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FORMATION OF THE SOWN PHYTOCENOSES DENSITY

The botanical composition, the sward density and their variation for mowings and years of use plays an important role in formation of meadow cenoses. The sward density depends on the primary grass stands and fertilizer systems. The botanical composition characterizes the state of agrophytocenosis, its biological value and economic feasibility.

Connection with we carried out a study on the effect of grass mixtures composition and different rates of fertilizers on density herbage at haymaking use in conditions of the Precarpathians.

The highest number of shoots at the end of third year herbage use was recorded on legume and cereal phytocenoses (timothy (6 kg/ha), red clover (16 kg/ha)) – 1564 pieces/m². The total density of shoots on cereal grass (timothy (4 kg/ha), orchard grass (6 kg/ha), perennial ryegrass (6 kg/ha), meadow fescue (6 kg/ha)) was 755–1377 pieces/m².

The density of shoots standing on legume and cereal phytocenoses (timothy (4 kg/ha), orchard grass (6 kg/ha), perennial ryegrass (6 kg/ha), red clover (3 kg/ha), bird's-foot trefoil (3 kg/ha)) was the smallest (756–1001 pieces/m²) and depended on their composition respectively.

Over the years of herbage use was observed increase in the number of cereal grasses in the first and third hay mowings and density of legumes decreased.

It explains that not all types of herbs respond equally to application of fertilizers due to differences in biological and environmental properties.

On the basis of obtained results it can be stated that when applying of nitrogen fertilizers the proportion of cereal grasses in herbage sharply increased and application of phosphoric fertilizers contributed to their reduction. When adding potassic fertilizers the proportion of grasses increased, positively affecting the growth of legumes in general.

Application of the nitrogen fertilizers itself led to the fact that high grasses were replaced with the lower and legumes disappeared from herbage.

The long-term systematic application of phosphoric-potash fertilizers leads to transformation of cereal herbage into legume-cereal one.