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**AMONG THE MULBERRY VARIETIES IN THE "WORLD MULBERRY COLLECTION" OF SELECTED JARARIQ-1 AND JARARIQ-4 VARIETIES ECONOMIC INDICATORS**

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**Abstract**

This article presents information about frost- and disease-resistant, high-yielding mulberry varieties Zhararik-1 and Zhararik-4 from the "World Mulberry Collection" created by scientists at the Research Institute of Sericulture.

**Keyword:** collection, mulberry, phenology, bud, mulberry leaf, cultivar, cuttings, rare specimens, flowering, fruit.

**Аннотация**

Ушбу мақолада Ипакчилик илмий-тадқиқот институт олимлари томонидан ташкил қилинган "Тутнинг жаҳон коллекция"сидаги тут навлари орасидан совуқ ва касалликга чидамли, ҳосилдорлиги юқори Жарариқ-1 ҳамда Жарариқ-4 тут навлари ҳақида маълумотлар келтирилган.

**Калит сўзи:** коллекция, тут, кўртак, тут барги, навда, нав, ноёб объектлар, гўллаши, мевас, ҳосилдорлиги.

**Аннотация**

В данной статье представлена информация о морозо- и болезнеустойчивых, высокоурожайных сортах шелковицы Жарарик-1 и Жарарик-4 из «Всемирной коллекции шелковицы», созданной учеными Научно-исследовательского института шелководства.

**Ключевое слово:** коллекция, шелковица, фенология, почка, лист шелковицы, сорт, черенки, редкие экземпляры, цветение, плоды.

**Introduction**

Currently, the main goal of the newly created topic "Preserving, replenishing, studying and certifying varieties, systems, forms and hybrids included in the world collection of mulberry" at the Sericulture Research Institute, which meets the needs of the time, is to study the characteristics of mulberry varieties in the collection and use them in selection

work, and to create high-yielding mulberry varieties by grafting regionalized and promising varieties in accordance with the requirements of the republican sericulture farms, creating a high-quality feed base, producing high-quality cocoons and entering the world market.

Until now, our people cherish the mulberry varieties, which have economic value, and use their leaves, fruits, wood, and roots. The role of these unique varieties in our Republic is incomparable.

Today, the "World Mulberry Collection" includes more than 241 varieties, and scientists at the Sericulture Research Institute have created more than 135 new varieties and hybrids. This figure accounts for 55-60% of the mulberry varieties and hybrids introduced into the gene pool. Of these, 239 were certified, 195 varieties were identified with leaf yield and 18 promising varieties. Their yield, nutritional quality of leaves, resistance to cold, disease and other indicators are fundamentally different from previously created mulberry varieties. Examples of these include the mulberry varieties Jarariq 1, Jarariq 2, Jarariq 3, Jarariq 4, Jarariq 5, Jarariq 6, Jarariq 7, Jarariq 8, Surkh-tut 2, Jarariq 9 and Jarariq 10.

Including:

#### **JARARIQ-1**

This variety was created at the Silk Research Institute through crossing, synthetic selection, grafting, and selection of the Oktyabr x Pioneer varieties. Authors: A.P. Pulatov, R. Abdullaev.

*Morus alba* L belongs to the type. Bi-ploidy  $2n=28$  хр.

The onset of the development period is average.

The head is dense, upright conical, consisting of branches without side branches.

The stem is straight-rounded, dark gray, with a short internodes, 3 cm long, and the top of the stem is covered with numerous dark gray bumps.

Bud - broad triangular, light brown, attached to the branch, large it is 5x5 mm.

Gender - female.

Меваси - қора, думалоқ узунчоқроқ, катталиги 1,5-2,0 см. Бир йиллик новдалари кам мевали, баланд таналик дарахтларда кўп мевали, кўкарувчан ва тўкилувчан.

The fruit is black, round longer, 1.5-2.0 cm in size. One-year branches have few fruits, high-bodied trees have many fruits, bluish and shedding.

Bandi - 4.13 cm in length with a round weak thread.

It differs from other varieties in its characteristic features - high yield, nutritional value, long growing season, and adaptation to spring-summer-autumn feeding.

Productivity - 13.1 kilograms from 1 bush, from 1 hectare of area it is 8.1 tons.

#### **JARARIQ-4**

Oktyabr x Pioner, Gamma mulberry x SANIsh 25 hybrids were cross-bred, planted, and selected from 3-year-old seedlings by O'Kochkarov, a research worker of the Silk Research Institute.

The body - is upright, strong, the branches are dense, numerous, the growth period is long, and it grows slightly spreading.

The stem - is round, long, brown, strong, has a side branch, the lower part is slightly elbow-shaped, the average distance between the joints is 2-4 cm, it has double (pair) leaves, the lentil is large, light-brown in various shapes, some parts of the stem are flat, and there are also ridges.

The bud - is a large triangular 7x5 mm, has a side bud, attached to the branch, the tip of the upper buds is slightly raised, the leaf is arranged in a spiral, brown.

Gender - male.

The leaf is entire, thick, dark green, the leaf is raised (twisted) towards the top, the surface is shiny, smooth, the base is carved, the edge is serrated, cordate, the tip is short 8 mm, the veins are strong, hairless, the size is 18.0 x 15.0 cm, the leaves are arranged in a spiral.

Bandi - round, 7 cm long, ribbed, dark green.

It differs from other varieties in its large leaves, high yield, strong shoot growth, and length.

Productivity - 6.9 tons of leaves per hectare, 11 kilograms of leaves from one bush are obtained in a tall tutzer.

## CONCLUSION

In recent years, numerous resolutions and decrees have been issued regarding the mulberry sector, in particular, the Resolution of our President No. PP-87 of March 6, 2026 was adopted. This resolution provides for the effective use of existing mulberry plantations in our Republic, the reconstruction of old ones, and the creation of new mulberry plantations.

Among the mulberries available in the gene pool, the high-yielding varieties Jarariq-1 and Jarariq-4 were selected, and their leaf yield, disease resistance, and cold resistance were determined. These mulberry varieties are zoned in our Republic, and it is expedient to use the cuttings of these mulberry trees to propagate old and stunted mulberry plantations by grafting.

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