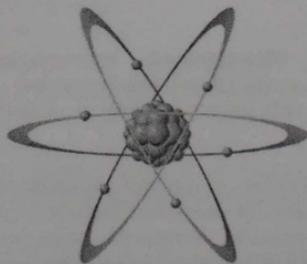


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DETERMINING OF EXPIDIENCE USE OF DRY BASIL LEAVES IN THE TECHNOLOGY OF SOUR MILK PASTE

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Despite the wide range of pasty dairy products, today there is a steady tendency of its expansion. It is proposed to attract new types of raw materials, improve the existing and introduce new methods of processing raw materials. The dominant trend is the expansion of the range through the introduction of biologically active substances and natural origin, which gives the products functional properties. Perspective is the use of natural spices. They are used in small quantities and contribute to food assimilation, as well as the metabolism of the body, which has antioxidant properties, which contributes to the content of phenolic compounds.

Phenolic compounds are natural antioxidants. The antioxidant properties of phenolic substances are 4-5 times higher than the antioxidant potential of vitamins C and E. These include flavonols, dihydroflavonols and catechins. Many flavonoids have P-vitamin activity, reduce the fragility of blood capillaries (routine), enhance the effect of ascorbic acid, have a sedative effect. Flavonoids have anti-inflammatory effects.

To create new types of sour-milk products, chopped basil leaves (*Ocimum*) were selected. The strong smell of basil gives the content of essential oil, which is up to 2 %. The composition of spice includes camphor, metilhavinol, cineol, estimation, linalol, saponin, tannins, carotene, phytoncides, routine and vitamins C, PP, B₂.

The purpose of the study: to investigate the effect of extraction temperature on the content of the extract of the basilica of biologically active substances.

Determination of the content of tannin, routine and catechin was determined by titration of 10 cm³ of extract with 0.1 N solution of KMnO₄. The completion of the titration process was established upon the appearance of a golden yellow tint of the solution. The result was multiplied by a conversion factor (for converting 0.1 N of a solution of KMnO₄ into 1 mg of phenolic compounds contained in 10 cm³ of titration

of extract). The conversion factor was: for tannin 4.16; routine – 9.8; catechin – 5.5

Based on previous studies, the recipe of sour milk paste, which include the extract of basil was developed based on past studies. The expediency of the use of basil in the form of extract on the basis of milk serum from the production of cheese dairy (hydromodule – 1: 10, extraction temperature (80 ± 2) °C, duration of the process (5 ± 2) min.) is determined. The dry leaves of the basil were pre-grounded to a size maximum of 2 mm.

The following task was solved for the purpose: to determine the content of phenolic compounds with P-vitamin activity (routine, catechin) and tannin in the process of extraction of spices at different temperatures from 20 to 95 °C.

It is researched that the content of routine, catechin and tannin with increased temperature of extraction increases. In the extract of basil at a temperature of 20 °C, the content of routine is 36.2 mg/100 g, catechin – 20.3 mg/100 g, tannin – 15.3 mg/100 g. At high temperatures up to 60 °C, the content of routine, catechin and tannin increased by 48.0 %. A temperature at 80 °C is: routine – 54.9 mg/100 g, catechin – 30.8 mg/100 g, tannin – 23.3 mg/100 g. At further elevated temperature to 95 °C, the content of routine, catechin and tannin increased by 16 %.

Thus, for the maximum removal of phenolic compounds, the extraction process should be carried out at a temperature of (80 ± 2) °C.

The calculation of the degree of maintenance of daily human needs in certain phenolic compounds with P-vitamin activity was estimated at the use of 100 g of sour milk paste (according to the formulations developed, the dose of the extract – 10 %). Consumption of sour milk paste with an extract of basil will ensure daily need for routine by 11.0 %, tannin – by 0.7 %, catechin – by 1.9 %.

The use of the basil extract in the technology of sour milk paste will enrich the complex of biologically active substances, in particular phenolic compounds with P-vitamin activity and will contribute to the formation of the original organoleptic properties of the finished products.