55th Convocation week of IARI begins today with presentations of significant post-graduate students' research

The 55th ICAR –IARI Convocation week (Feb.6-9,2017) started on 6th February,2017 with presentations of significant post-graduate students' research in the under the chairmanship of Padma Sri Dr. K.L. Chadda, International Fellow of Horticultural Sciences, while Dr. J.C. Katyal, Former Vice Chancellor of Hisar Agricultural University was co-chairperson. Dr. (Mrs) Ravinder Kuar, Director, ICAR-IARI; Dr. R. K. Jain, Dean & Joint Director (Education) and Dr J.P.Sharma, Joint Director (Extension) along with jury members graced the occasion. Dr Irani Mukherjee (Professor, Division of Agricultural Chemicals) was the convener of today's event.

Dr. R. K. Jain, Dean & Joint Director (Education) shared in his remarks that from the post graduate students' research, 250 research publications were published in reputed research journals. Out of this, 77 articles wereabove NAAS rating 6.0and 20 with NASS rating above 9.0, while the maximum rating was 11.3 Dr. (Mrs) Ravinder Kuar, Director, ICAR-IARI graced the function.

A total of 36 research work from sixschoolswere presentedby the students. It comprised of 23 M.Sc.and 13 Ph.Dpresentations.The presentations from School of Crop Improvement included the research work on molecular mapping of leaf rust resistance in synthetic haploid wheat and it was reported that Synthetic 45 was found resistant to a common pathotype 162 and other pathotypes of race group 12,77 and 104. A study on marker assisted backcross breeding of bacterial blight gene Xa38 in Pusa Basmati 1121 was a significant mark in providing stability in basmati rice production.

The presentations from School of Crop Protection included extracting ellagitannis from pomegranate and studying its antioxidant activity; thermal stress effect on papaya mealy bug; identifying neuropeptide-like protein genes from root-knot nematodes, characterizing and validating it; genetic manipulation of soybean yellow mosaic virus genome and exploring its potentiality as a transient gene delivery system; a study on controlled release on mancozeb, a fungicide, was a desirable study in disease control.The study on identification and characterization on diseases susceptibility in *Solanum melongene* using silico analysis based on relationship on EDS1 will facilitate its genetic manipulation for agronomic purpose.

School of Natural Resource Management presentations included designing foliar applicator for urea ammonium nitrate; simulating water and nitrogen use efficiency on wheat crop; input management in direct seeded rice; long term fertilization effects on soil carbon dynamics in wheat based cropping systems; simulation study on direct seeded rice productivity. Developing collector cum chopper for paddy straw management resulted in 85% cost saving in comparison to manual paddy straw management. Characterization of water deficit stress response of plants through hypersectral remote sensing study classified the genotypes into stress tolerance and susceptible types. A study on moisture conservation practices for improving productivity of maize-mustard cropping system revealed that ridge and furrowwith the application of crop residues and hydrogel would increase productivity, profitability and soil health.The potentials of

rhizobium based formulations for biocontrol of soil borne fungal pathogens of chickpea was studied and was reported that it was having dual purpose of N_2 fixation and antifungal activity.

The presentation of School of Basic Sciences included exploring *rca*gene from wheat for augmenting carbon assimilatory process; physiological response of rice genotypes; nanoparticle assisted bioethanol production; and allele mining of *Pb1* gene in Indian rice accessions.

School of Horticultural Sciences presentations included the study on profiling of pigments and their antioxidant activities in chrysanthemum and it was observed that the highest amount of major anthocyanin pigment were observed in the variety Red Gold followed by Lalpari, Red Stone, Red Spoon and Jeya. The study on evaluation of grape hybrids and their parental antioxidant traits under Fruit Science reported that the highest correlation was found in FRAP and CUPRAC. The study on identifying alternate bearing and fruit quality traits in mango provided initial information for marker –assisted selection for important traits in mango genetic improvement.The study on development of reconstituted rice suggests that the changes in quality characteristics like moisture content, colour, water activity were in the acceptable level. The study on Impact of extrusion processing on selected cereals and legumes reveals that use of extruded millet flour can overcome detrimental effects contributed by substitution of unextruded flours and render acceptable composite breads with phenolic content. Molecular characterization of genotypes in cauliflower research discriminated 48 cauliflower genotypes in diverse groups which is used for genetic programmes in cauliflower.

School of Social Sciences presented the study on the production efficiency and price behavior of sugar in India reveals that efficient management of inputs by sugar mills and a link between sugar and sugar prices are necessary for maintaining the sustainability of sugar sector in India. The study on impact of ASEAN – India free trade agreement on Indian Agricultural Trade revisits the need the domestic production policy should protect the producers and also maintain the productivity and competitiveness in these products.The study on empowerment of rural settings with community radio suggested that education and perception about community radio services programmes significantly influencing the extent of participation at community level. The study on farmer - led innovations suggests that the degree of involvement was higher for documentation and dissemination followed by validation and commercialization in the farmer-led extension.The study on wavelet method of forecasting agricultural commodities comparing different forecasting models reveal the relative ability of hybrid models in volatility forecasting in onion and other crops.The study on mobile application for information retrieval on pest and diseases in crops has great use to farmers to deal with crop losses due to biotic agents and making farming as a profitable venture.