

Evaluation of the Effects of Bed Spacing and Row Numbers on Grain Yield of Wheat Cultivars

A. Naderi^{1*}

1. **Corresponding Author:** Assistant Professor, Khuzestan Agricultural and Nutral Resources Research Center, Ahvaz, Iran, (ahmadnaderi@ymail.com)

Received: January 18, 2010

Accepted: February 9, 2011

Abstract

In order to evaluate the effect of planting methods on the grain yield of wheat cultivars a research was carried out in Safi Abad Agric. Res. Center during 2005-2006 cropping season. The treatments included: 1- Beds spacing including 60, 70 and 75 cm, 2- rows per bed including two and three rows per bed 3-two spring wheat including Chamran (bread wheat) and Karkheh (durum wheat). The research was carried out in two separate experiments for each cultivar, using split plot in complete randomized block design with 4 replications. Bed spacing and rows/bed were the main and sub plot treatments, respectively. Seed density was 400 and 500 seed/m² for Chamran and Karkheh cultivars, respectively. The seeds were planted in 2004.10.07. Results showed that the bed spacing was significantly different for Chamran cultivar, and the highest grain yield belonged to 70cm bed spacing. The grain yield difference for the row/bed bed×row spacing interaction was not significant for Chamran cultivar. Bed spacing and bed×row spacing interaction, were not significant for Karkheh cultivar, while the grain yield for number of rows per bed was significantly different for this cultivar. The highest grain yield of Karkheh cultivar in rows/bed (6435 Kg/ha) was obtained from two rows per bed while in bed spacing the highest grain yield (6516Kg/ha) belonged to 60 cm bed spacing. Among the bed×row spacing interaction, the highest grain yield (6696 Kg/ha) was obtained from two rows per bed and 60 Cm bed spacing. Under the experimental condition of this research, the difference of grain yield between bed and flat planting was not significant ($P>0.05$) for Chamran cultivar, while the grain yield difference in flat and bed planting for Karkheh cultivar was significant ($P<0.05$). According to genotypic variation of wheat cultivars, further research is needed for different genotypes under various conditions.

Keywords: *Wheat, Bedspacing, Row Number, Grain Yield*