IDENTIFICATION OF COLD TOLERANCE AND SOME AGRONOMIC TRAITS OF ADVANCED SAFFLOWER GENOTYPES DEVELOPED BY HYBRIDIZATION

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Abstract

The development of winter-tolerant safflower genotypes is crucial for the improvement of global safflower agriculture. The aim of the present study was to determine the cold tolerance abilities and some agricultural characteristics of advanced safflower genotypes. For this purpose, ten advanced safflower genotypes were used in four different locations. The experimental design was a randomized complete block design with three replications. Winter survival and agricultural characters were significantly affected by growing season, location and genotype. Winter survival varies between 86.43% and 93.91% among the genotypes, and it was promising for winter sowing. As the average of two years, the highest oil content (36.25%) was observed in genotype EC21 and it was followed by genotypes EC11 (35.51%) and EC20 (35.49%). As with the seed yield, the high winter survival of genotypes with high oil content is highly promising in terms of winter sowing. Safflower should be grown in winter with mild temperature regions for high seed yield and sustainable safflower production. Therefore, this study focused on winter-tolerant genotypes that are superior one in terms of seed yield and oil content.

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