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Research Article

ANALYSIS OF SOME CHARACTERISTICS OF MEDIUM FIBER CULTURAL COTTON VARIETIES

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ABSTRACT

Cotton is grown mainly for its fiber. Fiber is used for a very wide range of purposes. It differs from artificial fibers and provides a universal fiber because high-quality textile and technical products are produced from cotton fiber. According to the analysis, the created varieties should be resistant to changes that may be in agriculture in the next decade.

KEYWORDS

Cotton, polymer genes, fiber index, DAGS, OS, n-MS, transgression.

INTRODUCTION

Cotton cultivation is of great economic importance in many developing and some developed countries. The reason is that 3 types of valuable products are obtained: raw materials for the textile industry, oil for food, kunjara and shelukha as fodder for livestock. Cotton is grown mainly for its fiber. Fiber is used for a very wide range of purposes. High-quality textile and technical products from cotton fiber differ from artificial fibers and provide a universal fiber. The share of cotton fiber in the global production of textile fiber

is more than 60%. In addition to transparent substances (cellulose, oil, wax), cotton fiber contains other additives, so the fiber can be dull. The weight of the fiber depends on its weight and index. If the weight of fiber increases by 1%, an additional 570 million meters of gas will be obtained across the country.

THE MAIN FINDINGS AND RESULTS

The length of the cotton fiber, the fiber output, and the size of the boll are many economically important sign-quantitative signs. These traits develop under the influence of polymer genes. At first, the development of characters under the influence of polymer genes was studied by Nilson Ele, Emerson, Smith [4].

Arkatova E.A. in his experiments, cross-breeding between species and within species, and studying characters such as fiber quality, fiber length, fiber quantity, and fiber index, obtained F1 hybrids are intermediate, and F2 and subsequent generations are transgressive compared to the parent forms observed that the separation had occurred. B. I. Kokiye determined the transgressive separation of the amount of fiber [5].

Fiber length changes under the influence of environmental conditions such as watering, fertilization, temperature. In particular, a change is observed depending on the location of the seed in the buds and groins of the plant.

The economic and technological indicators of the fiber - cotton weight in one bag, fiber output, length, thinness, relative breaking strength, appearance of the fiber are important [3].

The size of the boll has a direct effect on the weight of cotton in one boll, the number of seeds, weight and fiber index. These characters are inherited independently of each other. When cultivars with different boll sizes are crossed, F1 hybrids are inherited intermediate between the parental forms. In F2 and F3, separation according to signs, that is, many transgressive forms are observed. The heritability of the trait in F2 is 50-60%. It was determined that the weight of cotton in one boll does not depend on the

increase in seed weight, but on the basis of the number of seeds in the boll and the increase in fiber index [5].

Holmatov H. studied the fiber index and yield of hybrids in cross-breeding studies. It was found that the high fiber index trait was dominant over the low fiber index, and if the lines with high fiber index were crossed with each other, the F1 hybrids revealed transgressive forms with a higher index compared to the parental lines [3].

According to A.A. Bekmukhamedov and others in the analysis of fiber output, similarly, the genes involved in the inheritance of fiber length of lines L-4112, L-39 and L-620 are in a dominant state, and their concentration is greater for the practical selection of these lines compared to the L-489 line in terms of value and importance as a starting material or donor in terms of fiber length. Also, DAGS-type L-70 line genotype harbors fiber length and fiber yield genes latently, and L-489, L-620, L-4112, L-39 lines with OS-type seed hairiness and n-MS type In the L-15 line, the dominant alleles of the main genes responsible for fiber yield and fiber length were observed to show low, medium and high fiber traits in the first generation hybrids in a concentration-dependent manner [1].

CONCLUSION

Currently, more useful and unique genes of cotton are being studied. A valuable sign of the new varieties created for the farm is their productivity. The total number of bolls of the plant and their size - the weight of cotton in one boll are elements of productivity. The created varieties should be resistant to changes that may occur in agriculture in the next ten years. It is able to adapt well to various changes, to agrotechnical conditions (including very little irrigation, low soil fertility, etc.). At the same time, one should not forget

to study the interdependence or changes of economically valuable signs and characteristics of the plant.

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