 2017 by Sai Gole and Siddharth Dialani, BharatAgri provides end-to-end decision making support for farmers through its technological solutions and Krishi Doctor, an intelligent farm advisor has helped farmers to get more than a 40% increase in yield and further reduced the management costs.

# BharatAgri



*“BharatAgri is the only player that has monetized digital advisory at scale. During the pandemic alone BharatAgri sold 13,000+ premium subscriptions,” cofounder and CEO Siddharth Dialani*

### 5.4 BioPrime AgriSolutions Pvt Ltd

- \* In National Startup Award 2020 was finalist under “**productivity**” subcategory along with other 6 finalists.
- \* BioPrime’s goal is to offer relief to farmers worldwide, struggling with crop loss, temperature fluctuations, drought, resilient insects and diseases.
- \* Bioprime develops alternative bio organic and sustainable solutions for crop improvement, nutrition and protection. These miracles of nature that are delivered to you by Bioprime ensure sustainable crops despite the growing impact of climate change and crop losses.



### 5.5 Krishitantra

- \* Krishitantra, a soil-tech platform, has raised \$1 million (Rs. 7.6 crore) in its seed round of funding from agritech-focused venture capital investor Omnivore and Nabventures.
- \* Krishitantra provides rapid IoT-based soil testing and soil nutrition advisory solutions to farmers, farmer producer organisations (FPOs), and other agribusiness stakeholders.
- \* This device provides results in less than 30 minutes, where the test results are stored on the cloud and delivered via SMS to the farmer.



*NABVENTURES will help Krishitantra accelerate the spread of its soil testing technology by connecting them with our network of FPOs, and leveraging NABARD’s pan-India presence,” said Gills John, VP, NABVENTURES*



### 5.6 PureScanAI

- \* Pure Scan AI has bagged a grant of \$100,000 as part of the 2020 Inspire Challenge by CGIAR (formerly Consultative Group for International Agricultural Research), the largest global agricultural Innovation network.
- \* ICRISAT is the R&D partner of Pure Scan AI, which has been working on building a comprehensive solution that can detect the level of “Aflatoxin” in peanuts. In fact, studies have shown that peanuts in India have much higher aflatoxin levels than permissible limits.



@pusakrishiofficial



@pusakrishi



@pusakrishi



@pusa.krishi

## 5.7 Takachar

- \* Vidyut Mohan, is among the seven winners of the prestigious **"Young Champions of the Earth"** 2020 prize given by the UN environment agency to global change-makers.
- \* Takachar buys rice husks, straw and coconut shells from farmers and turns them into charcoal. This process also allows for saving the debris from the fires, which cause climate change.
- \* UNEP also informed that since the launch of Takachar in 2018, Mohan and its co-founder Kevin Kung have worked with about 4,500 farmers and processed 3,000 tonnes of crops.



*The open burning of agricultural residues is a big source of air pollution in many parts of the world," says Mark Radka, chief of the energy and climate branch at UNEP's Economy Division. The practice also contributes to climate change by releasing tiny particles of black carbon into the atmosphere.*

*Takachar's innovative technology can help farmers turn what is currently thought of as waste into a valuable resource while helping clean up our environment."*

## 5.8 NEERx Technovation Pvt. Ltd.

- \* NEERx Technovation has been covered by Rajasthan Patrika.
- \* NEERx is an AI-ML based intelligent platform to interpret localized farm asset and provide specific actionable insights directly to the hands of farmers, researcher or consultants.
- \* App enabled SHOOL named device for multiple point observation for research and satellite data validation. Maintaining sufficient and uniform moisture levels, prevent salinity and water stagnation, detect heat stresses in field.



## 5.9 Sickle Innovations Pvt. Ltd.

- \* Sickle Innovations has been featured by ETRISE and CARE Ratings in India's Top Innovative MSMEs in Agriculture and Farming
- \* Sickle develops very innovative farm equipments based on user needs using Design Thinking approach.
- \* Incorporated in 2014, Ahemdabad they have till now launched a harvester for mango and apple, dryer with weight based drying mechanism for saffron and a light trap for vegetables.

**Rise TOP MSMEs RANKING INDIA'S BEST**

**COMPANY PROFILE**

**Sickle Innovations Pvt Ltd**

**Product Innovation**  
Sickle Innovations has launched a harvester for mango and apple, dryer with weight based drying mechanism for saffron, and light trap for vegetables.

**Business Highlights**  
The company has designed and deployed more than a dozen novel farm equipment through a wide distributor network. The equipments are used by more than 15,000 farmers across most of India. Sickle Innovations manufactures hand operated mechanical devices that help in the pre-harvesting/harvesting stage. These machines range from fruit harvesters to weed removers and seed transplanters. These tools aim to increase farmer profits either by reducing the labour cost or by increasing the value of the crop. The leadership team of Sickle Innovations has rich experience in product R&D as well as business development of over a decade. Advisors include accomplished experts in agri-tech machine technology and manufacturing, business strategy and product design.

**Location:** Ahmedabad, Gujarat  
**Industry:** Agriculture & Farming  
**Website:** www.sickle.in



## From the Editor's Desk

Greetings!

Welcome to the new edition of Taksay – Taknique se Vyavsay. I take immense pleasure to share with you a special edition of Taksay with a focus on development and implementation of various incubation programs of the ZTM & BPD unit under RKVY-RAFTAAR. During these unprecedented time we have launched **AGRI INDIA HACKATHON** in presence of Hon'ble, Agriculture Minister Shri Narendra Singh Tomar Ji along with Shri Parshottam Rupala, MOS (Agri.& Farmers Welfare), Shri Kailash Choudhary, MOS (Agri.& Farmers Welfare) along with seniors officers from MoA&FW, ICAR, IARI, DARE.

Moreover, this quarter we have conducted RC meeting for Cohort 2020-2021 in front of Ministry in which total of 18 startups were finally approved for funding.

As a Knowledge Partner for the RABIs under the RKVY-RAFTAAR scheme, PUSA Krishi has an additional duty to support other incubators, so under SAMARTH we organised 1 day session titled "Process Flow for Startup Funding" which will enable the Incubator team to transfer approved funds to Startups with ease. Our Incubator team members were also the part of various online RICs held by RABIs from various states and helped in selecting the best startups across India. Amid COVID-19 crisis, we have organised Workshop and Annual review Meeting of ITMUs/ ZTMCs and ABIs.

To conclude, this last edition of the year 2020 I wish to congratulate our startups like Satyukt Analytics, Freshokartz & BharatAgri who got VC funding at the right time and I am sure this would give them extra miles in their entrepreneurial journey.

**- Dr Neeru Bhooshan**  
Principal Scientist, ZTM & BPD Unit  
CEO, Pusa Krishi, ICAR-IARI

### From the House of :-

Pusa Krishi, ZTM & BPD Unit  
ICAR- Indian Agricultural Reserach Institute, New Delhi- 110012  
Ph- 011- 25843542  
Email: zonaltech@gmail.com/ connect@pusakrishi.in

Incharge & PI: Dr Neeru Bhooshan  
Co-PI: Dr. Akriti Sharma



[www.pusakrishi.iari.res.in](http://www.pusakrishi.iari.res.in)

Stay Tuned with Us



@pusakrishiofficial



@pusakrishi



@pusakrishi



@pusa.krishi

