

Press Note
PhD Students' Presentations during 64th Convocation of ICAR-IARI, New Delhi
09.02.2026

The second day of the 64th Convocation Week (8–13 February 2026) of ICAR–Indian Agricultural Research Institute (ICAR-IARI), New Delhi commenced with the presentation of outstanding Ph.D. research work by postgraduate students competing for Merit Medals, the NABARD Professor V. L. Chopra Gold Medal, and the Best Student of the Year Award. The session was chaired by Dr. R. C. Aggarwal, Former Deputy Director General (Agricultural Education), ICAR, New Delhi. The occasion was graced by Dr. Ch. Srinivasa Rao, Director, ICAR-IARI; Dr. Anupama Singh, Dean and Joint Director (Agricultural Education). The jury comprised eminent scientists and academic leaders including Dr. Balraj Singh, Former Vice-Chancellor, SKNAU, Jobner; Dr. Kaushik Banerjee; Prof. Neelam Sangwan, Director (Research and Development Cell) and Dean, Central University of Haryana; Dr. R. M. Sundaram, Director, ICAR-IIRR, Hyderabad; and Dr. H. S. Sidhu.

On the second day of the Sixty-Fourth Convocation, held on 9 February 2026, the Ph.D. research presentations demonstrated a strong integration of sustainability, digital innovation, and climate-smart agricultural strategies. Several studies focused on environmentally benign crop protection approaches, including phytochemical profiling and pesticidal evaluation of *Mentha spicata* and *Cannabis sativa*, as well as risk assessment of leaf curl disease through host–vector interaction analyses to facilitate targeted disease management. Climate resilience emerged as a major theme, with investigations assessing the adoption of climate-smart agricultural technologies among smallholder farmers in Telangana and elucidating key socio-economic and institutional determinants of adaptive capacity.

Precision agriculture and automation featured prominently through the development of a machine vision-enabled, site-specific spraying robot for protected cultivation systems, demonstrating substantial reductions in pesticide usage while maintaining effective disease control. Digital extension and advisory mechanisms were critically evaluated through studies on the Kisan Sarathi platform, highlighting its role as a multimodal, personalised digital interface for improving farmer access to timely, reliable, and actionable agricultural information. Advanced analytical and artificial intelligence–based approaches were widely applied, including multistage wheat yield prediction through the integration of crop simulation models with AI algorithms, and deep learning–based text analytics for agricultural price forecasting using market intelligence and sentiment data.

Research on nutrient management and soil–plant interactions addressed emerging frontiers in agronomy and crop nutrition. Studies evaluated the efficacy of nano-zeolite-based urea ammonium nitrate formulations in enhancing nitrogen use efficiency in vegetable crops, and examined the biochemical, molecular, and epigenetic regulation of phytate accumulation in rice under differential phosphorus management regimes. Collectively, the research presentations underscored a systems-based approach to contemporary agricultural challenges, integrating smart inputs, digital technologies, and policy-relevant insights to enhance productivity, sustainability, and resilience.

In his concluding remarks, the Chairman lauded the high quality of postgraduate research and encouraged students to undertake rigorous, in-depth analytical studies to generate robust scientific evidence for the advancement of agricultural sciences. The research showcased during the session reaffirmed ICAR-IARI's commitment to excellence in agricultural education, innovation-driven research, and capacity building for sustainable food systems. The convocation provided a distinguished platform to recognise emerging researchers whose work is expected to make significant contributions to farmers' welfare, environmental sustainability, and national food security. The session concluded with a formal vote of thanks to the Chair, jury members, dignitaries, faculty, and students present during the programme.