

LONG-TERM INFLUENCE OF LIMING ON BIOLOGICAL AVAILABILITY OF RADIOCAESIUM IN FOREST SOILS

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Presented are the results of research of ¹³⁷Cs transfer from soil to plants on a plot of a spruce forest (*Picea abies*) in Baden-Wuerttemberg (Germany) in 13 years after fertilization (83% CaCO₃, 8% MgO, 6% K₂O, 3% P₂O₅, 2.5 t/ha, 1984). It is shown that liming results in long-term decrease of ¹³⁷Cs uptake by plants by a factor of 8-20 in comparison with a control plot. The results of liming are the morphological changes of litter and characteristics of rooty soil layer: the parameters of caesium selective sorption and composition of a soil solution determining biological availability of ¹³⁷Cs. On the basis of model of radiocaesium transfer from soil to plants the prediction of ¹³⁷Cs accumulation factors for forest plants has been made. Theoretical assessments are compared with experimental data.



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