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SHADOW OF APPLICATION OF NITROGEN FERTILIZERS AT DIFFERENT RATES THE INFLUENCE ON THE GROWTH AND DEVELOPMENT OF VARIETIES

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Abstract
The norms of feeding soybean plants with mineral fertilizers Effects on growth, development and yield in irrigated grassland soils.

Keywords: Soybean varieties, fertilizer, irrigation, nitrogen, phosphorus, potassium.

Introduction

The main sector defining the economy of our country is agriculture and the leading industries are cotton and grain growing. Today, soy is the main crop A number of works have been carried out on adding to the crop type and growing products from it is being increased. Soybean, a legume crop, is widely used in agriculture around the world. Cultivated areas are expanding day by day. Today, 109.7 million soybeans are grown on earth. planted per hectare is being cultivated. Brazil, USA and Argentina is the leading country. Soybean crops from wheat, rice, corn takes the next place. There are more than four hundred varieties of soybean grain and protein products are made and they are used in all sectors of the economy. Decree of the President of the Republic of Uzbekistan dated March 14, 2017 PP-2832- "On the cultivation of soybeans and the production of soybeans in the republic in 2017-2021" "On measures to increase" was adopted. This resolution sets the volume of soybean planting areas for 2017-2021. the task of gradual expansion and increasing the amount of oil production loaded. In order to ensure the implementation of this task, the main crop from 2017 Soybean crops will be planted on an area of 8,000 hectares as of 2021 the indicator is set to increase by 17.3 thousand hectares. Also, the President of the Republic of Uzbekistan dated 24/02/2017 By Resolution No. PP-3144 of July 14, 2017, PP-2832 of March 14, 2017 “On the Adoption of amendments and additions to the Resolution "On measures to increase soybean planting and soybean grain production in the republic in 2018" The decision "During 2017-2021, high-yielding soybeans will be cultivated in the republic creation of varieties, establishment of primary seed production, cultivation and area 4.3 of the program of measures for the expansion of high-protein soybeans and task of selection of oil varieties, development of agrotechnology of cultivation given Ensuring the fulfillment of this task Cereals and legumes scientific assigned to the research institute and Science and Technology Agency. The President of the Republic of Uzbekistan Sh.M. Mirziyoyev is the first in our country a ceremony dedicated to the Day of Agricultural Workers, celebrated

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several times in his speech at the ceremony, he mentioned "the low-yield areas where cotton and grain are planted cutting back year after year, replacing them with intensive orchards, orchards and vineyards"It is planned to build, as well as plant high-yielding soybeans, peppers and greens." In accordance with the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 105 dated February 10, 2018 "On measures to further increase soybean production in the Republic", soybeans were planted on 18.5 thousand hectares of main areas in the Republic for the 2018 harvest.

In 2020, 17,300 hectares of the main area of the soybean crop is set to be planted, which indicates that the crop is entering the crop rotation system.

Purpose of Research

The main goal is to study the norms and periods of feeding plants with mineral fertilizers and irrigation in the soil and climate conditions of the main and repeated crops of soybean varieties such as Tomaris Man-60, Oyjamol.

Table 1 The object of the research: at the cotton growing experimental station, Kuva district, Fergana region. Testing system.

№	Навлар Номи	Вариантлар	Маъдан ўғитлар меъёри соф холда, кг/га			Хайдов остига ёки экишдан аввал ер тайёрлашда,		Шона лашда кг/га	Гуллаш дуккак лашда, кг/га
			N	P	K	P	K	N	N
1	Тўмарис Ман-60	1	0	90	60	90	60	0	0
		2	60	90	60	90	60	20	40
		3	90	90	60	90	60	30	60
		4	120	90	60	90	60	40	80
		5	150	90	60	90	60	50	100
2	Ойжамол	1	0	90	60	90	60	0	0
		2	60	90	60	90	60	20	40
		3	90	90	60	90	60	30	60
		4	120	90	60	90	60	40	80
		5	150	90	60	90	60	50	100

In preparing the land for sowing or before sowing, the variety plays a key role in increasing the productivity of agricultural crops. Only by choosing the right crops, the soil and climatic conditions of the region where they are grown, planting crops at the right time, correctly determining the amount of mineral fertilizers, and organizing timely irrigation, it is possible to increase the yield from crops by 30-40 percent per hectare. In the conducted field experiment, the norms and timing of feeding soybean varieties with nitrogenous mineral fertilizers were studied, and the effect of determining the optimal timing of irrigation on the passage of growth and development phases of soybean varieties was analyzed during phenological observations.Field experiment results of application of nitrogen fertilizer rate in 5 options Option 1 without nitrogen

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fertilizer (control), option 2 with pure nitrogen fertilizer 60 kg/ha, option 3 with pure nitrogen fertilizer 90 kg/ha, option 4 with pure nitrogen fertilizer 120 kg/ha, option 5 with pure nitrogen fertilizer In the amount of 150 kg/ha, phosphorus fertilizer in pure form 90 kg/ha, potash fertilizer in pure form 60 kg/ha was studied. 100% of the annual rate of phosphorus and potassium fertilizers were given during land preparation before planting. 30-35% of the specified annual rate of nitrogen fertilizer was given at the stage of soybeans, and the remaining 65-70% at the stage of flowering and podding.

In the conducted field experiment, soybean irrigation was carried out depending on the soil-climatic conditions, soil moisture, and the state of growth and development of the crop: once during the seeding stage of soybean, twice during the flowering-seeding stage, once during the full ripening stage of the pods, varieties with a long growing season, i.e. To'maris Man-60 and Oyjamol cultivars received more irrigation than other cultivars in the experiment. At the main institute, soybean was planted as the main crop in the experimental field on April 12. Germination of all experimental varieties was observed on April 20. The release of 3 leaves of the plants corresponded to May 7 in all varieties. Depending on the varieties, the pruning period of the plants coincided with May 15-17. No significant difference was observed between the cultivars until the tillering period of the plants.

The transition of soybean varieties to the flowering period was 8-9 days after sowing. Formation of pods in plant bushes. It was observed in To'maris Man-60 variety on May 31-June 1 and in Oyjamol variety on June 1-3. At full maturity of soybeans, there were dramatic differences in the results obtained between cultivars and variants. In the Tomaris Man-60 variety, full ripening was recorded on September 13 in the control (without fertilizer) variant, and the growing period was 136 days. When the amount of nitrogen fertilizers was increased by every 30 kg, the period of full ripening was slightly longer, and when the rate of nitrogen fertilizer was increased to 150 kg/ha, the grain crop grown on September 19 ripened and grew. period was 140 days. The Oyjamol variety was relatively late among the varieties, with full ripening recorded on September 19 in the control (without fertilizer) variant, and the growth period was 142 days. However, when the amount of nitrogen fertilizers was increased by 30 kg, the full ripening period was slightly extended, and when the nitrogen fertilizer rate was increased to 150 kg/ha, it reached full ripeness on September 25, and the growth period was 148 days. When the control (without fertilizer) variants of soybean were compared in the experiment, ripening was observed on September 13 in the Tomaris Man-60 variety, and the growth period was 136 days. The Oyjamol variety was the latest among all varieties, reaching full ripeness on September 19, and its growth period was 142 days. It was found that soybean crops, To'maris Man-60 and Oyjamol varieties ripened among medium-ripening varieties in conditions of Utloki gray soils. In 2020, when the experiment was conducted, it was found that when the amount of nitrogen fertilizers was increased from the control (no fertilizer) option to 150 kg/ha, the growing period of soybean varieties increased by 5-6 days. lib went (Table 2). It was found that increasing the rate of nitrogen fertilizer applied to soybean varieties per hectare from 60 kg to 150 kg led to a corresponding increase in the biomass accumulated in the plants, which resulted in a slight delay in grain ripening and a short-term lengthening of the growing day of soybean varieties.

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Table 2 The effect of different rates of nitrogen fertilizer application on the growth and development of soybean varieties. (2020)

Т/р	Навларнинг номи	Йиллар	Вариантлар	Экилган муддат, сана	Униб чиқиш, сана	3 талик барг ҳосил бўлиш, сана	Шоналаш, сана	Гуллаш, сана	Дуккаклаш, сана	Пишиш, сана	Ўсув даври, кун
Бош институтда											
1	Тўмарис Ман-60	2020	1	20.04.20	30.04.20	7.05.20	17.05.20	25.05.20	31.05.20	13.09.20	136
			2	20.04.20	30.04.20	7.05.20	17.05.20	25.05.20	31.05.20	15.09.20	138
			3	20.04.20	30.04.20	7.05.20	17.05.20	25.05.20	1.06.20	16.09.20	139
			4	20.04.20	30.04.20	7.05.20	17.05.20	25.05.20	1.06.20	17.09.20	140
			5	20.04.20	30.04.20	7.05.20	17.05.20	25.05.20	1.06.20	19.09.20	142
2	Ойжамол	2020	1	20.04.20	30.04.20	7.05.20	17.05.20	26.05.20	1.06.20	19.09.20	142
			2	20.04.20	30.04.20	7.05.20	17.05.20	26.05.20	2.06.20	21.09.20	144
			3	20.04.20	30.04.20	7.05.20	17.05.20	26.05.20	2.06.20	22.09.20	145
			4	20.04.20	30.04.20	7.05.20	17.05.20	26.05.20	3.06.20	23.09.20	146
			5	20.04.20	30.04.20	7.05.20	17.05.20	26.05.20	3.06.20	25.09.20	148

Conclusions

The following conclusions can be drawn from the results of scientific research conducted in 2020 on the norms and timing of mineral fertilizer feeding of soybean varieties under irrigated conditions, as well as irrigation. In conclusion, it can be said that in 3 years of scientific research, the following recommendations were applied to soybean varieties:It was found that the application of nitrogen fertilizer at rates from 60 kg/ha to 150 kg/ha against the background of potassium 60 kg/ha delayed the ripening of soybean grain by 2-6 days. The main soybean variety Tomaris Man-60 reached full maturity in 136 days, and the variety Oyjamol reached full maturity in 142 days. It was found that increasing the rate of nitrogen fertilizer for soybean crops from 60 kg to 150 kg extended the growth period of soybean varieties by 5-7 days and as a result of an increase in plant biomass, the ripening of the crop was delayed by up to a week with an increase in the rate of nitrogen fertilizer.

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