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INFLUENCE OF DIFFERENT KINDS OF FERTILIZER OF LEGUME-GRASS GRASS STAND TO CHANGING AGROPHYSICAL INDICATORS OF SOIL

The results on the effect of application of phosphorus and potassium fertilizers, inoculation, growth stimulants, organic and mineral fertilizers and liming on root mass accumulation of legume-grass grass stand and dynamics of agro-physical characteristics of the soil are showed. There are established that yields of four old grasslands, which was used without nitrogen fertilizer, generated by the potential fertility of the soil, by use of phosphate and potash fertilizers, growth stimulants, inoculation, organic-mineral fertilizers and liming. The highest yield (9,06 t ha^{-1} of dry matter) provides the combined use of phosphate and potash fertilizers with organic-mineral fertilizers Dobrodiy and lime.

The increase in root mass in legume-grass grass stand occurred due to phosphate and potash fertilizer. However, under the influence of growth stimulants, organic-mineral fertilizers, liming, inoculation its contents slightly increased. The largest number of root mass (13,9 t ha^{-1}) recorded on grasslands, which was performed pre-sowing seed inoculation by ryzobofit.

Over the research years, agrophysical soil indicators have undergone minor changes. Like for not fertilization grasslands, and for all kinds of fertilizer soil after meadow formation the density of soil increased by 0.01–0.06 g cm^{-3}. The highest density recorded in not fertilization grass stand (1,22 g cm^{-3}).

Low yield of above-ground mass (in not fertilization grasslands and using only the phosphate and potash fertilization), and a large root mass contributed to the accumulation of nutrients in the soil and its small removing, and thus provided the reproduction of soil fertility.