Effect of priming and salinity on morphological and physiological characteristics of Calendula officinalis L.

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Abstract To evaluate the effects of priming and salt stress on morphological and physiological characteristics of pot marigold (Calendula officinalis L.) in Rasht, Guilan province in 2015, a split plot experiment based on a randomized complete block design with three replications was done. In this experiment, the three levels of control, distilled water and potassium nitrate (KNo3) as the main plot and subplot four levels of salinity stress (no stress), 7/8, 15/6 and 23/4 dS m NaCl solution were examined. The results show that the effects of priming and salt stress on traits (plant dry weight, dry weight of flowers, stems per plant, number of flowers per plant, flower diameter and percentage of germination) were significant; and the most percentage of germination, flower dry weight, dry weight, number of flowers per plant and stem priming treatments without potassium nitrate and salinity (control) was observed. The highest germination and flower diameter in distilled water and saline (control), also, was registered, and the lowest was observed in the control treatment (without priming) and salinity (4.23 dS m). Interaction of priming and salinity was not significant about the examined traits. Keywords: Priming, Salinity, Performance, Pot marigold.

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