

## FIBERS OF THE PREPARATION BIOBARS-M IMPACT ON QUALITY INDICATORS I

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### Abstract

When using Biobars-M stimulants during seed treatment and during the flowering and flowering period of cotton on the light gray soils of the Namangan region, there is a significant acceleration of seedling germination compared to the control and standard options. The number of leaves is 1.3, plant height is 10.0 cm. 0.6 units, number of knots 0.8 units, number of bolls 2.5 units, weight of one boll improved by 0.2 units, cotton yield increased due to accumulation of dry mass and increase in leaf surface, with additional application of 5.6 t/ha of fiber, it was established that the quality indicators of the mass of 1000 seeds were 9.0 g, the fiber yield was 1.4%, and the fiber length was 1.5 mm.

**Keywords:** cotton variety, preparations Bukhara-102, Uzgumi, Biobars M, growth, development, seedling thickness, yield and quality of cotton.

### Introduction

**Introduction.** China, the United States, India, Pakistan and Uzbekistan account for 75 percent of global cotton production. According to the International Cotton Advisory Committee (ICAC), the cost of growing one kilogram of raw cotton has increased significantly over the past decade, from US\$0.25 in 2000 to US\$0.58 in 2016. The main reason for this is the impact of global climate change, drought, heat and various natural disasters, soil salinity, sandy and rocky terrain and desertification. Today, growth regulators are widely used in world agriculture and positive results are achieved. Countries such as the USA, Russia, China, Japan, India and Australia have been increasing their demand for growth control substances since the mid-20th century and currently have a global market demand of US\$2,241 million. Growth regulators not only control plants, but also help maintain soil fertility and improve its properties.

In the experiment, we applied preparations to the cotton plant during the periods of 2-4 leaves, budding and flowering and, in comparison with the control variant, we set the task of studying the effect of the preparations Uzgumi and Biobars M. Before the experiment, various preparations were placed on the experimental field, according to the methodological

manual ("Methods field experiment" T: 2007) [1]. The soil of the experimental field, irrigated and cultivated since ancient times, has a light gray soil of mechanical composition, non-saline, the groundwater level is at a depth of 8-10 m. Scoring was carried out on fields with a score of 60 points.

Research work on the experimental field consisted of 3 options, located in 3 returns, 3 tiers. The total area of one experimental section was 24 m<sup>2</sup> (2.4 x 10 m), the calculated area 12 m<sup>2</sup> was (1.2 x 10 m).

During the period of formation of 2-4 true leaves of cotton, Uzgumi and Bibars M 0.3 l/ha, during the flowering period 0.3-0.4; Treated at rates of 1.0-0.7 l/ha.

Kim H.J., Triplett B.A. (2001) Plant phytohormones are directly involved in cell growth, development, elongation, expansion and division. While endogenous hormones influence boll and fiber cells, exogenous hormones ensure optimal development of cotton fiber cells [2].

Research results. In 2019, the effective temperature was 188.7 °C, and in 2020 the effective temperature was 129.3 °C. It can be seen that despite the fact that the effective temperature in 2020 decreased by 59.4 °C compared to 2019. Stimulants are of great importance in increasing cotton yields (Table 1).

31.7 Uzgumi 32.5 for the drug Biobars M in the control version without a stimulant was 37.3 c. Compared to the control, an additional cotton yield of 5.6 centners was obtained at Uzgumi 0.5 and Biobars-M.

Li FG, Fan GY, Wang QB, Sun F, Yuan Y, Sun G (2014) found that gibberellic acid, auxin, cytokinin, brassinosteroid, abscisic acid, ethylene, jasmonic acid and Strigolactone phytohormones play an important role in regulating the development of cotton fiber. [3].

F. Abdullaev (2012). When treated with the stimulant Gumimax 0.6-1.0 l/t during flowering-flowering periods 0.3+0.3 l/t, the fiber yield compared to the control is 0.5-1.5 5.1000 pcs. tons of mass 0 preparations Uzgumi and Biobars M, which determined that the tensile strength is 0.2-0.5 kg, the relative tensile strength is 0.6-1.3 gk/tex, has a different effect on the technological indicators of fiber quality [4]. The results obtained are presented in Table 1 As can be seen from the table, various drugs had a positive effect on fiber quality. That is, in the control, the weight of 1000 seeds was 119.0 g, the fiber yield was 37.9%, the fiber length was 31.2 mm. When treated with Biobars M, the weight of 1000 seeds was 128.0 g, the fiber yield was 39.3%, and the fiber length was 32.7 mm.

It should be noted that although good results were achieved for the mass of 1000 pcs. seeds and fiber yield, there was a decrease in fiber length by 0.3-1.3 mm compared to the data given by the author of the variety. The main reason for this is that the first flowering of cotton coincided with the second ten days of June (June 15-20). It takes 25-30 days for a flower to develop from a bud to a mature bud. This corresponds to the second ten days of June and the second and third ten days of July. This month the air temperature was 27.0-28.6 °C and there was an increase of 0.3-0.7 °C compared to many years. During this period, in the agrocenosis of plants, i.e. in the cellular fluid, as a result of the decomposition of sucrose by one of the enzymes, the formation of cellulose in the fiber walls occurs passively. Sucrose is

resistant to high temperatures. Because we know that the product of sucrose is cellulose, and the product of cellulose is fiber.

Regardless of extreme conditions, compared with the control version of stimulants, in all variants of using stimulants, the weight of 1000 seeds increased by 1.0-9.0 g, fiber yield by 1.3-1.4%, fiber length by 0.5- 1.5 mm.

**Table 1 Economic and quality indicators of cotton fiber**

No	Experience Options	Application rate during the cotton period, l/ha			Weight 1000 seeds, G	fiber output, %	The fiber is long league mm
		2-4 true leaves during	polishing at the door	during flowering			
1	Control	-	-	-	119.0	37.9	31.2
2	Example	0.3	0.3	0.4	122.0	39.2	31.7
3	Biobars M	0.3	1.0	0.7	128.0	39.3	32.7

### Summary

Among the options where stimulants were used, one can highlight the Biobars M stimulant, which was used at the rate of 0.3 l/ha per 2-4 true leaves during the period of operation and 1.0-0.7 l/ha during the periods of flowering and budding. Compared to the control, the weight of 1000 seeds was 9.0 g. An increase in fiber yield by 1.4% and fiber length by 1.5 mm was noted, and an additional cotton yield of 5.6 t/ha was obtained.

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