

The assessment of the impact of irrigation on soil - vegetation cover Dnepropetrovsk region

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Abstract

At the time of irrigation is increasing human pressure on the objects of environment and creating preconditions for aggravation of the environmental situation. One of the reasons is quickly strengthening role of the surface, intra-soil and drainage wastewater in the migration of various elements including heavy metals.

There was decided the problem of studying the regularities in the distribution of heavy metals and radionuclides in the soil - vegetation cover in Dnipropetrovsk region and determine the degree of contamination in natural waters (surface, groundwater, drainage) and soil these elements.

In ecological researches of recent decades, considerable attention is directing by the characteristics of absorption and migration of polluting elements in the soil cover. In this case is using a system approach developed by R.M. Alexahinym and N. A. Korneevym , also P.H. Naiy and P.B. Tinker regarding transformation solutions in system "soil cover - plant". These approaches have been used in this work.

Growing crops under irrigation leads to problems of radioactive contamination of soil and plants. As a result, additional irrigation is getting polluting elements, the main ones are heavy metals and radionuclides. In terms of Dnipropetrovsk region the least possible contamination with heavy metals will be with using irrigation water from Frunzivska irrigation system. For reduction of radioactive contamination is desirable to use furrow watering method. In this case, the lowest average coefficients of radionuclides transfer from soil to plants received for black soil.

Keywords: *heavy metals, radionuclides, irrigation water, soil - vegetation cover.*