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Development of new types of mayonnaise functional purposes

Nowadays the need of improvement of nutrition structure is beyond question and the problem of creating products for dietary purposes is especially urgent. The creation of such products involves the replacement of meal fat component by low-calorie and easy of digestion substances. One of the possible ways to optimize fat balance is a broad introduction of different fat dressings, sauces, mayonnaise to diets since these products provide an opportunity of variation of fat component, its reduction in formulations by replacing with low-calorie alternative additives. One of the most common food stabilizers is starch. It is a part of many foods and dishes. Corn, potatoes and wheat are traditionally used as raw materials for the production of food starches. The need of the food starch in the field increases rapidly and traditional raw materials are not able to satisfy it. The sources of stabilizing systems of alternative raw materials are being found actively in developed countries.

Polysaccharides, which are found in non-traditional plant raw material, are very prospective in this tendency. Known representative here is purple amaranth (*Amaranthus cruentus retroflexus*). It is wide spread throughout Ukraine. Polysaccharides of these seeds have properties of food stabilizers and the plant is an inexhaustible source of raw food additives.

The aim of the research is to develop technology of low-calorie mayonnaise using vegetable fillings, determine their consumption, technological properties, biological and nutritional value.

Common technological stages of production of emulsion-type sauces, in particular, of mayonnaise Provansal, which we have chosen as a standard, are: preliminary preparation of basic prescription components, production of emulsifying and structuring base (paste), pre-emulsification of the oil and water phases and homogenization - fine dispersion of emulsion. The key technological stage is the stage of preliminary emulsification, connected with complex colloidal chemical processes which take place while synchronous entering the water and oil phases. Experimental data confirm that the chosen basis of low-calorie sauce guarantee receiving product with traditional texture and high-quality organoleptic indexes, which are the same and even slightly better than known standard have.

Keywords: technology, mayonnaise, vegetable fillers, purple amaranth, nutritive value.