Study of the Effect of Nitrogen Application and Plant Density on Quantitative and Qualitative yield of Triticale in Climatical Conditions of Khuzestan (Ramin)

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With permission, the effect of different nitrogen levels and plant density on Triticale (Triticale spp) grain yield and its components was studied in Khuzestan, Iran. The experiment was conducted in an irrigated field in Shamash, Khuzestan province. The experiment was a randomized complete block design with three replications. The plant density was 222,600 plants and the nitrogen levels were 0, 60, 120, 180, 240, and 300 kg N ha⁻¹. The results showed that increasing nitrogen levels increased the grain yield, number of grains per ear, and 1000-grain weight. The highest grain yield was obtained with 240 kg N ha⁻¹ and a plant density of 250,000 plants ha⁻¹. The results of this study can be used to optimize nitrogen application and plant density in Triticale production to improve yield and quality.