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AGROECOLOGICAL ASSESSMENT OF GRAY FOREST SOILS UNDER INTENSIVE HORTICULTURE

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ABSTRACT

Agricultural use of the land fund requires monitoring of its fertility, degree of erosion, and level of pollution. The aim of this study was to determine and evaluate the main agrochemical parameters of the soil, as well as the most dangerous heavy metals on agricultural land, which were used for perennial plantations (an intensive apple horticulture). The use of soils for intensive gardening for 14 years (2008-2022) led to an increase in exchangeable potassium by 6.58 times, mobile forms of phosphorus by 14.6 times, calcium by 31.1%, exchangeable magnesium by 18.8% %, molybdenum by 11.2%, sulfur by 46.3%, zinc by 18.4%, lead by 3.1%, cadmium by 2.5%, mercury by 34.5% and a decrease in easily hydrolyzed nitrogen by 12, 9%, humus by 0.06%, boron by 8.6%, iron by 17.9% and copper by 6.8% compared to fallow soil.

Keywords: soil, intensive horticulture, fallow, degradation, agrochemical indicators, heavy metals, soil fertility, apple orchard.