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Evaluation of Calendula officinalis L. Flower Dry Weight, Flower Diameter, and Number of Flower in Plant Variabilities under Effect of Compost and Nitrogen Different Levels in Four Harvest

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Abstract : In order to investigate the effects of nitrogen and compost different levels on qualitative and quantitative performance of Calendula officinalis L. herb, an experiment was carried out in the research field of Chalous Azad University in 2011-2012. The experiment was done in factorial form as a randomized complete block design, in three replicates. Treatments consisted of nitrogen and compost. Considered nitrogen levels consisted of N0=0, N1=50, N2=100 kg/ha and compost levels were including C0=0, C1=6, C2=12 ton/ha. Investigated characteristics consisted of flower dry weight, number of flowers in plant, flower diameter. The results showed, nitrogen and compost treatments had statistically significant influence ($p \le 0.01$) on studied characteristics. Flower dry weight, flower diameter and number of flower in plant characteristics has been studied in four harvest; as, the performance of these characteristics had increasing procedure from the first harvest up to the forth harvest; and, in the fourth harvest, it has reached to its` maximum level. As, up to the forth harvest, the maximum flower dry weight, flower diameter and number of flower in plant obtained by C1× N2 (C1=6 ton/ha compost and N2=100 kg/ha nitrogen) treatment.

Keywords: calendula, compost, nitrogen, flavonoid

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