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Variability in stress induced responses of groundnut (*Arachis hypogaea* L.) genotypes

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Groundnut (*Arachis hypogaea* L.) is an important oil seed cash crop and mainly cultivated under rainfed condition. The erratic rainfall with prolonged dry spells especially during critical pheno-phases of flowering and seed filling affects its yield. In order to identify the traits affected by moisture stress in groundnut, an evaluation trial under field condition was carried out during summer season with six genotypes- JL-24, ICGV91114, Narayani, Abhaya, Dharani and Greeshma. Moisture stress imposition at flowering stage reduced growth and yield components of all the selected groundnut genotypes. Among the six genotypes, the yield performance of Narayani, Abhaya, Dharani were found to be similar as well as superior under irrigated condition, however they differed with imposition of moisture stress. With moisture stress, genotype Dharani recorded highest seed yield and HI, as the reduction of seed number and 100 seed weight was less due to moisture stress revealing that moisture stress had less affect on seed filling. Impact of moisture stress was found to be less on ICGV91114 with lowest reduction of all the yield components, however the per se seed yield of this genotype was very low during this season. Reduction in Anet during stress condition was ranged from 60% (Abhaya) to 77% (ICGV91114) where as Tr from 39% (Abhaya) to 74% (ICGV91114). The genotype Dharani maintained better WUE at leaf level under moisture stress and it also showed highest membrane stability index (MSI), highest epicuticular wax content and better ELWRC. This could be due to higher accumulation of proline and anti oxidative enzymes activity under stress condition. The results indicated that the response of groundnut genotypes differed due to moisture stress and the degree of reduction of vegetative and reproductive components are different. The moisture stress coupled with high temperature elicited different pattern of response in the selected groundnut genotypes.

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Multipurpose cultivation vehicle for poor farmers

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Farmers problems published in news papers, based on this responsible problem we have designed the vehicle with less cost and effective. This machine to be useful for several works with mechanical advantage. Experiments were carried out in different fields. Results revealed that cultivation vehicle suitable for inner cultivation in Tobacco, mirchi, cotton, vegetebles, etc. In addition to this, vehicle can be used to watering of the plants, pesticides, weed removal sprinkle the seeds (nuts) in the fields.

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