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DAMAGE TO TUBERS OF VARIOUS POTATO VARIETIES BY CATERARS OF TURNIP MOTH ON DIFFERENT SOIL TYPES

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Caterpillars of turnip moths *Agrotis segetum* Den. et Schiff. and *A. exclamationis* L. with predominance either one or another species in different years are found annually on potato fields in the Leningrad region. Caterpillars of older ages can feed on potato tubers before pupation. The study of potato tubers damage caused by these pests was carried out on the experimental fields of All-Russian Research Institute for Plant Protection and its Tosno branch. The experimental fields differed in soil type, structure, soil acidity, soil hydrothermal regime and in a number of agrobiocenotic factors. According to the research data of 2015–2021, the average damage to potato tubers by the caterpillars of the turnip moths in the fields ranged from 1.6% to 18.4%, which most likely reflects the natural long-term dynamics of these moth species abundance. It has been established that the degree of the potato tubers damage by the caterpillars depended not on the physical properties of the soil or biocenotic factors, but, to a greater extent, on the varietal characteristics of the potato. The potato varieties Pamyati Osipova, Nayada, Liga, Red Fantasy, Breeze, Gala, Dovniya, Christel, Rubin are less affected by the caterpillars. Such varieties can serve as an ecological basis for integrated potato protection systems in the areas with high numbers of these pests.

Key words: potato, turnip moths, soil, variety, damage.