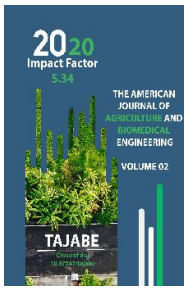
The American Journal of Agriculture and Boimedical Engineering
(ISSN – 2689-1018)
Published: November 30, 2020 | **Pages:** 74-81
Doi: https://doi.org/10.37547/tajabe/Volume02Issue11-14

IMPACT FACTOR
2020: 5. 34
OCLC - 1121105746



The Growth And Development Of Crossed Varieties F2 Obtained From Medium Fiber Varieties Of Cotton

Namazov Shadman Ergashevich
Doctor Of Agricultural Sciences, Professor Of Scientific Research Institute Of Breeding, Seed Production And Agricultural Technology Of Cotton. Tashkent, Uzbekistan

Abdumalikov Ulugbek Ziyodilla ugli
Researcher Of Scientific Research Institute Of Breeding, Seed Production And Agricultural Technology Of Cotton, Tashkent, Uzbekistan

ABSTRACT

This article examines the growth and development of crossed varieties of F2 cotton. Hybrids of medium-fiber cotton varieties were studied at field experimental sites of the research and experimental center located in the Kuva district of the Fergana region.

KEYWORDS

Cotton, fruit branches, variant, varieties, donor.

INTRODUCTION

Today, the process of modernization and development of agriculture is increasing in the Republic of Uzbekistan. Increasing scientific potential and innovative achievements contribute to the development of human civilization. In particular, the creation of new crossed cotton varieties, their in-depth study and analysis will serve as a driving force for the development of agriculture.

To create cotton varieties that meet modern requirements, a variety of well-studied primary sources (donors) are needed. The varieties created in recent years and introduced into practice are characterized by positive morpho-biological characteristics and technological quality indicators. It is important to use new primary sources (donors) when creating such varieties. ...

MATERIALS AND METHODS

According to the experiments, the memory of H. Egamov, I. Kimsanov, S. Rasulov, N. Mirkhamidova, U. Abdumalikov (2015-2017), with a continuous selection process, a new cotton variety has an advantage over the previous ones by 10-15% and there is a need to

The American Journal of Agriculture and Boimedical Engineering
(ISSN – 2689-1018)
Published: November 30, 2020 | **Pages:** 74-81
Doi: https://doi.org/10.37547/tajabe/Volume02Issue11-14

IMPACT FACTOR
2020: 5. 34
OCLC - 1121105746

use this is in practice. [1, Uzb. agricultural Journal 2018, No. 5, 32 p.].

According to the experiments of U. Abdumalikov, Sh. Namazov, S. Matekubov (2019), the germination energy and fertility of cotton seeds have a direct influence on the subsequent stages of plant development. [2, Agro ilm, 2020, No. 3, 3p.].

Our research (2020) was carried out in the field experimental plots of the Research Institute of Breeding, Seed Production and Agricultural Technology of Cotton Growing, located in the Kuva district of the Fergana region. In the experimental field, the growth and development of new crossed F2 varieties obtained from medium-fiber cotton varieties were studied. When we examined our hybrids on the basis of data obtained from the observation on June 1 (table 1), we found that the highest growing cultivars were found F2 (Andes-36 x Andes-37) 19.1 cm, F2 (Sulton x Andes -36) 18.6 cm, F2 (H. JarkurganAnd-37) 18.6 cm, F2 (H. Jarkurgan And-36) 18.8 cm, Relatively low F2 (And-36 x Omad) 14.5 cm, F2 (Andes-36 x Turon) 15.4 cm, F2 (Jarkurgan x Omad) 15.3 cm, F2 (Bukh-102 x Omad) 14.3 cm.When we checked the number of leaves, the crossed variety F2 (Bukh-102 x Omad) produced the smallest number of leaves, the number of which was 3.1 leaves, the number of leaves of high-grade crossed varieties averaged 4.4 leaves, and the number of leaves of the most productive variety (hybrid) F2 (Andes-36 x Andes-37) was 4.7 leaves per plant.

RESULTS AND DISCUSSIONS

According to the July observations of our crossed varieties (Andes-36 x Omad), F2 (Ande-36 x Turon), F2 (Jarkurgan x Omad), F2 (Bukh-102 x Omad) (table-1), the height of the plants of the above crossed varieties are 5-10 cm lower compared to other crossed varieties (hybrids). In the 1st, 12th, 18th, 19th, 21st, 22nd, 23rd, 28th, In the 32nd, 34th, 41st, 44th variants, more than 7 fruit branches were found. In the remaining variants, fruit branches are 1-2 less than in other variants.

Growth and development of crossed F2 cotton varieties during the growing season

Table 1

The American Journal of Agriculture and Boimedical Engineering
(ISSN – 2689-1018)
Published: November 30, 2020 | **Pages:** 74-81
Doi: https://doi.org/10.37547/tajabe/Volume02Issue11-14

IMPACT FACTOR
2020: 5. 34
OCLC - 1121105746

№	Names of crossed variants	date 100% seed germination	1.06		1.07		
			Height of growth cm	Number of leaves, pieces	Height of growth, cm	Fruit branches, pieces	Fruit elements, pieces
1	F2 (Andij-36x Andij -37)	22.04	19,1	4,7	48,7	7,5	7,8
2	F2 (Andij -36x S-6524)	24.04	18,2	4,3	47,4	6,8	7,6
3	F2 (Andij -36x Nam-34)	22.04	17,6	4,1	47,2	6,3	6,8
4	F2 (Andij -36xNam-77)	24.04	17,3	3,9	46,6	5,9	6,2
5	F2 (Andij -36x Omad)	22.04	14,5	3,2	34,6	5,4	5,8
6	F2 (Andij -36x Sulton)	24.04	17,8	4,2	48,2	6,8	7,4
7	F2 (Andij -36x Jarkurgan)	24.04	17,2	4,5	47,8	6,7	6,4

The American Journal of Agriculture and Boimedical Engineering
(ISSN – 2689-1018)
Published: November 30, 2020 | **Pages:** 74-81
Doi: https://doi.org/10.37547/tajabe/Volume02Issue11-14

IMPACT FACTOR
2020: 5. 34
OCLC - 1121105746

8	F2 (Andij -36x Kelajak)	22.04	15,8	3,4	45,7	5,7	6,2
9	F2 (Andij-36xBukh-102)	24.04	16,2	3,8	46,4	6,2	7,3
10	F2 (Andij-36xTuron)	24.04	15,4	3,8	45,8	6,5	6,8
11	F2 (Andij-36xUzPITI-201)	22.04	16,3	3,2	46,3	6,3	7,4
12	F2 (Sulton xAndij-37)	22.04	17,7	4,4	47,5	7,4	7,7
13	F2 (Sulton xS-6524)	24.04	16,9	3,6	43,2	5,8	6,7
14	F2 (Sulton xNam-34)	22.04	16,7	3,4	44,9	6,0	7,6
15	F2 (Sulton x Nam-77)	24.04	17,1	4,1	45,2	6,2	6,9
16	F2 (Sulton xOmad)	22.04	16,8	3,8	42,3	6,2	6,6
17	F2 (Sulton xTuron)	24.04	17,3	3,5	43,6	6,1	6,2

The American Journal of Agriculture and Boimedical Engineering
(ISSN – 2689-1018)
Published: November 30, 2020 | **Pages:** 74-81
Doi: https://doi.org/10.37547/tajabe/Volume02Issue11-14

IMPACT FACTOR
2020: 5. 34
OCLC - 1121105746

18	F2 (Sulton x Jarkurgan)	22.04	18,7	4,6	47,4	7,6	7,5
19	F2 (Sulton xUzPITI-201)	24.04	17,2	4,2	47,2	7,3	7,3
20	F2 (Sulton xKelajak)	22.04	16,7	3,7	45,4	6,7	6,8
21	F2 (Sulton xBukh-102)	22.04	17,6	3,8	47,8	7,4	7,1
22	F2 (Sulton xAndij-36)	24.04	18,6	4,5	48,3	7,8	7,4
23	F2 (Jarkurgan x And-37)	22.04	18,6	4,3	47,8	7,4	7,6
24	F2 (Jarkurgan x S-6524)	24.04	17,7	3,8	47,4	6,2	7,2
25	F2 (Jarkurgan x Nam-34)	22.04	18,1	3,9	48,2	6,5	6,9
26	F2 (Jarkurgan x Omad)	24.04	15,3	3,2	38,6	6,1	6,4
27	F2 (Jarkurgan x Bukh-102)	22.04	18,5	4,2	46,9	6,4	5,7

The American Journal of Agriculture and Boimedical Engineering
(ISSN – 2689-1018)
Published: November 30, 2020 | **Pages:** 74-81
Doi: https://doi.org/10.37547/tajabe/Volume02Issue11-14

IMPACT FACTOR
2020: 5. 34
OCLC - 1121105746

28	F2 (Jarkurgan x Sultan)	22.04	18,3	4,1	48,2	7,3	7,8
29	F2 (Jarkurgan x Kelajak)	24.04	16,3	3,5	45,8	6,7	6,4
30	F2 (Jarkurgan x Nam-77)	24.04	17,6	3,4	46,8	6,2	6,8
31	F2 (Jarkurgan x Turon)	24.04	16,5	3,6	46,5	5,9	6,3
32	F2 (Jarkurgan x Andiz-36)	24.04	18,8	4,2	48,3	7,5	7,8
33	F2 (Jarkurgan x UzPITI-201)	24.04	17,2	3,8	46,8	6,4	6,6
34	F2 (Bukh-102xAndij-37)	22.04	17,8	3,4	47,5	7,4	7,3
35	F2 (Bukh-102xS-6524)	22.04	16,9	3,5	43,4	6,4	7,4
36	F2 (Bukh-102xNam-34)	22.04	16,8	3,4	44,9	6,2	7,1
37	F2 (Bukh-102xOmad)	22.04	14,3	3,1	37,7	6,0	6,9

The American Journal of Agriculture and Boimedical Engineering
(ISSN – 2689-1018)
Published: November 30, 2020 | **Pages:** 74-81
Doi: https://doi.org/10.37547/tajabe/Volume02Issue11-14

IMPACT FACTOR
2020: 5. 34
OCLC - 1121105746

38	F2 (Bukh-102xUzPITI-201)	22.04	16,8	3,4	43,3	6,5	6,4
39	F2 (Bukh-102xSulton)	22.04	17,8	3,8	47,2	7,0	7,3
40	F2 (Bukh-102xKelajak)	24.04	17,2	3,6	44,4	6,6	6,4
41	F2 (Bukh-102xNam-77)	22.04	17,1	3,5	47,2	7,3	6,7
42	F2 (Bukh-102x Jarkurgan)	24.04	16,8	3,2	46,9	6,9	7,2
43	F2 (Bukh-102xTuron)	22.04	16,6	3,2	46,8	6,8	6,6
44	F2 (Bukh-102xAndij-36)	24.04	18,4	4,2	47,7	7,5	7,0

When calculating the yield, it was found that in options 1, 2, 12, 14, 28 by 7.5 pieces more than in other crossed varieties (hybrids), and in 5, 27 options by 5.8, and 5.7 pieces - less than the above varieties.

CONCLUSION

Thus, when we analyzed the height of plants, the number of leaves, branches and fruit elements of the crossed varieties, we found that the highest growing of the studied crossed varieties were F2 (Andes-36 x Andes-37) 19.1 cm, F2 (Sulton x Andes-36) 18.6. cm, F2 (Jarkurgan x And-37 7) 18.6 cm, F2 (Jarkurgan x A-36) 18.8 cm.The largest number of leaves was formed by crossed variants F2 (Andes-36 x Andes-37), which are relatively other varieties produced 4.7 more leaves. When calculating the yield, it was found that in options 1, 2, 12, 14, 28, 7.5 pieces more than in other crossed options (hybrids).

Published: November 30, 2020 | **Pages:** 74-81
Doi: https://doi.org/10.37547/tajabe/Volume02Issue11-14
IMPACT FACTOR
2020: 5. 34
OCLC - 1121105746

REFERENCES

1. X.Egamov, I.Kimsanov, S.Rasulov, N.Mirkhamidova, U.Abdumalikov. Identification of useful economic features of new cotton fields // Agriculture of Uzbekistan, 2018, №5, p.32
2. U.Abdumalikov, Sh.Namazov, S.Matyoqubov. Determination of fertility of F1 hybrids from medium-fiber cotton varieties // Agro ilm, 2020, №3, p.3