28. The use of quince for the production of snacks

Demchuk Ihor, Malyts'ka Yuliya, Tatiana Levkivska
National University of Food Technology, Kyiv, Ukraine

Introduction. Analysis of the snack products market in Ukraine showed that snacks based on vegetable raw materials are becoming especially popular. However, to enhance their appeal, manufacturers often use artificial flavors, flavor enhancers, preservatives, or a large number of spicy appetite spells, but at the same time make these products restricted to children, adolescents, and some population groups. Recently, products such as fruit chips - dried fruit slices - have appeared.

The purpose of the study was to investigate the use of quince for the production of fruit snacks.

Materials and methods. Quince fruits were used for research. Research methods are standard, generally accepted.

Results. Mature quince fruits contain fructose, glucose and sucrose, organic acids - malic, citric, tartaric, fumaric, chlorogenic, traces of quinine, neochlorogenic, coffee and coumaric. The amount of acids depends on the variety of fruits and the time of their collection. In the pulp of quince fruits contains a large number of vitamins - vitamin C (up to 25,9 mg%), vitamins B1 B2, tannids, eptatechin, flavonol quercetin, anthocyanins, carotene. The fruits contain a significant amount of potassium (0,17…0,20 %), as well as iron, cobalt, boron, nickel, titanium, copper, aluminum, manganese. The peel of the fruit contains enanth-ethyl and pellargon-ethyl esters, which give the fruit a specific odor.

Unlike other seed fruits, quince contains a large amount of dietary fiber, primarily fiber and protopectin. These substances provide the necessary elastic structure throughout the process, both during blanching and drying.

The technological indicators of raw materials were determined by organoleptic (blanch color, consistency, medium size, taste, aroma) and physico-chemical, the most important of which were the content of solids, reducing sugars, organic acids, ascorbic acid and minerals.

To establish optimal organoleptic characteristics of snacks, after slicing, blanching was carried out in different concentrations of sugar syrup from 10 % to 70 % with the addition of ascorbic acid.

After blanching, the quince slices were dried to a moisture content of 8…10 %, cooled and packed. The resulting product had a crisp consistency, pleasant taste and aroma.

Conclusions. The data obtained indicate that the fruits of quince are rich in biologically active substances. As a result, the optimal conditions for quenching and drying of quince slides were selected. The use of quince fruits for the production of snacks allows to obtain products with high organoleptic characteristics and high nutritional value.

Literature.

1. Use of convective-thermoradiative fashion energy concludion of the technology apple snack / I. Malezhik, I. Dubkovetskiy, H. Bandurenko, L. Strelchenko etc. // Eastern-European Journal of Enterprise Technologies. – 2016. – Vol 6, № 11 (84). - P. 47-52.

2. Malezhyk, I The study of features of control of technological process for receiving the apple snacks / I. Malezhik, I. Dubkovetskiy, H. Bandurenko, T. Levkivska, L. Strelchenko // EUREKA: Life Sciences – NO 6 (2016) – P. 17-23.