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FORMATION OF AGROECENOSIS WEEDY COMPONENT UNDER THE INFLUENCE OF THE LONG-TERM APPLICATION OF PRIMARY SOIL TILLAGE SYSTEMS

The paper presents the results of studies on the effect of the long-term application of principal soil tillage systems on the quantitative indices of the weedy component in crop rotation. It has been found that all non plough systems as compared to the plough system led to an increase in the weed number by 32–112 %, in the species number by 33–65 %.

For the last 12 years one can observe the increase in a number of weedy component in the crop rotation depending on the principal soil tillage systems: from 1 under the plough and combined system 2 to 15 under the surface system.

The biggest variety of agroecenosis weedy component was presented in corn crops for barley grain. The most favorable phytosanitary state for crops rotation was observed in the combined system 2 which included disk tillage of the soil at 10–12 cm for winter wheat after annual plants, chisel tillage at 35–40 cm for sugar beet and various depth ploughing for other crops.

Key words: tillage, soil, system, weediness, crop-rotation.