

THE INVESTIGATION OF THE COMBINED INFLUENCE OF γ -IRRADIATION AND THE SALT OF TOXIC METAL $CdCl_2$ FRACTURED INSERTION TO THE STATE OF MODELLING PLANT ECOSYSTEM

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It was investigated the influence of acute γ -irradiation and fractured insertion of the hard metal cadmium salt to the water culture of maize plants radiocapacity parameters. The control of these characteristics behaviour was carried out through the regular measuring of the residual activity in water by the special injection of tracer, the radioactive ^{137}Cs . After estimation of water and biota radiocapacity indexes, the growth characteristics ratio of absorption and of flow-out velocity, we have concluded that all these characteristics are good representing of changes of the biotic system component's state. Behaviour of these characteristics is an evidence of the positive influence on biota by fractured insertion of salt $CdCl_2$; and that superposition of radiation action greatly increases the negative influence of toxic metal. For estimation of the different nature factors interaction we have proposed the synergism coefficient. Its behaviour is an evidence of the non-additive interaction of chosen factors. Maximal synergism is present on interaction of acute gamma-irradiation on dose 20 Gy and by insertion of cadmium salt with concentration 50 mkM/l during the time of fraction 6 hours.