

Abstract

In order to evaluate the effect of drought stress on soluble in methanol quantitative and qualitative features *Deracocephalum moldavica* L., 95-96 crop year to face trial in a split plot randomized complete block design with three replications in Research Station Agriculture, University of Zabol, Chahnemeh was the dam . The experimental design was a split plot with three irrigation regimes: Drought steers include mild drought stress, moderate drought stress and Severe drought stress intervals comprising the main treatments, and five soluble levels include: control (no consumption of methanol and ascorbic acid), methanol 10 and 20% by volume, ascorbic acid 1 and 2 mile molar were sub-plots. Results indicated drought stress significantly influenced percentage of essential oil, plant height, number of umbels per plant, one-thousand grain weight, grain yield, biological yield, potassium and sodium, chlorophyll a and b, proline and anti-oxidant enzyme. Increasing drought stress severity decreased plant height, number of umbels per plant, one-thousand grain weight, grain yield, biological yield, potassium and chlorophyll a and b. The highest and lowest grain yield, respectively, was mild drought stress and severe drought stress, so that mild drought stress treatment 66/37% decrease in grain yield. Effect of solution methanol and ascorbic acid on percentage of essential oil, plant height, number of umbels per plant, one-thousand grain weight, grain yield, biological yield, potassium and sodium, chlorophyll a and b, proline and anti-oxidant enzyme was significant. The lowest and highest grain yield, respectively, was control (no spray) and 20% solution methanol belonged, so that 20% methanol treatment 22/47% increase in grain yield.

Keywords: Proline, Drought stress, *Carum copticum*, Spray



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Title

Effects of methanol and ascorbic acid spraying on quantitative
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Supervisor

Dr. A. Khmmari

Advisors

Dr. M. Dahmardeh

M.s. M. Frozandeh

By

H. Lakzaie

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