**The effect of vermicompost on the growth characteristics and essential oil of chamomile (*Matricaria chamomilla* L.)**

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**‌ Statement of Problem:** Chamomile plant with effective botanicals such as kamazolen is important in various pharmaceutical and health industries. In this plant, organic nutrition improving the absorption an important role in increasing the performance and quality of essential oil. Based on the use of organic fertilizers in order maintain the health of the product and the environment, it is considered an important in today's agriculture.

**Research Purpose:** The effect of vermicompost on the growth characteristics and essential oil of chamomile.

**Research Method:** In this research, vermicompost was used at five levels (0, 5, 10, 15, and 20 tons per hectare). The experiment was carried out as a factorial with a basic design of randomized complete blocks with three replications. Finally, the growth characteristics such as the length and dry weight of the plant, the number of flowers, the amount of essential oil were measured.

**Results and Conclusion:** The results show that the use of vermicompost has increased plant growth, stem length and dry weight have increased also with the increase in the number of stems, the number of flowers has increased. The highest growth was observed at 15 tons per hectare. There is the lowest amount of growth in the treatment without vermicompost. There is no statistical difference between the treatment of 15 and 20 tons per hectare, but there is a statistical difference with other treatments.

**Keywords:** Chamomile, essential oil, organic fertilizer, vermicompost.