

INVESTIGATION INTERACTION EFFECTS OF SEED PRIMING BY ACETYSALICYLIC ACID AND LEAD ON SEED GERMINATION AND SEEDLING GROWTH SAGE (*SALVIA OFFICINALIS*) UNDER CONDITIONS LABLATORY.

L.Soleimanpour¹, R. Sadrabadi²

1. *Master student of Islamic Azad University Mashhad branch*

2. *Assoc. Prof. of Islamic Azad University Mashhad branch*

Corresponding author: ladansoleimanpoor@yahoo.com

ABSTRACT

Not only Sage is one of the important medicinal plants, also used in landscaping. Filtered wastewater, including non-conventional sources of water use in irrigation, especially in arid and semiarid regions is very important. But potential Smyvamly such as heavy metals in sludge is the most important limiting factor of their use. Based on data from the Environment Agency, the Lead environmental pollution is the most important metal pollution. Salicylic phenolic compound as antioxidant agent plays an important role in regulation of plant physiological processes. In order to study Investigation Interaction effects of seed priming by acetylsalicylic acid and Lead on seed germination and seedling growth Sage under conditions laboratory this study was conducted in the laboratory of Islamic Azad University of Mashhad. Experiment was done in completely randomized design (CRD) with two factors 4 replications. The first factor consists of five levels of the prime and the second factor was in four levels of Lead chloride . Priming treatments , including no treated as control, priming doses of acetylsalicylic acid with 0/25, 0/5, 0/75, and 1 mM and treatments of Lead chloride containing concentrations of 0 (control), 2 , 4 , 6 mm Mvlarbvd . The results of this experiment, investigate the interaction of Lead chloride and priming treatments on the germination and seedling growth traits showed that priming treatment with acetylsalicylic acid may reduce the negative effects of Lead. Acetylsalicylic acid treatment and the level of Lead were found that the highest amount of germination traits varied with the type attribute. The most suitable germination rate and percentage of maximum values for this attribute at concentrations of 0/75 to 1 mM acetylsalicylic acid and 4 mM Pb respectively. Maximum root length and shoot at 2 mM Lead chloride related to the seed pretreatment with 1 mM acetylsalicylic acid.

Keywords: sage, germination percentage, speed of germination, root length, shoot length



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