

Effect of plant density and planting pattern on yield and kernel growth rate of sweet corn (*Zea mays saccharata*) hybrid SC402 in spring sowing

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In order to study the effects of planting pattern and plant density on yield, growth rate kernel filling of sweet corn, an experiment was conducted in 1996-97 at Ramin Agricultural Research and Educational School. The design of the experiment was a split plot in which main plots were two planting pattern (50 and 75 cm of distance line) and subplots were allocated to 4 plant densities (65, 75, 85 and 95 thousands plants per hacter) in randomized complete block design. The experiment replicated 4 times. Analysis of variance showed that it was not significant in term of planting pattern but plant density affects kernel yield. Highest yield (5.337 t/ha) was obtained from 9.5 plants m⁻². Kernel growth rate in related to time was significantly different *in cron*. The kernel growth rate response to time was quadratic curve which it increased with time and after maximum point the rate was slightly decreased. Maximum kernel was formed about 100 days after planting time. The results of this experiment revealed that quarters of are significantly different, which the maximum kernel formed was related to second and third quarter of corn ear.