

AMITY's Efforts for SDG2 Zero Hunger

2.5.3: Does your university as a body provide access to university facilities (e.g., labs, technology, plant stocks) to local farmers and food producers to improve sustainable farming practices?

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 2.5.3. 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.
2.5.3: Does your university as a body provide access to university facilities (e.g., labs, technology, plant stocks) to local farmers and food producers to improve sustainable farming practices?							
1	Front Line Demonstration on Mustard	February 23, 2023	Madawarh, Sikandrabad	Amity Centre for Agricultural Extension Services	A front line demonstration was conducted on mustard on February 23, 2023 at Madawarh, Sikandrabad	Appendix 1	5
2	Front Line Demonstration on Field Pea	March 14, 2023	Bilaspur block dankaur	Amity Centre for Agricultural Extension Services	A frontline demonstration was conducted on field pea on March 14, 2023 at Bilaspur, Block Dankar	Appendix 2	6
3	Front Line Demonstration on Lentil	March 15, 2023	Noor pur, Madhiya block Dadri, GB nagar	Amity Centre for Agricultural Extension Services	A frontline demonstration was conducted on lentils on March 15, 2023 at Noor pur, Madhiya block, Dadri, GB Nagar	Appendix 3	7
4	Front Line Demonstration on Barley	March 14, 2023	Jamalpur, block jewar, GB Nagar	Amity Centre for Agricultural Extension Services	A frontline demonstration was conducted on barley on March 14, 2023 at Jamalpiur, block Jewar, GB Nagar	Appendix 4	8

5	Front Line Demonstration on Urad Bean	October 04, 2023	Salempur, block jewar, GB Nagar	Amity Centre for Agricultural Extension Services	A frontline demonstration was conducted on Urad bean on October 4, 2023 at Salempur, block Jewar, GB Nagar	Appendix 5	9
6	Front Line Demonstration on Sesame	October 10, 2023	Mohammadpur, Jewar	Amity Centre for Agricultural Extension Services	A frontline demonstration was conducted on Sesame on October 10, 2023 at Mohammadpur, Jewar, GB Nagar	Appendix 6	9
7	Front Line Demonstration on Pigeon Pea	November 03, 2023	Kanarsa block dankaur, GB Nagar	Amity Centre for Agricultural Extension Services	Farmers training was conducted on Pigeon pea on November 3, 2023 at Kanarsa, block Dankur, GB Nagar	Appendix 7	10
8	Demonstrated spray of nano fertilizers by drone to farmers by presence of JDA, DDA, and DAO along with KVK head on 15th December 2023	December 15, 2023	KVK Aligarh	AFAF	A hands-on demonstration of nano-fertilizer application using drones will showcase the precision and efficiency of modern technology in agriculture. This is designed to familiarize farmers with advanced spraying techniques and the benefits of using drones for uniform fertilizer distribution. The presence of key officials, including the Joint Director of Agriculture (JDA), Deputy Director of Agriculture (DDA), District Agriculture Officer (DAO), and the Head of Krishi Vigyan Kendra (KVK), will lend credibility and importance to the event. Their insights into policy support and incentives for modern farming practices will be valuable for the farmers.	Appendix 8	11-12
9	Demonstration to improve seeds and practices to farmers in Uttar-Pradesh. (Year 2023)	2023	Aligarh, U.P.	AFAF	Demonstration of high-yielding and climate-resilient seed varieties suitable for the region. Introduction of disease-resistant and pest-resistant varieties to reduce dependency on chemical treatments. Education on soil testing, organic matter addition, and balanced fertilization to optimize crop yield.	Appendix 9	13

10	Demonstration to improve seeds and practices to Farmers in Jharkhand. (Year 2023)	2023	Jharkhand	AFAF	1. Amity holds licenses for seeds, fertilizers, and pesticides, ensuring access to certified, quality inputs. 2. Emphasis on rice, the primary crop in Egarkund block of Dhanbad district.	Appendix 10	14
11	Demonstration of importance of Millets in Ensuring Food and Nutritional Security (the Year 2023)	2023	Amity University	Amity Institute of Organic Agriculture	The health advantages of millet can be found in all of these varieties.	Appendix 11	15-16

Conferences and Publications during 2023

S.No.	Institute	Event title	Appendix No.	Page No.
1	AIFT	International Conference 6 th AMIFOST 2023	Appendix 12	17-20
2	AIFT	Book published by Springer Nature titled “Sustainable Food Systems (Vol. I & II) and edited by Dr. Monika Thakur, Professor, AIFT.	Appendix 13	21-22
3	AIFT	Book published by Springer “Bioactive Components: A Sustainable System for Good Health and Well-Being” and edited by Dr. Monika Thakur and Dr.Tarun Belwal.	Appendix 14	23

Appendix 1



Field Demonstration on Mustard on farmer's field

Appendix 2



Field Demonstration on Field Pea on farmer's field

Appendix 3



Field Demonstration on Lentil on farmer's field

Appendix 4



Field demonstration on Barely on farmers field

Appendix 5 and Appendix 6



Field demonstration on Urad Bean on farmers field



Field demonstration on Sesame on farmers field

Appendix 7



Field demonstration on Pigeon Pea on farmers field



Appendix 8

Demonstrated spray of nano fertilisers by drone. JDA, DDA, and DAO along with KVk head.

Date of Event: 15th December 2023

Organized World Soil Day on 15th December 2023 at KVK Aligarh with support from IFFCO. Also demonstrated spray of nano fertilisers by drone. JDA, DDA, and DAO alongwith KVzk head and three technical experts were the panelist in the meeting.



Demonstrated spray of nano fertilisers by drone

We have very active groups working on bioinputs, crop improvement, nanotechnology, biotechnology, climate resilient agriculture, post harvest, waste valorisation, and many more areas.

Besides developing technologies for the farmers, we are actively supporting 7 Farmer Producer Companies (FPOs) under the Government of India's flagship scheme to establish 10,000 FPOs. This initiative, now with enhanced budgetary support, aims to revolutionize agricultural

productivity and sustainability.

3 FPOs dedicated to vegetable production.

4 FPOs focused on mustard production, a priority crop of the GoI.

Through these FPOs, we aiming to transfer advance technologies and climate-resilient farming practices identified under the Asia Pacific Network Project.

Appendix 9

Demonstration to improve seeds and practices to farmers in U.P.

Date of Event: Year 2023

Amity University is actively engaged in supporting farmer groups in the Aligarh and Ambedkarnagar district, Uttar Pradesh. Our efforts focus on improving agricultural practices, providing farmers with access to new technologies, and training them in effective product marketing to boost their income. Amity holds licenses for seeds, fertilizers, and pesticides, which enables us to offer comprehensive support. Mustard and wheat are the major crop cultivated in this region, and in the 2023-24 year, we conducted multiple meetings with the farmers to address their challenges, share advancements, and reinforce sustainable practices.

Appendix 10

Demonstration to improve seeds and practices to Farmers in Jharkhand.

Date of Event: Year 2023

Amity University is actively engaged in supporting farmer groups in the Egarkund block of Dhanbad district, Jharkhand. Our efforts focus on improving agricultural practices, providing farmers with access to new technologies, and training them in effective product marketing to boost their income. Amity holds licenses for seeds, fertilizers, and pesticides, which enables us to offer comprehensive support. Rice is the major crop cultivated in this region, and in the 2023-24 year, we conducted multiple meetings with the farmers to address their challenges, share advancements, and reinforce sustainable practices.

Appendix 11

Importance of Millets in Ensuring Food and Nutritional Security

Date of Event: Year 2023

To spread the importance of millets among youth, awareness session was organized by AIOA at Amity University Noida Campus. During the session, Dr Sangeeta Pandey addressed that Millet in any form can be a healthy addition to most diets. Millet is available in many supermarkets and health food stores in several different forms. It has several advantages, including low-maintenance, disease resistance, nutritional value, market demand, fodder value, and ecological benefits. Millet's adaptability and ease of cultivation are reviving interest in it. You may find different types of millet throughout India, including pearl millet and sorghum millet. The health advantages of millet can be found in all of these varieties. Students of AIOA displayed various self-made as well as packed products of millets. 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.



Importance of Millets in Ensuring Food and Nutritional Security



Poster presentation: Importance of Millets in Ensuring Food and Nutritional Security

Appendix 12

1. Event title: International Conference 6th AMIFOST 2023

Event Description: A multidisciplinary approach for healthy and sustainable foods integrates expertise from various fields such as nutrition, agriculture, food science, environmental science, and technology. It aims to develop food systems that promote human health while minimizing environmental impact. By combining knowledge from diverse disciplines, this approach focuses on producing nutrient-dense foods, reducing food waste, enhancing food security, and improving food production methods. It emphasizes the use of sustainable farming practices, innovative food processing technologies, and the promotion of plant-based diets, which collectively contribute to a healthier planet and population. Considering the importance of the topic, Amity Institute of Food Technology organized International Conference 6th AMIFOST-2023 on the theme “**Multidisciplinary Approach for healthy and sustainable foods**” International Conference from 13th – 14th April, 2023 at Amity University Uttar Pradesh, Noida.

The conference was a grand success with more than 420 participants, not only from Amity Universities across the country, but also from reputed National & International Universities as well. Noted Academicians, Researchers, Professionals from Industry and students participated in this conference.

The conference was organized in both online and offline mode. The Inaugural Session, Technical Sessions, Oral Presentation Competition and e-Poster Presentation Competition and The Valedictory Function were conducted in hybrid mode in I2-Moot Court in Amity University Campus and on Zoom platform as well. Poster Presentation Competition was conducted offline in I-Block of Amity University Noida Campus. More than 250 delegates from other universities all around the country, such as IIT Roorkee , IIT Delhi , IIT Tirupati,BITS, Pilani, Bhabha Atomic Research center, Mumbai ,NDVSU, Jabalpur, BHU, Varanasi, Banasthali Vidyapith, Himachal Pradesh Agriculture University attended the conference.

Salient points covered at the conference:

- Enhancing Skills of Students and Faculties through Keynote Address and various Technical Sessions.

- Special Industrial sessions by reputed industrial partners such as MCCain, Orika, PepsiCo, Abrosaa for students.
- All abstract submitted by various participants were published as Proceedings of the Conference with ISBN no
- In total there were 04 technical sessions, and parallel 04 Oral and Poster sessions on Day-1 and Day-2.



Lamp Lightening



Release of souvenir



Participants in 6th AMIFOST



Felicitation of Invited Chief Guest

Appendix 13

Event title: Book published by Springer Nature titled “**Sustainable Food Systems (Vol. I & II)** and edited by **Dr. Monika Thakur, Professor, AIFT**. The book includes chapters contributed by scientists and faculty including the faculty from Amity Institute of Food Technology and from other reputed institutes of India and abroad.

Sustainable Food System is a food system that delivers food safety & security as two key elements and nutrition for masses having impact on their social, economic, and environmental bases to generate nutritional food security for future generations shall not be compromised. Therefore, SFS targets the economic sustainability, social sustainability and environmental sustainability and makes a robust system having expansive benefits for the society. This concept of *Sustainable Food System* under SDG Goals is such a vast concept that, it has been impossible to highlight all the concepts in one volume. Therefore, the Editor have compiled this voluminous, comprehensive and compendious approach as balanced and organized structure of work as: *Sustainable Food System* Volume I & II.

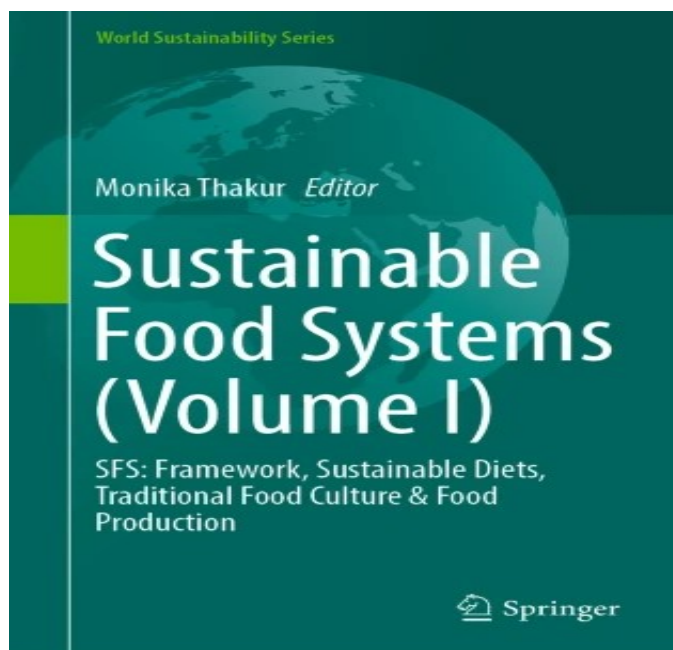


Fig: Book published by Springer “ Sustainable Food Systems(Volume I)

(Link: <https://amity.edu/noida/aift/pdf/sustainable-food-systems-1.pdf>)

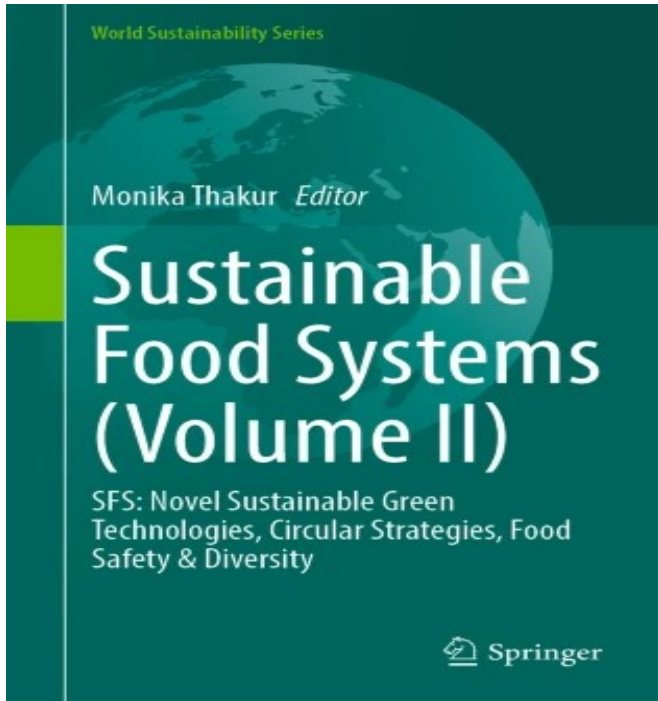


Fig: Book published by Springer “ Sustainable Food Systems (Volume II)

(Link: <https://amity.edu/noida/aift/pdf/sustainable-food-systems-ii.pdf>)

Appendix 14

Event Title: Book published by Springer “ **Bioactive Components: A Sustainable System for Good Health and Well-Being**” and edited by Dr. Monika Thakur and Dr. Tarun Belwal.

Due to changing lifestyles and consumer awareness, there is a trend towards functional food. Therefore, scientists and technologists are focusing to develop functional foods, with knowledge of their extraction techniques and claims of health-promoting benefits. The bioactive components present in functional foods and nutraceuticals are sensitive to different processing technologies; therefore, researcher and scientists are always trying their best to adopt the processing technologies that minimally affect the bioactive components present in functional foods. Hence, this book will comprehensively discuss the bioactive components, their sources, extraction techniques, advancement in functional foods and nutraceuticals, and their role against various health-related issues.

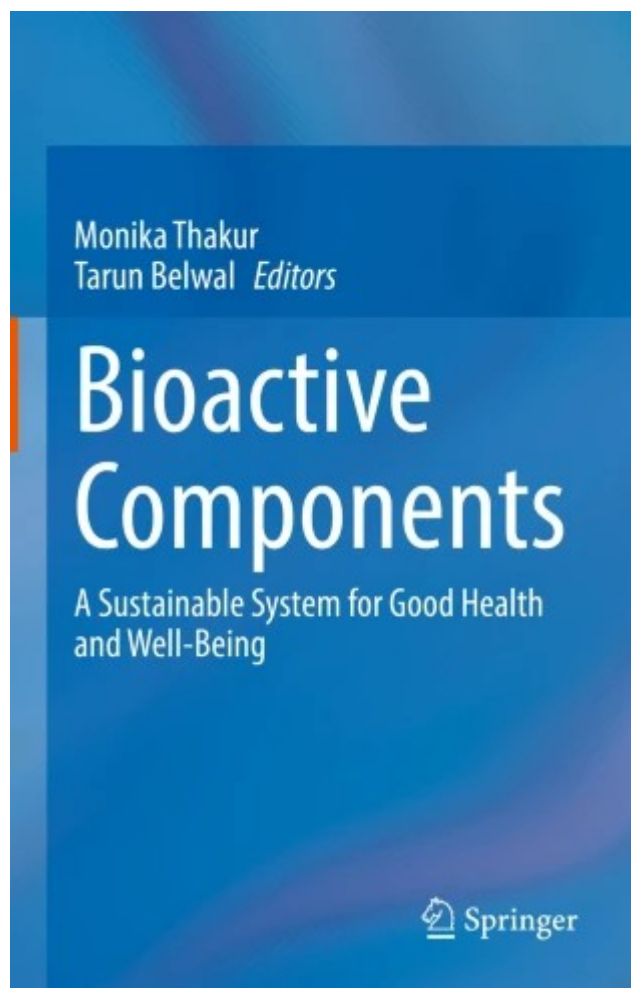


Fig: Book published by Springer “Bioactive Components: A Sustainable System for Good Health and well-Being”

(Link: <https://amity.edu/noida/aift/pdf/bioactive-components.pdf>)