

RHIZOBIUM JAPONICUM BACTERY INCLUDES SOME FOSSOR PLANT FOSSTIM3 HAS BEEN USED TO BACTERIAL BIOTERIES

¹M. Mannopova, ²J.U. Hamdamov, ³H.N. Berdaliev

ABSTRACT--- *Infection of these bacteria in the fields where soybeans were first planted using FOSSTIM3 bacterial biofertilizer, which contains Rhizobium japonicum bacteria and phosphorus decomposer, to form endogenous bacteria in the root of the soybean plant*

Keywords--- soybean, Baraka, Tumaris Man-60, Rhizobium japonicum, nitrogen, bacteria fertilizer FOSSTIM3, nitrogen-fixing toxins.

I. INTRODUCTION

Further increase of soybean yield in Uzbekistan will be driven mainly by the introduction of intensive technology of intensive cultivation of new high-yielding varieties and specimens along with acclimatized varieties throughout the Republic. One of the main conditions for high yields is the proper and timely organization of specific breeds for each variety, taking into account the biology of the varieties and the climatic conditions. Because of the activity of tubular bacteria in the root of soybean, due to the conversion of free nitrogen into the biological nitrogen in the air and accumulation in the soil, the grain yield increases by 7-12 centners per hectare on average by 65-130 kg / ha. Because of different climatic conditions in each region, nitrogen-containing drugs (Rhizobium, Rizotorphine, Rizovit), which are currently being produced or imported, may not be fully effective. However, soybean areas, which have been planted for many years and have naturally occurring soil-climatic conditions in the field, contain soybeans with Rhizobium japonicum bacteria clones that are most common in Uzbekistan. In our research, field experiments were carried out at the Fergana Research Station of the Crop and Leguminous Research Institute, using soil containing Rhizobium japonicum bacteria to produce stagnant bacteria in the soybean root. These experiments investigated the effects of FOSSTIM3 bioavailability, a new phosphorus-containing bacterium in soybean soil, suitable for soybean growth, development and grain yield. Methods of field experiments, Methodology polevogo opyta (B. Dospexov.1985y), Methods of field experience "(B. Dospekhov. 1985)," Methods of the State variety testing of agricultural crops (1985, 1989).

¹ Andijan don is a Senior Research Fellow of the scientific research institute of leguminous crops.

² Andijan don Scientific Research Institute of leguminous crops, Stage 1st doctorate

³ Master, Andijan branch of Tashkent State Agrarian University

II. MAIN PART

Nitrogen soil for experiments Grain and legume crops were obtained from the central experimental field at 0–15 cm (10 kg, 15 kg) and 15–25 cm (10 kg, 15 kg), respectively. In the experiment, the total area of each variant was 100m², of which the computational area was 50m². Before sowing, 50 kg of nitrogen, 90 kg of phosphorus and 70 kg of potassium were applied to the experimental field net. Planting scheme 60x5-1. Five irrigations, 3 cuttings and 2 cultivation works were carried out in the pilot field.

Good plant growth, grain saturation and yield are directly linked to the phosphorus element. Therefore, in our experiment, a new phosphorus from phosphorus FOSSTIM3 from the Institute of Microbiology was used in 1000g per hectare of bacterial bioavailability.

There were no significant differences in control in soybean varieties when sown with soil samples from the soybean rhizosphere and bacterial bioavailability of FOSSTIM3. According to it, plants with 10 kg of soil in the 0-15 cm layer of soybean variety of soybeans were 10.4 cm tall and the average number of legumes per plant and 6 and 13, respectively, compared to the main stems of control plants. , Was higher than 6 grains. In Experiments 2 and 6, the average height of the main soybean stem increased by 11.6 and 11.8 cm, respectively, compared to the control plants, and the average number of legumes in one bush was 7 and 7.5, respectively. As a result, it was found that the average yield was 4 c / ha and 2.5 c / h higher. The average stem height of the Tumaris Man-60 and Baraka varieties of soy variants was 62.4 and 117 cm, respectively. The Baraka variety contained 68.5 grains per bush, and Tumaris Man-60, an average of 56, 0 units.

Version 2 of the Baraka variety of soybeans found that the average height of the main stem of the plant was 14.5 cm. It was found that the base area of 15–25 cm layer of soybean Baraka variety was higher than the control variant with the use of soil + FOSSTIM3, 12 cm high, average legumes 6, 1000 g with 1.3 g and 2 centners above average. In the control (non-enriched) soybean variants, the average grain size and weight per bare plant in the Baraka variety was 155 and 20.1 g, and the weight of 1000 grains was 130.3 g. In the Tumaris Man-60, it was found that these values were 145 and 20 g, respectively.

Table 1: Biometric indicators of soybean plants on nitrogenous soils and on fields with FOSSTIM3, bio-fertilizers

№	Experience options	Variety varieties	The height of the main stem of the plant, the	Rack leg position, medium size	Horns number, on average pieces	Number of dukes, average	The average number of seeds per plant is 1 seed	Seed weight per plant, average gr	1000 seed weight, average gr	Productivity to medium

			average height См							
1	10 kg nitrogen soil from 0- 15 cm layer	Baraka	118,0	18,0	1,9	68,0	164,0	21,6	132,0	40,8
		To'maris Man-60	71,2	15,0	1,3	61,0	152,6	20,6	135,0	32,5
2	15kg nitrogen soil in 0- 15cm layer + FOSSTIM3	Baraka	124,5	18,0	1,1	74,0	176,8	23,6	134,0	42,5
		To'maris Man-60	72,4	15,0	1,5	62,0	161,6	22,6	140,0	34,5
3	0-15 cm of soil FOSSTIM3	Baraka	117,0	15,0	1,6	68,5	163,3	21,6	132,5	40,4
		To'maris Man-60	62,4	14,0	1,2	56,0	148,0	20,5	138,5	33,5
4	Control (nitrogen- free soil)	Baraka	110,0	16,0	1,3	65,0	155,0	20,1	130,3	39,5
		To'maris Man-60	60,8	14,5	1,4	55,0	145,0	20,0	138,0	30,5
5	Enriched with 10kg soil from 15-25 cm layers	Baraka	115,0	18,5	1,8	68,0	162,0	21,6	133,5	38,0
		To'maris Man-60	62,1	14,5	1,9	55,5	146,0	20,1	137,5	31,5
6	15 kg of soil from 15-25 cm layer + enriched with FOSSTIM3	Baraka	120,0	17,5	2,4	72,0	174,8	23,2	133,0	41,2
		To'maris Man-60	72,6	14,5	1,8	62,0	161,0	22,5	140,0	33,0
7	15-25 cm layer soil + FOSSTIM3	Baraka	122,0	18,0	1,1	71,0	166,8	22,0	132,0	41,5
		To'maris Man-60	65,3	15,0	1,2	58,0	152,0	21,0	138,0	32,5

III. CONCLUSIONS

The following conclusions can be drawn from the results of the research. In the cultivation of soybeans (soil, soybean seeds), when infected with bacterial soils that live on soils previously treated with *Bradirizobium japonicum* (6-8 years ago), they form nitrogen-fixing buds on the roots of soybeans grown in new fields.

Provides a higher crop yield of 2.5-4.0 centners per hectare, with a significant increase in soybean productivity (legumes, legumes, weight) due to improved soil activity.

REFERENCES

1. Yormatova DY, Boyniyozov E. Soil fertility preservation // Agricultural Journal of Uzbekistan.2008. No. 6 p.
2. Atabeva HN, Israilov IA, Umarova NS Soya-morphology, biology and technology of cultivation. T. Tashkent State University, 2011.
3. Dospekhov B.A. Methodology of field experience. M. Kolos. 1979.
4. Methods of field experiments. Tashkent 2007
5. Methodology of the State variety testing of crops ”Tashkent. 1989
6. Siddikov RI, Mannapova M., Recommendation on Agro technology of Soybean and Primary Seed Growth in Uzbekistan Andijan 2017, p.