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INVESTIGATION OF CANNED CLAM PRODUCTS USED AS SPECIAL DIET

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New kinds of canned products from clam "Buckweat soup with spisula meat" and "Paste from Anadara with peas" have been investigated by the scientists of the Pacific State University of Economics (PSUE). Canned products have been found to have positive influence on the irradiated living organisms. Pacific State University of Economics is one of the leading institutions dealing with the development of functional food products on the basis of natural raw materials of the Far East region of the Russian Federation. Health has been found by different scientists to depend directly on the diet. One of the effective ways to make population healthy is to consume products of the raw material containing natural regulators of human organs and systems functioning.. Anadara bivalve mollusks (Anadara broughtoni) and spisula (Spisula sahalinensis) are the unique objects of the marine fishery. Clams are delicate products. They contain thermally stable and biologically active substances. The technology of new canned products on the basis of clams and plant raw material has been developed by the University scientists. Optimum ratio of the canned products components has been defined by the methods of the systems mathematical counting and modeling. The preservation of the raw material useful properties and safety is ensured by the technology. For example the content of thaurine is 40mg and 100mg per 100g. of the canned product. Canned products medical and biological testing under the ionizing irradiation influence on the laboratory animals has been carried out. The blood indices of the laboratory animals in the experiment have been found to improve in comparison with those of the control group. Resistance rate to the erythrocytes peroxide hemolisis increased by 24.5% at an average in relation to the group which got traditional feeding. The differences in the reticulocytes amount indices were less and made up 11% only. The thrombocytes amount increased by 10% during the experiment process. It has been found that the concentration of immunoglobulin A of the animals fed with the paste increased by 15% and the concentration of immunoglobulin M of those fed with the soup increased by 11%.

The processes of antioxidant protection activation have been confirmed. For example total oxidant activity increased by more than 50% and total antioxidant activity increased by 28.7%. Decrease of malon aldehyde concentration in erythrocytes made up 10.17%.. The results of the investigations substantiate the application of the new products in prophylaxis and complex therapy of the patients exposed to ionizing irradiation.

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