

**EVALUATION CHAMAZULENE OF *MATRICARIA RECUTITA* L. (ISFAHAN GENOTYPE)
UNDER DIFFERENT LEVELS OF SALINITY**

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Introduction: *Matricaria recutita* L. is one of the most important medicinal plants. Salinity environmental restrictions on crop production, especially in arid and semi-arid world. *M. recutita* is halophyte. This study was designed to investigate the extent Chamazulene is one of the main ingredients of chamomile, under different levels of salinity were measured.

Materials and Methods: In this experiment, the Isfahan genotype were cultivated in complete randomized block design with three replications and three levels of salinity (control, 6 and 12 ds/m) in Isfahan agriculture research center farm. Plants after full deployment using a combination of salt (NaCl) and municipal water were irrigated. Chamomile flowers harvested at three different time intervals at room temperature (25 ° C), in a well-ventilated shade and transported and dried. 100 g of dried flowers and a water distillation using Clevenger apparatus for six hours to extract the essential oil was performed in the same situations. Extract was dehydrated with sodium sulfate and gas chromatography - mass spectrometer (GC / MS) at the Institute of Khorasgan (Isfahan) Branch Islamic Azad University, Isfahan, Iran will determine the amount of chemical compounds. This study was to assess the Chamazulene under different levels of salinity. Data obtained with the use of SAS software, and analysis of variance with Duncan's test at 5% probability level were analyzed.

Results and Discussion: Analysis of variance showed that there were significant at 5% level Chamazulene. Most of the Chamazulene was in the salinity level 12 ds/m and the lowest was observed in control samples. According to the results obtained with increasing salinity levels, Chamazulene rates rose, so chamomile can be used in areas with salty water are recommended. It is suggested that higher levels of salinity was also investigated.

Keywords: *M. recutita*, Salinity, Essential oil, Gas chromatography - mass spectrometer, Chamazulene.



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