

ICRISAT showcases Chickpea germplasm to key researchers in India

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With an aim to enhance use of chickpea germplasm in India's crop improvement, ICRISAT Genebank organized a germplasm field day at its global headquarters in Patancheru and displayed chickpea germplasm diversity and trait-specific sources to various researchers participating in the event.

Chickpea researchers got an opportunity to observe in person and select desirable germplasm among over 10,000 accessions that originated in more than 50 countries. This included pan genebank accessions from ICRISAT genebank (>3,500 accessions) and ICAR-NBPGR (1,500 accessions), 292 highly diverse reference set collection, 2,200 accessions of whole-genome sequenced, and 223 superior haplotypes.

Twenty-one researchers from eleven Indian institutions participated in the event. ICAR-National Bureau of Plant Genetic Resources, New Delhi and Hyderabad, ICAR-Indian Institute of Pulses Research, Kanpur, Bihar Agricultural University, Bhagalpur, University of Agricultural Sciences, Dharwad, Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu, Indira Gandhi Krishi Vishwavidyalaya, Raipur, Haryana Agriculture University, Hisar, Rajasthan Agricultural Research Institute Durgapura, Punjab Agricultural University, Ludhiana, Global University Training & Research Center, Hyderabad, and Acharya NG Ranga Agricultural University, Nandyal.

Dr Kuldeep Singh, Head of Genebank, ICRISAT, welcomed the participants, and explained the importance of germplasm conservation and laid stress on the use of diverse germplasm in crop improvement. He also emphasized on other research areas in chickpea, including the use of superior haplotypes for yield-related traits, identified at ICRISAT through the whole-genome sequencing of 3,366 accessions.

Dr Arvind Kumar, Deputy Director General of Research ICRISAT, emphasized the importance of germplasm in trait improvement. The ICRISAT and ICAR-NBPGR genebanks are leading, with one of the largest efforts on phenotypic and genomic characterization of over 5,000 chickpea germplasm, translating these efforts to integrate in the breeding pipeline for chickpea improvement.

Dr Patrick Okori, Cluster Leader of Seed Systems, ICRISAT, while addressing the participants shared that, "The project supported by DBT, India will help to improve chickpea productivity in the country and across the globe. Diversifying the cropping system in Africa, with crops like chickpea which grow in a short time, can help us effectively address the issue of malnutrition."