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FEATURES OF THE FORMATION OF OLD-SOWN PHYTOCENOSES UNDER INFLUENCE OF MINERAL FERTILIZERS AND USAGE REGULATIONS

The aim of our research is study the peculiarities of formation of specific and botanical composition of old-sown sward depending on the rates of mineral fertilizers. Field experiments were conducted at the Institute of Agriculture of Carpathian Region of NAAS in a long-term stationary experimental. The meadow agrophytochenosis was grassing in 2001 with grass mixture such structure: ryegrass perennial, red fescue, timothy meadow, clover creeping. For many years the distribution of nitrogen fertilizers and their impact on the peculiarities of haylands formation were studied. Currently being such rates of nitrogen in the background $P_{45}K_{60}$: N_{60} (30+30) and N_{60} (20+40) in a double alienation and $P_{45}K_{60} + N_{90}$ (30+30+30), $P_{45}K_{60} + N_{90}$ (0+30+60), $P_{45}K_{60} + N_{120}$ (40+40+40), $P_{45}K_{60} + N_{120}$ (0+50+70) with three times using.

Monitoring of botanical composition of sward from 2001 to 2015, confirmed the positive influence of mineral fertilizers on the resistance of the specific structure of long-term agrophytocenosis and ability for many years to maintain their feed value. The application of mineral fertilizers on old-sown grass stands contributes to the formation of forb-grass plant groups and phosphorus-potassium – forb-legume-cereal.

In a lengthy introduction of $N_{60}P_{45}K_{60}$ formed persistent phytocenosis with preservation of seeded grasses such as timothy meadow (*Phleum phleoides*) (8 %), fescue meadow (*Festuca pratensis*) (44 %). From no-seeded grasses the largest share was occupied by orchard grass (*Dactylis glomerata*) (35 %) and red fescue (*Festuca rubra*) (14 %).

The lowest density of grasses was observed in the control without fertilizer. The surface improvement of old-sown sward with complete fertilizer in the first mowing assisted to, increasing the number of shoots per 1 m² to 4673 pieces. This high density of the sward due to the presence of high percentages of grass-roots grasses that have adapted to the soil and climatic conditions, as well as full mineral nutrition for many years.