

## Effect of Weed Control and Different Plant Densities the Yield and Quality of Safflower (*Carthamus tinctorius* L.)

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**Abstract :** This trial was made to determine effect of different plant density and weed control on yield and quality of winter sowing safflower (*Carthamus tinctorius* L.) in Selcuk University, Agricultural Faculty trial fields and the effective substance of Trifluran was used as herbicide. Field trial was made during the vegetation period of 2009-2010 with three replications according to 'Split Plots in Randomized Blocks' design. The weed control techniques were made on main plots and row distances was set up on sub-plots. The trial subjects were consisting from three weed control techniques as following: herbicide application (Trifluran), hoeing and control beside the row distances of 15 cm and 30 cm. The results were ranged between 59.0-76.73 cm in plant height, 40.00-47.07 cm in first branch height, 5.00-7.20 in number of branch per plant, 6.00-14.73 number of head per plant, 19.57-21.87 mm in head diameter, 2125.0-3968.3 kg ha<sup>-1</sup> in seed yield, 27.10-28.08 % in crude oil rate and 531.7-1070.3 kg ha<sup>-1</sup>. According to the results, Remzibey safflower cultivar showed the highest seed yield on 30 cm of row distance and herbicide application by means of the direct effects of plant height, first branch height, number of branch per plant, number of head per plant, table diameter, crude oil rate and crude oil yield.

**Keywords :** safflower, herbicide, row spacing, seed yield, oil ratio, oil yield

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