

Effect of different iron and sulfur fertilizers on quantitative and qualitative characteristics of sesame (*Sesamum indicum*.L) under drought stress

Abstract

In order to study the effects of different amounts of iron and sulfur fertilizers on quantitative and qualitative characteristics of sesame crop under drought stress, an experiment was carried out as a split randomized complete block with three replicates during 2010 at city of Gotvand. Mainplot consisted of drought stress at two level viz. unstressed conditions and imposition of drought stress in flowering stage. Subplots included iron at three levels namely, spraying with concentrations of 0, 3 and 6% and sulfur fertilization with the bentonite Sulphur in a rate of 0, 100 and 200 kg ha⁻¹. The results indicated that drought stress had no significant effect on harvest index. also drought stress had no significant. effect on yield components. Maximum grain yield and harvest index obtained from using 200 kg/ha sulfur and iron as 3 per thousand during drought stress. However drought stress has no significant effect on seed nitrogen level obtained from treatment of 200 kg/ha sulfur and iron as 3 per thousand. also, drought stress doesn't effect on seed sulfur and potassium but effect on seed iron. There was no significant effect for oil percent in drought stress, but iron fertilizer had significant effect on oil percent of sesame.

Keywords: drought stress, sulfur, iron, sesame, performance



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