

RADIOECOLOGICAL ASSESSMENT OF RADIOLOGICAL CONSEQUENCES OF POLLUTED AGROECOSYSTEMS USE

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Assessment of radiological consequences of polluted agroecosystems use has been provided. The investigation has been realized on the basis of three-module model of assessment of radiological consequences (EMARC) of polluted agroecosystems use. Model takes into account: - transformation of bio availability of radionuclides and long-term forecast of dynamics of soil-plant transfer factor; features of migration ^{137}Cs and ^{90}Sr in system soil-plant and natural clean-up of soil, inclusion and migration of radionuclides in food chains and getting into human organism. Calculations were released as a combination of dynamic models and spreadsheet forms in Quattro Pro, version 4 and Lotus 1 - 2 - 3. Estimations were conducted for agroecosystems of Northern Ukraine with six soil types. The obtained results demonstrate the considerable difference among the levels and dynamic formation of committed doses caused by consumption of the polluted food stuffs produced in agroecosystems with different types of soil. This difference can reach for both Cs and Sr one order and more.