

**Effect of Seeding density and Nitrogen Fertilizer Levels in Growth, Yield and Yield
component of Some Wheat Cultivars**

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ABSTRACT

A factorial field experiment in split-split plot design was conducted in sandy soil at the farm of Agriculture Faculty- Sebha Univ., to investigate the effect of three seeding density (120, 140 and 160 kg ha⁻¹) and nitrogen fertilizer levels (100, 130 and 160 kg N ha⁻¹) in growth parameters, yield and yield components of three wheat cultivars (Mershush, Selmbo and Ashtar) under desert conditions. Experiment was carried out in triplicates and repeated for two seasons (i.e. 2001-2002 and 2002-2003).

Results indicated significant increment in grain yield, i.e. 41.1 and 20.0 % with increasing seeding density to 130 and 160 kg ha⁻¹ respectively. Significant increment in tillers numbers, plant height, flag leaf area, spikes number and grain yield was noticed. Maximum yield (4.3 ton ha⁻¹) was recorded with Ashtar variety. Best compensation to have highest grain yield were by using 160 kg ha⁻¹ seeding density and 160 kg N ha⁻¹. Grain yield was significantly correlated with spike number/ m², number of seeds/spike, weight of 1000 grain, number of tillers/m² and flag leaf area.