



THE EFFECT OF SEPARATE AND COMBINED APPLICATION OF ORGANIC, CHEMICAL AND MYCORRHIZA FERTILIZERS ON THE YIELD OF *ALTHAEA OFFICINALIS* IN DIFFERENT HARVESTINGS

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Althaea officinalis L. is one of the valuable medicinal species from Malvaceae family and using its flower is recommended for treatment of constipation, respiratory diseases, eliminating dry cough, relieving sore throat. The roots of this plant can relieve skin irritations and soften skin and it's been used to lower fever, regulate blood sugar, treatment for Diarrhea and dry cough in traditional medicine. In order to study the effects of managing combined organic, chemical and mycorrhiza fertilizers on the yield of *Althaea officinalis* L. flower in different harvestings, an experiment was performed at research farm of Ferdowsi University of Mashhad in a factorial fashion and randomized design with three replications in crop year of 1391-92. The first factor included application of Farmyard manure (F1), Municipal solid waste compost (F2), blood (F3), chemical (F4), and control (F5) and the second factor was inoculation with mycorrhiza (*Glomus intraridices*). All the fertilizers were added before planting and also at the time of preparing the land. The chemical fertilizer was added to the irrigation water at the beginning of flowering stage in the form of top dressing. Flowers were collected every three days from mid August. The studied traits were the performance of dry and wet flowers from 5 different harvestings. The results showed that different fertilizers and inoculation with mycorrhiza had a significant effect on the yield of *Althaea officinalis* L. in different harvesting. The most yields observed in first, second, third, fourth and fifth harvestings for F2, F1, F4, F3 and F4 was 0.007, 0.005, 0.014, 0.006 and 0.010 grams per square meter, respectively. In comparison to Non-inoculated, inoculation with mycorrhiza also improved the yield in different harvestings. Thus, we can consider the use of different fertilizers to improve the yield of valuable medicinal plants like *Althaea officinalis* L.