



**Report on
Journal Club Presentation by Mr. Deovrat, Research Scholar,
Department of Agriculture, IIAST, Integral University, Lucknow**

The Department of Agriculture at Integral Institute of Agricultural Science and Technology (IIAST) organized a Journal Club session to foster engagement with the latest agricultural trends and to raise awareness among students, scholars, researchers, and academicians about current agrarian issues. The session took place on 10th August, 2024 at 10:30 A.M. in the Seminar Hall, 1st floor, the Department of Agriculture, IIAST building. Deovrat Singh, Ph.D. scholar in Agronomy presented research findings on the "Effect of Tillage Systems on the Yield and Quality of Winter Wheat Grain and Soil Properties". The research, published in a SCOPUS-indexed journal with an ISSN of 2077-0472 and an impact factor of 3.01, aimed to assess the yield and quality of winter wheat grain and estimate soil properties under conventional, reduced, and no-tillage systems.

This research paper study clearly shows the grain yield of winter wheat was affected to a greater extent by study years than by tillage systems. The higher grain yield was obtained in the CT than the NT system and in the years with higher sums of precipitation. Moreover, grain quality was more dependent on the course of weather conditions in particular study years than on tillage systems. Study years differentiated the grain weight by volume, total protein content, wet gluten content, sedimentation index value, grain uniformity, and ash content of the grain. In turn, tillage system differentiated grain uniformity and total ash content. Winter wheat cultivation in the NT system increased the total ash content of the grain and decreased grain uniformity compared to CT and RT systems. The tillage systems also affected soil properties. The no-tillage system increased contents of organic C, total N, and available forms of potassium and magnesium in the soil compared to the conventional tillage system. The choice of the tillage system should be driven by local soil and weather conditions.

The research elucidated a pronounced influence of meteorological conditions on winter wheat grain yield and quality, overshadowing the impact of tillage practices. Conventional tillage demonstrated a slight superiority in grain production over no-tillage systems. However, the study unveiled a positive correlation between no-tillage and enhanced soil health, characterized by elevated levels of organic carbon, nitrogen, potassium, and magnesium. Grain quality attributes, including grain uniformity and ash content, were differentially affected by tillage regimes. No-tillage resulted in higher ash content but compromised grain uniformity. The findings underscore the necessity of a site-specific approach to tillage selection, considering the intricate interplay of soil properties, climatic factors, and crop performance for optimizing agricultural outcomes.

All faculty members, research scholars, and agriculture students from the Agriculture Department participated in the research presentation. This diverse audience comprised individuals with varying levels of agricultural expertise, facilitating knowledge dissemination and exchange. The presentation offered opportunities for faculty to explore potential research



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collaborations, students to gain exposure to advanced agricultural concepts, and researchers to refine their research focus based on the feedback received. Prof. Saba Siddiqui, Head, Department of Agriculture, IIAST, Integral University, addressed the audience and urged students to actively leverage the platform as a valuable knowledge resource. The presentation segment of the program concluded with a vote of thanks delivered by Dr. Suhail Ahmad Khan. The entire event was conducted under the expert guidance of Professor (Dr.) Mohd Haris Siddiqui, Dean, Faculty of Agricultural Science and Technology and Prof. Saba Siddiqui, Head, Department of Agriculture, IIAST. The successful organization and execution of the event were attributed to the dedicated efforts of coordinators Dr. Suhail Ahmad Khan and Dr. Shipra Yadav.

Glimpses of the program





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