

Morpho-physiological changes in five varieties of maize (*Zea mays* L.) grown under different levels of water stresses leading to drought

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ABSTRACT : Drought is a complex syndrome involving timing, intensity, and duration of water deficit the high variability of these factors makes it difficult to define plant traits required for improved performance under all possible drought situations. With the unpredictability of drought, geographical and seasonal, including ongoing climate changes, the destructive impact of drought is likely to further increase. Drought causes numerous physiological changes in plants like plant height, membrane injury and relative water content. Keeping these views in mind an experiment was conducted to study the physiological changes among water stressed maize varieties. For the present study, five maize varieties were treated with different water doses (T_0 , T_1 , T_2 and T_3). Treatment T_0 showed maximum plant height and Treatment T_3 showed minimum plant height. In these stages variety Varun showed maximum membrane injury and variety Ashwini showed minimum injury. Maize variety Ashwini showed maximum relative water content while AAIMS2 variety showed minimum relative water content under drought stress.

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