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THE EFFECT OF SEEDLING THICKNESS AND NORMS OF MINERAL FERTILIZERS ON THE ACCUMULATION OF RHIZOME MASS AND DRY MASS OF BEETS

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Abstract
validity period, and the following September and October the process will be slow. This article provides information on the influence of seedling thickness and ore fertilizer norms on the accumulation of rhizome mass and dry mass of beets.

Keywords: Accumulation of beet topsoil, feed, planting thickness, ore fertilizers, rhizome mass, fertilizer norms, beet leaf, dry mass accumulation.

Introduction

As described above, in what state of development of a beet root root depends on its care, especially on the thickness of seedlings, the norm of mineral fertilizers, the watering procedure and other agrotechnical measures. However, the growth and development of strawberry beet tubers within these parameters will depend on the thickness of the seedlings and the norms used by mineral fertilizers.

In the studies carried out in the conditions of typical bush soils of Samarkand region, it was observed that the development of khashi beet root fruit is more dependent on the thickness of its seedlings and the norm of mineral fertilizers.

According to the data obtained at the end of the 2023 validity period of the experiment on the effect of seedling thickness on the root mass of Hashaki beets, the mass of a single plant root fruit recorded the highest values in the variants of the experiment with a seedling thickness of 70-80 thousand/ha.

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Table 1 Accumulation of seedlings, beets, rhizome mass and dry matter, norms of seedling thickness and ore fertilizer norms
Impact, 2023

Var No	Seedling thickness, ths/ha	From Ma'dan o'g'it me'yorlari, kg/ha	Accumulation of rhizome mass and dry matter in hash beets							
			1.07		1.08		1.09		Before harvesting	
			rhizome mass, g	dry matter, g	rhizome mass, g	dry matter, g	rhizome mass, g	dry matter, g	rhizome mass, g	dry matter, g
1	70-80	O‘g‘itsiz (nazorat)	73,7	22,8	194,6	60,3	311,9	96,7	387,0	119,9
2		NPK 120:90:60	97,5	31,2	250,9	77,8	535,7	166,0	692,3	214,6
3		NPK 160:120:80	108,7	33,7	272,7	84,5	557,7	172,8	743,7	230,5
4		NPK 200:140:100	119,1	38,1	286,0	88,6	570,1	176,7	795,4	254,5
5	90-100	O‘g‘itsiz (nazorat)	62,4	19,3	161,5	50,0	286,6	88,8	328,0	101,6
6		NPK 120:90:60	84,9	26,3	230,7	71,5	514,6	159,5	615,1	190,6
7		NPK 160:120:80	99,9	30,9	258	80,2	533,1	165,2	689,2	213,6
8		NPK 200:140:100	106,7	33,0	257,5	82,4	539,7	167,3	703,3	218,0
9	110-120	O‘g‘itsiz (nazorat)	52,5	16,2	145,2	45,0	246,1	76,3	278,5	89,1
10		NPK 120:90:60	73,6	22,8	201,7	62,5	409,0	130,8	488,6	151,4
11		NPK 160:120:80	84,4	26,1	237,7	73,7	416,9	129,2	538,8	167,0
12		NPK 200:140:100	96,7	29,9	255,0	79,0	431,2	133,6	560,1	173,6

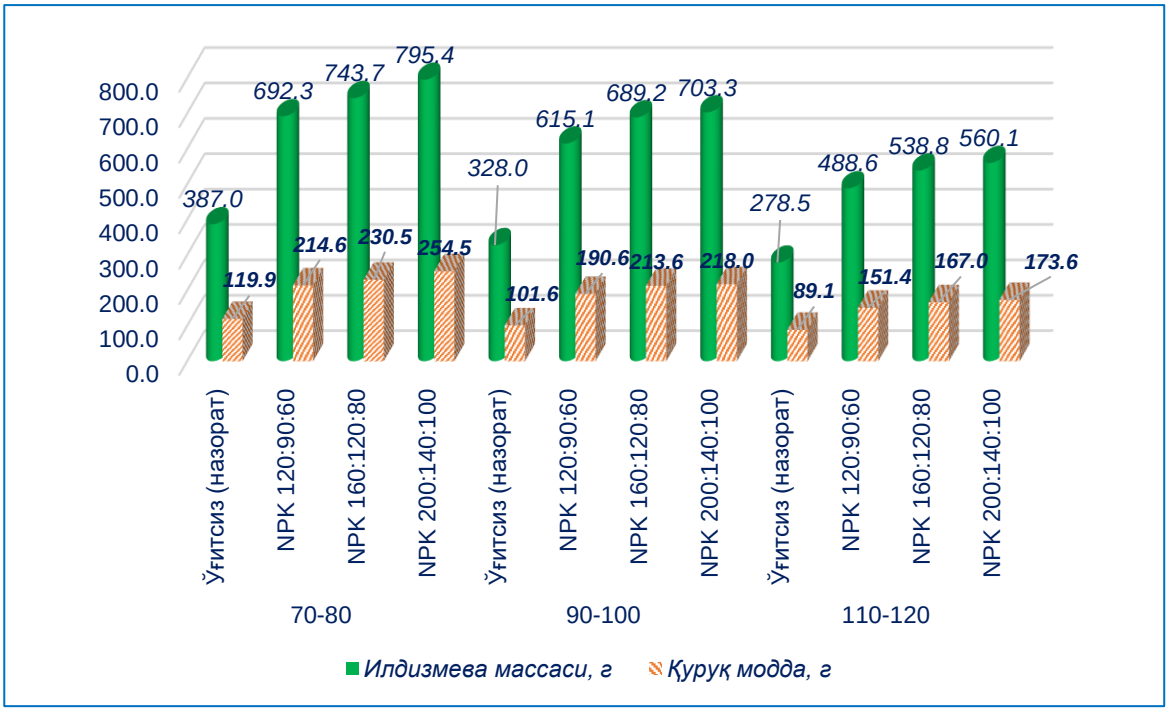

Figure 1. The effect of seedling thickness and ore fertilizer norms on the accumulation of rhizome mass and dry matter in beets, 2023

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According to the data, in variants 1, 2, 3 and 4 of the experiment, the rhode mass was 387.0, respectively; 692,3; 743,7; In options 5, 6, 7, 8 with a seedling thickness of 90-100 thousand units per hectare, these values are 328.0, respectively, with 795.4 g.ni; 615,1; 689,2; On average, g.ni the increase in the thickness of the bush to 20,000 units per hectare led to a decrease in rhizome mass from 59.0 grams to 92.1 g on average. The planting thickness is increased from 90-100 thousand / ha to another 20 thousand units, and in the variants with 110-120 thousand units / ha, the root mass is on average 278.5, respectively; 488,6; 538,8; It was found that the g.ni of 560.1 was 203.7-235.3 g.ga of variants with a seedling thickness of 70-80 thousand/ha, and 126.5-150.4 g.ga compared to the variants with a seedling thickness of 90-100 thousand/ha. Therefore, increasing the planting thickness in the cultivation of beets from 70-80 thousand units per hectare to 20 thousand units (90-100 thousand / ha), increasing the root mass from 59.0 to 92.1 g on average, and 40 thousand units (110-120 thousand / ha) from 203.7 to 235.3 g.

In the control variants of the experiment, it was found that the root mass was 387.0; 328.0; 278.5 grams, respectively, with a thickness of 70-80 seedlings, 90-100 thousand/ha of seedlings, 59.0 g.ga, 110-120 thousand/ha of seedlings 108.5 g.ga heavier.

According to the data obtained on the impact of ore fertilizers on the rhizome mass, it was found that excess of the norms of mineral fertilizers had a positive effect on the root mass of beets. According to the data, the seedling thickness of the experiment was 70-80 thousand / ha, in the 2nd variant of mineral fertilizer NPK 120:90:60 kg/ha the root mass was 692.3 g.ni, in the 3rd variant of mineral fertilizers NPK 160:120:80 kg/ha this indicator was 743.7 g.ni, and in the 4th variant of mineral fertilizer standards NPK 200:140:100 kg/ha it was 795.4 g.ni. This figure was found to be 387.0 g. in the control variant, respectively.

If the seedling thickness of the experiment was 90-100 thousand / ha per hectare, in option 6 of the mineral fertilizer norms NPK 120:90:60 kg/ha the rroot mass was 615.1 g.ni, in the 7th variant of mineral fertilizers NPK 160:120:80 kg/ha this indicator was 689.2 g.ni, and in the 8th variant with mineral fertilizer norms NPK 200:140:100 kg/ha, the figure was 703.3 g.ni. It was found that this figure was 328.0 g. in the control variant, respectively. The seedling thickness of the experiment was 110-120 thousand / ha per hectare, in option 10 of mineral fertilizer norms NPK 120:90:60 kg/ha the rhizome mass was 488.6 g.ni, in option 11 of mineral fertilizers NPK 160:120:80 kg/ha this indicator was 538.8 g.ni, and in option 12 of mineral fertilizer norms NPK 200:140:100 kg/ha it was 560.1 g.ni. It was found that this figure was 278.5 g. in the control variant, respectively. From the data obtained, it can be seen that when the mineral fertilizer norms were increased from NPK 120:90:60 kg/ha to NPK 160:120:80 kg/ha, the rhizome mass was from 50.2 g to 74.1 g, and the increase in NPK to NPK 200:140:100 kg/ha was heavier from 71.5 g to 103.1 g.

Therefore, mineral fertilizer norms provide that when NPK is increased from NPK 120:90:60 kg/ha to NPK 160:120:80 kg/ha, the rhizome mass will be from 50.2 to 74.1 g., and when NPK 200:140:100 kg/ha is increased, from 71.5 g to 103.1 g., respectively. Rhizome mass is 305.3 in accordance with mineral fertilizer norms with a seedling thickness of 70-80 thousand / ha compared to control; 356,7; 408.4 g.ga, 90-100 thousand/ha 287.1; 361,2; 375.3 g.ga, 110-120 thousand/ha and 210.1; It was found that 260.34 g.ga 281.6 were severe.

According to the data obtained on the effect of seedling thickness on the accumulation of dry matter in Hashaki beets, the accumulation of dry matter in variants 1, 2, 3 and 4 of the experiment with a

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seedling thickness of 70-80 thousand / ha is 119.9, respectively; 214,6; 230,5; In options 5, 6, 7, 8 with a seedling thickness of 90-100 thousand units per hectare of 254.5 g.ni, these indicators are 101.6, respectively; 190,6; 213,6; It was g.ni 218.0. In the varieties with the thickness of seedlings of 110-120 thousand units per hectare, the accumulation of dry matter on average is 89.1, respectively; 151,4; 167,0; It was 173.6 g.ni.

Therefore, increasing the planting thickness in the cultivation of beets from 70-80 thousand units per hectare to 20 thousand units (90-100 thousand / ha), the accumulation of dry matter on average from 17.0 to 36.3 g, and the increase in 40 thousand units (110-120 thousand / ha) from 30.8 to 80.9 g.

It was found that the accumulation of dry matter in the control variants of the experiment was 119.9; 101.6; 89.1 grams, respectively, with a thickness of 70-80 seedlings 90-100 thousand/ha 18.3 g.ga and 30.8 g.ga against the thickness of 110-120 thousand seedlings.

According to the data obtained on the effect of ore fertilizers on the accumulation of dry matter, the seedling thickness of the experiment was 70-80 thousand / ha, in the 2nd variant of mineral fertilizer norms NPK 120:90:60 kg/ha the dry matter concentration was 214.6 g.ni, in the 3rd variant of mineral fertilizers NPK 160:120:80 kg/ha this indicator was 230.5 g.ni, The mineral fertilizer norms NPK was 200:140:100 kg/ha, and in option 4 it was 254.5 g.ni. It was found that this figure was 119.9 g. in the control variant, respectively.

The seedling thickness of the experiment was 90-100 thousand / ha, the accumulation of dry matter in the 6th variant of mineral fertilizer NPK 120:90:60 kg/ha was 190.6 g.ni, in the 7th variant of mineral fertilizers NPK 160:120:80 kg/ha this indicator was 213.6 g.ni, and in the 8th variant of mineral fertilizer standards NPK 200:140:100 kg/ha it was 218.0 g.ni. It was found that this figure was 101.6 g. in the control variant, respectively. The seedling thickness of the experiment was 110-120 thousand / ha, the accumulation of dry matter in the 10th variant of mineral fertilizer NPK 120:90:60 kg/ha was 151.4 g.ni, in the 11th variant of mineral fertilizers NPK 160:120:80 kg/ha, this indicator was 167.0 g.ni, and in the 12th variant of mineral fertilizer norms NPK 200:140:100 kg/ha, this indicator was 173.6 g.ni. It was found that this indicator was 89.1 g. in the control variant, respectively.

Therefore, mineral fertilizer norms provide that when NPK is increased from NPK 120:90:60 kg/ha to NPK 160:120:80 kg/ha, dry matter accumulation will be from 15.6 to 23.0 g., and when NPK 200:140:100 kg/ha is increased to 22.2 g to 39.9 g., respectively.

Full data are provided in Table 1 of the article.

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