

**THE EFFECTS OF DIFFERENT NITROGEN LEVELS ON YIELD AND  
YIELD COMPONENTS OF SOME SILAGE SORGHUM (*SORGHUM  
VULGARE L.*) VARIETIES GROWN UNDER IRRIGATED CONDITIONS IN  
VAN-TURKEY**

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**ABSTRACT**

Sorghum (*Sorghum vulgare L.*) is important crop in the arid and semi arid regions. A 2-year field experiment was conducted to determine the effects of nitrogen levels (0, 6, 12 and 18 kg/da N) on some yield and yield components of four sorghum cultivars (Grazer, Early-Sumac, Rox and Gözde-80). The experiment was a split plot with three replications. Main plots were assigned to nitrogen levels (0, 6, 12 and 18 kg/da) and sub-plots were assigned to sorghum (Rox, Grazer, Early-Sumac and Gözde-80) cultivars. In experiment, green herbage and dry matter yields, plant height, stem, leaf, and panicle ratio and crude protein ratio and crude protein yields were determined.

Applied N increased the green herbage, dry matter yields and plant heights, but it not effected on the proportions of leaf, stem and panicle. It was concluded that "Grazer" was the most favorable cultivar under this conditions. Optimum rate of nitrogen was 12 kg/da in irrigated conditions.

*Key word: Sorghum cultivars, nitrogen, yield components.*