



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

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**Brief Report on the Guest Lecture  
"Precision Nutrient Management for Higher Crops Productivity and Profitability"  
Organized by Department of Agriculture,  
Integral Institute of Agricultural Science and Technology, Integral University, Lucknow  
on 7<sup>th</sup> February, 2022**

The Department of Agriculture, Integral Institute of Agricultural Science and Technology (IIAST) organized a 'Guest Lecture' on "Precision Nutrient Management for Higher Crops Productivity and Profitability" through virtual platform (Google meet) on 7<sup>th</sup> February, 2022. Dr. Pravin Kumar Upadhyay, Senior Scientist, Division of Agronomy, ICAR-IARI, New Delhi, India was the Guest Speaker. Dr. Upadhyay is an eminent Agronomist and has vast experience and knowledge in the area of Precision Nutrient management, Conservation Agriculture and Integrated Farming System Model. The event began with a brief introduction of the speaker by Dr. Hasnain, Assistant Professor, Department of Agriculture. Dr. Saba Siddiqui, Head, Department of Agriculture welcomed Dr. Pravin Kumar Upadhyay and thanked him for sparing his valuable time.

Dr. Pravin Kumar Upadhyay gave an insight about the Precision nutrient management (PNM) and discussed the importance of PNM as it is one of the key components of the Precision agriculture and governs all the major issues of improving productivity, sustainability, profitability and climate change related turbulences. Soil test based nutrient management recommendations have served the purpose of improving food grain production but have not improved the nutrient use efficiency beyond a certain limit. Researchers have appropriately shifted to an approach of feeding the crops rather than feeding the soil. Assessing plant nutrient demand from plants is more efficient strategy as plant growth at any given time integrates with the effect of nutrient supply from all the sources and is thus a reliable indicator of its availability.

It was a very informative and interactive session where the participants learned about the Precision Nutrient management in detail. The lecture concluded with a short Question and Answer session and the queries were resolved by the speaker. This was followed by Vote of Thanks and the program ended successfully with active participation of students and faculty members.



Glimpse of Guest Lecture

The screenshot shows a Zoom meeting interface. On the left, a presentation slide titled "Treatments details of experiments" is displayed. The slide contains a table with treatment codes and details, and a paragraph of text at the bottom. On the right, there are four participant avatars: Kushal (purple circle with 'K'), You (pink circle with 'D'), Jitendra Kumar (green circle with 'J'), and Khalid (video feed with '47 others' below it). The text "Khalid is presenting" is visible at the bottom left of the meeting area.

Treatment Code	Treatment details
N0PK	No N
N50PK	50% of recommended N
N75PK	75% of recommended N
N100PK	100% of recommended N
N0PK + Nano-N	No N + 2 spray of Nano-N
N50PK + Nano-N	50% of recommended N + 2 spray of Nano-N
N75PK + Nano-N	75% of recommended N + 2 spray of Nano-N
N100PK + Nano-N	100% of recommended N + 2 spray of Nano-N

The recommended fertilizer doses were 150 kg N/ha, 75 kg P<sub>2</sub>O<sub>5</sub>/ha, and 75 kg K<sub>2</sub>O/ha for maize; 90 kg N/ha, 60 kg P<sub>2</sub>O<sub>5</sub>/ha, and 30 kg K<sub>2</sub>O/ha for pearl millet; 80 kg N/ha, 40 kg P<sub>2</sub>O<sub>5</sub>/ha, and 30 kg K<sub>2</sub>O/ha for mungbean; and 120 kg N/ha, 60 kg P<sub>2</sub>O<sub>5</sub>/ha, and 60 kg K<sub>2</sub>O/ha for the wheat crop.