

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.

The aim of the study was a comparative analysis of the biological value of the main material for use in fresh form and as a component of fermented processing products.

Experiments were carried out at the NULES of Ukraine at the department of technology of storage, processing and standardization of plant products named after B.V. Lesyka. The objects of research were: leaves of parsley, tarragon, garlic, horseradish.

Research on the content of ascorbic acid (AA) revealed that the currant leaf has a fairly high concentration. At the same time, the highest content of it was in young and healthy leaves, and it was 5–7% lower in leaves affected by various diseases. Much less AA is contained in tarragon leaves, on average 32–38 mg/100 g of raw material, but the upper part of the stems contains 15% more than the lower part. The content of AA in garlic leaves is

almost 2 times lower than in tarragon leaves. Dill leaves are the most widely used crop. An average of 123 mg/100 g of raw weight was found in fresh leaves, almost the same amount was found in inflorescences at the beginning of flowering, it should be noted that during the formation of seeds, the concentration of ascorbic acid slightly decreases (by 9% less). Dill stem contains much less AA, there is a tendency to decrease its amount from the upper part of the plant to the lower part (75.0–15.0 mg/100 g). Horseradish leaves were the record holder for AC content among the studied crops, fully formed (old) leaves contain up to 627.0 and almost twice less in young ones (394 mg/100 g of raw material). Therefore, products for consumption in fresh form and as raw materials for the formulation of fermented products have a powerful potential of vitamin C. The obtained results should be used in the production of competitive and biologically valuable food products.

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## **SORTS FEATURES FORMING ASKORBIC ACID IN TOMATO**

Solanaceous crops rank first in the world, both in terms of area and gross yield. In Ukraine, in 2020–21, tomatoes were grown on an area of more than 75 thousand hectares, more than 2.2 million tons of products were harvested, supplied to the domestic and foreign markets and for the processing industry. An analysis of the immediate forecast revealed the possibility of Ukraine in the coming years to take 5-6th place in the production of tomato paste.

The nutritional value of fruits of any culture is determined by the presence of biologically active substances, vitamins, mineral compounds, sugars, proteins, etc. in them. Due to its popularity and accessibility to the population, tomato fruits occupy an important place in human nutrition. With a high and balanced content of biologically active substances in tomato fruits, their daily use contributes to the mild regulation of metabolic processes. Vitamin C is one of the important components of the body's antioxidant system due to its ability to donate electrons. In addition, this vitamin is involved in the metabolism of iron in the body (provides the restoration of trivalent iron to bivalent iron). The undeniable participation of vitamin C in the synthesis of interferon immunoglobulins, promotes cellular phagocytosis, ensures the restoration of the system of nonspecific resistance of the body, suppressed during viral in-

fections. Mention should be made of the instability of ascorbic acid to external influences, in particular, culinary processing and the lability of formation in plant fruits under the influence of environmental factors.

Carrying out a comparative assessment of mid-early varieties and hybrids of tomato for the content of vitamin C and a recommendation for fresh consumption and for processing the most valuable samples.

The research was carried out at the Department of Technology of Storage, Processing and Standardization of Plant Products named after B.V. Lesik NULES of Ukraine, the department of vegetable growing UNUH and the Ukrainian Institute for Expertise of Plant Varieties. For this, we used long-term data obtained at the departments and stations of variety testing in Ukraine. Tomato fruits are grown according to standard technology. The components of the chemical composition were determined according to generally accepted methods.

The formation of vitamin C in tomato fruits depends on many factors, in particular varietal characteristics. The studied samples of tomatoes contain on average 18.97 mg/100 g of crude substance of ascorbic acid (AA). At the same time, in the context of varieties, AA fluctuations are observed from