

Supplying Calendula Plants with Some Micronutrients as Foliar Spray under Egyptian Soils Features

*Abou-Sreea, A. I. B.; **Yassen, A.A

*Horticulture Department, Faculty of Agriculture, Fayoum University, Egypt. **Soil Fertility & Plant Nutrition Dept. National Research Centre, Giza, Egypt

Abstract: For the sake of studying the effect of foliar spray of Zn and Mn as sole or combined treatments on the growth, flowering and some chemical constituents of Calendula plants the present work was carried out. It had been deduced that foliar application of Zn and Mn alone or together gave significant increases in all vegetative growth and flowers parameters under study as compared with the control in both seasons. Data also showed that the highest increase in growth and flowering were especially presented when equal concentrations from Zn and Mn (0.30%) were added together as compared with other treatments. The interaction effects between different Zn and Mn foliar spray significantly promoted chemical constituents (head flower essential oil plant⁻¹, beta carotene, chlorophylla and b, total carotenoids, protein, xanthophylls, total flavonoides, total carotenoids in dry ray flowers, total carbohydrate percentage in stems and leaves N, P and K %, Zn, Mn and Fe (ppm) in herb and seed in Calendula plants

Keywords: zinc (Zn) and manganese (Mn) foliar spray- vegetative growth - pigments, chemical constituents - Calendula plants