

Effect of Plant Density on Ear Yield and Forage Protein of Four Sweet Corn Hybrids in Yasouj

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Abstract

In order to study the effect of plant density on the yield of four sweet corn hybrids, this experiment was conducted at Yasouj Agricultural and Natural Resource Research Center in 2005. The experiment treatments were arranged factorially in a randomized complete blocks design with three replications. The factors of the experiment consist of four sweet corn hybrids (Powerhous, Harvest gold, Chiss and Shiker) and three plant densities (6, 7 and 8 plant m⁻²). The results showed that the interaction between plant density and hybrid on fresh ear yield and canned and harvest index was significant. The highest fresh ear yield was 2734 g m⁻² at density of 6 plant m⁻² in Harvest gold hybrid and the lowest fresh ear yield was 1742 g m⁻² at density of 8 plant m⁻² in Chiss hybrid. Maximum canned yield was 1453 g m⁻² at density of 6 plant m⁻² in Harvest gold and Shiker hybrids and the lowest was 797 g m⁻² at density of 8 plant m⁻² in Chiss hybrid. By increasing plant density, forage protein in all hybrids decreased in the same trend. In general, hybrids of Harvest gold and Shiker and also density of 6 plant m⁻² are introduced as the best treatment.

Keywords: *Sweet corn, Yield, Plant density, Hybrid, Forage protein.*