

## ENRICHMENT OF THE COMPOSITION OF DEODORIZED COTTONSEED OIL

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For the production of flavored deodorized oil, cottonseed oil, food and biologically active components are used as the main raw materials. The selection of food additives and the establishment of their role was carried out in laboratory conditions. Qualitative indicators and physico-chemical characteristics of refined and deodorized cottonseed oil are given in Tables 1 and 2

Table 1

### Characteristics of deodorized cottonseed oil

Physico-chemical quality indicators				Fatty acid composition (C), %		
Iodine number, % J <sub>2</sub>	Chromaticity, cu. units at 35 yellow.	Acid number,	Acid number,	16:0+18:0	18:1	18:2
110-112	4-6	0,07-0,17	1,4572-1,4578	27,0-31,0	14,9-19,8	55,1-56,0

Determined by the methods of GZHH, TLC. Table 2

### Chemical composition (%) and energy value of deodorized cottonseed oil

Вода	0,1
Белки	0
Жиры	99,9
Углеводы	0
Зола	Следы
Энергетическая ценность, ккал	899

As can be seen from the data in Table. 1 and 2 cottonseed oil with various physico-chemical parameters and fatty acid composition was used in the studies. Cottonseed oil was characterized by a certain chemical composition and the content of fat-soluble vitamins, which are important for ensuring the quality and nutritional value of products made on its basis.

The quality control of deodorized vegetable oil was carried out 1.5 hours after the oil temperature reached 180 ° C. A sample of fat was taken, quickly cooled to a temperature of 25... 30 ° C and tested organoleptically.

In order to prevent the oxidation of cottonseed oil, various antioxidants were introduced into its composition.

The addition of new types of flavors and the enrichment of deodorized cottonseed oil with vitamins was made after cooling the raw materials to the required temperature. Laurel; basil; rosemary were used as flavorings.

These essential fat-soluble food additives are allowed to be used by the Ministry of Health of the Republic of Uzbekistan as ingredients that improve the quality and taste properties of products from vegetable raw materials. They are extracted from essential oil crops of local selection in the form of essential oils. Flavorings were introduced into the composition of cottonseed oil in an amount of 0.15-0.35 kg / t. The component composition of deodorized cottonseed oil with the addition of flavors is given in Table.3

Table 3.

**Assortment of flavored deodorized cotton oils**

Type of flavor	Amount of additive, kg/t
	deodorized, flavored
With the smell of olive	0,15-0,35
With the smell of laurel	0,05-0,10
With the smell of basil	0,15-0,30
With the smell of rosemary	0,15-0,30

The used group of flavorings with the original aroma of spices – olive, laurel, basil and rosemary, contained natural essential oils isolated from the same name spicy-aromatic herbs, while the base of the essential oil served as the core of the "bouquet", composed of 5-6 spicy-aromatic essential oils. Additions to the technological documentation of deodorized cottonseed oil with the use of flavors "Olive", "Laurel", "Basil" and "Rosemary" are proposed.

technological documentation of deodorized cottonseed oil using flavors "Olive", "Laurel", "Basil" and "Rosemary".

In the table.4 the quality indicators of deodorized cottonseed oil are presented.

Tab 4

**Qualitative indicators and physico-chemical characteristics of production samples of deodorized cottonseed oil**

Quality indicators, physical and chemical characteristics	Oils	
	example №1	example №2
Chromaticity,	5-7	4-6
cu. units according to the Lovibond color meter	0,15-0,17	0,10-0,15
Acid number,	Missing Missing	Missing Missing
mg·KOH/g	Missing Missing	Missing Missing
Moisture and volatile matter content,	918-935	

% , no more	1,4729-1,4760
The content of unsaponifiable fatty acids, % no more	66,6 10
Density,	189-199
at 20 °C, g/cm <sup>3</sup>	100-116

As can be seen from the data in Table.3.9, samples of deodorized and salad cottonseed oil are characterized by high quality indicators and physico-chemical characteristics. This indicates its high nutritional and physiological value.

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