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Response of maize hybrids from heterotrophic to autotrophic phase of development in cold conditions

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ABSTRACT : Maize (*Zea mays* L.) is a crop of a tropical region with sensitivity to low temperature. This study was conducted to evaluate the performance of experimental maize hybrids in winter months of northern India in field conditions. Data were recorded for survival rate, leaf length and width, seedling height and leaf colour. The analysis of pooled data from 3-leaf stage to 6-leaf stage showed hybrids 131023 x 131026 and NS76B x EL-CML-1 as best performers. Hybrids with relatively high leaf appearance rate, less cold injury symptoms showed good level of cold tolerance in terms early seedling growth under cold stress. These secondary traits could be used in selection index for improvement of tropical maize for low temperature adaptation.

KEY WORDS : Maize, Hybrid, SPAD, Cold, Survival

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