Heterosis And Heterobeltiosis Of Some Morphological Traits In Maize

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Abstract
*This study evaluated heterosis (Hs) and heterobeltiosis (Hb) rates of 21 progenies produced with seven inbred lines (3.2, 3.4, 3.6, 14.2, 14.20, 14.21 and 14.26) and three testers (FRMo 17, FRB 73 and ADK 451) by line × tester mating design. The study was conducted in Konya, in the mid - Anatolian region of Turkey. Plant height (PH), first ear height (FEH), leaf number (LN) and leaf area (LA) traits of progenies were observed. The Hs and Hb rates of the progenies were calculated for each trait. Much of the progenies had significant and positive Hs - Hb rates at some of the traits therewithal all progenies of the population had significant and positive Hs - Hb rates in PH and LA properties. Progenies which had highest Hs -Hb rates were 14.21 × FRB 73 [FEH (Hs% = 57**,) LA (Hs% = 37**), PH (Hs% = 34**), PH (Hb% = 31**)], 14.2 × ADK 451 [FEH (Hb% = 41**), LN (Hs% = 14**), LN (Hb% = 11**] and 14.21 × FRB 73 [LA (Hs% = 38**), LA (Hb% = 37)]. The Hs - Hb results of the study showed that this population included high genetic potential genotypes in observed properties.*

Keywords: *Zea mays* L. *indentata* Sturt., *Breeding, Hybridization, Morphological Traits*