



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

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**Report  
on  
Guest Lecture on Precision Farming  
Organized by  
Department of Agriculture  
September 19, 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. Nelima Kunwar, Head, KVK, Rae Bareilly, visit us on September 19<sup>th</sup>, 2022, for an insightful guest lecture on "Precision framing". Dr. Saba Siddiqui, Head, Department of Agriculture cordially welcomed the lecturer on September 19<sup>th</sup>, 2022, at 09:30 a.m. in the Seminar Hall. Dr. Siddiqui urged everyone to participate in the event, which promised to provide insightful information on both the potential transformative power of contemporary methods and traditional agricultural practices.

The lecture provided a comprehensive overview of precision farming, which employs advanced technologies to optimize crop production while minimizing inputs like water, fertilizers, and pesticides. Dr. Neelima began by outlining the key components of precision farming systems, including GPS guidance, remote sensing, variable rate technology, and data management software.

Dr. Neelima highlighted the sustainability benefits of precision farming, which include reduced water usage, decreased chemical runoff into water bodies, lowered fuel consumption from more efficient field operations, and preservation of topsoil. He shared case studies demonstrating how some farms have cut fertilizer costs by over 30% by employing variable rate spreading guided by grid soil sampling data.

The potential for integrating unmanned aerial vehicles (UAVs/drones), IoT sensor networks, and machine learning into precision farming systems was also discussed. These emerging technologies can provide even more granular data to drive real-time adjustments and decisions in the field.

Overall, the lecture drove home how precision farming can boost farm productivity and incomes while promoting environmental stewardship. Our students appreciated Dr. Neelima



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insights from years of experience implementing these advanced agricultural systems around the globe.

In the Q&A session, there were many engaging discussions around technology adoption challenges, costs of implementation, big data management requirements, and the future frontiers of artificial intelligence in precision farming. We are grateful to Dr. Neelima for taking the time to share his valuable expertise with our students and faculty. It was an informative and inspiring guest lecture.

Addressing the audience, Dr. Saba Siddiqui, Head of the Department of Agriculture at IIAST, Integral University, emphasized the importance of utilizing such platforms for knowledge acquisition. She highlighted the significance of research discussions within these forums. 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 RAWE 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

