

MORPHOLOGY OF COTTON VARIETY "SHEROBOD-SH.N" AND AGROTECHNOLOGY OF HIGH YIELD

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This variety was created by multiple repeated and individual selections from individual families with large appearance, high opening rate and water resistance, obtained by cross-breeding "At-Termizi", "Soyuznix-11" varieties of cotton. This cotton variety was included in the list of promising varieties in 2022 and in the state register.

The height of the main stem of the variety is 115-120 cm, the shape of the bush is narrow, conical, there are 1-2 monopodial branches, the ripening period is 116-120 days. The stem is green, moderately hairy, the stem turns red (anthocyanin) in autumn. The stem is strong, does not tend to lie down, branching belongs to the 1.5 type.

The first harvest branch begins with 5-6 joints, the leaves are medium in size, 3-5-sided, moderately cut, claw-like, sparsely hairy.

The flower is medium-sized, the petals are yellow, cream-colored, without spots, the stamens are also cream-colored, the female beak is of medium length, the petals are medium-sized, with 11-12 teeth, long cut.

The boll is medium-sized, oval, without a point, the weight of cotton in one boll is 5.5-6.5 grams, the weight of 1000 seeds is 110-117 grams, the fiber yield is 40-41 percent, the micron is 4.4-4.6, the fiber length is 34-35 mm, fiber hardness 29.3, reflection coefficient 83.2, yellowness 8.5, degree of uniformity 84.9. Elongation at break 6.5. The index of short fibers is 0.7, and the fiber is well separated from the seed.

Cotton stands well in the bowl, does not shed, is resistant to water shortage, the opening rate is fast, the fiber is white and soft. In 2017, it was planted on the 2nd square, and in 2018, it was planted on the 6th square, and good results were obtained.

In 2020, 10 ha were planted in the experimental farm "Khazarbog", and an average yield of 41.8 centners of cotton per hectare was obtained, and the plan was fulfilled by 117.5%, which was grown in the same agrotechnical conditions.

This variety was planted on 245.4 hectares in Denov district, with an average yield of 41.3 tons/ha, and the plan was fulfilled by 107%.

In particular, 50.2 hectares were planted and 45 t/ha were harvested at the "Akhmad Nazira Oybek" farm, and the plan was fulfilled by 119%.

Planting period: April 1-15 in northern districts, March 20 to April 10 in southern districts, the most optimal period.

Planting: 5-6 seedlings in 1 pogrameter, i.e. 80-90 thousand plants/ha, when planted in a 60 cm width on fertile typical gray soils, 7-8 seedlings in 1 pogrameter, i.e. 80-90 thousand plants/ha when planted in a 90 cm scheme, low productivity sandy, stony it is enough to leave 100-120 thousand seedlings on the land.

This variety is very demanding on fertilizer, for growing early cotton, feeding should be done in the third ten days of March, and the second feeding should not be later than June 20. The amount of fertilizers is nitrogen 250, phosphorus 175, potassium 125 kg/ha, 70% of phosphorus is given under the plow, the rest with planting, 50% of potassium is given after leveling the land, and the rest is given during the planing period.

Limited field moisture capacity requires irrigation in the order of 70-75-65 percent. It is necessary to water 7-8 times on light soils, 5-6 times on heavy soils, 2-3 times during flowering and 1-2 times during ripening will increase productivity. "Sherobod Sh-N" should be pruned at the 12th-13th branch when the seedling has 110-120 thousand bushes, at 13-14 when there are 80-110 thousand bushes, at the 14-15th harvest king when there are 80-90 thousand bushes.

The pods should be defoliated with soft defoliant when they are 50-60 percent open, and with hard defoliant when they are 60-70 percent open.

Planting the seed in an optimal period makes it possible to use the natural moisture of the soil wisely and increase the resistance of cotton to drought.

For this reason, farmers should pay serious attention to the careful preparation of machinery and aggregates, the creation of favorable conditions for mechanized planters, seed moisteners, and suppliers in order to spend the planting season in a short period of time.

Currently, in the fields where seeds are sown, they are mainly sowing seeds in rows of 60 and 90 cm width and in a double scheme of 60+30 cm. STX-4, SChX-4A seed drills are used for this. Universal SXU-4 and modular SMX-4 seeders can be adjusted between rows of 60, 70 and 90 cm. SChX-4B seeders are used for seed sowing in double rows in the scheme of 60+30 cm.

Before planting seeds, the completeness, parts and details of the seeder are checked, and special attention is paid to the parts that directly affect the sowing process and quality.

The technical condition of the seeder is evaluated before the season and during operation depending on its level of operation. The Soz planter carries out the planting event with high quality, it works without breaking during the shift and the season.

Agrotechnical requirements for seed planting aggregates and methods of meeting them. The accuracy of seeding when sowing depilated or shelled cotton seed is at least 90%. The number of seeds falling on 1 meter of ground should be around 11-14 seeds. For this, all parts of the unit must work properly. When sowing moistened hairy seeds in a row, the number of seeds per 1 meter should be around 30-50 pieces.

Permissible difference between actual and specified planting rates: maximum 10% for depilated seed, 15% for feathered seed. If the amount of seed used by STX-4, SChX-4, SXU-4 and SMX-4 mechanical seed drills exceeds the set standard, the slot in the seeding rollers is narrowed, and if it is less, it is widened. Case-1200 pneumatic seed drills have the ability to plant 15-17 seeds per meter.

When the seed is planted by nesting, the distance between the nests is adjusted by changing the stars on the shaft driving the nesting device and the number of nesting disk blades, the rotation speed of the stars in the box mounted on the frame of the pneumatic seeder, and the number of holes in the seeding disk.

Depending on the type of seed being planted, the depth of seed burial is around 3–6 cm, more often 4–5 cm. The root mean square deviation of the planting depth is +1 cm at most (the seed planting depth is adjusted by moving the slide in the coulter along the rack in mechanical seeders, and by changing the tension of the springs of the planting device in pneumatic seeders); the difference between the main rows is no more than +1 cm (mainly depends on the correct

selection of the length of the marker and the stable movement of the ordinary wheel of the tractor along the tracks left by the marker, that is, the skill of the operator.

If the row spacing is 60 cm, the distance from the tip of the last bulb to the marker disc should be 150 cm, and if the row spacing is 90 cm, it should be 225 cm. These distances are adjusted by moving the marker disc along its axis. Since the planting sections in pneumatic seeders are modular, it is possible to change the width between planting rows in the range of 30–102 cm).

In the field conditions, the complete fall of the seed and its burial depth must be constantly monitored by the farmer or supervising agronomist. If these requirements are not met and the sowing quality is disturbed, the seeder is re-adjusted in the field itself.

In the cultivation of early, high cotton crops, the timing of seeding is also of great importance.

Based on the soil and climate conditions, according to long-term data, seed planting in the southern districts of Surkhandarya region is from March 25 to April 10, in the northern districts

Between April 1 and 10, transfer is considered an acceptable period. This year, it is necessary to take into account the weather conditions when determining this period. Irrigation works should be started 10-15 days earlier than every year in the fields where rice and seed water is given. As soon as the land is cleared, the seeds are planted.

One of the main requirements of early cotton cultivation is to plant the seed at the most favorable time and collect it evenly to its natural moisture.

Hairy seeds should be sown when the average daily stable temperature of the soil at a depth of 10 cm is 12°C, and hairless seeds when it is 14°C.

The amount of seed used per hectare is 25-30 kg if depilated, and 60 kg of feathered seed. When planting seeds, it is necessary to pay special attention to the fact that the seeds fall to the same depth, the rows are correctly separated, and the distance between adjacent rows is the same.

Sowing seeds should be started first on light soils that heat up quickly, and then on medium and heavy soils.

In order to collect the seed early and evenly, it is necessary to pay special attention to its depth, the seed will not germinate quickly in areas planted too deep or planted shallow. The optimal depth of seed planting is 3-4 cm in meadow-swamp soils, 4-5 cm in other types of soils.

It is necessary to sow under the film from March 25 to April 5. It is advisable to plant seeds first in areas with quick-drying light, medium sand, and then with heavy soil. When the soil temperature is low, a part of the seed rots and sprouts grow sparsely, it is necessary to avoid this. The seed is sown 3-4 cm deep in soils with a heavy mechanical composition, slow heating, and 4-5 cm deep in all other soils. Sowing is completed only after the seeds are sown around the edges of the fields, aspen and oak trees.

Reference

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