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TECHNOLOGY PROCESSING RELEVANCE UNCONVENTIONAL OILSEEDS IN UZBEKISTAN

Non-traditional oil contains up to 60% of valuable oil, which is used not only for food purposes, but also in medicine, pharmacology. No less valuable properties are produced waste - cake containing a large number of biologically active substances.

Key words: Non-traditional oil raw materials, vegetable oils, processing technology, peach.

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ТЕХНОЛОГИЯ ПЕРЕРАБОТКИ НЕТРАДИЦИОННОГО МАСЛИЧНОГО СЫРЬЯ В УЗБЕКИСТАНЕ

Нетрадиционное масличное сырьё содержит до 60 % ценного масла, которое используется не только в пищевых целях, но и в медицине, фармакологии. Не менее ценными свойствами обладают образующиеся отходы – жмых, содержащий большое количество биологически активных веществ.

Ключевые слова: Нетрадиционное масличное сырьё, масло, технология переработки, персик.

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ЎЗБЕКСТАНДА ӨСТӨРҮЛГӨН МӨМӨ УРУКТАРЫНАН МАЙ ӨНДҮРҮҮ

Макалада дандан жаңы мөмө-жемиштерди алууда азык-түлүк жетишсиздигин алдын алуу, бүгүнкү күндө Өзбекстанда да май алуу, мөмө-жемиштерди өстүрүүгө шарттарды, продуктылардан алынган азыктарды, берилген маалыматтарга ылайык сарамжалдуу пайдалануу маселеси болуп саналат.

Негизги сөздөр: жемиштер, мөмө дандары, өсүмдүк майлары, кайра иштетүү технологиясы, май.

Introduction Humanity's demand for natural products and assortments is increasing due to the deterioration of ecology as a result of industrial and technical development.

Development of food industry, safety and product processing technologies is of great importance in meeting this need. Therefore, one of the main tasks is the sustainable development of oil production from local fruit seeds, the supply of safe and high-quality food products to the market in the range defined on the basis of consumption standards. In order to expand the assortment of vegetable oils in the Republic of Uzbekistan, it is important to develop and introduce highly efficient technologies for processing raw materials of non-traditional oily plants to obtain healing natural oils. The most optimal solution to this problem is the establishment of small enterprises with non-traditional oilseed processing facilities.

Relevance and objectives of the study The development of food industry, safety and product processing technologies is of great importance in meeting human needs. Sustainable development of local food and raw materials production, delivery of safe and high-quality food products to the market in accordance with consumption standards remains one of the main tasks. In this regard, the development of oil production from fruits and fruit seeds, increasing the type and assortment of products, and increasing the export potential are of particular importance. One of such fruit seeds is the oil obtained from peach seeds, which is considered valuable and healing and has many properties.

Raw materials of unconventional oil plants contain up to 60% of valuable oil, which is used not only for food purposes, but also in medicine and pharmacology. An appropriate raw material base has been created in the republic to introduce the technology of processing raw materials of non-traditional oil plants. The assortment of non-traditional oily raw materials includes grape seeds, fruit seeds (peach, apricot, plum, almond), melon, watermelon, pumpkin, pomegranate seeds, etc. For example, the total volume of apricots was 435,500 tons, of which 75,000 tons were sent for drying and 59,000 tons for export. The rest (about 300,000 tons) is used directly for food. 20% of this amount is bones, i.e. raw material for processing. About 1,743,000 tons of grapes are grown in the republic, of which 220,000 tons are grapes. goes to processing. Grape seeds make up 3%, i.e. 52290 thousand m In addition, oil can be obtained from melon seeds - melons, watermelons. The harvest of polys crops is more than 1056 thousand tons; the seed is 3% 31.68 thousand tons. Oil content is 15.84 thousand tons (30%) Pumpkin seeds are rich in fatty acids, more than 30% contain vitamins A, E, P. Phytosterols contained in pumpkin oil play an important role in the regulation of fat metabolism, lowering cholesterol levels, blood clot formation processes, and a number of other diseases, including tumors, can reduce the risk of cardiovascular diseases by ~ 25%. The analysis of the research conducted in Uzbekistan on the problem of processing non-traditional oil plants, using them to obtain new types of plant oils with high nutritional value, taste and therapeutic-prophylactic properties showed the possibility. He showed the need to continue work in this regard on the territory of Uzbekistan.

Materials and research methods You can not only eat peaches, but you can process them, make juice, dry them, and even extract oil from their seeds. It is known from the Ministry of Agriculture according to him , in 2021 , 21.4 thousand of the republic hectares peach 193.3 thousand from gardens tons product was cultivated . Of this, 24,300 tons of it were sent to processing enterprises, In the production of oil from peach kernels, after the kernels are cleaned of all foreign impurities, they are crushed and crushed under the influence of mechanical force. Grains are crushed using special equipment during mechanical processing.



Figure-1. Preparation of peach kernels for extracting oil.



Figure-2. The process of extracting oil from peach kernels

Peach seeds contain 54-58% oil, 0.4-0.8% essential oil, amygdamine glycoside, emulsin enzyme and other biologically active substances. The color of the oil is yellow, dark liquid, it has a pleasant taste and a characteristic weak smell. It is stored on racks in rooms with little light. Peach oil is an excellent tool for rejuvenating tired skin. It is a universal tool that restores facial skin in a short time and is suitable for any age and any skin type. The product relieves unpleasant sensations in various diseases and injuries, has a positive effect on the body when taken regularly, and strengthens immunity. When taken orally, the product helps to remove slag and toxic compounds from the body. Because this oil is hypoallergenic, it is one of the few oils that pediatricians recommend for baby skin care. It is used to treat and prevent skin and hair diseases, as well as ear diseases. It is also used effectively in women's gynecological diseases. The composition of peach oil is similar to almond oil, it can be used instead of almond oil. Charcoal tablets can be prepared from peach kernels by burning their skins, grinding them in a mill, passing through a 0.20 mm kapron sieve.



Figure-3. Dry peach oil.

Research results and conclusions By products separated from fruit juice production plants are usually used in livestock or as fertilizer in fields. Many fruit kernels contain many chemical substances, which are among the elements that are necessary and useful for human health. Currently, as a result of our scientific research, we are conducting research in order to establish complex processing of such fruit seeds. Studying the morphology of all types of pome fruits, identifying ways to solve the problems encountered in their industrialization, and determining optimal methods are supported in practice based on theoretical knowledge.

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