



ISSN: 2249-7315

Vol. 11, Issue 10, October 2021

SJIF –Impact Factor = 8.037 (2021)

DOI: 10.5958/2249-7315.2021.00141.6

**VALUES ON THE BACKGROUND OF NUTRITION ON SEEDS IN
GRAINS F₁ - F₂ CORRELATION OF ECONOMIC
CHARACTERISTICS**

Hayitova Shahlo Davlatovna*

*Associate Professor,
Termez state university, UZBEKISTAN
Email id: xayitova2016@mail.ru

ABSTRACT

Particular importance in the article is the research conducted in the genetic collection of cotton at the National University of Uzbekistan. The correlation between value traits, including quantitative traits, in the hybrids of isogenic and introgressive lines of the Cotton Genetic Collection of the National University of Uzbekistan has been positively inherited.

KEYWORDS: *Genetic Collection, Line, Izogen, Introgressive, Fiber Indices, Combination.*

INTRODUCTION

Cotton is one of the world's leading agricultural crops. It is known that polygenic determinations and correlations play an important role in the inheritance of quantitative traits. Correlation occurs mainly through the mechanism of pleiotropic action.

The correlation between the signs is expressed by the correlation coefficient, which can be negative or positive. The study of the correlation between the traits taken into account is of great importance when creating new varieties with useful economic traits[3; 55-105].

The degree to which the problem has been studied: It is important to study the correlation between the characteristics of cotton, including morpho-economic characteristics, and to what extent each sign is related to another sign.

The research work of many foreign scientists is devoted to the study of correlations between fiber yield and fiber length, fiber length and fiber maturity, fiber length and lumbar size, fiber length and weight of 1000 seeds.[5; 21-24].

For example, there is a negative correlation between fiber yield and length, fiber correlation with fiber length, fiber length maturity, fiber index, and positive correlation between fiber yield and fiber yield.

Conditions and methods of research: The research experiments were conducted in the "Botanical Garden" of the "Scientific Research Laboratory of Cotton Genetics" of the National University of Uzbekistan named after Mirza Ulugbek.

The numerical data obtained as a result of the study were statistically processed in the style of BA Dospekhov (1985). Classical methods of cotton genetics and selection, line hybridization, field experiments, methods of analysis of genetic and selection statistics were used.

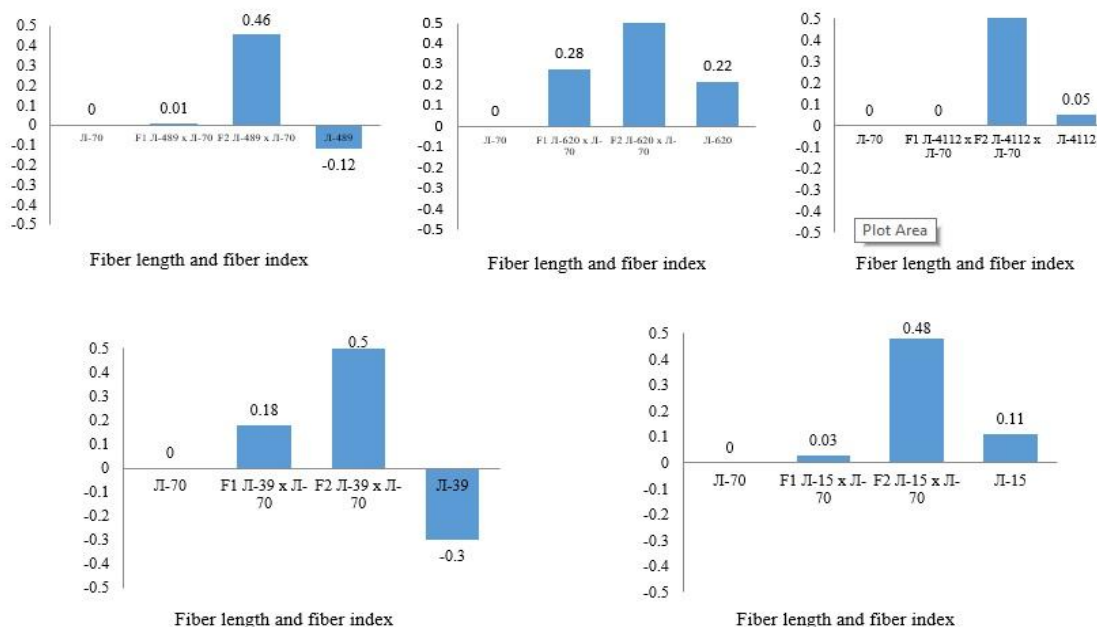
Z. Humphrey, PV Popov, D.G. According to K. Gesos, M. Pulatov, in the scientific research, the maximum cost and maximum index of Gaza are determined by the maximum number of 1000 seed weights. This indicates that there is a negative correlation between total flow and seed weight.

Conditions and methods of research: The research experiments were conducted in the "Botanical Garden" of the "Scientific Research Laboratory of Cotton Genetics" of the National University of Uzbekistan named after Mirza Ulugbek.

The numerical data obtained as a result of the study were statistically processed in the style of BA Dospekhov (1985). Classical methods of cotton genetics and selection, line hybridization, field experiments, methods of analysis of genetic and selection statistics were used.

Research results: In our study, the L-489, L-15, L-620, L-4112, and L-39 lines of the cotton genetic collection, which were fibrous and hairless, were interspersed with F₁ and F₂ hybrids, which were hairy and seamless with the L-70 line. The correlation between the yield, fiber index and weight characteristics of 1000 seeds was studied (table).

In F₁ and F₂ hybrid plants, correlation of fiber length with some valuable farm traits



The full-length correlation of the wavelength was found to be weakly negative in the F₁ arrays, with the correlation coefficients ranging from $r = -0.01$ to $r = -0.16$. Only the F₁ L-39xL-70 combines a weak positive void ($r = 0.14$).

In F₂ hybrid combinations, the correlation coefficients between full length and full cost range from $r = 0.51$ to $r = 0.57$.

It should be noted that on the lines L-489, L-4112 and L-39 there is a low and moderate negative correlation between fiber length and fiber yield (correspondingly $r = -0.27$, $r = -0.07$ and $r = -0.36$) and, conversely, low and moderate positive correlation ($r = 0.16$ and $r = 0.32$) were detected in L-620 and L-15 lines[4; 372-374].

In the F₂L-489xL-70 hybrid combination, the correlation of the full length to the full index was found to be moderately positive ($r = 0.46$). Negative correlations ($r = -0.12$ and $r = -0.30$) were recorded between the full length and the full index on the L-489 and L-39 lines. There was a weak positive correlation ($r = 0.05$; $r = 0.4$ and $r = 0.22$) between the full length and the full index on the L-4112, L-15, and L-620 lines. These lines have a positive mid-level

positive slope ($r = 0.52$, $r = 0.53$, and $r = 0$, respectively) in the F2 L-620xL-70, F2 L-4112xL-70, and F2 L-15xL-70 combinations. 48) Existed (Table 5.5).

In the F1-F2 hybrids obtained with the L-70 line with the hairy and fibrous lines of the cotton genetic collection, as well as in the maternal lines, the correlation between the fiber length and the 1000-seed weight markers was not noticeable. Only on the L-4112 line there is a weak negative ($r = -0.15$), on the L-15 line and on the F1 L-620 x L-70, F1 L-15 x L-70 hybrid plants there is a weak positive correlation (correspondingly $r = 0, 16$; $r = 0.25$; $r = 0.21$).

CONCLUSION

Thus, the results showed that there is a strong correlation gap between full length, full index, and 1000 seed weights.

Positive correlations in the medium to high intensity, followed by the full index with the full index, the full index with 1000 seed weights, indicate that these signs are inherited to each other to some extent.

REFERENCES

1. Musaev DA, Almatov AS, Turabekov Sh., Abzalov MF Fatkhullaeva GN, Musaeva SA Rakhimov AK Genetic analysis of the symptoms of cotton bollworm. Printing House of the National University of Uzbekistan named after MirzoUlugbek, Tashkent, 2005, p. 68-73, 82-85
2. Khayitova, Sh. D. "Study of the degree of dominance of valuable economic traits in hybrid lines of the genetic collection of cotton." colloquium-journal. No. 9-2 Goloprstan District Employment Center Goloprstan District Employment Center, 2017.
3. Khayitova Sh. D. Studying the inheritance of the fiber length trait in interline hybrids of cotton // Science among us. - 2018. - No. 4. - S. 173-179.
4. Khayitova Sh. D. Variation of valuable economic traits in crosses F 1 and F 2 obtained by crossing lines of the genetic collection of cotton // Modern research and development. - 2018. - T. 3. - No. 4.- S. 149-153.
5. Khayitova Sh. D., Nabiyev S. M. The phenotypic correlation of fiber length with valuable economic signs in the first F1, second F2 and ordinary generation hybrids of cotton genetic collecting lined. Sciences review Scientific journal № 7–8 2018 (July–August). Pages: 21-24.