

Environmental Effect on Some Local Grain Sorghum (*Sorghum bicolor*) Cultivars Production Grown in Central Region of Saudi Arabia

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Abstract. A field experiment was conducted at Deirab Agricultural Experiment Station, King Saud University, in the 1990 and 1991 summer growing seasons to evaluate the effect of four planting dates (April 1, 15, May 1 and 15) on grain yield, yield components, and some other agronomic characteristics of three local grain sorghum cultivars (Shahla, White, Red grains).

Planting on April 1, 15 and May 1 produced significantly higher increases in the local sorghum cultivars grain yield. These increases in grain yield might be due to the significant increases in head weight, 500-grain weight, and the nonsignificantly slight increase in tiller number. The Shahla and White Grain sorghum cultivars, beside planting on April 15, took a longer time to reach about 50% bloom. White local grain sorghum and April 1 planting date produced the tallest plants. The highest total dry forage weight was obtained from White and Red Local Grain sorghum cultivars and planting on May 15, suited seed production in the Central Region of Saudi Arabia.