عنوان مقاله:

THE EFFECT OF SALINITY ON ANATOMICAL STRUCTURE AND ALKALOID PRODUCTION IN POMEGRANATE

محل انتشار:

دوفصلنامه رستنیها, دوره 6, شماره 2 (سال: 1384)

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نویسندگان:

فاطمه زرین کمر - Faculty of Basic Science., Tarbiat Modarres Univ., Tehran, P.O. Box : ۱۴۱۱۵-۱۷۵, Iran zarinkamar@modares.ac.ir

آرزو اسفاء - Faculty of Basic Science., Tarbiat Modarres Univ., Tehran, P.O. Box : ۱۴۱۱۵-۱۷۵, Iran

خلاصه مقاله:

Saline soils occupy about ۷% of the earth land surface, an extent portion of such soil are not arable due to very high level of salinity. The objectives of this study were to obtain information about the effect of salt content of irrigated water on growth, anatomical changes and alkaloid production in pomegranate trees. The result reported that, salinity of the irrigated water, with ۸۰۰, ۱۲۰۰, ۱۶۰۰, ۲۴۰۰, ۳۲۰۰ and ۴۰۰۰ μmohs/cm shows that, all levels of salinity treatment has no effect on number of new developed shoots, and salinty levels below ۲۴۰۰ μmohs/cm increased leaves dry weight. The alkaloid content in root tissues was increased in all levels of salinity. It has also been shown that, under salinity stress, the cuticle thickness was increased. Many crystals between parenchyma cells were produced with increasing salinity. The number and density of macro-crystals especially in central vein were increased, with increasing of salinity. The production of crystals in parenchyma cells may be considered as a resistance parameter to salinity in pomegranate (Fig. ۴, C, D and Fig. ۵, C-E).

کلمات کلیدی:

Pomegranate, Salinity, Alkaloid, Anatomy