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THE EFFECT OF PEAT HUMIC PREPARATION ON THE DEVELOPMENT AND YIELD OF COTTON IN DRIP IRRIGATION.

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Abstract: Irrigation rates and timing for high yields of cotton of Andijan-36 variety require a number of agro-technical measures, and the use of drip irrigation in combination with mineral fertilizers to ensure a high percentage of non-traditional agricultural and biological products to the plant.

Keywords: Irrigation regime, drip irrigation, biological preparation, turpentine gum preparation, feeding

Introduction

Implementation of drip insurance, science for farms in order to increase the impact on the absorption, development and productivity of cottonseed obtained from cotton in the cultivation of cotton varieties "Andijan-36" in the conditions of Andijan region.

Today, the world is home to 33 million people worldwide. hectares of cotton were crushed and 25 mln. tons of cotton. Irrigation of these crops requires large amounts of water and several agro-technical measures, and the use of non-traditional agro-ores and biopreparations in combination with mineral fertilizers is important.

In 2020, in the conditions of light gray soils of Andijan region on the farm "Fakhriddin zamin invest" in the cultivation of cotton varieties "Andijan-36" at home for the development, residence and production of cotton.

1. Influence of drip irrigation method on seasonal and irrigation norms

Irrigation regime should provide water regime in the soil under certain agro-technical conditions for a given crop. Abdukarimov A., Musaev Y., Isaev S.Kh., Abdurahimov Sh., Urazmatov N. on irrigation regimes of cotton, alfalfa and corn in semi-hydromorphic and hydromorphic soils of Fergana valley. and others have been studied in detail and technologies for their implementation have been developed.

Agricultural crops react differently depending on water supply conditions. The maximum yield of all crops is achieved by continuous watering during all periods of plant growth and development, subject to the laws.

In arid zones, the water regime required for agricultural crops can only be achieved by artificially increasing soil moisture. The rate and number of irrigations, depending on the type and navigation of the plant, climatic, hydrogeological and soil-reclamation conditions, Ryjov S.N. The allowable humidity is determined by the formula:

$$m = (W_{bfmc} - W_{fac}) 100Jh + \kappa, \text{ m}^3/\text{ha}$$

with: W_{bfmc} - The limited field moisture capacity of the soil, in% of the weight of the soil;

W_{fac} - The actual moisture of the irrigated soil, in% of the weight of the soil;

J - bulk density of soil, g/cm^3 ;

h - calculated layer, m;

κ - water consumption for evaporation during irrigation, m^3 / ha (10% of the moisture deficit in the calculated layer).

The actual number of irrigations depends on the pre-irrigation soil moisture given in all experiments, the biological characteristics of the crops grown, and the rate of irrigation.

As can be seen from Table 1, the control variant was irrigated 4 times during the season. The seasonal irrigation norm was $4700 \text{ m}^3 / \text{ha}$. [6] In the variant of Andijan-36 cotton with drip irrigation scheme (60x60 cm) irrigated 34 times, the seasonal irrigation norm was 2380 m^3

/ ha, while in 5-6 variants with sowing scheme (60x60 cm) the seasonal irrigation norm was 2736 m³ / ha. 1.7 times more water was saved than the control option.

2. Seasonal and irrigation norms in different irrigation methods

Table 1

Options	Indicator	Number of irrigations				Seasonal irrigation rate is m ³ / ha
		1	2	3	4	
1-2	Date of irrigation	24-27.06	09-10.07	23-27.07	04-05.08	4700
	Irrigation rate is m ³ / ha	1120	1240	1260	1080	
3-4	Date of irrigation	24.06-20.09				2380
	Irrigation rate is m ³ / ha	Irrigation was carried out 34 times from 70 m ³ / ha.				
5-6	Date of irrigation	24.06-20.09				2736
	Irrigation rate is m ³ / ha	Irrigation was carried out 38 times from 72 m ³ / ha.				

Table 1 above shows the irrigation system. The experiment was conducted on an area of 1 hectare. The drug was given in conjunction with irrigation water for 1-2-3 decades of June and 1-2 decades of July.

Standards of use of the biopreparation

Table 2

τ/p	Measures taken	Fertilizer rate (l / ha)
Cotton variety "Andijan - 36"		
1.	Drip irrigation (without controlled biofertilizer)	-
2	Drip irrigation (biofertilizer with water)	40

The growth and development of cotton depends not only on their biological properties, but also directly on the soil-climatic conditions of the place, cultivation techniques, soil fertility,

feeding and irrigation regime.

Table 3 below analyzes the effect of peat humic preparation on the growth and development of the Andijan-36 variety of cotton. It didn't make much of a difference. On July 1, the length of cotton was 84 cm in the control variant, the number of twigs was 12.0, the number of stalks was 5.7, and these figures were 88.8: 13 in 2 variants given in combination with peat humic irrigation water. On August 1, in the control variant, the length of cotton was 89.0 cm, the number of twigs was 12.7, and the number of stalks was 3.6. grains, the cocoons were 4.2 grains. On September 1, in the control variant, the length of cotton was 89.0 cm, the number of twigs was 13.0, and the number of twigs was 11.3. In 2 variants, the height of cotton was 93.8.0 cm, the number of twigs was 20 3 pieces, cossacks 14.5 pieces. [5] This means the growth and development of the Andijan-36 cotton variety. The effect of humic preparation from peat was positive, compared to the control variant, the length of cotton increased by 4.8.0 cm, twigs by 2.0 pieces, buds by 4..2 pieces.

Influence of peat humic preparation on growth and development of cotton variety

"Andijan-36"

Table 3

Options	1-June			1-July			1-August			1-September		
	Height, cm	Chin-leaf number, pcs	Number of combs, pcs	Height, cm	Number of harvested branches, pcs	Number of combs, pcs	Height, cm	Number of harvested branches, pcs	Kosak pcs	Height, cm	Number of harvested branches, pcs	Kosak pcs
Drip irrigation (without controlled biofuels)	20,5	5,7	0,3	84,0	12,0	5,7	89,0	12,7	3,6	88,0	13,0	11,3
Drip irrigation (along with water is given bio fertilizer)	21,3	5,9	0,4	88,8	13,0	5,9	93,8	13,8	4,2	97,8	14,5	15,2

It has been proved once again that humic preparation from peat of Andijan-36 variety has a positive effect on the weight of one bale of cotton and the results of data on the yield of cotton. [4] In our study, humus from

peat was mixed with water and applied to cotton by drip irrigation, while the weight of cotton in the bowl was 6.5 grams, compared to 5.4 grams in the control variant.

The effect of irrigation regime of cotton variety on the weight of cotton in one bucket, in gr

Table 4

Cotton variety	Feeding cotton	
	Drip irrigation (without controlled biofertilizer)	Drip irrigation (along with water is given bio fertilizer)
Andijan – 36	5.4	6.5

It has been proved once again that the humic preparation of peat of the Andijan-36 variety of cotton has a positive effect on the weight of one bale of cotton and the results of the data on the yield of cotton. In the experiment, the highest yield was 44.5 ts / ha in the variant fed with peat humic preparation combined with irrigation water, which was 39.9 ts / ha in the control variant.

This means that the effect of the peat humin preparation in the Andijan-36 variety of cotton was positive, and the yield increased by 3.9 ts / ha compared to the control variant.

Influence of irrigation regime of cotton variety on cotton yield. ts / ga

Table 5

Options	Terms		Total ts / ha
	1	2	
Drip irrigation (without controlled biofertilizer)	36,4	3.5	39,9
Drip irrigation (along with water is given bio fertilizer)	39,3	5.2	44,5

It is known that if the quality of cotton fiber in the world market is good, there will be more buyers for cotton fiber.

Quality indicators of cotton fiber were analyzed in the cotton industry of Andijan region, and according to the results of the study, the effect of humic preparation of peat "Andijan-36" on the quality of cotton fiber is the highest fiber yield in the variant fed with humus irrigation water from peat. 36.8%, fiber length 33 mm, weight of 1000 seeds 127 grams, Micronaire 4.5, relative breakdown gs / tex, these values were found to be low in the control variant, cotton yield 44.5 ts. / ha, which was 39.9 ts / ha in the control variant, and when the humus preparation from peat was given in combination with irrigation water, along with obtaining a high and high-quality cotton crop from cotton, its fiber quality indicators also improved.

Quality indicator of cotton fiber of peat humin preparation of Andijan-36 variety

Table 6

Options	Fiber output (%)	Fiber length (mm)	1000 дона чигит weight (grams)	Микронаир	Relative interruption (gs / tex)
Drip irrigation (without controlled biofertilizer)	36,4	33,4	120	4,5	28,2
Drip irrigation (along with water is given bio fertilizer)	36,8	33,8	127	4,5	29,3

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