

Abstract

To evaluate the effect of acetyl salicylic acid and chitosan solution sprayed in low irrigation on quantitative and qualitative characteristics of safflower varieties Goldasht, 92-91 crop year to face trial in a split plot randomized complete block design with 3 replications in Zabol University Agricultural research Institute, located in the semi well done. Drought stress: (A1) irrigation at 75% of field capacity (control), (A2) irrigation at 50% field capacity (mild stress), (A3) 25% of field capacity irrigation intense stress as a major factor levels acetylsalicylic acid spray solution (424/0g/L) and chitosan (5g) were sub-plots. characteristics evaluated include: Plant height, number of branches, number of secondary branches, number of heads per plant, number of seeds per head, seed weight, biological yield, harvest index, seed oil and protein, soluble carbohydrates in grain, leaf area, leaf proline chlorophyll content in the pollination stage. Drought stress carbon hydrated all parameters except leaf area index, chlorophyll index, proline, and of the oil, which reduces the amount of stress on biological function 51/58% and grain yield by 71/23 percent, well water stress increases 12/18 percent increase in proline and 9/42 percent protein content. spray solution of salicylic acid and chitosan increases in all measured parameters except chlorophyll and leaf area index, which rose on biological yield, grain yield and proline, respectively, 44/06 and 40/08 and 44/65 respectively and reduction trait on chlorophyll index 5/11 percent. The results showed that the interactions between water stress and foliar application of salicylic acid and chitosan only on the parameters of leaf area index and biological yield was significant.

Keywords: stress, chitosan, acetylsalicylic acid, safflower.



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Title

**Effects of drought stress, chitosan and salicylic acid
foliar spray on quantitative and qualitative traits of
safflower**

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