STORAGE AND PROCESSING OF APRICOTS IN UZBEKISTAN

ХРАНЕНИЕ И ПЕРЕРАБОТКА АБРИКОСОВ В УЗБЕКИСТАНЕ

Sharipov Sulton Yangiboyevich
The associate professor of Tashkent State Agrarian University

Rasulov Aziz Alisherovich
The probationer researcher of Tashkent State Agrarian University

Islomov Fayyozbek Shaxobiddin o’g’li
student of Tashkent State Agrarian University

Шарипов Султон Янгибоевич
Доцент Ташкентского государственного аграрного университета

Расулов Азиз Алишерович
Стажер научный сотрудник Ташкентского государственного аграрного университета

Исламов Файозбек Шахобиддин угли
студент Ташкентского государственного аграрного университета

ANNOTATION

Apricot - Armeniaka vulgaris Zam. - A tree belonging to the Rosaceae family of 5-8 cm high and sometimes 17-20 m. Apricot is found in the wild in the mountainous regions of Uzbekistan at an altitude of 500-1200m above sea level.

In Uzbekistan, the selectors created The Plum Axror, Isfarak, Mirsanjami, “Kursadik” “Khurmoi”, “Navoi”, “Subkhoni”, “Arzami”, and other varieties. According to statistics, in Uzbekistan 45% of fruits are apricots. 87% of the total fruits in the Fergana and Zarafshan valleys consist of apricots.

The trunk of the apricot tree is covered with a grayish-brown bark. The leaf is oval, rounded or heart-shaped, with an arched shape, with a stem at the base of the stem. The flowers are white or pink and are located separately in the branches. Fruits are oval-shaped, oval and rectangular, yellow, red, orange, and many other colors.
Абрикос - Armeniaca vulgaris Zam. - Дерево из семейства розоцветных высотой 5-8 см, иногда 17-20 м. Абрикос встречается в дикой природе в горных районах Узбекистана на высоте 500-1200 м над уровнем моря.

В Узбекистане селекционеры создали сорта Слива Аксрор, Исфарак, Мирсанджами, «Курсадик», «Хурмойи», «Навои», «Субхони», «Арзами» и другие сорта. По статистике, в Узбекистане 45% фруктов составляют абрикосы. 87% фруктов в Ферганской и Зарафшанской долинах составляют абрикосы.

Ствол абрикосового дерева покрыт серовато-коричневой корой. Лист овальный, округлый или сердцевидный, дугообразной формы, со стеблем у основания стебля. Цветки белые или розовые и расположены отдельно в ветвях. Плоды бывают овальной, овальной и прямоугольной, желтой, красной, оранжевой и многих других цветов.

**Key words:** Dried apricot, antioxidants, Sap, trunk, carotenoids, solar energy, enzyme, sulfur.

**Ключевые слова:** Сушеный абрикос, антиоксиданты, сок, ствол, каротиноиды, солнечная энергия, фермент, сера.

Абрикосовый ствол и сок используются в медицине и производствах. Спелый абрикос снимается с дерева, и семена отсепарированы от мягкой кожи плода. Затем семена жарятся. Масло получается из семян в промышленных масштабах. Отколотая крошка коры дерева собирается и закрепляется с помощью смолы. Этот сок собирается.

Свежие плоды абрикоса содержат до 27% сахара, 25% органических кислот (яблонь, кислоты), каротина, витамина C и RR, флавоноиды, пектин, минералы, добавки, 35-50% жира, эмульсионные ферменты. В ядре абрикоса содержится до 8.43% амигдалина.

Абрикосовое масло используется в приготовлении некоторых препаратов - камфоры, гормонов, и т.д. как эмульсifiant в приготовлении жировых эмульсий, и семена острых абрикосов используются приготовлении горького миндального сока. Абрикос содержит галактошул, арбиношул, глюкуроновую кислоту, минералы и другие вещества.

**Apricot oil is used in the preparation of some medicines - camphor, enzymes, etc. - as an emulsifier in the preparation of fat emulsions, and the seeds of spicy apricots are used in the preparation of bitter almond juice. Apricot oil is completely contains galactose, arabinose, glucuronic acid, minerals and other substances.**
When it comes to apricots, you may be tempted to consider them as being too “ordinary” to be considered a “Superfood”. Think again -- apricots are a powerful source of disease fighting agents and are one of the healthiest and most beneficial fruits available. Because of their high nutrient content, apricots address a variety of health concerns - anemia, digestion, eyes and vision, and even skin problems. The diverse and unique combination of antioxidants in apricots makes them an excellent fruit for fighting against heart disease, cancer, and stroke. Dried apricots have a greater nutritional content (especially Vitamin A and minerals) than fresh apricots due to their high concentration of nutrients. The antioxidants carotenoids and phenolics are both abundantly present in apricots. They are rich in vitamin C, potassium, calcium, iron, vitamin A, phosphorous, and contain fiber as well as essential minerals in trace amounts. According to studies, apricots are excellent sources of β-carotene, forming 60-70% of the carotenoid that confers with the orange color on the un-blushed sides of the fruit. Additionally, the β-carotene and lycopene found in apricots protect LDL cholesterol from oxidation, which may help to fight against heart disease. Carotenoids are important not only because of the color they impart but also because they show protective activity against a variety of degenerative diseases. Apricots have been described as one of the most important dietary sources of provitamin A carotenoids – 250g of fresh or 30g of dried apricots (approximately one serving size) provide nearly all of the recommended daily allowance. Apricot fruit is widely used in the food industry, it is made of high quality jam, juice, peanuts, compote, cans, and it is used in the national economy.

Horticulture is an important branch of agriculture. The fruits are distinguished by their rich chemical composition, aroma, the ability to provide the body with many vitamins and minerals, and other beneficial properties. It is well-known that the climatic conditions of the Republic of Uzbekistan have a great potential for the cultivation of fruit crops, especially of stone fruits. One of the most profitable sectors is the development of fruit production. Fruits grown in our country are highly valued in many countries around the world. Therefore, the export potential
can be enhanced by increasing the volume of fruit production. In addition to the freshness of the fruit, they can be processed in different ways and enriched with fruit products in the off-season.

This means that the quality of the fruit collection can be ensured throughout the year with the provision of fruit and vegetable products to our people. It is known that in addition to the freshness of the fruit, the dried fruit is consumed not only by the people of our country, but also by many peoples of the world. Availability of relatively cheap raw materials in Uzbekistan is a good prospect for the development of agricultural processing. The sunny climate allows to dry apricot fruits in large quantities by using the sunlight in summer and autumn.

At present, one of the most pressing problems in our country is the introduction of new energy-efficient technologies in processing fruits and vegetables, and finding alternative energy sources for modernization of production. As we have already mentioned, the organization of efficient drying of fruit products using solar energy is one of the most energy-saving directions with the use of alternative energy sources. Our people have a rich experience in this field, and the fruits are successfully dried in the sun-dried air, with the help of sulfur smoke, as well as in various shade and semi-shade methods. Organization of apricot cultivation, temporary storage and drying can be used as a basis for the cultivation of this valuable crop and quality drying on farms.

Most of the apricots in Uzbekistan are located in the Ferghana Valley and the Zarafshan Valley, with over 500 varieties and clones of apricot in Central Asia. Since the 30s of the 20th century, more than 40 varieties of national and scientific selection have been regionalized. In Uzbekistan, there are many varieties of apricot “Ahroriy”, “Subhani”, “Gulungi luchchak”, “Mirsanjali”, “Kursodiq”, “Khurmoi”, “Ispanak”, “Javpazak”, “Ok apricot”, “Navoi”, “Shalakh”, “Ruhi Juvanon”, “Mohtobi” and many others.

Apricot is harvested at the time when its color and form is typical of its variety and the flesh is thick enough. Dry substances of the above varieties should reach 23–26% at maturity.
Berries are sorted according to their size. It removes rot, mold, crushed, insect and sickness. The fruits are also sorted by the degree of maturation, since the processing of raw materials, the soaking, smoking and drying process depend on the degree of maturation of the fruits.

The technique of dipping the raw material into a caustic soda solution is: fill the raw material in a small basket made of wire or rod and dipped in boiling solution.

Blanched and washed fruits are immediately placed in wooden containers and smoked in sulfur chambers. Smoked apricots retain their natural color and are resistant to insects. On 1 kg of fruit spend 2-2.5 g of sulfur, smoked 1-1.5 hours. In the open field, drying takes 3-4 days, then the apricots are shaded and packed into stacks, then dry for a few more days, and drying takes 8-10 days. Drying is completed when the berries are dry and the skin is undivided. 75 to 80 percent of the dried apricot has a moisture content of 15–17 percent, and they are dry. Therefore, when dried apricot are harvested, it is now dried to balance its moisture content. For this purpose, fruits from turkeys are placed in wooden boxes. Such boxes are 1.2 m long and 0.7 m wide by 0.5 m, weighing 80–100 kg. The boxes are stored indoors and lasts for 12–15 days. During this time, the fruits that are not well dried will go to dried fruits.

**Preparation for leafy dried apricot** is a dried apricot without stone. It is made from a large fruit, the method of its preparation is not the same as that of the other kinds of dried apricot. For example, berries are put in a smoky dry area on the turntables, where they stay for a couple of days and again in the open space. After a couple of days they turn over and take off the stalk and then the mouth is closed. The next day the trays are stacked and the fruits are dried in the shade. Further work is no different from peanut production technology.

**Preparation for the draw (dried apricot).** The dried apricots are cut into two pieces. It is made of large fruits. Apricot picking - transportation, storage, sorting and washing is no different than the technology of other kinds of dried apricot. The well washed apricot is split into two parts and removed from the stem,
which is done manually. Fruit bowls are kept in boiling water for 45 to 60 minutes, with the top facing to the tray and smoked with sulfur. Approximately 1.5–2 g of sulfur is used per 1 kg of fruit, the smoking lasts 45–60 minutes. Smoked fruit tray and dried on slivers. After 1/2 - 2/3 of the moisture escape, the apricot plates are overturned, and approximately 4/3 of the moisture escapes. The glauca needs to be dried for 24-30 hours in the sun, during which time it will dry out and dry in the shade. Apricot is not wrinkled and wrinkles, vitamins are well preserved and color is not changed. The fruit is dry for 5–7 days, it is considered ready if it does not break when it is caught and crushed, crumbles and chops are creamy (elastic), its moisture should not exceed 18 percent, 19-26% of the fruit from the Husky is taken from the dried apricot.

REFERENCES