Effect of tiller manipulation at different planting densities on grain yield and its components of Atrak cultivar in south Khuzistan

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Abstract:

This study aimed to investigate the effects of tiller manipulation at different planting densities on grain yield and its components of Atrak cultivar in south Khuzistan. The research was conducted in a randomized complete block design with four replications. Three tiller manipulation treatments and three planting densities were considered, resulting in nine treatments. The treatments were: 1) No tiller manipulation; 2) Hand thinning to a 3 cm distance; 3) Mechanical thinning to a 3 cm distance. The planting densities were: 1) 80,000 plants per hectare; 2) 100,000 plants per hectare; 3) 120,000 plants per hectare. The results showed that tiller manipulation had a significant effect on grain yield and its components, with the highest yield obtained from the hand thinning treatment at the 80,000 plants per hectare density.