



RESEARCH PAPER

Studies on genetic variability, heritability and genetic advance in sweet corn for green ear yield and yield related traits

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Abstract : A study was carried out in sweet corn to evaluate seven inbred lines, three checks and 42 experimental hybrids during *Kharif* 2019. This study revealed a significant difference among the genotypes for traits studied indicating the presence of abundant genetic variability. The phenotypic co-efficient of variation ranged from 4.57 (DFS) to 36.41 (GEWH) while the genotypic co-efficient of variation ranged from 3.72 (DFT) to 25.35 (GEWH). Green ear yield without husk (25.35, 36.41); green fodder weight (22.47, 29.20) and green ear yield (24.63, 33.31) recorded high PCV and GCV values. The traits plant height (0.73), ear girth (0.61) and TLB (0.69) displayed high heritability values and none of the traits showed low heritability. Genetic advance over mean ranged from 5.71 (DFT) to 37.53 (GEY). High genetic advance over mean was observed for the traits green ear weight without husk, and green fodder weight. Moderate heritability coupled with high genetic advance was observed for the traits green ear weight without husk, green fodder weight and green ear yield. Thus, traits like green ear yield, green ear weight without husk, green fodder weight, ear length and the number of kernels per row should be prioritized while selecting sweet corn genotypes for increased yield as they have a moderate to low range of genotypic co-efficient of variation, phenotypic co-efficient of variation, heritability, and genetic advance over mean.

Key Words : Genetic variability, Heritability, Genetic advance, Sweet corn, Green ear yield and yield

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