



Research Paper

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Standardization of optimal concentration of PEG 6000 for induction of drought and screening of coriander (*Coriandrum Sativum* L.) genotypes

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ABSTRACT : Coriander commonly known as “Dhania” (*Coriandrum sativum* L.) belongs to family Apiaceae. Coriander fruits are an important spice of many countries of Europe, Northern Africa, West, Central and South Asia. In India, it is cultivated in 3.40 lakh hectares with an annual production of 2.23 lakh tonnes. It is cultivated in Rajasthan, Gujarat, Madhya Pradesh, Tamil Nadu, U.P., etc. In general, water stress is critical to seed germination and seedling growth phase (Levitt, 1980). The sensitivity of different vegetable crops to different levels of moisture stress as revealed from the seed germination and seedling growth have been well established (Ross and Hegarty, 1979). The present laboratory study involving an array of 50 genotypes have clearly demonstrated that the genotypes are endowed with a wide degree of variation in respect of their sensitivity to induced moisture stress. Among the criteria considered for screening, the variability manifested by the genotypes are of comparatively greater order for germination (27.50 to 0 %) and root length (0.68 to 0.25 cm) as against shoot length (5.47 to 2.00 cm) and vigour index (168.93 to 11.93). The inhibited germination recorded in other genotypes tested at -0.15 MPa osmotic potential may be related to the moisture deficit in the seeds below the threshold level for germination. These results are in conformity with the earlier findings in hot pepper and egg plants.

KEY WORDS : Coriander, PEG 6000, Drought, Screening

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