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# **Growth of Repeated Crop Cotton Varieties and Effects of Development**

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# ABSTRACT

**Purpose**. Medium-fiber "Andijan-36" and "Navroz" cotton on the background of repeated crops (mushroom and soybean) grown in different rates of mineral fertilizers in light gray soil of Andijan region is to develop optimal agro-measures for the cultivation of quality seeds from varieties. Also, the degree of germination of seeds of these cotton varieties under field conditions was studied in all variants and returns of experiments.

*Methods*. In our experiments, soil samples, phenological observations, agrochemical, technological analyzes in laboratory, field and production tests are adopted in UzPITI "Methods of Conducting Field Experiments".

**Results**. In the experiment, after winter wheat, mush plants were grown on the background of mineral fertilizers N-25, P2O5-80, K2O-60 kg/ha, and the seeds of the Andijan-36 variety at the end of the observation period according to repetitions 88,1; 86.1; 89.2% germinated on average 87.8%, while Navroz variety had 88.1; 84.1; It was 88.8 and 87.0%.

*Summary*. It is necessary to apply mineral fertilizers at acceptable rates even in repeated crops for the optimal growth and development of medium fiber Andijan-36 and Navroz varieties of cotton in the conditions of light gray soils. , and it was found that the effect after these plants is good.

**KEYWORDS:** Andijan region with pale gray soil, Kroshka of winter wheat, Pobeda-104 of mash, Orzu of soybean, "Andijan-36" and "Navroz" varieties of cotton, ore the number of dogs is obtained.

Enter. Currently, in agriculture around the world, maintaining and increasing soil fertility, wide introduction of new resource-efficient agrotechnologies, regular supply of food products to the population, efficient use of land, high and quality crop production, fuel and oil large-scale work is being carried out to reduce the cost of materials and other costs and the cost of produced products.

In our research, seeds of medium fiber Andijan-36 and Navroz cotton varieties were germinated. The influence of mineral fertilizers applied in repeated crops and the effects of the leaves and roots left by them on the soil [1, 2].

Since the main purpose of the research was to determine the degree of seed germination of cotton varieties under the influence of winter wheat and subsequent repeated crops (sorghum and soybean) on soil fertility, first winter wheat was left in the soil (control in the variant) it should be said that the amount of root and root residues was 34.0 t/ha in 2011 [3].

It has been proven in many studies that the rate of seed germination depends not only on soil moisture, temperature, mechanical composition and other factors. In the 3rd period of observation (26.04) the above indicators are 86.1; 87.1; 82.4 and the average was 85.2%.

It should be said that from the first dates (20.04) it was slightly behind that of Andijan-36 (in this version), 85.1 on 26.04; 83.1; 84.4 and 84.2% on average, and proportionally 1.0 from the Andijan-36 variety; 4.0; (+2.0) was found to be 1.0% less on average.



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In the experiment, after winter wheat, mush plants were grown on the background of mineral fertilizers N-25, P2O5-80, K2O-60 kg/ha, and the seeds of the Andijan-36 variety at the end of the observation period according to repetitions 88 ,1; 86.1; 89.2% germinated on average 87.8%, while Navroz variety had 88.1; 84.1; It was 88.8 and 87.0% and was only 0.8% less. However, in these options, the moss plant left 41.0 t/ha of stem and root residues. Therefore, differences in seed germination are due to the biological characteristics of cotton varieties [4].

Germination of seedlings in options (3 and 8) where cotton was grown against the background of application of mineral fertilizers N-50, P2O5-80, K2O-60 kg/ha in mosh plant the level at the end of the observation was 86.8 and 86.5% of the average cotton varieties, 1.6 and 1.3% higher than the control, but in the mung bean plant it was observed that the amount of N-25, P2O5-80, K2O-60 kg/ha in dogs was 1.0 and 0.5% less than those grown in the background.

It should be noted that the shoot and root residues left by the moss plant were also differentiated by 1.0 ts/ha in these fertilizer backgrounds.

Germination of seedlings in options (4 and 9) where cotton was grown against the background of application of N-60, P2O5-90, K2O-60 kg/ha of mineral fertilizers in soybean plant level was on average 87.0 and 85.8% depending on the general biological characteristics. These indicators are 1.8 and 1.6% higher than the controls, but 0.8 and 1.2% less than the optimal effect of the moss plant (options 2 and 7).

Under the effect of the background (soil fertility) created by increasing nitrogen fertilizers from 60 kg/ha to 90 kg/ha in soybean, the germination rates of cotton varieties were 85.8 and 84.9%, respectively. formed These indicators are certainly higher than their controls by 0.6 and 0.7%, but not only lower than the indicators obtained from the optimal influence of moss, but also 1.2 and 0.9% less than the optimal influence of soybean.

So, the conditions for optimal germination of seeds of medium-fiber cotton varieties (Andijan-36 and Navro'z) in the conditions of light-colored gray soils of Andijan region are N-25 of mineral fertilizers in repeated crop mash. , P2O5-80, K2O-60 kg/ha when applied at the rate of 2.5 and 1.0%. was found to be less than . . Table 1.

In the version planted with Navruz cotton (control) on August 1, the height of the main stem was 78.3 cm, the number of harvested branches was 12.0 pieces, and the number of pods (on September 1) was 8.2 pieces. It was found that the indicators were 1.2 cm, 0.1 and 0.2 units less than the data of the Andijan-36 cotton variety in the same periods. These differences depend on the biological properties of cotton varieties, and the Andijan-36 variety provides type IV fiber shows that it is slightly more demanding in terms of nutritional elements compared to Navroz variety.

From repeated crops, the height of the cotton head stem in the variants grown in the background where the norm of mineral fertilizers N-25, P2O5-80, K2O-60 kg/ha was applied (on August 1) was 92.6 and 90.8 cm, the number of harvest branches was 14.2 and 13.8 pieces, and the number of pods (September 1) was 10.8 and 9.6 pieces. So, against the background of soil fertility, all indicators of the growth and development of the Andijan-36 cotton variety are proportionally higher by 0.8 cm, 0.4 and 1.2 grains compared to the Navroz variety. it was determined that If we compare the indicators of these cotton varieties to their control variants, the Andijan-36 variety is 13.1 cm, 2.1 and 2.4 grains, and the Navroz variety is 12.5 cm, 1.8 and it was observed that it is higher by 1.4 units [5].

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| Table 1 Effect of repeated crow  | s on the growth and develo | pment of cotton varieties (%), 2011 |
|----------------------------------|----------------------------|-------------------------------------|
| Tuble I Enteet of Tepeatea er op | s on the growth and acter  |                                     |

| T/r                          | repeated<br>crops   | Annual rates of<br>mineral fertilizers,<br>kg/ ha |             |            | Head stem<br>height, cm. |            | The<br>number of<br>real leaves,<br>p | Number<br>of<br>pieces,<br>p<br>:s | The<br>number of harvested<br>cs branches, pcs |        | Number of pods, pcs |        |     |
|------------------------------|---------------------|---|-------------|------------|--------------------------|------------|---------------------------------------|------------------------------------|--|--------|---------------------|--------|-----|
|                              |                     | N P   | 2O5<br>K2   | O 1.06     | 1.                       | 08<br>1.0( |                                       |                                    | 1.07   | 1.07 1 | .08                 | 1.08 1 | .09 |
| Andijan-36 variety of cotton |                     |   |             |            |                          |            |                                       |                                    |  |        |                     |        |     |
| 1                            | Control (unplanted) |   |             |            | 13.5<br>,                | L2.0<br>79 | .5                                    | 4.2                                |  | 7.0    | 10.0 12             | .1 4.6 |     |
| 2                            | Mosh 25             | 80<br>6   | 0 16.1<br>1 | •8.0<br>92 | 6                        |            |                                       | 5.0                                | 8.9  | 12.3   | 14.2                | 5.5 1  | 0.8 |
| 3                            | Mosh 50             | 80<br>6   | 0 15.6<br>1 | •4.8<br>90 | 6                        |            |                                       | 4.8                                | 8.0  | 11.4 1 | 3.6                 | 5.1    | 9.4 |
| 4                            | Shadow              | 60<br>9   | 0 60<br>15  | .8<br>55.4 | 91.3                     |            |                                       | 4.7                                | 7.9  | 11.2 1 | 3.8                 | 4.8 9  | .8  |
| 5                            | Shade 9             | 0<br>90   | 60<br>16.0  | 55.09      | 0.0                      |            |                                       | 4.6                                | 7.6  | 10.4 1 | 3.1                 | 4.7 9  | .4  |
| Nowruz variety of cotton     |                     |   |             |            |                          |            |                                       |                                    |  |        |                     |        |     |
| 6                            | Control (unplanted) |   |             |            | 13.5<br>'                | L5.1<br>78 | .3                                    | 4.0                                |  | 7.0    | 9.8                 | 12.0 ' | k5  |
| 7                            | Mosh 25             | 80<br>6   | 0 15.2<br>1 | •5.4<br>90 | 8                        |            |                                       | 5.0                                | 8.0  | 11.4 1 | 3.8                 | 5.3 9  | .6  |
| 8                            | Mosh 50             | 80<br>6   | 0 14.9<br>1 | •4.0<br>90 | 1                        |            |                                       | 4.7                                | 7.8  | 10.2 1 | 2.7                 | 4.9 9  | .1  |
| 9                            | Shadow              | 60<br>9   | 0 60<br>14  | .8<br>50.8 | 89.2                     |            |                                       | 4.6                                | 7.5  | 10.6 1 | 3.0                 | 4.8 9  | .3  |
| 10                           | Shade 9             | 0<br>90   | 60<br>14.0  | 50.4 8     | 8.1                      |            |                                       | 4.3                                | 7.2  | 10.0 1 | 3.0                 | 4.7 9  | .0  |

Main stems of cotton varieties grown on the background of N-50, P2O5-80, K2O-60 kg/ha of mineral fertilizers in mosh plants (3 and 8) their heights were proportionally (August 1) 90.6 and 90.1 cm, the number of crop branches was 13.6 and 12.7 and the number of pods was 9.4 and 9.1 pieces, compared to the control variants 11.1- 11.8 cm, higher by 1.5-0.7 and 1.0-0.0 grains, but 2.0 compared to the options used at the rate of N-25, P2O5-80, K2O-60 kg/ha -0.7 cm, 0.6-1.1 and 1.4-0.5 less

Was determined. Relatively high indicators of growth and development of cotton varieties, as well as soybeans, were applied against the background of the norm of N-25, P2O5-80, K2O-60 kg/ha of mineral fertilizers. in the background, the height of the main stem is taken from the remnants of the stem and roots when cotton is grown, in proportion to the cotton varieties (August 1) 91.3-

89.2 cm, the number of harvest branches was 13.8-13.0, and the number of pods (on September 1) was equal to 1.8-1.3 pieces. These indicators are definitely higher than the control options, but they are 1.3- 1.6 cm, 1.1-0.8 units less than the optimal effect of mosh.

It should be noted that in the growth and development of cotton varieties, compared to the nitrogen used in acceptable rates (25 and 60 kg/ha) in repeated crops, additional nitrogen of 25 and 30 kg/ha was added after "secrets" were not observed, because the main part of this fertilizer was absorbed by moss and soybean during the period of operation, and the rest was lost by washing with water and



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