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Properties of the Soya Flour

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The summary: After addition of soya flour in structure of a food product it is possible to allocate an end-product with the raised maintenance of mineral substances, fibers, lecithin and vitamins, positively influencing concentration of "harmful" cholesterol in blood.

Key words: Soya flour, soya cereals, bakery product, chemical compound, food value of soya flour, protein, fats, carbohydrates, toxic elements, mycotoxines, physical and chemical indicators,

Structure of soya flour. Useful properties of product are caused by a chemical compound of soya flour. It include such microelements as calcium (212 mg), sodium (5 mg), magnesium (145 mg), phosphorus (198 mg), potassium (1600 mg), and also vitamin PP (2.3 mg), vitamin A (3 mkg), beta-carotene (0.02 mg), B-group vitamins (thiamine and riboflavin), vitamin E (1 mg). As a part of soya flour also there is an iron (9.2 mg). Caloric content of a product makes 291 kcal/100 g.

Food value of soya flour:

Fibers - 48.9 g;

Fats - 1 g;

Carbohydrates - 21.7 g.

After addition of soya flour in structure of a food product it is possible to allocate an end-product with the raised maintenance of mineral substances, fibers, lecithin and vitamins, positively influencing concentration of "harmful" cholesterol in blood. Vitamin B4 a part to soya flour prevents occurrence of stones in a bilious bubble, restores a normal fatty exchange, promoting, thus, to natural weight reduction [5, 6, 8]

Nutritional value of soya flour. Soya flour – the product received from processed seeds of soya (soybeans), an oil cake and pressed mass. Special popularity of a dish from soya flour use in regions of East Asia

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Fig. A kind of soya flour

Depending on a grade and a way of manufacturing the soya flour can have various shades: from purely white, cream, light yellow to bright orange. Manufacturing of soya flour is carried out so: soya grains are dried and roughly crushed, deleting covers and promoting fast rancidification of torments germs of seeds. After end of preparatory operations the high milling of soybeans on grinding or stone mills is carried out more. The soya flour which is the least cleared product from all products from soya, consumed by the person, is a source of cellulose, clearing intestines of the person from toxins. It contains to 54 % of fiber thanks to what it is capable to replace with itself fibers of fish, meat, a bird and milk, leading to reduction of price of an end-product [1, 2, 3]
The covers (peel) which have remained after technological process are used as a source of nutritious dietary fibers in baking manufactures, and also as a forage for animals.

Application of the flour received from soya cereals, grown up as a result of research in soil-environmental conditions of Bukhara area. Technology of preparation of foodstuff from the soya flour received as a result of research. The soya flour is widely used in the food-processing industry: it reduces requirement for additional raw materials and by that, reduces production cost price; in the course of thermal processing in corresponding degree keeps quality of production, and reduces loss of weight [4].

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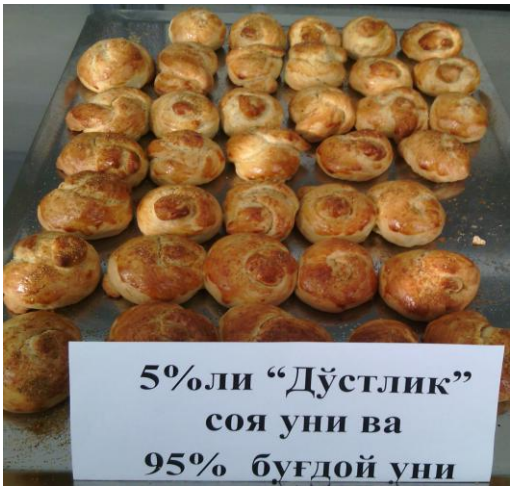
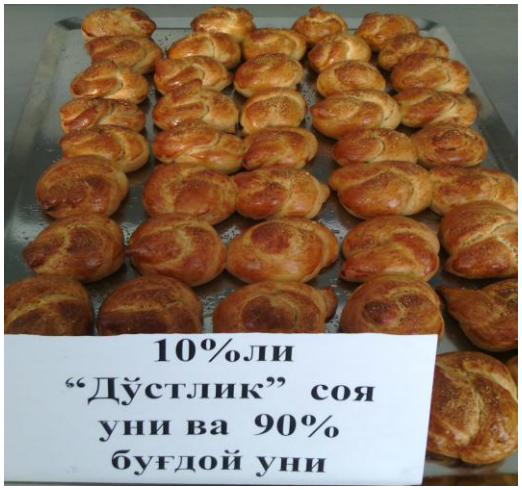
Fig. Production of wheat flour with addition of various samples (%) of soya flour

5 % of soya flour is added to the wheat flour of 1-grade

10 % of soya flour is added to the wheat flour of 1-grade

The





bakeries of a product prepared from various samples of soya flour.

In sanitary-hygiene laboratory physical and chemical indicators of a bakery of production prepared from soya flour on the basis of GOST 26932-86, 26930-86, 26933-86, 26927-86, 26931-86, 26934-86 have been defined. Laboratory experiments have been carried out at temperature T-20.0^{0}C and humidity W-55 % [6, 7]

Indicators of quality of a bakery of production prepared from soya flour.

Indicator name	On demand	The received result, mg/kg	Conformity to the requirement

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Toxins, mg/kg, no more			
Zinc	25.0	13.1	Corresponds
Cadmium	0.07	0.00	Corresponds
Lead	0.35	0.00	Corresponds
Copper	5.0	0.12	Corresponds
Mercury	0.015	0.00	Corresponds
Arsenic	0.15	0.00	Corresponds
Mycotoxines, mg/kg, no more			
Aflotoxin B_1	0.005	0.000	Corresponds
Pesticides, mg/kg, no more			
Hexachloran and its isomers	0.2	0.000	Corresponds
DDT and its metabolites	0.05	0.000	Corresponds
The physicist-chemical indicators, g			
Fibers	7.6	10.8	Corresponds
Fats	5.0	3.8	Corresponds
Carbohydrates	56.9	70.4	Corresponds
Ash content	1.5	2.0	Corresponds
Food value	288.8	341.4	Corresponds

According to the received results, caloric content of a bakery of production prepared from the soya flour which has been grown up as a result of research in soil-environmental conditions of Bukhara area, has a high indicator (341.4 kcal/100 g). In cases not branches of soya oil from the soya flour, the given flour is used with a view of reception of production replacing the cow milk, cheese and dry milk [8].

CONCLUSION

As a result of addition of the flour received from soya cereals in other flour products it is possible to save wheat flour; as it is known, if wheat flour contain 14 % of fibers, as a result of addition of soya flour nutritional value of flour and flour products raises. The soya flour is added in children's porridges, cookies, sausages and other products. With expansion of soya fields in Uzbekistan it is possible to bring soya flour abreast the basic foodstuff; besides it has a number of medical actions, helping with prevention of heart diseases, diseases of a gastro-enteric path, a liver, etc. In this plan

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it is necessary to carry out a considerable quantity of researches.

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