



# ODESSA NATIONAL ACADEMY OF FOOD TECHNOLOGIES

## DEVELOPMENT OF PRODUCTS TECHNOLOGIES BASED ON NUTS AND SEED RAW MATERIAL FOR RESTAURANTS ENTERPRISES

### Purpose and scope

Increase the biological value of food products by balancing and increasing the amount of polyunsaturated fatty acids. Extension of the assortment of products for the restaurant industry institutions with the provision of health-improving properties to them. Integrated processing of walnut kernel and research using of chia seeds as a structuring agent.

### Important indicators that characterize the level of scientific output

The technology of preliminary preparation of walnut kernel for the production of biologically valuable extracts of emulsion type on the basis of native derivatives is scientifically substantiated; For the first time, the influence of technological factors on the formation of stable emulsions during the processing of the germplasm raw materials; Physical and chemical properties of chia seeds and its influence on formation of structural and mechanical properties of products are investigated; scientifically substantiated recipe composition of the universal basis for sauce products with a balanced composition of fatty acids; The biological value, physical and chemical properties and safety of the developed products on the basis of native nut materials and chia seeds are established. The portion of the developed products satisfies the daily need for balanced polyunsaturated fatty acids at least 30%.

### Intellectual Property Protection Status

We received 2 patents of Ukraine for utility model and 1 positive decision on patenting of the invention

### Key Features

On the basis of the kernel of walnut, an extract was used, which is used as a non-alcoholic beverage. The recipe and technology of the smoothie, a universal basis for sauce and 1 sauce are developed. The highest proportion of nutraceuticals, up to 39.4%, is fats, which represent 87% unsaturated fatty acids, about 18% are proteins of high biological value and 37% are carbohydrates.

### Market demand

It can be implemented in all public catering establishments, especially people who do not consume animal products and to prevent cardiovascular disease.

### The state of work

The research of physical, chemical, organoleptic and economic indicators of all developed product samples was conducted. The normative documentation is drawn up - temporary technological cards. Industrial testing of products was carried out at 4 enterprises.



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