مجلة علوم ذي قار المجلد2(2) نيسان/2010

The effect of row spacing on some agronomic characteristics and grain yield for two Sorghum cultivars *(Sorghum bicolor* L . moench)

Mohanad A. Alsulaiman, Kifah A. Dogachi
Field crop departmet-Agriculture colleges - University of Basrah

Abstract

A field experiment was conducted at al Qurna which is located north of Basrah governorate at autumn growing season of 2008 to study the effect of four row spacing (10, 15.20, 25cm) and two sorghum cultivars (Inkath and Kafir-2) on yield and its components. The experimental design was a factorial 4x2 with three replication in randomize complete block design. The results showed that there was a significant effect for cultivars and row spacing on all sorghum characteristics (days from planting to 50%flowering, plants height, stem diameter, leaf area index, 1000 grain weigh and grains pear head, grain yield and protein. Kafai-2 was the highest grain yield and protein (3.65 T/ha and 10.00% respectively).The space 15 cm produced the highest grain yield (4.25 T/ha) but the spaces 25 cm produced higher grain protean (10.40%) . Moreover, the results showed a significant interaction between cultivars x planting distance for all agronomic characteristic except for stem diameter. The variety Kafer-2 produced higher grain yield (4.70 T/ha) when they planted at 15 cm. The same variety (Kafer-2) produced highest grain protein when they planted at 10 cm (11.10%).

…….

Key words: *Sorghum bicolor* L., cultivars, row spacing