Abstract

Screening of soybean genotypes against drought stress using morpho-physiological, bio-chemical and gene based SSR markers

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Soybean (Glycine max (L.) Merrill.) contributes 57% of the total oilseed production worldwide. Sustainability of its production is severely challenged by drought, depressing up to 40% of the yield annually. Also Selection of drought-tolerant varieties based on morpho-physiological and biochemical attributes assisted with genomic approaches is one of the methods to be focused. To overcome this challenge, conventional and genomic approaches together with biochemical assays have been utilized for understanding drought tolerance mechanisms followed by utilization of this information for developing drought-tolerant soybean cultivars. In this experiment, material was monitored in randomized block design (RBD) with three replications. Furthermore, the changes in photosynthetic and chlorophyll fluorescence characteristics, total soluble protein, total sugar and enzymatic activities of sixty soybean genotypes subjected to drought tolerance. The lipid peroxidation contents varied low and high (70.2 ± 1.15 to 120.8 ± 1.67 nmol/g).

Biography:

Akash Sharma is pursuing M.Sc. in Genetics &Plant Breeding, from RVSKVV, Gwalior, M.P. India and his research work on drought in Soybean (Glycine max (L.) Merrill.

Recent Publications:

1.   Akitha-Devi MK and Giridhar P. 2015.

2.   Angra S, Kaur S, Singh K, 2010. Waterdeficit stress

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