EduVision: Journal of Innovations in Pedagogy and Educational Advancements
Volume 01, Issue 04, April, 2025
brightmindpublishing.com
ISSN (E): 3061-6972

VARIETIES OF FIGS GROWN IN SURKHANDARYA REGION

A.E. Mirzaev
Scientific horticulture, viticulture and winemaking named after Academician Mahmud Department of Fruit and Viticulture Selection of Research Institute of Surkhondarya ITS
boss,

O'.O. Mirzaev
Scientific horticulture, viticulture and winemaking named after Academician Mahmud Mirzaev head of the fruit and viticulture agrotechnical department of the research institute Surkhondarya ITS

Abstract
In this article, the origin of the fig plant, Information is provided on its distribution in Uzbekistan, biological and economic characteristics, promising varieties recommended for planting, and pollinating varieties of figs.

Keywords: Fig Varieties, Family, Class, Species, Blastophaga Insect, Pollinator, Non-Pollinator (Parthenocarp), Generation 1, Generation 2, Yield, Introduction, Disease and pests.

Introduction

Decree of the President of the Republic of Uzbekistan No. PP-57 dated 14.02.2025 In order to organize the implementation of the Resolution on the organization of the activities of the UZAGROSTAR company and the Decree of the President of the Republic of Uzbekistan No. PF-22 dated February 14, 2025 "On additional measures for the introduction of a modern organizational system and financial support in the activities of homestead landowners and peasant farms", measures are being taken to study the soil and climatic conditions of the regions of subtropical fruits of the Far Eastern date palm and fig and to organize gardens of subtropical crops in these areas.

Today, as a result of comprehensive reforms in support of the agricultural sector and the development of farming specialized in horticulture, the agro-industrial

EduVision: Journal of Innovations in Pedagogy and Educational Advancements
Volume 01, Issue 04, April, 2025
brightmindpublishing.com
ISSN (E): 3061-6972

system has become a real pillar of the economy. It is important that the price of delicacies grown in our country is cheap. This, of course, is the result of consistent reforms in the field of agricultural development.

The climate of Surkhandarya region is a dry subtropical climate, which is a favorable area for growing subtropical crops, especially in the Saryasiyo, Uzun, Denov and Sherabad districts of Surkhandarya region, where pomegranates, figs and oriental dates can be grown with high yields. Many years of observations show that the average annual temperature in the northern part of the region differs by 3-4 ^{0}C compared to the southern part. The region is surrounded by mountains from three sides: east, north and west, and cold air flows mainly from the south. Winters are warm, sometimes the coldest temperatures occur every 8-10 years, reaching -20-25 ^{0}C, summers are hot and dry, sometimes reaching 50-55 ^{0}C. Warm days without frost are 240-245 days. The amount of annual precipitation is 130-350 mm, depending on the year.

One of the subtropical crops, figs, has been studied on a scientific basis for many years at the Surkhandarya Scientific and Experimental Station of the Academician Mahmud Mirzaev Research Institute of Horticulture, Viticulture and Winemaking. In the republic, it is necessary to focus on the rapid development of all areas of agriculture, including horticulture, increasing soil fertility, increasing the productivity of subtropical fruit crops, improving the quality of products and their dry and wet cultivation, and fully satisfying the population's demand for subtropical fruit products.

Figs are a subtropical fruit of the mulberry family (Figaceae). They occupy large areas in Turkey, Algeria, southern Europe, and the USA, and are also cultivated in the Caucasus, Central Asia, and Crimea. They grow wild in the Mediterranean, Asia Minor, Iran, and northwestern India. Figs are a very ancient cultivated plant (cultivated in Asia for 5,000 years, and in Europe for at least 2,000 years).

The height of the fig tree is 4-8 m, the branches are thick and spreading, the branch, leaves and fruit have milky sap. The leaves are large, 3-7 lobed, sometimes without lobes, dark green, with hairs on the back. It blooms twice a year. A cluster of small unisexual flowers is inside the future "fruit" and the tiny blastophagus is pollinated by bees, and some fruit without pollination (parthenogenesis) and without setting seeds. The fruit contains 20-30% sugar, 0.5-4.2% pectin substances, 3.4-7.4% fiber, up to 0.1% organic acids, carotene, calcium, iron, phosphorus and other elements.

EduVision: Journal of Innovations in Pedagogy and Educational Advancements
Volume 01, Issue 04, April, 2025
brightmindpublishing.com
ISSN (E): 3061-6972

Figs are mainly propagated from one-year-old mature cuttings. It bears fruit at the age of 2-3 years, it enters the harvest at the age of 7-10 years, the production period is 50-60 years, it lives up to 150-200 years. One bush gives 15 - 35 kg of fruit. Figs produce 2 generations in one season. The first crop (or figs) ripens in June-July, and the second (main) crop ripens in August-September.

Figs are consumed fresh or in the form of jams and preserves, and are used to make jams and jellies. In folk medicine, fig leaves are used as an alkali for drying grapes and fruits, and their "milk" is used to treat skin diseases and scorpion and bee stings. Figs are quite demanding on moisture, grow well on light and fertile soils. They almost do not grow on saline or gravelly soils. The fig bush is shaped into a bush with 3-4 main trunks. Once or twice in the summer, thickening shoots that have appeared this year, overgrown shoots, and dry branches are cut out.

FIG (Ficus) carica L.) is a subtropical fruit species belonging to the mulberry family. It occupies large areas in Turkey, Algeria, southern Europe, and the USA, and is also cultivated in the Caucasus, Central Asia, and Crimea.

It grows wild in the Mediterranean region, Asia Minor, Iran, and northwest India. Figs are a very ancient cultivated plant (cultivated in Asia for 5,000 years and in Europe for at least 2,000 years).

The ficus Carian is named after the mountainous region of ancient Caria in Asia Minor, where it is considered to be the birthplace of the fig. It is grown as a valuable fruit plant in open ground in Central Asia, the Caucasus, Sochi, the Carpathians, Crimea, and even in the Central Zone of Russia (with proper selection and care of varieties).

Section B :- Flowering , **Class:** - Dicotyledonous , **Order** :-flowering order - closed front

Family: - Lilacs, **Species** : Ficus , **Category** : Figs .

Fig varieties are divided into four main groups depending on the need for pollination:

1. Smyrna (Smirnsky) fig - needs pollination

2. San Pedro fig - first generation crop without pollination, second generation crop needs pollination.

3. Adriatic (Ordinary) fig - the fruit is finished without pollination (parthenocarp)

4. Caprifig (wild fig) - necessary for the development of pollinating bees

1. Smyrna (Smirnsky) fig (Ficus carica va. smyrni c a)

EduVision: Journal of Innovations in Pedagogy and Educational Advancements
Volume 01, Issue 04, April, 2025
brightmindpublishing.com
ISSN (E): 3061-6972

Figs in this group will not set fruit and will drop if not pollinated by **Blastophaga psenes bees. For commercial production, fully pollinating figs are required.** These include **Kalimirna** (common in the USA), **Marabout, Zidi, Incir** (common in Turkey) varieties.

2. San Pedro figs:- This group is distinguished by the difference between the first and second harvest:

Spring crops (Brevabas) do not require pollination, meaning they do not require a pollinator. **Summer crops** require pollination and should be planted with pollinator varieties. These **include King, San Pedro, and Verdal.**

3. Adriatic (Ordinary) figs - Figs in this group bear fruit without pollination (parthenocarpic). They are very suitable for commercial cultivation. These include the varieties **Kadota, Mission, Adriatic, Brown Turkey, Black Genoa . In** addition, the varieties currently cultivated in Uzbekistan include Dalmatian, Crimean-9, Crimean-29, Crimean-43, White Adriatic, and Uzbekistan Yellow figs.

4. **Caprifig (wild fig):** -These varieties are not grown for consumption, but to provide habitat for pollinating bees. They do not require pollination, but produce pollen in their male flowers.

Examples: Black fig and Crimean black fig (unfit for consumption and pollinator varieties).

The Surkhandarya Scientific Experimental Station has been conducting observational studies on fig varieties for many years. Experiments on cold tolerance through variety selection have been conducted on many fig forms for 10 years, but no variety has stood out in terms of cold tolerance.

The degree of frost tolerance of figs

Figs are one of the subtropical plants that are resistant to frost. Air temperature up to -5-10 C is not affected by frost.

One-year-old shoots are damaged at -12-16 C. If the water supply in winter is good and the soil fertility is high, that is, the soil is rich in organic and mineral fertilizers, then at this temperature the fig tree's protection from cold increases.

-17-18 S0 perennial branches are damaged.

At -20-22 C, the entire above-ground part is severely damaged by frost. Such frosts occur in our region once every 8-10 years.

EduVision: Journal of Innovations in Pedagogy and Educational Advancements
Volume 01, Issue 04, April, 2025
brightmindpublishing.com
ISSN (E): 3061-6972

Fig varieties recommended for planting in Surkhandarya region

Uzbek yellow fig is a local variety. It is adapted to all regions of the republic. The tree is vigorous, with well-branched branches, the fruit weighs 40-80 g, the sugar content in the fruit is 14-18%, and when dried it is up to 61%. The yield is average, up to 25-50 kg is obtained from a ten-year-old bush, it begins to bear fruit in the 3rd year, the main harvest begins in late July - early August. It is considered less suitable for drying.

White Adriatic - the variety is native to the Mediterranean countries. The fruit is medium-sized - 35-60 g. High yielding, up to 15-35 kg from one bush, and the fruit is well dried on the tree. It can be transported over short distances. The sugar content in the fruit is up to 24.5%, and when dried, up to 75%. This fig variety is a good variety for making jam.

Kadota. The best variety. The fruit is medium-sized, smooth, yellow in color. The sugar content in the fruit is up to 23-24%, and when dried up to 70-73%. It is harvested twice a year, yielding up to 22-38 kg from one bush. The crop ripens at the end of August. Usually, ripe figs contain a lot of sugar and little acid, so they are sweet and make good jam when dried.

Dalmatian - originally from Italy, adapted to the conditions of our republic. The fruits are oblong in shape, large, weighing 50-90 g. High yield, up to 22-25 kg can be obtained from one bush per year. The sugar content in the fresh fruit is 20-29%, and in dried - 50-60%, the dry matter yield is 28-30%. High efficiency is achieved by growing them separately.

Crimea-9 - this variety was brought from Crimea. Medium-growing, with thick, round-shaped branches spreading in all directions. The fruit is medium-sized, up to 30 g. The ripe fruit contains 25% sugar, and the pulp - 70%. The pulp is especially high-quality, with a pulp yield of 30-35%. The ripening of the fruit lasts from late September to mid-October. The yield is high, up to 20-30 kg from one bush, and it gives a full harvest in 5-6 years. It also gives a good harvest on the main shoots.

Crimea-29 - this variety was created in the Nikitin orchard of Crimea and is well adapted to the climatic conditions of our republic. The fruit is round, weighing an average of 30-40 g, the color is uniform greenish-yellow, the flesh is dark red. The ripe fruit contains 22.5% sugar, when dried, 68-70%. The yield is up to 15-30 kg per bush, not suitable for transportation, it is convenient to grow a bush in a single-stem method.

EduVision: Journal of Innovations in Pedagogy and Educational Advancements
Volume 01, Issue 04, April, 2025
brightmindpublishing.com
ISSN (E): 3061-6972

Crimea-43 – brought from Crimea, the branches are slightly branched, thick, flat-round, the shoots are thin, well-developed, the leaves are not very large, the fruit is medium in size, weighing from 17 to 35 g, in the shape of a noxion, drawn into fruit clusters in a row, the main fruit cluster is thin. The fruit cluster is black, the red fruit is covered with black, edged, thick white spots all over. The fruit ripens from the end of July to October. The fruit is on the stem, 25% sugar content (64% in the pulp). The yield is high, 25-30 kg can be obtained from one cluster. Regionalized throughout Uzbekistan.

Conclusion

If you are planning to plant Smyrna or San Pedro varieties, Blastofa must have bees or up to 10% Caprifig varieties that can pollinate it.

If you want to get a crop without pollination, it is better to choose parthenocarpic varieties such as Group 3 Adriatic or Mission. These are the varieties Kadota, Mission, Adriatic, Brown Turkey, Black Genoa. In addition, the varieties Dalmatsky, Crimea-9, Crimea-29, Crimea-43, Beliy Adriatic and Uzbekistan Yellow Fig, currently cultivated in Uzbekistan, are commercially suitable varieties that produce fruit without pollination (parthenocarpic). It is recommended to plant more of these varieties in the conditions of Uzbekistan.

Used literature

1. Collection of 100 books, book 63. Publishing house "Tasvir"-2021. A.E. Mirzaev.
"Osobennosti agotechniki iluchshie sorta injira". Tashkent-1973. A.S. Misina.