

In general, the yield of digestible protein was 0.66–0.70 t/ha when sowing cereal and leguminous components with sowing rates of 50 : 50 and 60 : 40% on variants with the introduction of only nitrogen fertilizers.

The feed value of plant biomass of mixtures of spring triticale with field peas is determined by the supply of the feed unit with digestible protein. Increasing the doses of mineral fertilizers helps to increase the yield of digestible protein and improve the supply of it to the feedlot. The highest efficiency of nitrogen fertilizers was noted in single-species sowing of field peas, where the yield of digestible protein was 0.70–0.80 t/ha with a content of 176–191 g in one fodder unit.

The availability of one fodder unit of fodder obtained from single-species sowing of spring triticale on unfertilized plots was 90 g, for the application of nitrogen fertilizers – 95–104 g, for the application of complete mineral fertilizer in the norm $N_{30}P_{45}K_{45}$ – 104 g. That is, for sowing triticale in a single-species crop, the availability digestible protein of the fodder unit of its green mass only approached the level of the zootechnical norm, however, it did not meet it.

Feed obtained from crops of leguminous-cereal mixtures is characterized by higher nutrition due to the better supply of the feed unit with digestible protein, which is also confirmed by the results of our research. We established that when triticale was sown in a mixture with peas on unfertilized areas, the collection of digestible protein increased by 12.7–28.1%, compared to single-species cereal

crops, therefore, accordingly, the supply of digestible protein to the fodder unit also increased and amounted to 125–171 g.

When cereal and leguminous components were sown with half the sowing rates, the supply of digestible protein per fodder unit, even in the unfertilized version, corresponded to the zootechnical norm and amounted to 127 g. With the introduction of nitrogen fertilizers in doses of N_{30} and N_{60} , it increased to 155 and 158 g, respectively. The difference, as you can see, was insignificant. With the application of complete mineral fertilizer, the supply of the fodder unit was 169 g. With the sowing of peas at the rate of 30% and the application of $N_{30}P_{45}K_{45}$, the supply of the feed unit with digestible protein was 165 g. For growing on the same agro background, but sowing the leguminous component at the rate of 40%, the value of this of the indicator were the highest and amounted to 171 g. In addition, it was established that when sowing cereal and legume components with rates of, respectively, 50 : 50 and 60 : 40%, the application of different doses of nitrogen fertilizers did not have a significant effect on the supply of digestible protein to the fodder unit.

The best provision of the feed unit with digestible protein – at the level of 171 g, was noted in the variant where triticale and peas were sown with sowing rates of 60 : 40% and full mineral fertilizer was applied at the rate of $N_{30}P_{45}K_{45}$. The obtained data should be taken into account when creating highly productive of one-year beans-cereal grass mixtures.

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THE FORMATION OF ANTHOCYAN COMPLEX IN STRAWBERRY FRUITS DEPENDS ON THE TERMS OF HARVESTING AND FERTILIZER

The garden strawberry is one of the most common berry crops in the world. Its berries contain many useful substances that have therapeutic and preventive properties. Among the most valuable components of the chemical composition, polyphenols play a special role. At the same time, a component of phenolic substances are anthocyanins, which determine the saturation and brightness of the color of berries and processed products (juices, compotes, wine, etc.). A healthy person needs at least 200 mg of these substances per day, and in case of illness – at least 300 mg. They do not accumulate in the body, so they are quickly included in the metabolism and removed from it. In terms of

their biological effect, anthocyanins are similar to vitamin P. It is known that anthocyanins contribute to the strengthening of capillary walls and are powerful antioxidants capable of binding free radicals and preventing premature aging of cells in the human body. Currently, the concentrate of these substances is allowed as food additives (E163) in various functional food products.

Strawberry berry is considered a natural antioxidant. Regular consumption of strawberries helps to slow down the aging process. Strawberries have an excellent tonic effect, so they have long been recommended for use in vitamin deficiency, anemia, high blood pressure, and atherosclerosis. Eating

strawberries improves appetite, helps normalize digestive processes, and restores metabolism. Strawberry berry has a mild diuretic effect, normalizes the functioning of the liver, helps remove harmful cholesterol from the body. Folk medicine actively uses strawberries in the treatment of various viral diseases, intestinal infections. Scientists have proven the unique beneficial properties of strawberries as a product that neutralizes the negative effects of smoking. Strawberries help fight cancer, which is often caused by smoking. Not only berries, but also strawberry leaves are applicable in folk medicine. An infusion is prepared from them, which is used to treat sore throat, sore throat, and stomatitis.

The aim of the study was to determine the influence of the harvesting period and fertilization regime on the formation of the anthocyanin fund in garden strawberry berries.

The research was carried out at the NULES of Ukraine at the department of technology of storage, processing and standardization of crop production named after B.V. Lesyk and IH of NAS of Ukraine. The objects of research were strawberry berries of different ripening periods of the "Koralova 100" variety. Harvesting was carried out in June in four periods, the fertilizer scheme included the use of different types of fertilizers.

As a result of the conducted research, it was established that the content of anthocyanins in the fruits of garden strawberries ranges from 70 to 110 mg/100 g of raw material. The doses of mineral and organic fertilizers used do not significantly affect the increase in the concentration of P-active anthocyanins in strawberry berries. But it should be noted that in the first two meetings the concentration was somewhat lower (70–80 mg/100 g). At the same time, the content of anthocyanins increases by an average of 11.2–16.3% in late-harvest berries. A statistical analysis of the data on the influence of fertilizer doses on the formation of P-active anthocyanin content did not establish a significant dependence.

Summarizing the results, the following conclusions can be drawn: the formation of the concentration of P-active anthocyanins in the fruits of strawberries of the Koralova 100 variety is not significantly affected by the dose and form of fertilizers; the period of collection (perhaps the level of solar radiation and temperature) has a more significant effect. Based on the obtained data, it can also be said that the strawberries of Koralov 100 varieties of the third and fourth harvest have an increased biological value. The obtained data should be taken into account during procurement, sale and production of processing products of increased biological value.

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BIOLOGICAL VALUE OF SOME GREEN CULTURES

Green vegetables are a very popular food component today. They are included in various diets for weight loss. For people who care about their health, they are necessary. Emissions of pollutants, consumption of products of dubious safety cause increased requirements for widely used food products. Currently, it is known for certain that the body of city dwellers is in a state of chronic vitamins, an acute lack of a complex of essential biologically active substances and natural fibers. For example, ascorbic acid in the human body improves tissue growth, strengthens blood vessels, participates in redox processes, and improves the function of major organs. For the preparation of fresh salads and fermented products, simple spices are always used - dill, parsley, tarragon, garlic, leaves, horseradish, etc., although their biological value has not been sufficiently studied.

Eating rainbow vegetables is good for us. This allows you to replenish the body with vitamins, minerals, fiber and other nutrients and is of great

importance for maintaining health and preventing diseases. It is worth paying special attention to green vegetables. Chlorophyll, a pigment in plant cells, gives vegetables and fruits their unique green color. It has anti-inflammatory properties, strengthens the body's immune function, accelerates phagocytosis, has an antibacterial effect, prevents the growth of pathogenic anaerobic bacteria and fungi in the intestine, strengthens cell membranes, promotes the formation of connective tissues and regulates blood pressure. In addition to chlorophyll, folic acid (vitamin B9), vitamin K, carotenoids (beta-carotene and lutein) and fiber are important for health. They are also valuable in the presence of calcium, an important mineral for the musculoskeletal system. It should be taken into account that during heat treatment, water-soluble vitamins - folic acid, vitamin C, vitamins of group B are partially destroyed. If you want to get water-soluble vitamins from green vegetables, it is best to eat them fresh. Or at least steam, boil for a short time.