

## ANTIOXIDANT EFFECT OF FAT-SOLUBLE ROSEMARY AND GREEN TEA EXTRACTS ON STORAGE PERIOD PROLONGATION OF MEAT PASTE

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### Abstract

Intensive development of the food market necessitates its research, structuring in order to identify ways to create new products with improved quality characteristics, in particular meat pates, and prolongation of their storage period by adding fat-soluble rosemary and green tea extracts.

Meat pates are manufactured using liver and blanched chicken fillet, pork fat blend and refined deodorized sunflower oil with extracts from Danisco (Denmark) in an amount of 10%. The following blends have been developed: blend (50 : 50) of pork fat and refined deodorized sunflower oil with the rosemary extract addition of 0.1%; blend (50 : 50) of pork fat and refined deodorized sunflower oil with the green tea extract addition of 0.05% and blend (50 : 50) of pork fat and refined deodorized sunflower oil with the green tea and rosemary extract addition of 0.15%. Sensory evaluation research of hydrolytic and oxidative processes during products storage have been carried out for aim achievement, namely, the changes in quality indicators of the test samples were recorded during the storage period until the critical value of the peroxide number (10 mmol $\frac{1}{2}$ O/kg) was reached. The acid number has been determined as an indicator of hydrolytic putrefaction degree.

Compositions and technologies for the blends production using plant extracts of various concentrations for meat pates have been developed. The oxidative processes dynamics and resistance to damage during products storage have been determined. The storage period of all blends is 50 days, against the generally accepted storage period for fats in an open container - 30 days. The research results have confirmed that the quality indicators of the products are attributable to the specified requirements.

The antioxidant and bactericidal properties of fat-soluble extracts have been established. It has been proven that the use of rosemary and green tea extracts, and especially their combination, helps to increase the meat pates stability, expand the product line and increase their safety for consumers.

**Key words:** Meat pastes, Fat-soluble green tea extract, Fat-soluble rosemary extract, Blend, Oxidation.