



# Integral Institute of Agricultural Science & Technology (IIAST) Integral University, Lucknow

**Report  
on  
Guest Lecture on Modern agricultural practices to enhance productivity and  
sustainability  
Organized by  
Department of Agriculture  
September 22, 2022**

The Department of Agriculture at the Integral Institute of Agricultural Science and Technology (IIAST) hosted a guest lecture with the goal of educating attendees about new developments in the area and offering insights into the most recent developments in agriculture. **Dr Ratana Priya, SMS KVK, Unnao** visit on September 22, 2022, for an insightful guest lecture on "Modern agricultural practices to enhance productivity and sustainability". Dr. Saba Siddiqui, Head, Department of Agriculture, cordially welcomed the lecturer. Dr. Siddiqui urged everyone to participate in such lectures.

Dr. Ratana Priya commenced her lecture by highlighting the transformative changes in agriculture over recent years, driven by technological advancements, climate change, and evolving market demands. She emphasized the necessity for adopting modern agricultural practices to enhance productivity and sustainability in the face of global challenges.

One of the key trends discussed by Dr. Priya was the integration of digital technology in agriculture. She elaborated on the use of precision farming techniques, which utilize GPS, IoT, and data analytics to optimize field-level management regarding crop farming. This approach allows for better decision-making, efficient resource use, and increased crop yields. Dr. Priya provided examples of how drones are being used for aerial surveillance and application of inputs like fertilizers and pesticides, ensuring precision and minimizing wastage.

Another significant trend covered was the shift towards sustainable agricultural practices. She stressed the importance of organic farming, conservation agriculture, and agroforestry as methods to promote environmental health and enhance biodiversity. She pointed out that sustainable practices not only improve soil health and reduce chemical dependencies but also open new markets for organic products, which are increasingly in demand.

Dr. Priya also discussed climate-smart agriculture (CSA) as a vital strategy to address the impacts of climate change on farming. She highlighted practices such as crop diversification, water-efficient irrigation systems, and the development of drought-resistant crop varieties. These practices are crucial in building resilience against adverse climatic conditions and



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ensuring food security. She touched upon the role of biotechnology in modern agriculture. She explained how genetic modification and CRISPR technology are being used to develop crops with enhanced traits such as pest resistance, improved nutritional content, and higher yield potentials. She also mentioned the ethical considerations and regulatory frameworks governing the use of such technologies. She emphasized the importance of empowering smallholder farmers through access to credit, training, and market linkages. She also discussed the potential of farmer producer organizations (FPOs) in aggregating small farmers to enhance their bargaining power and market access.

The lecture concluded with a dynamic Q&A session, where students and faculty engaged with Dr. Priya on various topics including the implementation of precision farming in small farms, the challenges of transitioning to organic farming, and the future of genetically modified crops in India. Dr. Priya's responses were insightful and pragmatic, reflecting her deep understanding and commitment to advancing the agricultural sector. The guest lecture concluded with a vote of thanks delivered by Dr. Faria Fatima. The guest lecture was meticulously organized by the members of the RAWA committee, including Dr. Malik Mobeen, Mr. Nadeem Khan, Dr. Faria Fatima, Dr. Khalid Habib, Dr. Sunil Kumar, and Dr. Ayush Bhushan, under the guidance of Prof. Mohd. Haris Siddiqui, Dean of the Faculty of Agricultural Science and Technology, and Dr. Saba Siddiqui, Head of the Department of Agriculture.



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## Glimpse

