TECHNOLOGICAL VALUE OF STRAWBERRY VARIETIES

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Strawberries are a real source of vitamins and microelements. Its fruits have a wonderful taste and delicate aroma, thanks to the balanced content of organic acids, sugars, and also coloring, tanning and pectin compounds. The popularity of strawberries is due to the successful combination of exceptional taste with a wide range of therapeutic effects [2, 3, 5].

You can enjoy fresh fragrant fruits of strawberries at any time of the year today. This is due to modern technology and logistics development. Consumer demand for fresh and processed strawberries often changes. It is known that to obtain high-quality strawberry jam, the fruits must meet the established chemical-technological parameters, which are specified in the requirements of state standards [1, 3]. According to the established requirements for the production of jam the appropriate varieties of strawberries are selected, and their organoleptic characteristics of the fruit are taken into account such as: texture, color, aroma, and taste. The quantitative ratio of sugars and organic acids, vitamin C, anthocyanins, the amount of pectin substances, on which the formation of strong pulp directly depends, is very important for the quality jam production. It is the content of pectin substances, in particular, protopectin, that affects the resistance of the crumb to boiling [2, 3, 5].

In Ukraine, a large number of varieties of strawberries are grown, both domestic and foreign selection, which differ in their purpose: for consumption of the fresh products, technological processing. Each group of varieties is characterized by certain qualitative parameters [3, 4].

In order to select varieties of strawberries suitable for making jam, we set up experiments during 2017-2019 in the research field of the Department of Horticulture and vegetable growing of Lviv National Agrarian University. Varieties studied: Pocahontas (k), Thuriga, Istochnik, Rubinovyi kulon. The fruits were harvested at full maturity. They were rated by chemical-technological parameters. The biochemical content of fresh fruit and jam (after six months of aging) was determined. Jam was made according to the generally accepted recipe. The content of dry substances (soluble and insoluble), organic acids, sugars, pectic substances,
Ascorbic acid, anthocyanins was determined in fresh strawberries.

Comparative study of the biochemical content of fresh strawberries allows identifying the most suitable and quality raw materials for technological processing.

The results of studying the biochemical contents of fresh red fruit of the studied varieties of strawberries showed that all the studied varieties meet the technological requirements for the basic biometric and biochemical parameters of the fruit. In particular, the fruit is the correct shape without ribs, with a fruit weight of more than 5.0 g, the pulp with a slight separation of the stalk with a cup from the fruit.

According to technological requirements, the fruits of the studied varieties of strawberries contained not less than 7% dry matter, not less than 1% organic acids, vitamin C - more than 60 mg%, anthocyanins more than 50.0 mg%, pectin substances more than 1%.

The results of laboratory studies of the biochemical contents of the jam showed that a significant part of soluble pectin and protopectin remained in strawberries, which led to the preservation of the shape and consistency of the fruit during canning and long-term storage of the finished product (6 months).

The highest total contents of pectin substances were noted in jam from fruits of Thuriga varieties and Rubinovyi kulon - 1.08 (58% of the amount in fresh fruit) and 1.05% (54% of the amount in fresh fruit).

Preservation of vitamin C in varieties after heat treatment was, on average, 32.1% of its amount in fresh fruit. It should be noted that the fresh fruits of Thuriga and Rubinovyi kulon contain much less vitamin C compared to the fruits of the most vitamin variety Source. However, the percentage of vitamin C in jam is the highest - 33.6 and 35.2%, respectively, and in quantitative terms was: 23.6 mg% and 25.5 mg%.

The jams from Thuriga and Rubinovyi kulon also had high difference in organoleptic characteristics and appearance. Accordingly, the highest ratings of fruit suitability for making jam were received by Thuriga varieties - 4.7 points and Rubinovyi kulon - 4.4 points. The overall assessment of the suitability of fruits for making jam of other studied varieties was 4.0 points.

**Conclusion.** Among the studied varieties of strawberries for the production of extra class jam, the most suitable varieties are Thuriga and Rubinovyi kulon.

**References:**


