The influence of some heavy metals on seed germination and seedling growth at Cannabis sativa l.

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The paper presents the results of a study concerning the influence of different concentrations of Pb and Cd on some physiological and morphological indicators in the dynamics of the process of seed germination and in the incipient phases of seedling growth. The results underline the specific variations of the analysed indicators (water and dry substance content, content of total mineral elements, content of assimilating pigments, cellular liquid concentration, respiration intensity, lengths of vegetative organs of the seedling), depending on the nature of metals and their concentrations used for the seed treatments. At every investigated experimental variants, the water and total mineral elements contents increases during the analyzed period; the cellular liquid concentration
decreases. Cd in concentration of 1ppm determine the intensification of respiration process, indicator for underlining the metabolic activity. Regardless to the concentration, Pb and Cd determine the increase of the content of assimilating pigments, more obvious in the case of a chlorophyll.