DYNAMICS OF LINEAR GROWTH AND GROWTH OF GREEN WEIGHT OF TOP WHITE SWEET CLOVER IN A SINGLE-CROP AND COMPATIBLE SOWINGS WITH ANNUAL CEREAL CROPS.

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The most important in the development of livestock is a forage base. Therefore, in each enterprise it is necessary to be able to solve the issues of successful creation of abundance of complete feed for cattle. One of the most important factors that characterize the value of food is the content of protein in it.

The issue of providing by fodder protein is one of the pressing problems in the science and practice of modern livestock and fodder production.

As one of reserves for increasing production of vegetable protein should indicate improvement the structure of legumes crops and annuals, among which the important role is given to compatible sowings. Each individual culture, both among legumes and cereals, does not fully meet the requirements of full-fledged feeding of farm animals. The most suitable in this case is the seeding of legumes-cereal mixtures, since it achieves a rational ratio between carbohydrates and protein.

The main source of protein intake with food is perennial legumes grasses. Along with the most famous ones - alfalfa, purple clover, sainfoin or eastern galega, special attention should be paid to the cultivation of one-year or two-years-old crop - white sweet clover.

There is almost any data about characteristics of compatible cenosises of white sweet clover with fodder annual crop in the scientific literature. In turn, this does not allow providing a high-yield, balanced feed for the livestock sector. Therefore, the purpose of research was to determine the most productive mixtures. Effects of cereal component of the mixture, fertilizing on the productivity and quality of crop production were also studied.

Biometric parameters are an important indicator which used for determination yields of compatible sowings. Therefore, during research, we studied how varies height of the cenosis depending on conditions of cultivation.

The research was carried out during 2015-2017 in the scientific laboratory of fodder production, reclamation and meteorology department on base of separate unit of the National University of Life and Environmental Sciences of Ukraine "Agronomic Research Station".

It was established that intensity of height growth of white sweet clover plants and cereals differed in phases of growth and development, depending on fertilizing and species composition of the mixture.

Thus, already in the 30th day of white sweet clover vegetation, height of the legume crop ranged from 22-24 cm. The highest elevation among the cereal component was noted in Sudan grass and maize - 22 and 28 cm, respectively, due to the peculiarities of species diversity compatible sowings and uneven distribution of nutrients in the experimental site.

Mineral nutrition has a positive effect on the linear growth of crops. The height changed gradually in line with increasing of fertilizer doses and on all variants of the experiment was the highest at maximum level of fertilizer. On average, during years of research and periods of growth and development, the altitude changed: white sweet clover - 7-14%, maize - 5-15, millet - 6-12 and sorghum - 8-13%.

At period of maturation, the highest elevation parameters were the variants of compatible cultivation of white sweet clover with maize - 97 and 130 cm, and Sudan grass - 98 and 108 cm, with mineral fertilizers $N_{60}P_{90}K_{90.}$