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## NEW VARIETIES OF COTTON SUITABLE FOR DIFFERENT SOIL-CLIMATIC CONDITIONS OF THE REGIONS OF THE FERGANA VALLEY

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**Annotation:** In the article, created in recent years and regionalized by selectors of Andijan research station, Andijan-35, Andijan-36, Andijan-37 cotton plant types and gained the status of future UzPITI-201, UzPITI-202, UzPITI-203 types cephalopathy, biology, quality of silk and agricultural engineering are included.

It is known that it is a priority task of the State to comprehensively improve and speed up work in the field of selection, seed breeding, renewal of varieties, introduction of new fast-ripening varieties of cotton with high fiber quality and their rational placement in different soil and climate conditions of the country.

It is important that the newly created cotton varieties not only have economic characteristics (fastness, fiber length, fiber yield, fiber quality meeting industrial requirements), but also resistance to various diseases and tolerance to extreme conditions [1, p. 253-256].

Breeding scientists create such cotton varieties by studying wild forms with strong characteristics and using them in the selection process.

Establishing elite seed production, which is a guarantee of abundant and high-quality harvest in seed farms, in placing and renewing cotton varieties for different soil and climate conditions of the republic, and developing seed production in line with international standards, requires paying special attention to the biological characteristics of the variety [2, p. 138-142; 3, p. 160-163].

Therefore, the creation of new varieties and suitable agro-technologies that provide competitive, early, high-yielding, high-quality cotton crops that meet the requirements of global standards in the cotton cultivation of not only Andijan

region, but also the regions of the Republic remains an urgent task.

As a result of the research, in the following years, the breeders of PSUEAITI Andijan scientific-experimental station created varieties of cotton such as Andijan-35, Andijan-36, Andijan-37 and Ibrat and were included in the State Register. Currently, the area of these varieties is expanding. At the moment, these varieties show high results in terms of fiber quality, productivity and other characteristics, satisfying the demand of farms.

It is known that the varieties differ from each other in the shape of the bush, the type of branching, the shape of the cup, the amount of leaves, the output weight of the fiber, the industrial type of the fiber, microneural indicators, the weight of one thousand seeds, the content of moisture and other characteristics. If you know their morphological and biological characteristics, you can plant them and take care of them, using specific agrotechnics for each variety, and get a high yield.

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Andijan-35 cotton variety. PSUEAITI was created by the breeders of the Andijan research station T. Komilov, Kh. Egamov and others by crossing (An-402 x Liniya-90) x (Mustalenum x Andijan-13). This variety was included in the State Register in 2007. The bush of the Andijan-35 variety has a conical shape, the height of the main stem is 110-120 cm, the period of operation is 122-125 days, it branches in the 2nd type, the first harvest branch appears in the 6-7 joints. The stem is strong, does not lie down, the stem and leaves are moderately hairy. The leaves are 3-5 lobed, the flower is medium, the golden leaves are pale yellow. The cup is medium in size, oval, the seed is medium, hairy, gray. The fiber is white,

the weight of one bag of raw cotton is 6.6-7.2 g, the weight of 1000 seeds is 120-125 g. The length of the fiber is 33.0-33.5 mm, the relative breaking length is 27.6 g.k/tex, the metric number is 5680-5780, the yield of the fiber is 36.0-37.0 percent, the hardness of the fiber is 4.7-4.9 gr /power. Fiber belongs to type V. Microneuri 4.6-4.7. In 2017, the variety was planted on 55,000 hectares in the regions of the Fergana Valley.

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Andijan-36 cotton variety. The variety PSUEAITI was created at the Andijan research station in 2001 (175-F x Andijan-13 x Andijan-21) by hybridization and multiple selection.

Authors: M. Dadajonov, A. Kasimov, Kh. Egamov and others. The bush of the Andijan-36 variety is conical in shape, 110-115 cm tall. The stem is strong, does not lie down, weakly hairy. Branching type-1, the number of branches is 0-1. The first harvest branch emerges from 5-6 joints, it belongs to medium-sized varieties, the period of validity is 119-120 days. The leaves are medium-sized, 3-5-lobed, cut, moderately hairy.

The flower is medium in size, the petals are light yellow, the pods are medium in size, oval, 4-5 sepals, beaked. One bag of cotton raw material weighs 5.5-6.0 gr. The seed is hairy, gray, the weight of 1000 seeds is 108-110 gr.

Fiber characteristics of the variety: white color length 34-35 mm, fiber yield 39.0 percent, hardness 4.6 gr/power, relative breaking length 28.4 gk/tex, metric number 6030, micron 4.6, IV-industry belongs to the type

It can be planted in the order of 60 and 90 cm, depending on the specific soil conditions, the slope of the land, and the terrain. The variety is also suitable for

planting in double rows, using the film method.

For this variety, the thickness of seedlings is left depending on the soil conditions of a particular field. In particular, it is recommended to keep 80-90 thousand bushes per hectare in high-fertility areas, 100-120 thousand bushes in medium-fertile fields, and 120-140 thousand bushes in low-fertility, rocky, hilly fields.

Andijan-36 cotton variety should be watered for the first time during the growing season, depending on the soil conditions and plant condition, when one bush produces an average of 6-7 leaves in areas with deep seepage water, or at the beginning of the tillering period, and in the conditions of soils with shallow seepage water (in fertile lands) cover the cotton held during the sharpening period. Watering in the next period of operation is carried out depending on the condition of the plant and soil moisture.

Andijan-37 cotton variety. The variety PSUEAITI was developed by A. Kasimov, M. Dadajonov, Kh. Egamov and others at the Andijan research station as a result of complex crossing (Liniya-37 x Namangan-77 x Andijan-22).

This variety was regionalized for Andijan region in 2012. In 2017, it was planted on an area of 9,000 hectares.

The bush of the Andijan-37 cotton variety is conical in shape, 105-110 centimeters tall. The stem is strong, does not lie down, and is sparsely hairy. The branching is of 1.5-2.0 type, the first harvest branch comes from 5-6 joints, it belongs to the group of medium varieties, the growing period is 122-125 days. The leaves are medium-sized, 3-5-lobed, cut, moderately hairy. The flowers are medium in size, the petals are pale yellow, the stamens are yellow. The pods are medium-sized, oval-shaped, 4-5-lobed, with a beak. One bag of cotton raw material weighs 5.6-5.8 grams. The seed is hairy, gray, weight of 1000 seeds is 105-110 gr.

Fiber characteristics of the variety: the color of the fiber is white, the length of the fiber is 33.0 - 34.0 mm, the yield of the fiber is 37-38 percent, the hardness

is 4.7 gr./power, the relative breaking length is 27.6 g.k./tex, metric number 5630, micron 4.5 - 4.6, belongs to V-industrial type.

For this variety, the thickness of seedlings is left depending on the soil conditions of a particular field. In particular, it is recommended to keep 75-80 thousand bushes per hectare in areas with high soil fertility, and 100-110 thousand bushes per hectare in conditions of low fertility, rocky and hilly fields.

The first watering of the Andijan-37 variety during the growing season is carried out depending on the soil conditions and the condition of the plants, when the plant produces an average of 6-7 leaves in the areas with deep seepage water or when the tillering period begins, and in the surface soils, the seepage water is carried out during the tillering period. Watering during the next period of operation is carried out depending on the condition of the plant and soil moisture.

It is known that the varieties lose their positive properties due to various reasons as a result of being planted for many years. Therefore, there is a need to create new varieties that will replace them and have superior characteristics. Taking this into account, breeding scientists of PSUEAITI Andijan scientific-experimental station created new cotton varieties UzPITI-201, UzPITI-202 and UzPITI-203. These new promising varieties have certain advantages over the above varieties in terms of all their characteristics. These promising varieties are being tested in the State variety test and in production.

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