

Press note of day – 3 of the 59th ICAR – IARI, New Delhi Convocation

On the third day of the 59th ICAR – IARI, New Delhi Convocation week (Feb. 7-12, 2021) presentations of significant post-graduate students' research were made by the Professors of respective Divisions. Dr Seema Jaggi, Professor Agricultural Statistics convened the sessions in the august presence of Dr. A.K. Singh, Director, ICAR-IARI and Dr. Rashmi Aggarwal, Dean & Joint Director (Education) ICAR-IARI, New Delhi.

The first session on the school of Crop Improvement was chaired by Dr Shailja Hittalmani, Former Dean (Post Graduate Studies), UAS Bangalore. The presentation from crop improvement included the research work on biotic stress tolerance; abiotic stress tolerance; nutritional and quality traits, fertility restoration, heterosis and hybrids; genetic and molecular studies on phosphorous use and associated traits; genetics of mutants; Genetic and molecular studies on yield related traits; multidisciplinary research on cowpea; basic science studies on seed taxonomic and conservation; Plant genetic resources characterization and Evaluation; seed production technology; seed quality enhancement; seed testing methods and seed germination mechanism.

The Crop Protection session was chaired by Dr H.B. Singh, Distinguished Professor, Department of Biotechnology, GLA University, Mathura. The presentation from school of crop improvement included various aspects consisting of Development of agrochemicals; assessment and management of contaminants; decontamination of contaminants; insect systematic; pest and natural enemy interactions; insect physiological and toxicological studies; bio-control of insects and nematodes; nematode ecology; molecular nematode-fungus interactions; nematode genome; disease diagnosis; pathogenomics; host – pathogen interactions and disease management.

School of Natural Resource Management session was chaired by Prof. Anil Kumar Singh, Former Vice Chancellor, RVSKVV Gwalior and the presentations were made on resource conservation engineering technologies; Precision farm equipment; integrated water resource management; precision irrigation and crop water productivity; solar powered farm equipment and storage structures; post harvest engineering technologies, quality detection and storage; Remote sensing and crop modelling; soil physics and conservation agriculture; agrometeorology and machine learning; nutrient management in crops and cropping systems; conservation agriculture; weed management; climate change and agriculture; environmental pollution; plant growth stimulation and nutrient mobilization using beneficial microbes; microbe-mediated abiotic stress management; agri-biomass degradation and value addition using microorganisms; enrichment, mineralization and stability of soil organic carbon; enhancing nutrient use efficiency through novel fertilizer products; rapid techniques for soil fertility assessment; chemistry and availability of nitrogen and phosphorus in soils; Use of non-conventional sources of plant nutrients; alleviation of micronutrient deficiency; biochar and Co-compost for reclamation of acid soils; irrigation usage of marginal quality water and micro-irrigation technologies for enhancing water and crop productivity.

The session on school of Basic Sciences was chaired by Dr T.R. Sharma, DDG (Crop Science), ICAR, New Delhi. The research work of basic sciences covered diverse aspects like enhancing the yield and abiotic stress tolerance in food crops through biochemical and molecular

interventions; nutrient profiling of food crops for their nutritional quality assessment before and after processing; abiotic and biotic stress resistance; growth and grain filling dynamics in selected EMS induced Nagina22 mutants and mapping of the causal genes; functional validation of *Pm19* promoter from wheat; genome-wide identification and characterization of protease inhibitor genes from *Cajanus cajan*.

The presentations of School of Horticultural Sciences session under the chairmanship of Dr K.V. Prasad, Director, Directorate of Floricultural Research, Pune consisted presentations on improvement of flower crops using conventional and non conventional approaches; production technology and post harvest studies in flower crops; genetical studies and molecular characterization of fruit crops; rootstock studies for drought tolerance and compatibility in sweet orange; morphogenetic characterization of first generation colchiploids in Kinnow mandarin and sweet orange cv. Mosambi; effect of organic nutrient sources and microbial consortium on Kurukkan seedlings and bearing Amrapali mango; post harvest management of fresh fruits and vegetables; processing of horticultural and arable crops; molecular breeding of vegetable crops; heterosis breeding of vegetable crops; and genetic diversity.