



SHARAD PAWAR INSPIRE FELLOWSHIP

in

AGRICULTURE

A Journey from Inspiration to Excellence

2022-2023

an initiative by
Yashwantrao Chavan Centre, Mumbai



ADVISORY BOARD

Dr. Anil Kakodkar

(Former Chairman, Atomic Energy Commission of India)

Dr. Vivek Sawant

(Former MD, Maharashtra Knowledge Corporation Ltd)

Dr. C.D. Mayee

(President of South Asia Biotechnology Centre (SABC).

Mr. Satish Magar

(President- CREDAI National)

Mr. Girish Kuber

(Chief Editor of Loksatta Newspaper)

Dr. Farida Lambe

(Co-founder Pratham, Education and Social Activist)

Dr. Kiran Mazumdar Shaw

(Chairperson and founder of Biocon Limited and Biocon Biologics Limited),

AGRICULTURE ADVISORY COMMITTEE

Shri. Sudhirkumar Goel

(Ex. Principal Secretary (Agriculture), Govt. of Maharashtra)

Shri. Vilas Shinde

(Managing Director, Sahyadri Farms, Nashik)

Shri. Girish Chitale

(Director, Chitale Milk and Milk Products)

Mr. M.A Tejani

(Managing Director, Gits Foods Product Pvt. Ltd.)

Dr. Usha Barwale

(Director and CTO, Maharashtra Hybrid Seeds Company Private Limited (MAHYCO)

Dr. S.S. Magar

(Former Vice Chancellor, Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli)

Dr. S.N. Puri

(Former Vice-Chancellor, Central Agricultural University Imphal)

CONTENT



12 DAYS BOOTCAMP STRUCTURE AND DESIGN

01

- Inaugural address
- Interactions between the fellows and Hon. Rajendra Pawar, Chairman, ADT.
- Smart goals setting

02

- Design Thinking and Opportunity Validation

03

- Entrepreneurial Mindset.
- visits to the Science and Innovation Activity Center and the Fisheries
- Entrepreneur Talk

04

- Visit to ICAR's National Institute of Abiotic Stress Management
- Team-building Activities

05

- Visit to Dombé Patil Foods Pvt. Ltd.
- Visit to AIC-ADT Baramati Foundation

06

- Visit to Center of excellence vegetable, Baramati
- Apiary Unit in KVK, Baramati

07

- Hands-on Training in Prototyping Technologies
- Digital Marketing

08

- Business Model Canvas and the Business Idea Pitch
- Entrepreneur Talk

09

- Soft skills training (Communication, Speaking, Interpersonal Activity and Ice Breaking Sessions)
- Entrepreneur Talk

10

- Visit to Center of Excellence Dairy, Baramati

11

- Use Of Ai, Iot, Data Science, ML, Quantum Computing and Data Science In Agriculture

12

- Concluding Ceremony

WORDS OF APPRECIATION



This overview of the progress made for the 2021 winter batch of Sharad Pawar Inspire Fellowship (SPIF) in Agriculture brings out salient aspects of the scheme including the twenty-one-day bootcamp that was organised for the fellows at Baramati. Clearly a lot of detailed thinking and planning has gone into shaping of this programme as even a quick glance of this booklet would reveal.

Our country has a distinctive feature of being a land of youth. A larger fraction of them come from the rural domain and thus are connected with agriculture in one way or other. It is thus vital that we create opportunities for them to explore their ideas to make a significant positive difference to agriculture and allied sector leveraging the full potential of new knowledge and technologies. Developments in industrial era have led to creation of greater opportunities in urban areas leading to significant migration from villages to cities and growing disparities between the two. The present knowledge era potentially reverses the situation. Through proper education, training and capacity building of youth and leveraging decentralised and democratised mode possible in the knowledge economy, rural domain can in-principle contribute in all the three sectors of economy viz. the agriculture, manufacturing and service sectors in a much more significant way. This could mean a major boost to rural economy and more importantly bridging of the urban-rural divide. Sharad Pawar Inspire Fellowship constitutes an innovative and important platform for this purpose.

It is nice to see that the bootcamp has created a very broad firsthand exposure for the Fellows in a broad range of new technologies and processes. Apart from seeing many of them in action, the bootcamp has also created life time opportunity for the fellows to listen to and interact with leaders and icons in these areas. I am certain, the fellows have emerged fully charged to take their respective ideas forward leveraging mentorship and incubation support that would come forward in days to come. A further outcome expected through this platform is the leadership development through peer-to-peer exchange among fellows and the conducive ecosystem that the platform enables. My best wishes to all Sharad Pawar Inspire Fellows for full success in their respective endeavours. May their collective efforts contribute to a new movement for accelerated development and growth of Maharashtra. That would be a fitting salute to glorious career of Hon. Shri Sharad Pawar.

I would also like to pay tributes to the initiative and leadership of Hon. Smt. Supriya Sule in shaping this very meaningful and creative endeavor and to the efforts and contribution of all colleagues involved in implementation of the Sharad Pawar Inspire Fellowship in Agriculture.

With compliments and best wishes,

Anil Kakodkar

ABOUT SHARAD PAWAR INSPIRE FELLOWSHIP



The agriculture sector in India is a significant contributor to the country's GDP, employing over 50% of the workforce. However, it faces many challenges, such as deteriorating soil health, decreasing productivity per acre, and extreme floods and droughts due to climate change.

These challenges also present opportunities to disrupt current practices and bring about positive change. To achieve this, the youth of the nation must be equipped with the latest technologies in agriculture and allied sectors, including artificial intelligence, internet of things, controlled environment agriculture, and genetic improvements in animals.

With the help of technology, the agriculture sector in India can become more efficient and sustainable, leading to increased food production and improved livelihoods for farmers.

GENESIS

The Yashwantrao Chavan Centre in Mumbai has established the "Sharad Pawar Inspire Fellowship in Agriculture" to recognize the distinguished career of Sharad Pawar and award meritorious students in the field of Agriculture. This fellowship, which includes three areas of Agriculture, Literature, and Education, was first proposed by Mrs. Supriya Sule and guided by Dr. Anil Kakodkar and Dr. Vivek Sawant. The inaugural ceremony for the fellowship was held on December 11, 2021, at the Nehru Science Centre in Mumbai.

The objective of this fellowship is to encourage innovation and incubation in the field of agriculture. To implement the program, the ADT took charge of the 21 Days Boot camp, which was designed to provide practical training to the fellows. The program aims to support young and talented individuals in their pursuit of excellence in agriculture, literature, and education.

The Sharad Pawar Inspire Fellowship in Agriculture is an excellent initiative to recognize and support outstanding students in the field of agriculture. By providing financial and practical support, the program will encourage young and talented individuals to pursue their goals and make significant contributions to the agricultural sector.





OBJECTIVES OF SPIF

Create an inspiration and learning platform for youth in the state of Maharashtra who undergo a 12-month long journey of discovering their own leadership potential and being inspired to bring about transformative change. It includes training, mentorship, reflections and hands-on experience with grass root organizations working on the issues that the fellowship program has selected.

1

To inspire and em-power the youth to take up leadership roles in agriculture and allied sectors



2

To provide an introduction to the technical aspects of new technologies such as artificial intelligence, protected cultivation, animal genetic improvement etc, and their various applications in agriculture and food industries



3

To develop an end-to-end understanding of the process of innovation right from basics of sensors and sensor development to advanced applications of AI in quantum computing



4

To provide hands on training to students in design, development and execution of various artificial intelligence projects



5

To familirize fellows in applications of advanced technologies such as artificial intelligence, augmented reality, blockchain, quantum computing etc. in food and agriculture sectors



6

To engage students with a varied panel of international experts accomplishing ground-breaking results on real world problems with the help of AI in industrial setting

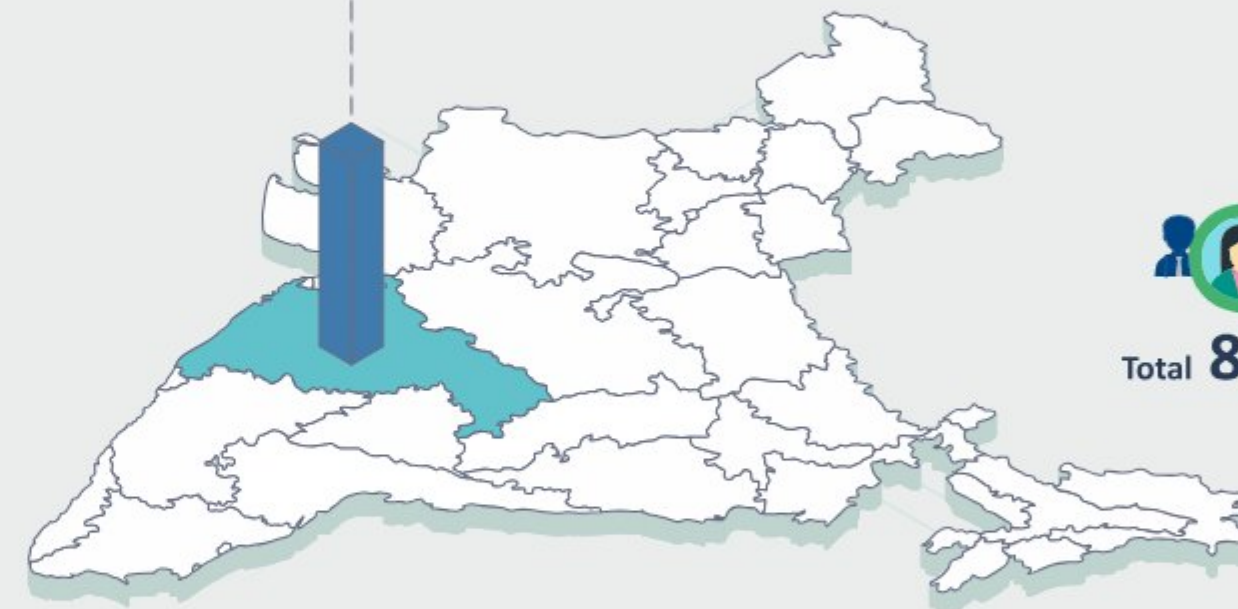


MAHARASHTRA

One State
36 Districts
1276 Applications



2 Fellows from each district
1 Male and
1 Female



Total 80 Candidates

Screening of applications
based on different criterias



12 DAYS BOOTCAMP STRUCTURE AND DESIGN

The programme was put together by the Innovation and Incubation Center at the Agricultural Development Trust (ADT), Baramati in collaboration with the Yashwantrao Chavan Centre, Mumbai with the intention of providing the fellows with practical knowledge and hands-on experience in the field of advanced agricultural technology which they might put to use while setting up their own enterprise in near future. The different technologies that can be employed in agriculture to increase overall efficiency and productivity were thoroughly explained to the participants.

Greenhouse Technology and Practices, Advanced Dairy Technology and Practices, Consumer-Centric Marketing, Climate Resilient Approach in Agriculture, IPR, Agricultural Marketing, and other subjects were covered during the 12-day training sessions from December 13th, 2022 to December 25th, 2022.



DAY 1



The inaugural address by Nilesh Nalawade Sir, CEO, ADT, Baramati, and Jaya Tiwari Madam, CEO, AIC-ADT Baramati Foundation was given in the morning session of the first day of the SPIF 2022 Winter Bootcamp.



This was followed by interactions between the fellows and Hon. Rajendra Pawar, Chairman, ADT.



Respectively in the afternoon and evening sessions. Mr. Shrinivas Kher, Consultant, MKCL, who spoke on setting smart goals was followed by Mr. S. S. Magar Sir, Trustee, ADT, who then discussed Climate-Resilient Agriculture with the fellows.



DAY 2



Both Mr. Yogesh Brahmkar, CEO of Symbiosis Technology Business Incubator (SCEI), and Prof. Ismail Akbani, Head of Innovation & Linkages (SCEI), lectured on Design Thinking and Opportunity Validation during the day's events.



DAY 3



Mr. Ram Bende from the Development Agency, Pune. He is a coach, trainer, and mentor. Held a workshop on the Entrepreneurial Mindset.



Fellows were taken for visits to the Science and Innovation Activity Center and the Fisheries Unit during the afternoon and evening sessions, both of which were held at KVK, Baramati.



Mr. Suhas Kachare, Director of Mahapeek Fertilizers Pvt. Ltd., enlightened the fellows during the late-evening session by discussing his entrepreneurial journey.





DAY 4



Fellows learned about the various research projects carried out at the research institute during their tour to the ICAR's National Institute of Abiotic Stress Management in Malegaon Khurd, Baramati.



The AIC-ADT team involved the fellows in a variety of team-building exercises during the evening session, including river crossing, rope shaping, flying pens, and robotic teams.



DAY 5



A visit to Sameer Dombe's fig farm and to learn how he carried on his family's customary fig crop and created a value chain for figs from Farm to Fork.



Post lunch visit to AIC-ADT Baramati Foundation's Atal Incubation Center to understand the working of AIC and the startups they have incubated till date.



DAY 6



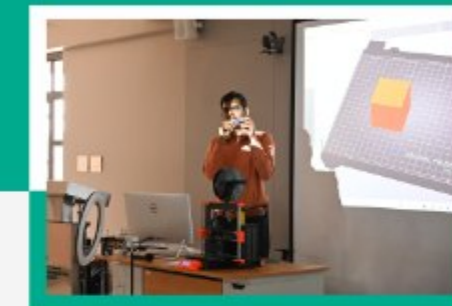
Fellows gained first-hand experience with preparing media for growing seedlings and vegetable seedling grafting during a visit to the Indo-Dutch Center of Excellence in Horticultural Crops, which includes hydroponically grown vegetables, flowers, and flowers grown in soil-free media inside of high-tech polyhouses and greenhouses.



For the evening session, the fellows went to the Apiary Unit in KVK, Baramati where they learned about raising of honey bees, different kinds of bees, the value and advantages of honey, royal jelly, wax, etc.



DAY 7



A full day of hands-on training in prototyping technologies, including 3D printing, PCB creation, laser cutting, vinyl cutting, and CNC routing, was provided to fellows.



The fellows received instructions on digital marketing in the evening session from Kiran Pawar of Infinity Solutions, Baramati.



DAY 8



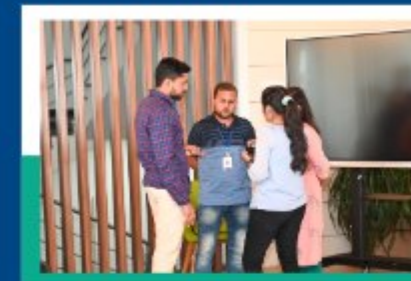
Mr. Ram Bende from the Development Agency, Pune. He is a coach, trainer, and mentor. Held a workshop on the Business Model Canvas and the Business Idea Pitch.



Mr. Abhijit Panshikar, the founder of Ayurcin Biogenics, spoke with the fellows at the evening session and shared his business experience.



DAY 9



The president of the Indo Science Education Trust, Mr. Santosh Pise, conducted a full day session on soft skills training (Communication, Speaking, Interpersonal Activity and Ice Breaking Sessions).



Mr. Abhijit Panshikar, the founder of Ayurcin Biogenics continued his session from the previous day.



DAY 10



The Fellows participated in a full-day workshop that gave them hands-on experience with milk processing, animal husbandry, and running very sophisticated analytical labs.



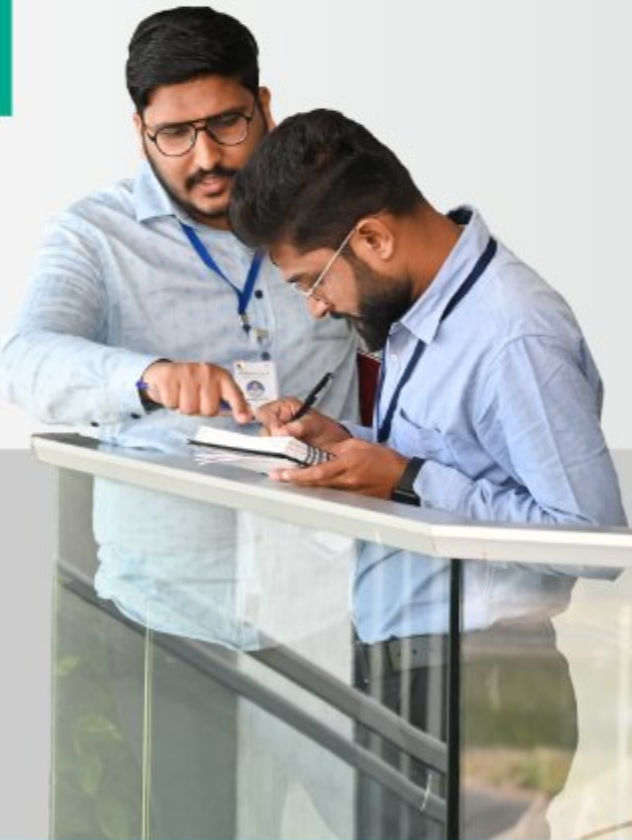
DAY 11



The fellows were instructed on modern technology in agriculture (use of AI, IoT, Data Science, ML, and Quantum Computing) and data science in agriculture by Sarang Nerkar, the founder of Innosapien Technologies.



Dr. Hemangi Raul spoke on writing critical reports and offered tips to write an effective report.



CONCLUDING CEREMONY SNIPPETS



The Winter Edition of Sharad Pawar Inspire Fellowship in Agriculture 2022-2023 boot camp held at ADT, Baramati was a resounding success, bringing together 80 of the brightest and most motivated young fellows from 36 states of Maharashtra. This boot camp provided an opportunity for the fellows to learn from experienced professionals in the field of agriculture, to network with like-minded individuals, and to develop a deeper understanding of the challenges and opportunities in this important sector.

Throughout the boot camp, the fellows displayed a passion for agriculture and a strong commitment to using their skills and knowledge to make a positive impact in their communities. They participated in a range of workshops, lectures, and interactive sessions that covered a wide range of topics, from sustainable agriculture practices and innovative technologies to entrepreneurship and leadership.

We would like to extend our heartfelt thanks to the Yashwantrao Chavan Center, Mumbai and Hon. Supriya Sule – MP of the Baramati Constituency, Hon. Rajendra Pawar - Chairman, ADT, Baramati who made it possible for these young fellows to gain valuable experience and insights into the world of agriculture.

In conclusion, we believe that the Winter Edition of Sharad Pawar Inspire Fellowship in Agriculture 2022-2023 boot camp will be remembered as a seminal moment in the journey of these inspiring young fellows. They have shown that they are leaders of tomorrow, and we are confident that they will play a crucial role in shaping the future of agriculture in India and beyond.

FUTURE ENGAGEMENTS



FELLOWS
MENTOR
CONNECTION



INCUBATION
SUPPORT

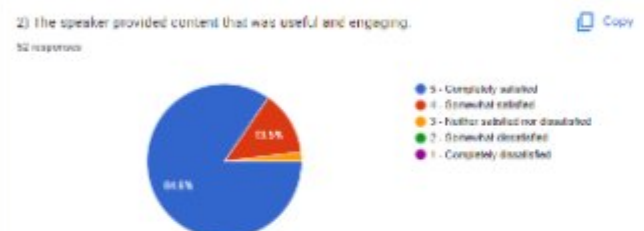
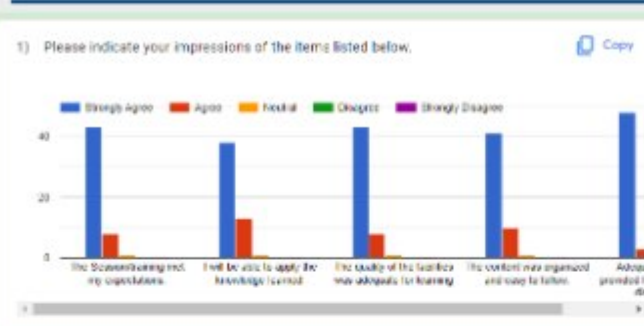


NEED BASED
DESIGNED
WORKSHOPS

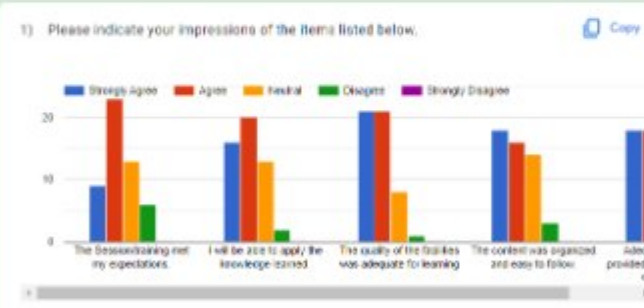
FEEDBACK FORMS



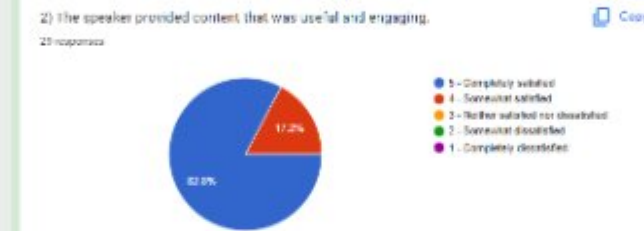
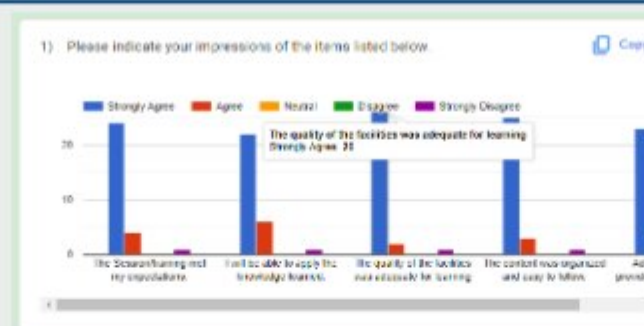
FEEDBACK FORMS TO GET INSIGHTS FROM FELLOWS TO UNDERSTAND WHAT WE'RE DOING WELL AND WHAT WE NEED TO IMPROVE DURING BOOTCAMP



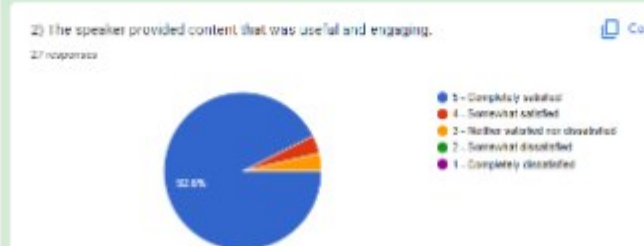
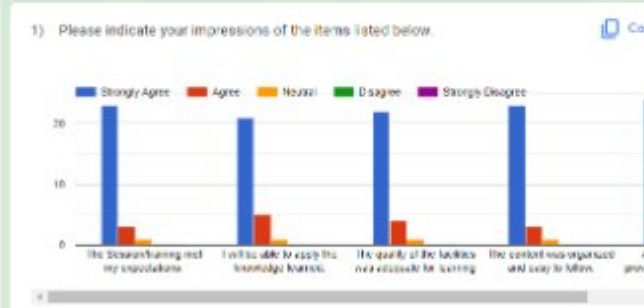
Session name: Interactive session: Climate Smart Agriculture
Speaker Name: Dr. S.S. Magar, Ex. VC. BSKKV, Dapoli



Session name: Setting Smart Goal
Speaker Name: Mr. Shrinivas Kher, Consultant at MKCL



Session name: Entrepreneurial Mindset
Speaker Name: Mr. Ram Bende, Business Coach Consultant



Session name: Entrepreneur talk
Speaker Name: Mr. Suhas Kachare, Mahapeek Fertilizer company, Solapur

IDEAS RECEIVED

The fertile minds of our fellows proved to be a veritable treasure trove of ingenious ideas, leaving us positively astounded and filled with inspiration.

I built my startup on the agricultural industry. For various illnesses like diabetes, thyroid, pcos treatment. We produced many types of tea. We worked on the components needed to make tea, and then we made it. It is best to overcome various illnesses. We are also concentrating on the adjustments made in light of the findings. We also began raising bees with 16 boxes. For the benefit of those who are health-conscious, we harvest raw and pure honey. There is a lot of fake honey available in the market. We are employed in this field as a result. We also use honey to make the gulkand. Normally, the gulkand is composed of sugar, but we give it with honey and roses instead.



OMKAR DADASAHEB SASTE SATARA



VISHWAJEET KALE AURANGABAD

My unique idea is to reinforce biotic components like chitosan with chemical fertilizers to create briquettes that may be applied to crops in the field. This could increase the effectiveness of fertilizer use relative to granular fertilizer, decrease leaching losses of nutritional fertilizer, etc. In plants, chitosan is reported to have anti-transpirant properties. As a result, there can be more agricultural yield with less water. Improvements in crop output and water conservation benefits farmers. The fertilizer briquette industry is still in its infancy. I can thus start a business in such an industry to meet rural demand.

I already have two startups filed under PDKV-RIF and UTKARSH-PDKV. Using this platform, I wish to spread this concept more throughout Maharashtra. My primary target are farmers and FPOs. I've already established connections with more than 40,000 farmers in Maharashtra. The following are some of my ideas for agriculture.

- 1) Drones represent the future of agriculture and allied sciences, according to the first drone-based service. Using my Krushishastra firm, I aim to begin providing farmers with drone-based spraying and mapping services.
- 2) Technology for seed germination: For farmers, seeds are a crucial input. To help farmers access high-quality seed and avoid paying more for it, I aim to create a quick-step device that can scan seed as it germinates.
- 3) A farming digital platform Via my web-enabled portal Krushishastra.org, I have connected more than 10 FPO's and numerous self-help groups in Wardha.



NIKHIL YADAV WARDHA

Millets are frequently referred to as "Nutri-Cereals" because of their high nutritional content (protein, fibre, micronutrients, and phytochemicals), low carbon and water footprint, and ability to grow in very arid settings with few inputs. Millets project- 1. To separate millet's starch 2. To carry out HMT modification of millet starch. 3. To describe the physiochemical, X-ray diffraction, and FTIR characteristics of native and modified starch (HMT).



JANHAVI KOTHMIRE NASHIK



SHARAD PAWAR

INSPIRE FELLOWSHIP

IN AGRICULTURE



Implemented by

**INNOVATION & INCUBATION CENTRE-
AGRICULTURAL DEVELOPMENT TRUST,
BARAMATI**

For More Details :

Yashwantrao Chavan Centre 5th
Floor, Y B Chavan Centre, J Bhosale Marg,
Nariman Point, Mumbai, Maharashtra
400021

Contact no. +91 9860740569
www.sharadpawarfellowship.com

AIC- ADT Baramati Foundation
Post Box No. 35 (Malegaon Col.),
Sharadanagar, Baramati, Pune,
Maharashtra – 413115, India

Contact No. +91 8669911299
aicadt@adtbaramati.com
www.aicadtbaramatifoundation.org