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Productivity of annual or perennial herbs in the green line

Purpose. Pick up perennial herbs and mixtures of annual crops in a green conveyor for the production of high-yielding herbal feed. **Methods.** Field, laboratory, chemical, mathematical and statistical. **Results** According to research results, long-term bean grasses and mixtures of annual crops from Sorghum and Sudan are characterized by high productivity and good feed quality. **Conclusions** Long-term bean grasses without the use of fertilizers provide for obtaining from 1 ha 8 - 14 tons of dry mass. The most productive is alfalfa seeding. Among the mixtures of annual crops, the most productive is the mixture of Sudanese Sorghum and corn.

Key words: green conveyor, perennial grasses, mixtures of annual crops, productivity, green and dry mass.

The green conveyor involves the maximum use of not only agricultural lands, that is, perennial and annual grasses and their mixtures, but also agroclimatic resources due to the wide introduction of intermediate, post-crop and post-emergence crops of fodder crops. For growing in a green conveyor of different speeds of species and varieties of fodder crops, the optimal terms of their use become much longer [1, 6, 9, 10]. Often, perennial grasses are used in 2-, 3-component mixtures, where one bean culture grows different in speed grains [2, 4, 7]. The purpose of the research is to collect perennial herbs and mixtures of annual crops in a green conveyor for the production of high-yielding herbal feed. Despite considerable scientific substantiation, comprehensive research on the development of technology for growing fodder crops in the green conveyor system is not enough [3, 5, 8]. Terms and methods of research. Field studies on the selection of perennial and one-year fodder crops and their mixtures, as well as the development of their fertilizer system, were carried out on dark gray soils in the northern part of the Forest-steppe of Ukraine (SE "DH" Chabany "NSC" Institute of Agriculture of the NAAN ") for - adopted techniques. In experiment I (from the selection of perennial legume grasses) the comparative productivity of the clover of the ray, Ukrainian lion, alfalfa of seed and yellow was studied in comparison with cereal grass. Waxal-microplant preparation (a mixture of macro- and trace elements in chelate form) was introduced by spraying the aboveground mass in the phase of planting grasses in the 1st slope in a dose of 2 l / ha. Phosphate and potassium fertilizers in a dose of P45K90 were introduced early in the spring. In the grassy grass additionally, nitrogen of mineral fertilizers was added in the dose of $\hat{0}$ for 2 steps in identical parts - in the spring and after the 1st slope. Use of herbivores 3-inclination not with slopes in the phase of budding of legumes. In experiment II, the effects of fertilizer systems on the productivity of grasses and the quality of grass feed from mixtures of annual crops in the main and post-crop crops were studied. Complex granular organic fertilizer in the form of a preparation gigigran in a dose of 250 kg / ha and mineral fertilizers - in doses $\hat{5}$ P30K45 were introduced under pre-sowing cultivation.

1. Productivity of perennial legume grass depending on fertilizers (average for 2012-2014).
2. Productivity of annual grass mixtures (average for 2012-2014).

Research results. The results of researches show that perennial berry grasses essentially (in 1,5-2 times) prevail over the productivity of cereal multi-year grass stomatologist (Table 1). The most productive was the alfalfa crop. An analysis of the results of research in 2012 -2014 shows that the productivity of perennial herbs depended on the system of cultivation. Bean grasses accumulated from 155 to 302 kg / ha of symbiotic nitrogen. In variants without fertilization, the productivity of bean grasses

on average for 3 years was the lowest - 38 - 52,1 t / ha of green mass and 8,91 - 11,93 t / ha of dry matter. In variants with taking the drug waxal-microplant, the productivity increased from 6 to 15%, or 1.2 times. In variants containing phosphoric-potassium fertilizers, the yield of dry matter was 9.90 - 14.24 t / ha. When compared with cereal bahatorichnoyu grass, the best performance Bromus inermis was pidzhv-lennyam nitrogen on average for 3 years, it was within a hundred-46.5 t / ha of green mass and 10.49 t / ha dry weight, or 1.5 times higher than that of a colossus-free box in non-fertilizer variants. The largest amount of feed units was on the crops of alfalfa, seedlings and stococum septa with nitrogen fertilization. Studies of annual mixtures show that productivity depended on both the species composition of grass mixtures and fertilizer systems (Table 2). The most effective factor influencing the productivity of grasses from mixtures of one-year crops was the grass mixture, the share of which in average for 3 years was 67%. The share of fertilizer systems accounted for 23%. The most productive were the blends of Sudanese sorghum with diaper in primary crop and radish oil in post-fallow crops, as well as corn with lupine narrow-leaved. Their productivity for 3 years on various fertilizers was 43.5 - 64.6 t / ha of green mass and 9.58 - 14.92 t / ha of dry weight. The least productive were oat husks with harrow (6.16 - 6.83 t / ha) and tritcale spring with winter rape (4.85-6.03 t / ha of dry weight).

Conclusions

Long-standing legumes (clover of beans, alfalfa crop and yellow and yellow Ukrainian), which are the main block of green or raw material conveyor for the production of hay or hay without the use of fertilizers, ensure the production of 1 ha 8-14 t / ha -hoi masses. The most productive products are alfalfa seedlings. Among the mixtures of annual crops, the largest collection of green and dry masses provides mixtures with Sudanese sorghum in the main (48.4 and 11.14 t / ha respectively) and post-infectious (57.6 and 13.28 t / ha) Crops and whole grain corn with narrow lupine (53.1 and 11.91 t / ha respectively). After the introduction of the preparativ gumigran, the productivity rises by 15-16%, Y45R30K45 - by 27-30%.

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