

## **AMITY's Efforts for SDG2 Zero Hunger**

### **2.5.2: Does your university as a body provide events for local farmers and food producers to connect and transfer knowledge?**

Empowering local farmers and food producers is a crucial step in achieving food security and sustainable agriculture. Through extension activities, training programs, and access to university facilities, farmers gain the knowledge and skills necessary to thrive in modern farming practices.

Amity University Uttar Pradesh, Noida is committed to generating knowledge and developing technologies for farmers and producers and sharing the developed knowledge and technologies with farmers, students, and all stakeholders. Eight institutions at Amity University are dedicated to working on food security and sustainable agriculture covering the various aspects ranging from soil and value chain development. The excellent lab infrastructure is being used to develop technologies and create solutions for food security and sustainable agriculture. Dedicated extension services work in transferring knowledge and technologies to the farmers.

During the year 2023, several training and demonstrations were conducted on 2.5.2. The details are provided in respective Appendixs.

S. no.	Title of the event	Date of the event	Venue	Name of the institution organized	Major Highlights	Appendix no	Page No.
<b>2.5.2: Does your university as a body provide events for local farmers and food producers to connect and transfer knowledge?</b>							
1	'Know Your Millets'	January 23, 2023	F1, Seminar Hall, Amity University, Noida (U.P.)	AFAF	Role and importance of Millets in food security and nutrition & sustainability.	Appendix 1	5-16
2	Organized one day workshop "Vigyan, Anusandhaan Aur Jagruk Kisan Milkar Karen Uttam Bhavishya Ka Nirmaan" Dissemination of safe & cost effective IPM technologies for combating soil borne pathogens.	February 13, 2023	Amity University Lucknow Campus	AFAF	During the scientific sessions, experts provided valuable insights into critical aspects such as water conservation, soil-borne diseases management, modern organic farming, and innovative pest management technologies. Their contributions paved the way for a comprehensive understanding of the challenges faced by farmers and the necessary preventive measures to ensure sustainable and fruitful agricultural practices. The workshop concluded with the resounding message, "VIGYAN, ANUSANDHAAN AUR JAGRUK KISAN MILKAR KAREN UTTAM BHAVISHYA KA NIRMAAN" (Science, research, and aware farmers together build a better future). This resonates with Amity's overarching vision of empowering farmers with knowledge and resources to enhance agricultural productivity, ensure environmental sustainability, and improve the socio-economic well-being of communities.	Appendix 2	17-21

3	Unnat Bharat Abhiyan on 19th January 2023.	February 22, 2023	Nangli Wazidpur is a village in the western part of the state of Uttar Pradesh	Amity Institute of Organic Agriculture	First activity under Unnat Bharat Abhiyaan was a visit to the primary school which was headed by Joint Coordinators Dr. Sangeeta Pandey and Dr. Durgesh Tripathi along with the head of KVK department Dr. Mayank Rai and few students of Amity University. Following were the major topics of discussion during the interaction session : 1.International year of millets 2. Unnat Bharat Abhiyaan demonstration : Higher Educational Institutions (HEIs) to work with the rural people and identify the challenges they face and come up with solutions for their sustainable development. 3. DOOR TO DOOR SURVEY	Appendix 3	22-26
4	Indian's Only Trade Fair Specialized on Urban Farming from 24 to 25 March 2023	March 24-25, 2023	Tyagraj Stadium in New Delhi	AFAF	Highlight the ongoing global trend of urbanization, which is leading to increased demand for food in cities and the expansion of urban areas into previously agricultural land.  Emphasize the role of urban and peri-urban farming in providing fresh, locally grown produce to urban populations, reducing the carbon footprint associated with food transportation.  Discuss how urban and peri-urban farming can contribute to biodiversity conservation by providing habitat for pollinators and other wildlife in urban areas.  Highlight the potential for urban farming to reduce food waste by shortening the supply chain and making use of surplus or unused land within cities.  Support research and development efforts to improve urban farming practices, increase crop yields, and develop new varieties suitable for urban environments.	Appendix 4	27-30

5	Amity Youth Fest 2023, PHALMIL,	April 1, 2023	Amity University	AFAF	1. Students showcase creative millet-based recipes, blending traditional and modern culinary techniques, highlighting millets' versatility and nutritional benefits. 2. Live cooking demonstrations where participants prepare millet-based dishes in front of a panel, showcasing culinary skills and creative presentation.	Appendix 5	31
6	Organized one day workshop for “Skill Development Program on Management of Tropical & Subtropical Fruit Crops”.	July 27, 2023	Amity University Lucknow Campus	AFAF	Enhanced Skills: The NABARD project farmers and gardening staff demonstrated a noticeable improvement in their gardening techniques, resulting in better landscape maintenance across the campus.  The plantation drive added lush greenery to the university campus, improving its aesthetics and providing a conducive environment for academic and recreational activities.  The awareness programs instilled a sense of responsibility towards sustainability, leading to reduced water consumption, minimal use of chemical pesticides, and increased composting practices.  The introduction of plant species contributed to the promotion of local biodiversity, attracting various birds and insects, and supporting the ecosystem.	Appendix 6	32-34
7	Providing events for Local Farmers and Food producers to contact and transfer Knowledge. (Year 2023)	2023	AFAF	AFAF	There is a potential availability of about 5.5 Mt sal seeds year <sup>(-1)</sup> and after taking oil from the sal seeds, about 3-5 Mt de-oiled sal cakes are left as waste. The nutrient needs of Indian agriculture to some extent can be met by utilizing this nutrient-rich waste. The main issue with SSC is the tannin content. Value-added SC is suggested as a remedy for this problem	Appendix 7	35



Amity Institute of Organic Agriculture

REPORT: 'Know Your Millets'

Name: Know Your Millets

Date: Monday, 23<sup>rd</sup> January 2023

Time: 2:00 PM onwards

Venue: F1, Seminar Hall, Amity University, Noida (U.P.)

Organized by: The Literary Club, Amity Institute of Organic Agriculture

Topic: Role and importance of Millets in food security and nutrition & sustainability.

Moderators:

Dr Sangeeta Pandey, Joint Coordinator, (Academics and Student Welfare), AIOA

Dr Durgesh Kumar Tripathi, Joint Coordinator (Research and Development), AIOA

#### List of Esteemed Panel Speakers:

- Mr Morup Namgail (Head Agritech – IFFCO Kisan)
- Mr Phillip Ratnam (Managing Director – HOPE Foods)
- Ms Shubhangi Singh (Founder –Golden Millet)
- Mr Manish Kumar (Entrepreneur- Director, MEmillets and Foods(OPC) Pvt. Ltd)

Inauguration and Saraswati Vandana 2:30-3:00 PM

The event inaugurated at 2:30PM, the delegates were invited to the seminar hall and upon their arrival, each of them were greeted with “Tilak and Aarti Ceremony,” post that when the presence was registered at the venue, the Lamp Lighting took place, invoking Maa Saraswati by reciting “Saraswati Vandana,” to bless everyone with wisdom.



Inauguration and Saraswati Vandana



Welcome Address & Introductory Remark by Dr Sangeeta Pandey - Joint Coordinator-AIOA 3:00 PM

This marked the beginning of the event. The session took place in two halves, the speakers for the first half were: Ms Shubhangi Singh and Mr Manish Kumar.



Welcome Address & Introductory Remark by Dr Sangeeta Pandey



Speaker wise discussion points (as per program flow):

**Inauguration Ceremony (Brief Introduction):** Dr Sangeeta Pandey, Joint Coordinator (Academics and Student Welfare), AIOA inaugurated the event with an opening remark to establish the objective and the purpose of the event which aims to comply with the idea presented by the UN while declaring the year 2023 as 'International Year of Millets'

First Speaker : **Ms Shubhangi Singh**, is an aspiring entrepreneur working with three established brands in the Millet industry that are: **Golden Millets, Ancient Golden Mill and Fevolution**. She has an inspiring journey from an established Architect to an individual who is wholeheartedly working to promote the uses and its nutritive value. She began as the first speaker in the event and her initial points were to highlight the reasons of food security & safety, poverty, soil erosion and how emerging interest of students in Agricultural studies could bring about a change. She further added about the challenges faced by farmers in growing Millets as a main crop, with her efforts in cognizing farmers about the effective cultivation of Millets. In her address, she also added about the extensive uses of Millets in day-to-day life that includes, Barnyard Millet while fasting.



**Ms Shubhangi Singh talking about the Golden Millets, Ancient Golden Mill and Fevolution**

Second speaker, **Mr Manish Kumar is Director at MEMillets and Food**, with an avid interest in the Millet industry. He began his narration by appreciating Ms Shubhangi on her views about Millets, precisely Sorghum. He further shared about sorghum and differentiated minor and major millets and how the demands have increased. Later in his interaction, he elucidated about sorghum and its usage as a biofuel, and that cultivators should increase the cultivation of millet. Mr Manish Kumar also agreed on the fact that millet has vanished from our plates and that for ages millets were commonly used to feed birds and animals, until the health benefits of these superfoods were known to the world.



Session – II 4:00 – 4:30 PM

#### Right Tech propositions for Millets- Mr. Morup Namgail

The second half of the discussion was taken forward by third speaker, **Mr. Morup Namgail, Head – Agritech (IFFCO Kisan Suvidha Ltd.)** who shared his expertise in Business - to - Business (B2B) and Software as a Service (SaaS) strategy, Agri-Tech, etc. He addressed his delight to be at the campus of Amity University for the second time as a guest speaker. He started with highlighting a journey from the Green Revolution to how far we have come, an emerging Agriculture state but lacking some integral spaces that needs to be taken care of. The stated problems include, a bridge between farmers and agribusiness which is huge, where the middlemen takes the maximum profit; lack of apt transportation; inability to grow crops; less awareness of schemes etc. He further briefed about the need of Millets and his experience in propagating and urging farmers to cultivate Millets, proceeding with that he added about the transformation of Agriculture industry from Agri1.0 to Agri2.0 to Agri3.0 and how the Agri4.0 could aid the life of farmers with the technological intervention like remote sensing, AI, sensors etc.



4:30-5:15 PM

Importance of Millets and their history- Mr. Philip Ratnam

Moving forward the podium was taken by fourth speaker, **Mr. Philip Ratnam, Managing Director – HOPE Foods**, He started his addressal with a thank you note to the Amity Institute of Organic Agriculture, and then went on to share his views on Millets, why they are proclaimed as ‘superfood’ and took us down history lane. He elucidated the audience about how Millets used to be a staple and to a tragedy it lost its importance. While opining, he went on to describe some major health issues and how they can be avoided by incorporating Millet based products or using millets as one of the ingredients in our daily diet. He explained his journey and experience on how he has been working on millets for more than 10 years.



### Poster Competition “KALAKRITI”- Students of AIOA

Post the conclusion of both the sessions, a poster presentation competition was held where the esteemed delegates were requested to rate the displayed posters on a 20 pointer scale. The students while presenting their individual posters explained about the theme to engross the interaction. The delegates also took the moment to question the competitors on their posters and awarded marks on three factors: creativity, relevance and correctness.

#### **Closing Ceremony:**

With the conclusion of both the sessions and the poster presentation, Dr Sangeeta Pandey, the Joint Coordinator - Amity Institute felicitated the delegates with a sapling of sacred Tulsi plant and expressed the gratitude on behalf of the entire department and the university to fit the event in their busy schedule.



Felicitation of speakers



Felicitation of speakers

#### Winners announcement "KALAKRITI"

The delegates admired the art of Mr Suman Das and with all their collective points, he secured the 1st position. The second position was secured by Mr Mayank Parvana.



Winners announcement "KALAKRITI"



Winners announcement "KALAKRITI"



## Appendix 2:

**“VIGYAN, ANUSANDHAAN AUR JAGRUK KISAN MILKAR KAREN  
UTTAM BHAVISHYA KA NIRMAAN”**

**One day workshop On**

**“Dissemination of safe & cost effective IPM technologies for combating soil borne  
pathogens.”**

**Date: February 13, 2023, (11:00 AM onwards)**

Organized by:

**Amity Food and Agriculture Foundation,**

**Amity University Uttar Pradesh, Lucknow In**

association with

**Council of Science and Technology, Lucknow (UPCST)**

### **Chief Guest:**

1. **Hon’ble Shri Brajesh Pathak Ji**, Deputy Chief Minister and Minister Health and Family Welfare Medical Education UP Govt.

### **Guest of Honor:**

2. **Shri Alok Kumar IAS**, (Director General, UPCST, Lucknow)
3. **Shri Manoj Kumar Singh IAS**, (APC, UP Govt.)

### **Patrons in chief:**

4. **Hon’ble Dr. Ashok K. Chauhan** (Founder President, Ritnand Balved Education Foundation) (RBEF).
5. **Dr. Aseem K. Chauhan** (Chancellor, Amity University Rajasthan; Chairman, Amity University Uttar Pradesh, Lucknow.

#### Patrons:

1. **Prof. (Dr.) Balvinder Shukla** Vice chancellor, Amity University Uttar Pradesh, Noida
2. **Wg. Cdr. (Dr.) Anil Kumar** (Retd.) Deputy Pro Vice Chancellor, Amity University Uttar Pradesh, Lucknow.

#### Co-Patrons:

3. **Prof. (Dr.) Qamar Rahman**, Dean Research (S&T) Amity University Lucknow campus
4. **Dr. Nutan Kaushik**, Director General, AFAF, Amity University Uttar Pradesh, Noida

#### Organizer and Convenor:

1. **Dr. Shalini Singh Visen**, Director & PI, AFAF  
Amity University Uttar Pradesh Lucknow Campus

#### Expert:

1. **Dr. D.K. Srivastava** (Joint Director, UPCST, Lucknow)
2. **Prof. (Dr.) Gopal Singh** (Professor & Joint Director Research, SVBP University, Meerut)
3. **Dr. Manoj Tripathi** (Principal Scientist Agronomy, IISR, Lucknow)
4. **Dr. Rajbir Singh** (Professor Plant Pathology, Gochar Mahavidyalaya, Rampur Maniharan, Saharanpur)
5. **Mr Nalin Rawal** (CEO Dhoom Farm, Greater Noida)
6. **Mr Amit Singh** (Plant Protection Officer RCIPMC, Lucknow)

Amity envisions supporting Indian farmers, especially small and marginal ones, through research, training, and academic efforts at various stages of production, from seed selection, fertilizer/bio fertilizer, irrigation, farmland preparation, integrated pest management, integrated nutrient management, harvest, post-harvest handling and use of simple machinery to eliminate drudgery, transport, processing, and related areas.

The Council of Science and Technology Uttar Pradesh funded the project **“Dissemination of safe & cost effective evolved IPM technologies for combating pest and soil borne diseases.**

of solanaceous crops in Bahraich District of Uttar Pradesh state for uplifting the socio-economic status of poor and marginal growers” in the year 2020. A workshop was organized by AFAF Lucknow with the aim of disseminating the lab-based knowledge and outcome to the farmers belonging to Bahraich with the title, “Dissemination of safe & cost effective IPM technologies for combating soil borne pathogens”. The Inaugural session was conducted on 13<sup>th</sup> and the Chief Guest of the event was Dy. Chief Minister and minister for Family welfare education Uttar Pradesh, Hon’ble Shri **Brajesh Pathak**.

The event was graced by **Shri Manoj Kumar Singh** IAS, (APC, UP Govt.) as the Guest of Honor **Dr. D.K. Srivastava** (Joint Director, UPCST, Lucknow) also accompanied the dignitaries on the dais inclusive of Dy. Pro VC AUUP Lucknow, **Wg. Cdr. (Dr.) Anil Kumar** (Retd.) and **Dr. Shalini Singh Visen**, Director & PI, AFAF, Amity University, Lucknow Campus. The event started with National song “Vande Mataram....” Followed by lighting of lamp as our devotion to the Goddess Saraswati. The Guest dignitaries were welcomed with a token of love and affection as bouquet and shawl. **Dr. Shalini Singh Visen, apprised the audience with the detailed report on the project conducted with the Bahraich district farmers and the objectives achieved at the ground level were assisted with the pictures.**

**Shri Brajesh Pathak ji** emphasized on the upliftment of the farmers through IPM technology and assured his services to the Amity University in bringing up the socioeconomic status of the farmers. He emphasized on limited usage of chemical fertilizers and switching to organic farming or natural farming methods for saving our mother earth.

**Shri Manoj K. Singh ji** shared the Govt. policies with the audience and appreciated the efforts of the university. In his presentation he showed the crops grown in Uttar Pradesh and is at the top.

**Dr. DK Srivastava** applauded Dr. Shalini Singh visen, PI of the project for putting immense efforts in bringing the lab work to the field. He informed the audience about the status of adjoining demographic distribution and problems faced by the farmers in their fields due to climatic changes and long term usage of the chemical fertilizers. He also gave an overview on the topic of interest for the Govt. to get the projects funded.

**Dr. Shalini Singh Visen** and **Mr. Ashish Dixit**, along with the scholars showcased their security model for agriculture farm based on solar energy utilization synergized with GSM technology in the atrium, which was well appreciated by the Dy. CM. As a token of gratitude

all the dignitaries and attendee along with the coordinators were thanked for their immense efforts for smooth conduct of the Inaugural session. The event culminated with chanting our National Anthem followed by lunch for all.

The scientific session started post lunch with the eminent speakers from different disciplines to ignite the organic practices and apprise the benefits of IPM technology to the farmers. **Dr. Manoj Tripathi**, Principal scientist, IISR, Lucknow gave an insight into the topic, “Methods of water conservation and water management in agricultural crops”. **Dr. Rajbir Singh**, Professor Plant Pathology, Gochar Mahavidyalaya, Rampur Maniharan, Saharanpur briefed on the topic, “Important soil borne diseases of vegetable crop of district Bahraich Uttar Pradesh and their cost-effective management”. His presentation made a connect with the farmers and they enquired about the remedial measures also. **Prof. (Dr.) Gopal Singh**, Joint Director Research, SVBP University, Meerut focused on “Modern Organic farming in vegetable crop”. His talk was well taken by the farmers, and they showed their eagerness to go for organic farming. **Mr. Nalin Rawal**, CEO & Co-Founder, Dhoom Farms Pvt. Ltd. gave a description “Innovative technologies for pest management under IPM”. He made the connect with the audience with pictures pertaining to the IPM technology applied in his farm and motivated the farmers to take help of advanced technology for better crop production and quality yield. **Dr. Shalini Singh Visen**, discussed the problems faced in the field and summarized the preventive measures. All the speakers were successful in disseminating their scientific knowledge for the farmer’s welfare.

The workshop ended with a note,” **“VIGYAN, ANUSANDHAAN AUR JAGRUK KISAN MILKAR KAREN UTTAM BHAVISHYA KA NIRMAAN”**.

Our future approaches would be collaborative projects based on:

1. To develop a multidisciplinary knowledge hub, performing quality research in plant, agriculture, and food science
2. To develop awareness towards climate smart agriculture and waste management technologies for sustainable development
3. To train farmers and other stakeholders for the future
4. To develop short term certification courses on Mushroom Production, Apiculture, Sericulture and Organic Farming in collaboration with UP Government.

5. To develop low-cost solar assisted transportation vehicle for farm goods and other farm machineries. This could be easily available to the villagers.

At the end farmers were asked to submit their feedback in the format developed by the Institution Research team to get the response of the beneficiary just to see their level of satisfaction so that in case some improvement could be made in future road map.

### **Appendix 3:**

#### **Unnat Bharat Abhiyan**

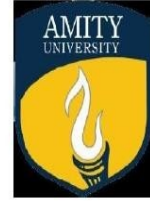
**Date of the Event: 19th January 2023**

First activity under Unnat Bharat Abhiyaan was a visit to the primary school which was headed by Joint Coordinators Dr. Sangeeta Pandey and Dr. Durgesh Tripathi along with the head of KVK department Dr. Mayank Rai and few students of Amity University. Following were the major topics of discussion during the interaction.

session : 1.International year of millets.

2. Unnat Bharat Abhiyaan demonstration : Higher Educational Institutions (HEIs) to work with the rural people and identify the challenges they face and come up with solutions for their sustainable development.

3. DOOR TO DOOR SURVEY



## UNNAT BHARAT ABHIYAAN

The Mission of Unnat Bharat Abhiyan is a Central Government Programme to enable higher educational institutions to work with the people of rural India through identifying development challenges and evolving appropriate solutions for accelerating sustainable growth. It aims to create a virtuous cycle between society and an inclusive academic system by providing knowledge and practices for emerging professions and to upgrade the capabilities of both public and private sectors in responding to the development needs of rural India.

**Vision :** Unnat Bharat Abhiyan is inspired by the vision of transformational change in rural development processes by leveraging knowledge institutions to help build the architecture of an Inclusive India.

**Mission:** The Mission of Unnat Bharat Abhiyan is to enable higher educational institutions to work with the people of rural India in identifying development challenges and evolving appropriate solutions for accelerating sustainable growth. It also aims to create a virtuous cycle between society and an inclusive academic system by providing knowledge and practices for emerging professions and to upgrade the capabilities of both the public and the private sectors in responding to the development needs of rural India.

**Goals:** To build an understanding of the development agenda within institutes of Higher Education and an institutional capacity and training relevant to national needs, especially those of rural India.

To re-emphasize the need for field work, stake-holder interactions and design for societal objectives as the basis of higher education.

- To stress on rigorous reporting and useful outputs as central to developing new professions.
- To provide rural India and regional agencies with access to the professional resources of the institutes of higher education, especially those that have acquired academic excellence in the field of science, engineering and technology, and management.
- To improve development outcomes as a consequence of this research. To develop new professions and new processes to sustain and absorb the outcomes of research.
- To foster a new dialogue within the larger community on science, society and the environment and to develop a sense of dignity and collective destiny.

## REPORT OF UNNAT BHARAT ABHIYAAN ACTIVITIES

### **AIMS AND OBJECTIVES**

A survey was conducted between 15-19 June 2019 under Unnat Bharat Abhiyan (under MHRD) by students of Amity institute of organic agriculture . The major objectives were

1. To find number of beneficiaries of various government schemes and to find whether these schemes are reaching common people.
2. To identify major problems of the villagers and to find solutions for the same. The villagers were asked questions based on household survey form provided by Unnat Bharat Abhiyan.

### **NAGLIWAZIDPUR**

**Nangli Wazidpur** is a village in the western part of the state of Uttar Pradesh. It forms part of the New Okhla Industrial Development Authority's planned industrial city, Noida, falling in Sector-135, noida. Nangli Wazidpur is about 25 kilometers (12 mi) southeast of New Delhi and Nangli Wazidpur is around 900 meters from Yamuna Expressway,formerly known as Taj Expressway, and opposite Sector 93. The village is a part of the Dadri Vidhan Sabha (state assembly) constituency and Gautam Buddh Nagar Lok Sabha (parliamentary) constituency. In terms of caste structure, Rajputs (Hindus) are the majority in this village. The total population is 1800.



### **VILLAGE OVERVIEW -**

<b>GRAM PANCHAYAT</b>	Nagli
<b>BLOCK</b>	
<b>DISTRICT</b>	Gautam Buddh Nagar
<b>STATE</b>	Uttar Pradesh

**THEMES-** Importance of millets , elaboration of unnat bharat abhiyaan , field survey



## VISIT TO PRIMARY SCHOOL

First activity under unnat bharat abhiyaan was a visit to primary school which was headed by Head of department Dr.Sangeeta Pandey and Dr. Durgesh Tripathi along with the head of KVK department Dr. Mayank Rai and few students of Amity University. following were the major topics of discussion during the interaction session :

- **International year of millets**
  - Millet is easy to grow as it's low maintenance and drought resistance grain.
  - Millet grows extremely quickly and matures in almost half the time required for rice and wheat.
  - It is gluten free and a good source of protein, fiber, micronutrients.
  - Millet contains fiber, which contributes to digestive health .
  - Easy to cook millet recipes – kheer, chapati, dosa etc.
  
- **Unnat Bharat Abhiyaan demonstration**
  - **Objective** -The vision of Unnat Bharat Abhiyan is to enable Higher Educational Institutions (HEIs) to work with the rural people and identify the challenges they face and come up with solutions for their sustainable development.
  - **Slogan**- The main motive to carry forward the Gandhian ideology of "Swacchta Hi Seva" and the mission and vision of the team was "Say NO to single use plastics". First, the UBA team collaborated with NSS team members in a slogan writing competition.
  - **Themes**- Organic farming, water management, renewable energy,Artisans industry and livelihood, basic amenities and convergence.

## DOOR TO DOOR SURVEY

Students of Amity University went door to door visits in the village to collect information about them and to find out the problems they are facing in the village.

- **No. of house surveyed – 20**

## KEY FINDINGS –

1. Major occupations include – farming, unskilled manual labour, livestock raising, only a few people migrated for work in the city.
2. Almost all the houses had electricity connection and electricity availability was approx. 22 hr/day.
3. Most of the houses had piped water at home.
4. Major crops grown – rice and wheat.

5. Farmers had no knowledge about organic farming hence they mostly preferred chemical fertilizers and pesticides.
6. Major problems-
  - a. Drainage system improper.
  - b. People were unaware of government schemes.
  - c. No work under MGNREGA.
  - d. No old age pension.

#### Number of households benefited from government schemes

NAME	BENEFICIARY INDIVIDUAL
PM Jan Dhan Yojana	
Sukanya Samridhi Yojana	
Atal pension Yojana	
Fasal Bima Yojana	
Kisan Sinchai Yojana	
PM Ujjwala Yojana	
PM Awas Yojana	

#### SCOPE OF DEVELOPMENT

1. Awareness program about various beneficial government schemes.
2. Construction of proper drainage systems.
3. Development of hospitals and higher secondary schools.
4. Acknowledging people about the importance of organic farming.

Appendix 4:

Indian's Only Trade Fair Specialized On Urban Farming


Date of the Event: 24-25 March 2023

Demo-4




# India's Only TRADE FAIR SPECIALIZED ON URBAN FARMING

- Technical Sessions
- DIY Learning
- Citizen's Gallery
- Gardener's Clinic
- Investor's Session
- Start-up Pavilion
- Organic Haat
- Women Empowerment
- Awards
- Farm Visits
- CEO Conclave

2nd Edition  
**SUFEX** 2023  
SMART URBAN FARMING EXPO  
24-25, March, 2023, Thyagraj Stadium, INA, New Delhi




**POWERED BY**





*"India's Home Gardening Partner"*

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"India's Home Gardening Partner"

## INTRODUCTION TO URBAN FARMING

"In this busy Urban Life, knowingly or unknowingly we contribute to degrade the environment in some or the other ways, Urban Farming is the solution to make us and our family Carbon Net Zero."

Urban Farming, is the practice of cultivating, processing, food in or around urban areas.

Urban Farming shows great potential in the fulfillment of basic human needs, it not only provides food but also ensures a sustainable distribution and production system thereby creating employment opportunities and regular income for individuals. It also helps countries in the protection of their environment It can be done in front and backyards, balconies, sunrooms, indoor greenhouses, rooftops, or patios.

Through Urban Farming, the vegetables and fruits can be grown organically. Using no chemical farming encourages the energy conservation by 35-50%. It helps reducing carbon foot prints, and also enhances the greenery in the environment.



## IMPORTANCE OF URBAN FARMING

- It puts school lessons into practice and can boost children's interest in agriculture-Experiential Learning
- It can boost food security
- Urban farming is of economic importance and creates jobs
- It is of social importance and creates environmental awareness
- Urban farming improves the overall human body wellbeing
- It ensures healthy living
- It benefits the environment
- Will bring people closer to nature and its related goodness
- A sensitivity and responsibility will be inculcated



## OBJECTIVE OF THE EVENT

To bring technology and farming within the reach of a common man for social, economic and health benefits leading to creation of Greenfield Spaces and Environmental friendly pockets. Today, around the world, people are starting to grow food in the most untraditional places and spaces. Urban farming has become the new frontier in farming. From simple community vegetable gardens to providing healthy food to consumers in the nearby areas, with smart technology, urban farming can go anywhere. In cities, where sufficient space is a luxury, urban farming can be a boon. Lately, health concerns have further gravitated the focus of citizens at large for food safety, healthy environment and aesthetic surrounding.

## EXHIBITOR'S PROFILE

- Hydroponics
- Aquaponics
- Aeroponics
- Vertical Farmers/Growers
- Architects/Consultants/Contractors
- Organic Farms
- Urban Beekeeping
- Porta Cabins
- Automation and Technology and Accessories
- Biofloc Fish Farming
- Urban Landscaping
- Greenhouse technology
- Grow lights
- Greenhouse technology
- Grow lights
- Agrivoltaics

## VISITOR'S PROFILE

- Agriculture industry
- Urban Planners
- Architects / Interior design
- Technology suppliers
- Corporate, Start - up
- System integrators
- Govern mental Bodies (Local, Regional, National)
- Project developers
- Finance! Consulting
- Food Logistics
- Anyone interested in vertical farming



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

## ABOUT SUFex LANDSCAPE EXPO-SULex

SUFex Landscape Expo is the India's only specialized trade show for the industry and an ideal platform for organisations to showcase leading trend products, new services, key skills as well as being the perfect environment for visitors to discover the newest and most innovative products and solutions to help them in their designs and projects. SUFex-Landscape Expo is established as the essential trade event for discerning landscape designers, architects, architectural technologists, contractors, facilities managers and interior designers involved in some of the most important, prestigious and valuable projects in India and beyond. where buyers and sellers come together to do business. Meet face-to-face, discover new trends and expand your network to help the business and the green industry grow.



### EXHIBITOR'S PROFILE

- Indoor & Outdoor Plants
- Landscape & Architect Companies
- Fountain & Accessories Suppliers
- Garden Machinery & Tools
- Fertilizer & Nutrients
- Golf Course & Play Ground Consultants
- Garden Furniture
- Water Features & Pond Accessories
- Pump & Pipes
- Flowers, Plants & Seed Companies
- Paving Materials & Tiles
- Stone & Granite Products
- Terracotta Gardenware & Pottery
- Synthetic Turf-Golf Putting, Greens & Sports
- Sculptures & Environment Art
- Bird / Pet Houses for Gardens
- Swimming Pools & Related Products
- Real Estate Developer

### VISITOR'S PROFILE

- Landscape Architects
- Nurserymen
- Interior Designers
- Town Planners
- Golf Architects & Consultants
- Urban Planning Consultants
- Golf Course Superintendents and Managers
- Nurserymen & Gardeners
- Environment Consultants
- Ecologists
- Municipal Authorities
- Parks & Garden Departments
- Hotel, Restaurants & Resorts
- Tourist Development Depts.
- Hospital Planners
- Shopping Mall Designers

# PAST GLIMPSES



### Participation Options & rates:

**Built up Stall :**  
Rs. 8000/- per sq.mtr. + GST  
**Bare Space :**  
Rs. 7000/- per sq.mtr. + GST  
(minimum 36 sq.mtrs. to be booked)



### International Rates:

**Built up Stall :**  
\$120 per sq.mtr.  
**Bare Space:**  
\$100 per sq.mtr.



## OUR PAST PARTNERS





Appendix 5

# Amity Youth Fest 2023

## PHALMIL

31 March-1 April

Organized by Amity Institute of Horticulture Studies and Research

Fusion recipe contest of fruits and millet  
Certificates will be provided to the participants!



Eligibility criteria: Graduate, postgraduate and research scholars from Food Science/Technology, Horticulture, Life Sciences, Agriculture and allied domain

CHAIRMAN:

Dr Nutan Kaushik

nkaushik5@amity.edu

FACULTY COORDINATORS

Dr Smruthi Jayarajan

Dr Perumalla Srikanth

STUDENT COORDINATORS

Ms. Rudrani

Ms Anubhaa

**Report**

**“Mata Bhoomi Putro Aham Prithivya”**

**(The earth is my mother, I am her child)**

One day Skill development

program On

**“Management of Tropical & subtropical fruit crops”**

Under NABARD Project

Amity University Uttar Pradesh, Lucknow

**Date:** - July 27<sup>th</sup> 2023, Thursday

**Time:** - 11:00 AM onwards

**Venue:** - Academic Block – 2, Amity University Uttar Pradesh, Lucknow Campus

**Organizer:** - Dr. Shalini Singh Visen, Director, Amity Food and Agriculture Foundation

The department of Amity Food and Agriculture Foundation organized a comprehensive skill development program for farmers registered under NABARD project & gardeners along with a massive plantation drive on the university campus. The primary objective of this program was to enhance the skills sets of the farmers through intercropping and day to day problems faced by these farmers with respect to the cultivar and soil health. The gardening staff are expected to be partially equipped with cultivation experience. Therefore, the participants were made to interact with the scientists and talks were delivered to create a greener and more sustainable environment on campus. The program started at 11 AM and followed onwards which involved various workshops, practical training sessions, and extensive plantation activities.

The skill development program and plantation initiative were designed to address the growing need for skilled gardeners and to promote eco-friendly practices. The program aimed to empower the participants with modern techniques, eco-conscious methodologies, and effective tools, thereby creating a well-maintained and environmentally friendly landscape. The NABARD farmers had a very genuine session with the scientists with respect to the pH of the soil and the leftover in the fields after the crop is marketed.

The keynote speakers shared their expert knowledge on various aspects like plant identification, soil management, pest control, composting, and sustainable irrigation practices.



In this program, Speaker's Kanchan Kumar Srivastava, Principal Scientist, Division of Crop Production, (ICAR-CISH, Lucknow), Dr. Dinesh Singh, Principal Scientist (ICAR-CISH, Lucknow) and Mr. Satish Tiwari, Agriculture Department Uttar Pradesh, Lucknow enlightened the program with their gracious presence in the program.

**Dr. Kanchan Kumar Srivastava**, Principal Scientist, ICAR-CISH, Lucknow gave an insight into the topic *"Planting Techniques Varieties, Pruning and Training System of Fruit Crops"*

**Dr. Dinesh Singh**, Principal Scientist, ICAR-CISH, Lucknow briefed on the topic *"Plant Nutrient Management, Planting care and Irrigation Scheduling of Fruit Crops"*

**Mr. Satish Tiwari**, Agriculture Department Uttar Pradesh, Lucknow discussed with the farmers on the topic *"On Farm practices"*.

### Objectives:

The main objectives of the program were as follows:

1. Skill Enhancement: To equip the NABARD project farmers and gardening staff with advanced horticultural skills, landscaping techniques and knowledge of sustainable gardening practices.
2. Plantation Drive: To conduct a plantation of Fruits trees across the campus to enhance biodiversity, improve air quality, and provide aesthetic benefits.
3. Sustainability Awareness: To raise awareness among the gardening staff and the university community about the importance of sustainable practices in gardening and landscaping.

### Program Activities:

The Skill Development Program and Plantation Drive included the following activities:

4. Several Lectures were conducted by expert horticulturists and covering topics such as plant identification, soil management, pest control, composting, and sustainable irrigation practices.
5. Hands-on training sessions were organized to allow gardeners to apply the knowledge gained from the lectures. They were given opportunities to implement various gardening techniques under the guidance of experienced trainers.
6. Renowned experts in the field of horticulture and sustainability from ICAR-CISH Principal scientists were invited to deliver insightful lectures to inspire and educate the NABARD Farmers and gardening staff about the latest trends and practices in the industry.
7. The plantation drive involved planting some fruits trees and flowering plants at strategic locations throughout the university campus. The selection of plant species was based on their suitability to the local climate and their contribution to enhancing biodiversity.

### Outcomes:

The Skill Development Program and Plantation Drive yield several positive outcomes:

8. Enhanced Skills: The NABARD project farmers and gardening staff demonstrated a noticeable improvement in their gardening techniques, resulting in better landscape maintenance across the campus.
9. The plantation drive added lush greenery to the university campus, improving its aesthetics and providing a conducive environment for academic and recreational activities.
10. The awareness programs instilled a sense of responsibility towards sustainability, leading to reduced water consumption, minimal use of chemical pesticides, and increased composting practices.
11. The introduction of plant species contributed to the promotion of local biodiversity, attracting various birds and insects, and supporting the ecosystem.

The skill development program NABARD farmers, gardeners Training & plantation on University Campus organized by the department Amity Food and Agriculture Foundation was a resounding success. It not only equipped the participants with enhanced skills but also brought about a positive transformation in the landscape. By promoting sustainable practices and green initiatives, the university has taken a significant step towards becoming an environmentally responsible institution.

The Amity Food and Agriculture Foundation department plans to continue such initiatives in the future to ensure the continual development of the gardening staff and the maintenance of a thriving, eco-friendly campus environment.



## Appendix 7

### Providing events for Local Farmers and Food producers to contact and transfer Knowledge

#### Date of Event: Year 2023

There is a potential availability of about 5.5 Mt sal seeds year<sup>(-1)</sup> and after taking oil from the sal seeds, about 3-5 Mt de-oiled sal cakes are left as waste. The nutrient needs of Indian agriculture to some extent can be met by utilizing this nutrient-rich waste. The main issue with SSC is the tannin content. Value-added SC is suggested as a remedy for this problem.

**Procedure for preparation of value-added sal seed cake:** For preparation of value-added sal seed cake, sal seed cake was soaked in a solution containing rock phosphate (2.0%), urea (0.5%), and kitchen wastewater (10%) for half an hour and then allowed to drain. Kept overnight, then soaked sal seed cake was mixed with cow dung (2%), FYM (5%) and vermi compost (5%) & leguminous materials. The proportion of composting material was 3 parts of sal seed cake and 1 part of mixture of organic manures. Composted material was composted in a pit of size 1m x 1m x 1m. After filling up the pits, water was added to maintain the moisture to about 60%. After 1 week, inoculation *Trichoderma viride* @ 500 gm mycelium/tonne sal cake was done to decompose of cellulosic materials. Cover the pit with a polythene sheet to conserve moisture and heat and protect from rainwater. Periodic turning of compost mixture was made once in 20 days. After 3 weeks, inoculation of *Azotobacter chroococcum* and PSB @ 500 ml/tonne was done. The compost was ready within 1-1½ month. The cost for preparation of one tonne of value-added sal cake manure was approximately Rs. 500 to 600. The flow chart for preparation of value-added sal seed cake is presented in a project report submitted to funding agency.

#### Salient findings based on the demonstrations conducted for preparation of value-added sal seed cake:

- Sal seed cake had a total N, P, and K content of 2.16, 1.07, and 1.56%, respectively. After value addition, the sal cake's total N, P, and K content increased to roughly 21%, 53%, and 23%, respectively.
- The primary problem with SSC is that it had a very high tannin content, which was greatly decreased via composting for a period of months.
- At farmers' fields of three locations (Manesar, Sohna, and Kaithal), Haryana, the technology for preparing value-added SSC was demonstrated.
- The income level benefit from being able to sell the preparation of value-added sal seed cake has been reported by the tribal beneficiaries.
- Farmers can start production and sell their products on a commercial basis.