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Title: INFLUENCE ON GROWTH AND DEVELOPMENT OF MACHINE STANDARDS OF MINERAL FERTILIZERS APPLIED FOR CULTIVATION OF SECONDARY SEEDING GRAIN..
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INFLUENCE ON GROWTH AND DEVELOPMENT OF MACHINE STANDARDS OF MINERAL FERTILIZERS APPLIED FOR CULTIVATION OF SECONDARY SEEDING GRAIN.

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Annotatsion: The article presents the results of field experiments with winter wheat to determine the effect of different annual rates of mineral fertilizers on the growth of development and on the grain yield of wheat. In addition, the influence of the norms of mineral fertilizers on the growth, development and productivity of mung bean plants was investigated as a re-seeding of the created BACKGROUNDS. Among the various norms, the most effective option was determined to be N25; P2O580; K2O60 kg / ha.

Key words: winter wheat, mineral fertilizers, annual rate, plant, growth and development, yield, re-sowing, mung bean.

Introduction

In the complex of measures to increase the fertility of the land and the productivity of agricultural crops, the use of fertilizers on a scientific basis is of great importance. As a result, the planned yield is achieved and an acceptable balance of nutrients in the soil is maintained.

Sufficient scientific experiments have not been carried out on the crop rotation of winter wheat and re-sowing of leguminous crops and types of crop rotation sown in its stubble and determination of measures of their nutrition. Therefore, the main task of today is to determine the norms of acceptable fertilizers for winter wheat and, after it, crop rotation mung bean in conditions of light gray soils, as well as study the influence of these norms on the preservation and increase of the fertility of the main object of agricultural production - land.

On the basis of this, scientific field experiments were carried out on sowing winter wheat, maize and mung bean in conditions of light gray soil. They determine the effectiveness of the norms of mineral fertilizers used in secondary crops of mung bean and corn plants.

After repeated field experiments in place and time in 2008-2011, the most acceptable options, production experiments in 2015 and 2016, belated for objective reasons, were carried out in an area of 3 hectares in the fields of the Andijan experimental station PSUEATI in conditions of light gray earth soils. Agrotechnical measures used in the experiments were carried out in acceptable terms, respectively, applied in the farms.

Main part

Experimental methods, phenological observations, obtaining soil and plant samples were carried out on the basis of the

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manuals "Methodology of field experiments" (Dospekhov, 1985), "Methodology of the State variety testing of agricultural crops" (1964) and "Methods of conducting field experiments" (2007).

In winter wheat, each variant was 32.4 m wide, 40 m long, and a total area of 1296 m^2. The third variant of the experiment consisted of 3 repetitions and the total area was 11,664 m^2.

The system of field experiments was carried out in the following order.

1-graph.

Experience system in winter wheat (2008-2011)

Background	Annual rate of mineral fertilizers, kg / ha			Terms of application of mineral fertilizers, kg / ha				
	N	P_2O_5	K_2O	Before sowing			bush	Ovary formation
				N	P_2O_5	P_2O_5	N	N
I	120	80	60	30	80	60	45	45
II	180	120	90	30	120	90	75	75
III	240	160	120	40	160	120	100	100

When re-sowing mung bean after winter wheat, each variant has a width of 3.6 m, a length of 40 m, and a total area of 144 m2.

2-graph.

The system of behavior of the experiment, when re-sowing mung bean sown after winter wheat (2009-2011).

Option order	Annual rate of mineral fertilizers, kg / ha			Annual rate of mineral fertilizers, kg / ha		
	N	P2O5	K2O	Before boarding		
				N	P_2O_5	K_2O
10,13,16	25	80	60	25	80	60
11,14,17	50	80	60	50	80	60
12,15,18	75	80	60	75	80	60

When re-sowing mung bean after winter wheat, each option has a width of 3.6 m, a length of 40 m, and a total area of -144 m^2.

This means, according to the indications of phenological observations of the applied mineral fertilizers I-FON in the N-25 norm; P2O5-80; K2O-60 kg / ha of 10-variant, the positive influence of BACKGROUNDS created in the period of 2-3 leaf blooming and applied norms of mineral fertilizers was determined. Therefore, the growth of mung bean plants, corresponding to the observation period, reached 13.2; 45.3 and 52.8 cm, and the number of beans at the end of the swelling period was 25.2 pieces. In the 11th variant, when using only the amount of nitrogen 50 kg / ha from the norms of mineral fertilizers, at the end of the ripening period the growth of mung bean reached 58.1 cm, and the

number of beans was 29.8 pcs. But as a result of an increase in the nitrogen rate by 75 kg / ha, a slight decrease in growth was determined in relation to the 11-variant. This indicates that nitrogen at a rate of 75 kg / ha is excessive for the mung plant (even in the BACKGROUND).

In II-FON when applying the norms of mineral fertilizers N-25; P2O5-80; K2O-60 kg / ha in 13-variant, at the end of the ripening period the plant growth reached 28.6 centimeters. The number of beans was 30.9 pieces. These observations show that these results are higher by 0.5 cm and 1.1 pieces in relation to the results of the 11-variant in I-FON, the applied N-50 standards; P2O5-80; K2O-60 kg / ha.

In II-FON, with the use of an increased nitrogen norm in mung bean of 50 and 75 kg / ha, negative effects in the growth and development of the plant were observed.

In III-BACKGROUND plant mung bean after winter wheat when applying N-25 standards; P2O5-80; K2O-60 kg / ha of mineral fertilizers of the 16th variant at the end of the swelling period, the plant growth reached 55.6 cm, and the number of beans was 31.8 pcs. These observations show that these results are 3.0 cm lower than the plant growth, but the number of beans is 1 more in relation to the results of 13-variant in I I-BACKGROUND.

This circumstance, as shown above, indicates that even the nitrogen rate of 25 kg / ha in the background has a negative effect on the acceptable growth and development of the mung plant, as in II-FON (50 kg / ha nitrogen). On this last background, it was observed that, as a result of the increase in nitrogen to 50 and 75 kg / ha, the development of mung bean, on the contrary, decreased.

Conclusion

On the basis of field experiments in light gray soils of the Andijan region, the following conclusions can be drawn: in the FONs created after winter wheat with an acceptable rate of fertilizers in II-FON N-25; P2O5-80; K2O-60 kg / ha. On I-FOND, nitrogen fertilization with a rate of 50 kg was excessive, and in III-FON, a nitrogen rate of 25 kg / ha also had a negative effect. The most acceptable norm in II-FON is N-25; P2O5-80; K2O-60 kg / ha.

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