

عنوان مقاله:

Effect of priming on the pot marigold plant (*Calendula officinalis* L.) under the Chromium and Nickel contamination

محل انتشار:

بیستمین کنگره ملی و هشتمین کنگره بین‌المللی زیست‌شناسی ایران (سال: 1397)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

In order to evaluate the effect of pot marigold (*Calendula officinalis* L) priming on the refining of heavy chromium and nickel elements, an experiment was conducted under laboratory and pot experiment in 2017 in a laboratory and research farm of Shahrekord Islamic Azad University. The experimental design was based on a completely randomized design with factorial arrangement of three factors with four replications, and after obtaining the best results in the laboratory, the continuation of the work in the pot, based on a completely randomized design, was carried out in a factorial arrangement of three factors with three replications. Treatments in the laboratory were polyethylene glycol 6000 (0 and 1 bar), potassium nitrate (0, 5, 10 and 15%) and salicylic acid (0, 1, 10 and 20 mmol / l) and potassium treatments, primer seeds and nonpermeable, different levels of chromium (0, 25, 75 and 100 mg / kg) and nickel (0, 20, 60 and 120 mg / kg). According to the results of this study, all seeds of pot marigold primed with a salinity of 1 mmol per liter were superior to other treatments in terms of germination traits. The results of flowering experiment also showed that pot marigold priming had a positive effect on the purification of chromium and nickel from the soil. The highest accumulation of heavy metals was observed in primed plants treated with the highest levels of chromium (100 mg/kg) and nickel (120 mg/kg) and the lowest accumulation in non-perforated control plants. The plant is always an overgrowth plant spring that is able to accumulate heavy metals of chromium and nickel in different parts of the plant, especially the aerial part

کلمات کلیدی:

Enrichment, Elemental refining, Germination traits, Heavy metals, Contamination levels

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