

A new promising «Niyat» variety of cotton created at Khorezm Mamun Academy

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Abstract. This article provides information on the valuable economic characteristics of the new and promising «Niyat» variety of cotton, which is quick-ripening, fertile, resistant to diseases and pests, able to adapt to various extreme conditions, gives type IV and V fiber, suitable for the soil-climatic conditions of Khorezm region.

Keywords. New, promising cotton varieties, soil-climate conditions of Khorezm region, technological indicators of fiber quality, micronaire, fiber uniformity index.

In recent years, as a result of consistent reforms carried out in the field of modernization and diversification of agricultural production, development of the product processing industry, a new system of activity in the agrarian sector «the cluster method» has been introduced.

In a short period of time, working in the cluster method has shown its positive aspects, and significant work has been done in terms of introducing resource-saving techniques and technologies to agricultural production, bringing industry to rural areas and creating new jobs, producing ready-made products with high added value, and developing infrastructure increased.

In our country, large-scale activities are being carried out to create new cotton varieties that are high quality, competitive, and of course high quality fiber meets the requirements of the world cotton market. As a result of long-term research of breeding scientists, it was possible to increase the fiber yield, fiber length and cotton weight in one boll of medium fiber cotton. Extensive measures are being taken to select varieties that are resistant to various adverse conditions created for different soil-climate, hydrogeological and meliorative regions of the republic, show valuable economic characteristics, have high technological quality indicators of fiber, and implement optimal agrotechnologies of maintenance. As a result of ecological variety tests, selection of new cotton varieties with high potential properties for each region and improvement of agro-technologies of cultivation, high-quality and abundant cotton harvest has been achieved in our republic in recent years. Based on this, a new variety of cotton ««Niyat» » has been created in collaboration with the scientists of the Institute of genetics and has been planted experimental biology Academy of Sciences of the Republic of Uzbekistan and Khorezm Ma'mun Academy.

This variety is in great demand and needs to be planted because of its competitive nature with the varieties currently cultivated in Khorezm region in terms of its economic value traits and early maturing.

The main goal of our research is to create and introduce into production new varieties suitable for the soil-climatic conditions of Khorezm region, which are quick-ripening, fruitful, resistant to diseases and pests, give IV-V fiber, and can adapt to various extreme conditions.

The promising intention of cotton was in the scientific world, where new systems and new ones are developed, suitable for the soil and climate conditions of Khorezm region, and the quality of the fiber is high.

A brief description of the cotton variety «Niyat»

The height of the plant is 110-125 cm, green medium hairy. Growth branches 0-1 ha. The harvest branch belongs to the 1.0-1.5 type, and the first harvest branch is located in the 5-6 joints. The stem is thick, does not lie down. The leaves are medium in size, weakly hairy, green in color. The flower is white-yellow in

color, the pollen is white-yellow, the weight of the pods is 5.8-6.5 g, medium oval shape, tipless, green, 4-5 sepals, opens freely when ripe, the seed is medium-sized ovoid, medium hairy, grey; cotton does not spill.

The fiber is white, fiber yield is 38-40%, fiber length is 34.5-35.0 mm, fiber hardness is 4.4 w.t., fiber softness is 6100-6400 mn, fiber breaking length is 33.6 w.t. tex, 4.5 micron fibers have an average inch length of 1.20. The seed is medium-sized, oval-shaped, 1000 seeds weigh 117-124 g. Micronaire - 4.4 mic.

Predominance and economic efficiency of the intention variety. Adapted to extreme (saline soil, mineralized groundwater, water scarcity, extremely high air temperature) conditions of Khorezm region. This variety has type IV and meets the requirements of world standards with its industriality. The bush is compact, therefore planting in a double method gives good results.

The productivity of «Niyat» variety is 3 - 3.5c/ha higher than the control variety, fiber quality is good. The promising «Niyat» variety has higher productivity (38.2-40.0 c/ha), fiber staple length (34.5-35, mm), softness of the micro-needles (4.3-4.5), fiber output standard and compared to other varieties, it is distinguished by its high quality (38-40%), fiber type IV.

When the seeds of the new «Niyat» variety of cotton are propagated as a result of seed production, the population plants retain their uniqueness in terms of morphological characteristics, yield and fiber quality indicators. The following results have been achieved according to the performed research works:

- According to the Decision of the President of the Republic of Uzbekistan dated July 14, 2018 No. PQ-3855 «On additional measures to increase the efficiency of commercialization of the results of scientific and scientific and technical activities», the new, promising variety of cotton «Niyat» created by scientists of Khorezm Ma'mun Academy is added to the list of commercialization entered.

- Appropriate actions for obtaining a patent have been carried out. In particular, the State Commission for Testing Agricultural Crops has presented the final conclusion to the Intellectual Property Agency of the Republic of Uzbekistan on the «Niyat» variety. As a result, the Patent of the Intellectual Property Agency was obtained for the variety «Niyat». Patent number: No. NAP 00205. Date of registration: 30.11.2018.

- In 2015, the «Niyat» variety passed the soil control of the State Variety Testing Center, and in 2016-2018, it was tested in the field of the regions. According to the order of the Ministry of Agriculture No. 125 dated December 29, 2018, it was found to be promising and recommended for planting in the Khorezm region and the Republic of Karakalpakstan.

During the visit of the President of the Republic of Uzbekistan Sh.M. Mirziyoev to the Khorezm region on 12-13 this year, «Additional measures to be implemented in 2020 for the development of Hazorasp district and the newly established Tuproqkala district» (Khorazm region 1.3 of the meeting held on March 13, 2020 In April-May 2020, on the basis of the appendix, it was decided to plant the «Niyat» cotton variety created by scientists of the Khorezm Ma'mun Academy on 1200 hectares of land in the Tuproqkala massif of the newly established Tuproqkala district.

«Muhammad Ali», «Sharif Ota», «Yodgorbek», «Usta Ahmed», «Dusham Ota», «Anvarbek», «Pakhtakor», «Komil Khushnud», «Khiva Tuproqkala» in Hazarasp, Khiva, Khanka regions located in Tuproqkala district. , «Maqsadbek Mukhtorbek», «Hayt Abdrim», «Istar», the stages of growth and development of the «Niyat» variety planted in the farms are continuing well, in particular, the formation of the elements of the crop in the sympodial branches belongs to type I-II, in some farms, namely «Mashhur Bahadir», In farms like «Fayzulla Bobo» and «Davronbek», it was observed that the bolls on the cotton bush were opened. The number of bolls on one boll of cotton was on average 22-28.

Conclusions

1. Based on the hybridization of *G. hirsutum* L. varieties of cotton, it was found that high fiber quality and output, quick ripening and productive ridges can be isolated.
2. It was studied for several generations that the «Niyat» variety of cotton was obtained as a result of conducting scientific and practical researches based on the hybrids of *G. hirsutum* L. with the method of multi-year targeted selection, and that it differs from the model varieties in terms of its origin, fertility, fiber yield and quality.
3. The stem of the «Niyat» variety of cotton has a compact appearance, and it was practically determined that it gives good results when it is planted in a double row in different soil and climate conditions of the Khorezm region.

4. It has been proven that the «Niyat» variety of cotton can be used as starting materials in the future scientific researches on the creation of new lines and varieties of cotton suitable for the soil and climate conditions of Khorezm region and suitable for double planting.

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