43. Plant antioxidants in the production of chopped semi-finished products

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Entry. Oxidation, which are exposed the food in the process of obtaining, processing and storage leads to accumulation of peroxide compounds into the human body cause the development of diseases, "oxidative stress" [1].

Currently, much attention is paid to development of food products enriched with plant raw materials as functional ingredients in the form of essential oils.

Materials and methods. Research oxidative stability of fat conducted in an expedited manner at a temperature of 70...75°C with free access of light and air.

Results. The processes occurring during the storage of chopped semi-finished products, accompanied by the accumulation of decomposition products of proteins, lipids and lead to reduced nutritional value and the deterioration of organoleptic properties of the products, and also negatively affect the safety of frozen products. So, the urgent task is the search and study of natural sources of substances with antioxidant activity [2, 3].

Adding the minimum of the share of natural plant essential oils and their compounds in foods can not only improve their taste but also to extend the shelf life.

We have investigated the efficiency of essential oils of coriander, caraway, rosemary with antioxidant properties, in terms of hydrolytic and oxidative processes in lipids of meat chilled and frozen food.

Selected plant materials contain antioxidants flavonoids, tannins, vitamins and have a wide range of pharmacological actions. It is shown that the use of essential oils of coriander, caraway, rosemary, to reduce the rate of formation of hydrolysis products, primary and secondary oxidability of lipids (acid, peroxide and thiobarbituric numbers).

Study of the antioxidant activity of fat soluble components of essential oils shows th at the greatest effect is achieved by the addition of 0.1% rosemary essential oil [3, 4].

Conclusion. Essential oil raw material is a valuable additive to foods and can not only improve taste but also to extend the shelf life of the latter, and this points to the prospect of its use as functional ingredients for their enrichment.

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