

عنوان مقاله:

The effect of salicylic acid pretreatment on germination indices of chia seeds under drought stress

محل انتشار:

اولین همایش بین المللی و پنجمین همایش ملی علوم و تکنولوژی بذر ایران (سال: 1400)

تعداد صفحات اصل مقاله: 6

نویسندگان:

Leila Akbari - Assistant Professor, Department of Production Engineering and Plant Genetics, Razi University, Kermanshah, Iran

Zeinab Chaghakaboodi - Assistant Professor, Department of Production Engineering and Plant Genetics, Razi University, Kermanshah, Iran

Sohbat Bahraminezhad - Associate Professor, Department of Production Engineering and Plant Genetics, Razi University, Kermanshah, Iran

خلاصه مقاله:

Chia plant (*Salvia hispanica* L.) is of special economic importance due to the presence of omega-3 compounds in the seeds and the presence of antioxidant compounds in the leaves. To investigate the effect of salicylic acid pretreatment on germination characteristics of chia seeds under drought stress conditions, a factorial experiment was conducted in a completely randomized design with three replications in the Physiology Laboratory of Razi University of Agriculture and Natural Resources. The first factor includes salicylic acid at four levels and the second factor is drought stress at two levels. In this study, average root length, average stem length, average root-to-stem length ratio, germination percentage, germination rate, plant vigor, and relative leaf water content were measured and determined. According to the results of the analysis of variance, the main effect of salicylic acid on average root length, percentage and germination rate, plant vigor, and relative water content was significant. Also, the interaction effect of salicylic acid and drought stress on germination rate and germination percentage was significant at 5% probability level. The highest germination percentage and other studied traits were related to soaking seeds in 2 mM salicylic acid and non-stress conditions. Comparing the mean interactions of drought stress and salicylic level, some traits and indicators decreased with increasing salicylic content and a high level of drought stress. According to the results of the study, drought stress reduced germination-related traits and salicylic acid reduced the adverse effect of drought stress on germination-dependent traits.

کلمات کلیدی:

Chia seed, water deficit, salicylic acid

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1522903>



