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THE HISTORY OF APRICOT ORIGIN ON THE TERRITORY OF KYRGYZSTAN

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ИСТОРИЯ ПРОИСХОЖДЕНИЯ КУЛЬТУРЫ АБРИКОСОВ НА ТЕРРИТОРИИ КЫРГЫЗСТАНА

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Abstract. The author examines the history of the origin of apricots and their biology, ecology and distribution around the world. The history of distribution and development of apricot in the Kyrgyz Republic is analyzed. Varieties and their biology are described. The main ecological features of apricot varieties are presented. In the south of Kyrgyzstan, there are all natural opportunities for processing apricots as a cultural culture that ensures high quality products. The fruits of apricot varieties are a functional crop that can be used both dry and fresh, differing in technological quality, high biological vitamin value and mineral composition. For this reason, high-quality dried and kitchen apricot varieties have been grown in the south of Kyrgyzstan for many years.

Аннотация. Автор рассматривает историю происхождения абрикосов и их биологию, экологию и распространение по миру. Анализируется история распространения и развития абрикоса в Кыргызстане. Описаны сорта и их биология. Представлены основные экологические особенности сортов абрикоса. На юге Кыргызстана имеются все природные возможности для переработки абрикосов как культуры, обеспечивающей высокое качество продукции. Плоды сортов абрикоса — функциональная культура, которую можно использовать как в сухом, так и в свежем виде, отличающиеся технологичностью, высокой биологической витаминной ценностью и минеральным составом. По этой причине на юге Кыргызстана уже много лет выращивают качественные сушеные и кухонные сорта абрикоса.

Keywords: apricot, variety, stone fruits.

Ключевые слова: абрикос, сорт, плоды косточковых.

Apricot in China BC several scientists studied what was already known 2,000 years ago. Apricot Armeniaca Scop. and subfamilies Plum (Prunoideae) of the Rosaceae family. And in the work of K. F. Kostina, most varieties of apricot are *Armeniaca vulgaris* Lam. refers to the type. The range of the genus *Armeniaca* in the west reaches Central Asia and Transcaucasia and includes the mountainous regions of China and Central Asia. Plants grow best on rocky and dry sunny slopes.

Apricot *Armeniaca* Scop. some species belong to the plum (Prunoideae) subfamily of the Rosaceae family. K. Linnaeus included apricot in the *Prunus* general genus, and Tournefort, on the other hand, distinguished it into a separate species, the classification of which is supported by most botanists [5]. Most authors have tried to classify varieties of apricot [7, 8].

We divided it into 8 species: common apricot (Armeniaca vulgaris Lam.), Siberian plum

(A. sibirica (L.) Lam.), Manchurian plum (A. mandshurica (Maxim.) Skvortsov), David apricots (A. davidiana (Carrière) Carrière), Ansu plums (A. ansu (Maxim.) Kostina, Tibetan plum (A. holosericea (Batalin) Kostina), mummy apricot (A. mume Siebold), apricot with blue berries (A. dasycarpa (Ehrh.) Borkh.).

Most apricot varieties are *Armeniaca vulgaris* Lam. type. The range of the genus Armeniaca extends west to Near Asia and Transcaucasia and includes mountainous regions of China, Central Asia. Simple apricots have been grown since ancient times. It is difficult to accurately name the varieties of this plant, because many different forms appeared in the ancient area of the plant due to reproduction by nuclei, which is difficult to explain. Currently, more than a hundred varieties can be noted [9].

It is noted that the common apricot grows wild in the mountainous regions of Central Asia, in Northwestern China, Southeastern Tibet. This species is polymorphic. The plants grow very well on rocky and dry sunny slopes. Indicates that in Central Asia they are most often found at an altitude of 1000-1300 m above sea level, in Tibet-above 3000 m above sea level, and in the Lhasa region the upper limit of settlement is 3600 m.

Identify 4 origins of the common plum culture: East Asian, West Asian, Caucasian and South European. The variety of varieties and forms of apricots, leading to their systematization and botanical-geographical classification. Divided them into 4 main botanical-geographical groups: Central Asian, Jungar-Trans-Ili, Iranian-Caucasian and European. At the same time, the groups are divided into subgroups both according to geographical principles and according to the complex of some biological, pomological and commodity-technological features. Genetically related varieties belonging to a particular subgroup according to morphological, commodity-technological characteristics, kinship and nature of use form variety types [1-3].

Central Asian group. It is characterized by rapid growth, strong development, longevity, late entry into fruiting, fruit ripening — early (May) and late (September). In terms of flowering time, it differs from Transcaucasian and European varieties in early and late flowering, with a period of deep winter dormancy. The fruits of the varieties of the Central Asian group are mostly small, but with a high sugar content. Fruits are consumed both fresh and dry, the extraction of dry matter of these varieties is 1.5-2 times higher than that of European varieties. The best varieties for obtaining dried fruits are: isfarak, persimmon, subhoni, babai. Berries have a high sugar content. Latematuring, late-maturing Namangan varieties are of great importance in breeding work for the breeding of late-maturing (ripe) varieties.

The disadvantage of the Central Asian group is their susceptibility to diseases caused by microorganisms. Table varieties differ in the brightness of the fruit color. They are common in Uzbekistan, Tajikistan and Kyrgyzstan, they include the varieties Arzami, Ahrori.

Dzungaro-Zailiysky. A very simple group, including local cultural forms, was distributed in the Dzharkent district of Taldy-Kurgan region of Kazakhstan (now Panfilov and Kektalsky districts), as well as in the neighboring Alma-Ata region and Kuldzhinsky district in northwest China. This group, which coincides in distribution area with the Northern branch of the wild apricot range and is closely related in origin, is characterized by resistance to winter cold, formed under the influence of natural and artificial selection in harsh winters in areas where winter cold reaches — 30°C.

The varieties of the Iranian-Transcaucasian group are close to the Central Asian groups in terms of fruit type. These include kitchen, canned and dried fruit varieties. Among them, forms with low mobility and weak taste (smell), open flesh predominate, which are characterized by poor resistance to diseases, a short winter break and inability to hardiness. Varieties Shalakh, Khosrovshan, almond-Eric, Tabarza are valuable large-fruited, bred in the regions of Transcaucasia and are used in breeding to breed new varieties.

European Group. The varieties are distinguished by a small variety of varieties, but high commercial quality: the fruits are large, pleasant and sour taste. Plums of this group are not very strong and do not live long. There are varieties of Red-cheeked, pineapple, Ambrosia and others.

In the south of Kyrgyzstan, there are all natural opportunities for processing apricots as a cultural culture that ensures high quality products. The fruits of apricot varieties are a functional crop that can be used both dry and fresh, differing in technological quality, high biological vitamin value and mineral composition. For this reason, high-quality dried and kitchen apricot varieties have been grown in the south of Kyrgyzstan for many years.

Apricots occupy a special place among the grain crops grown in Kyrgyzstan. In Southern Kyrgyzstan, high-quality dried and table apricot varieties have been bred.

In 1937, he organized the scientific adaptation of apricot in Kyrgyzstan, the study of varieties of fruit plants and the creation of a collection. From the organization of the Kyrgyz Fruit and Berry Station. With the organization of the Research Institute of Agriculture and support points, industries throughout the Republic, the study of the biological characteristics of apricots was undertaken. The best dried and kitchen varieties were used as parent plants. As a result of these works, E. Z. Gareev bred 16 dried and kitchen varieties [4].

Varieties of the Ferghana group are used for intersort crossing: arzami, Ahrori, Mirsanjeli, khurmai; varieties of the Western European group: royal, Red-Cheeked, pineapple, Hungarian best, Early red, Komsomolets; varieties of the Iranian-Caucasian group: Abdukhalik, Abutalib, etc. they used. As a result of breeding work, 10 varieties were identified, including: Frunzensky Pineapple, Frunzensky Persimmon, Gorny Persimmon, Komsomolets of Kyrgyzstan [2].

As a result of the mass destruction of apricot varieties in the Chui Valley, adaptation and varietal studies were carried out in other regions. In Southern Kyrgyzstan. G. Abdrakhmanov conducted research on a collection of 25 apricot varieties in the subdistricts of fruit zones for growing the best dried apricot varieties. The position of the plant in the central fruiting zone and the biological characteristics of 43 varieties were studied [6].

It was found that the varieties of the European group need a sum of positive temperatures of 200-250°C for the phenological development of the flowering phase and 180-200°C for fruit ripening. The Central Asian group of varieties requires more heat for its development. These varieties bloom at a positive temperature of 200-250 degrees, and the fruits ripen at 200-225°C degrees. The growing conditions in this zone are favorable for growing apricot fruits, which can be used in harvested form or canned, as well as for obtaining dried fruits. Varieties belonging to the eastern group are distinguished by sweet berries.

The work of scientific institutions and fruit nurseries established in all regions has led to a wide spread of apricot varieties in the republic, especially in the mountainous areas of horticulture and Issyk-Kul region. Gareeva E. Z. He named the most common varieties of apricots in the republic as of 1959 [4].

With the organization of state variety testing units in 1960, in 1964 101 varieties of apricot were tested on the territory of the Republic, 7 varietal fruit zones have been created. Out of more than 100 varieties tested on representatives of various groups of apricots, by 2010 only 11 remained in the State Register, the rest could not adapt to the conditions of the test region. The ecological ability to certain growing conditions, as well as the preference of the population for varieties and directions of use of berries contributed to the zoning of winter-hardy and heat-loving varieties of the Central Asian group in the southern regions. In the southern provinces, less precipitation falls

during the ripening of berries, and there are conditions for drying in the traditional open air. The population has been engaged in drying apricots for a long time, knows local technologies. In the northern regions, varieties of the European group are zoned, winter-hardy and less demanding to heat.

E. Z. Gareeva conducted inter-variety hybridization using high-quality European, Uzbek and Tajik seeds obtained in the Issyk-Kul region, in order to select and breed resistant varieties of apricots. In the south of Kyrgyzstan, apricot crops grow mainly in the foothills of the Fergana Valley, occupying 40-50% of the total garden area [4].

The cultivated varieties Isfarak, Mirsanjeli, arzami, Ahrori, Subhoni, khurmai (Red persimmon, KADu persimmon) and Korsadyk belong to the Fergana varieties. The varieties of the latter varieties were brought here from the Zeravshan Valley.

Apricots occupy 5% of the area of the mountainous zones of southern Kyrgyzstan. In addition to the Central Asian varieties (Arzami, Ahrori, Isfarak), two varieties from the European group were brought here: Royal and Red-Cheeked.

In Northern Kyrgyzstan apricots occupy 1-2% of the garden area, and in Southern Kyrgyzstan 80-90%.

References:

1. Arakelyan, U. G., Kuzemko, Yu. V., Malenchinov, S. Sh., & Lysenko, L. A. (1987). Predlozheniya po intensifikatsii sadovodstva v Issyk-Kul'skoi oblasti. Frunze. (in Russian).

2. Arakelyan, U. G., & Khilko, V. F. (1989). Predlozheniya po sozdaniyu vysokoproduktivnykh sadov v Kyrgyzstane. Frunze. (in Russian).

3. Arakel'yan, U. G., & Gareev, E. Z. (1952). Osnovnye voprosy agrotekhniki i sortovoi sostav plodovykh kul'tur v Kirgizii. Frunze. (in Russian).

4. Gareeva, E. Z. (1971). Osnovy plodovodstva Kirgizstana. Frunze. (in Russian).

5. Zhukovskii, P. M. (1971). Kul'turnye rasteniya i ikh sorodichi: Sistematika, geografiya, tsitogenetika, immunitet, ekologiya, proiskhozhdenie, ispol'zovanie. Leningrad. (in Russian).

6. Momunova, G. A., Teshebaeva, A., & Shamshiev, B. N. (2015). Ekologo-biologicheskie osobennosti introdutsirovannykh sortov abrikosa v Kyrgyzstane. *Izvestiya Oshskogo gosudarstvennogo universiteta*, (1), 161-164. (in Russian).

7. Mirzaev, M. M. (2000). Kul'tura abrikosa v Uzbekistane. Tashkent. (in Russian).

8. Momunova, G. A. (2017). Osobennosti vliyaniya klimaticheskikh uslovii Yuzhnogo regiona Kyrgyzstana na mestnye sorta abrikosa. *Territoriya nauki*, (3), 81-84. (in Russian).

9. Tkachenko, V. I. (1972). Derev'ya i kustarniki dikorastushchei flory Kyrgyzstana i ikh introduktsiya. Frunze. (in Russian).

Список литературы:

1. Аракелян У. Г., Куземко Ю. В., Маленчинов С. Ш., Лысенко Л. А. Предложения по интенсификации садоводства в Иссык-Кульской области. Фрунзе: Изд-во АН Киргизской ССР, 1987.

2. Аракелян У. Г., Хилко В. Ф. Предложения по созданию высокопродуктивных садов в Кыргызстане. Фрунзе: Кыргызкнигоиздат, 1989.

3. Аракельян У. Г., Гареев Э. 3. Основные вопросы агротехники и сортовой состав плодовых культур в Киргизии. Фрунзе, 1952. 198 с.

4. Гареева Э. З. Основы плодоводства Киргизстана. Фрунзе: Кыргызстан, 1971. 33 с.

5. Жуковский П. М. Культурные растения и их сородичи: Систематика, география,

цитогенетика, иммунитет, экология, происхождение, использование. Л.: Колос, 1971. 751 с.

6. Момунова Г. А., Тешебаева А., Шамшиев Б. Н. Эколого-биологические особенности интродуцированных сортов абрикоса в Кыргызстане // Известия Ошского государственного университета. 2015. №1. С. 161-164.

7. Мирзаев М. М. Культура абрикоса в Узбекистане. Ташкент, 2000.

8. Момунова Г. А. Особенности влияния климатических условий Южного региона Кыргызстана на местные сорта абрикоса // Территория науки. 2017. №3. С. 81-84.

9. Ткаченко В. И. Деревья и кустарники дикорастущей флоры Кыргызстана и их интродукция. Фрунзе: Наука, 1972. 327 с.

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