The effect of tiller removal on yield and yield components of ten sweet corn hybrids

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Abstract

In order to study the effect of tiller removal on yield and yield components of sweet corn hybrids, an experiment was conducted base on a split plot randomized complete block design with three replications. Two treatments including removal and non removal of tiller as main factor and ten sweet corn hybrids with density of 7.4 plants per square meter as sub factor was considered. Results showed that tiller removal and its interaction effect with hybrid didn't have any significant effects on these traits in this experiment, although it resulted in yield increase of seed and green ear in amount 39.9 and 187.9 gr m⁻², respectively. Hybrids exceptional of traits such as number of seed row, dry weight of ear husk and harvest index, have shown significant difference. Hybrid 4 with having seed and green ear yield in amount of 311.5 and 2191.1 gr m⁻² respectively was known as the best hybrid. The survey of correlation coefficient traits showed that one seed weight had the most correlation with seed (0.89) and green ear (0.61) yield and have effective role among other yield components. Also number of seed in row and number of seed in ear had positive correlation respectively (0.42 and 0.28), and number of seed row had negative correlation (-0.13) but non-significant.

Key words: sweet corn hybrid, tiller removal, yield, component yield, correlation coefficient