

Chickpea Genomics Consortium on Drought Tolerance

A consortium involving four leading research centers in India – ICRISAT, Patancheru; National Research Centre on Plant Biotechnology (NRCPB), New Delhi; Indian Agricultural Research Institute (IARI), New Delhi; and Sardar Vallabhbhai Patel University of Agriculture and Technology (SVPUAT), Meerut – has been funded by the National Fund for Basic & Strategic Research (NFBSR) of the Indian Council of Agricultural Research (ICAR) for five years (2006–11).

This consortium was established to dissect the complex phenomenon of drought tolerance in chickpea by using functional genomics, structural genomics and reverse genetics tools. Under the project, drought responsive expressed sequence tags (ESTs) will be generated and the candidate genes based on unigene ESTs will be used for genetic mapping (DNA level) and expression mapping (RNA level) in the mapping populations generated at ICRISAT and IARI. Further, a TILLING (Targeting Induced Local Lesions in Genome) population for chickpea will be developed that will be used to prove the function of candidate genes and mine the superior alleles or haplotypes conferring drought tolerance.

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