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Evaluation of experimental hybrids in early growth stages for cold tolerance in maize

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ABSTRACT : To evaluate fifteen experimental hybrids at early seedling stages in winter season of northern India, a study was conducted during *Rabi* seasons of 2013-14 and 2014-15 with three checks. The experiment was laid out in Randomized Block Design with two replications and observations were recorded fortnightly from third week of December to last week of February. Cold stress significantly reduced the survival rate, seedling height, leaf appearance rate and leaf area in genotypes. Experimental hybrids, 12007x EL-KRNL-7, 12007 x A-89 and 131026 x131023 out-performed the superior check under cold conditions. Cold tolerant hybrids for early growth stages identified may be recommended for northern India in winter season after undergoing multi location yield trials. Further these hybrids can be utilized in breeding programmes.

KEY WORDS : Maize, Cold stress, SPAD, Emergence, Leaf area, Survival

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