



Brief report on Journal Club by Department of Agriculture, IIAST on 23 March 2024

The Journal Club serves as a vital platform for faculty members and research scholars to engage in scholarly discussions and critical analysis of recent research articles within their field of expertise. By staying updated with the latest advancements and trends in their respective fields, participants are better equipped to contribute to the advancement of knowledge and innovation through their own research endeavours. To accelerate the involvement of students in such discussion forums, the Department of Agriculture, had organized a journals club in the same series on 23rd March 2024. Shubhangi Singh, Ph.D. Research Scholar Agronomy, delivered a comprehensive presentation during the Journal Club session titled "**Yield and Quality of Sugarcane are improved by Applying Potassium under Irrigation to Potassium Deficient Soil,**" published in Journal Agronomy in 2021. The study aimed to ascertain the optimal potassium (K) dosage for ratoon canes in K-deficient soils prevalent in North India. By conducting soil tests and field experiments with varying K application rates, the research sought to quantify growth, yield, and quality parameters of sugarcane. Notably, it was found that the presence or absence of irrigation did not significantly impact crop performance, yet treatments with K fertilizer demonstrated substantial improvements in yield, cane characteristics, and quality parameters compared to baseline values. Statistical analyses, including ANOVA, were utilized to discern significant differences among treatment groups, while assessments of insect pest incidences provided insights into the potential effects of potassium fertilization on pest dynamics. Moreover, an economic analysis was conducted to determine the benefit-to-cost ratio of sugarcane production under different K application rates. Through field experiments and statistical analyses, the study revealed that applying potassium fertilizer significantly improved yield, cane characteristics, and quality parameters compared to baseline values, regardless of irrigation conditions. The findings also provided insights into the potential effects of potassium fertilization on insect pest dynamics and economic viability through a benefit-to-cost analysis. Recommendations were made for further research and field trials to validate the optimal K application rates and their economic feasibility in practical agricultural settings.

All faculty members of the Department of Agriculture, Integral Institute of Agricultural Science and Technology (IIAST), along with research scholars, participated in the journal club. The Department of Agriculture, IIAST, Integral University, organized a successful event under the guidance and



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supervision of Prof. (Dr.) Mohd Haris Siddiqui, Dean, Faculty of Agricultural Science and Technology and Prof. Saba Siddiqui, Head of the Department of Agriculture. During the event, Prof. Saba Siddiqui encouraged students to actively utilize the platform as a valuable resource for gaining knowledge. The presentation of the program concluded with a vote of thanks delivered by Dr. Suhail Ahmad Khan. The event was efficiently coordinated and led by Dr. Suhail Ahmad Khan, Assistant Professor and Dr. Shipra Yadav, Assistant Professor, who ensured its smooth execution.

Glimpses of the journals club

