

THE EFFECT OF SEWER WEIGHT ON THE PRODUCTIVITY OF EARLY FARM POTATOES

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ABSTRACT:

In this article, the effect of seed weight on the growth and development of potatoes is described. It is stated that the increase in weight of seed pods is directly related to the intensity of seedling formation, the number of stems formed in each bush, more or less formation of leaf sheaths, and the degree of infection of potato plants with diseases depends on seed weight.

KEYWORDS: potato, tuber, weight, planting scheme, seedling, tumor, disease, leaf-stem, yield quality.

INTRODUCTION:

The Presidential Decree of the President of the Republic of Uzbekistan dated March 14, 2019 No PP-4239 "On measures to develop agricultural cooperation in the field of fruit and vegetable growing" was made. Based on the above decision, it is necessary to meet the population's demand for potatoes, plant varieties that are resistant to diseases and pests, easy to send and store in promising remote areas, especially to get high yields, quality, marketability. Potatoes have great importance as an important food in the national economy. It is second only to legumes in terms of protein per hectare. If the potato yields 27.2 tons per hectare, the protein obtained from it is 546 kg [3]. Increased potato production can make a significant contribution

to the provision of food, including protein, to the population [1].

METHODOLOGY:

Seeds sown are one of the deciding factors in increasing the yield of potatoes. If the seed is large (100-120 g), it has a negative effect on the pure yield [2]. Therefore, the issue under study is one of the current problems of potato growing. To study this issue, potatoes were planted in five different weight (30-40, 40-50, 50-60, 60-70 (naz) and 70-80 g) tubers of Marfona variety, in the same 70x30 cm scheme, in the same conditions at an early stage. . The experiment was conducted at the State Unitary Enterprise "Center for Innovative Developments and Consulting in Agriculture" of the Andijan branch of Tashkent State Agrarian University. The experimental method was placed in 4 repetitions with a length of 10 m according to the current method manual [2]. Each repetition was 28 m² and the total area was 672 m². Phenological, biometric, and other observations made at the experimental site yielded the following results.

RESULTS:

The formation of the first (10%) and mass (75%) seedlings of seeds of different weights sown at the same depth in the early period occurred after 23-28 and 25-35 days. In the tested seed weights 10% seedlings of 30-40 g tubers, 28 after sowing; 75% of the seedlings were formed after 35 days and were

found to be 4 ... 7 days later than the control (60-70 g).

Among the seed weights studied, the lowest error rate was observed in the last two variants, and it was 4.0 ... 3.0% and it was 1.1–2.1% lower than the control. It was found that the increase in seed weight from 30-40 g to 80-90 g has a positive effect on plant viability.

The weight of the tested seed pods influenced not only the rapid formation of seedlings and the amount of plant destruction during growth, but also the different formation of the surface of the potato. Observations showed that the shortest stems (49.2; 55.7 cm) were observed in the first and second variant plants of the experiment, and their length was

16 ... 10.1 cm shorter than the stem length of the control (60-70g) variant plants.

The longest stem plants were formed from seeds weighing 70-80 g, their main stem height was 69.9 cm on average, and it was found in practice that they were 16.0 cm longer than the control variant plants. The leaf surface area (0.28 dm²) formed by the first variant plants of the experiment was 0.14 dm² less than the leaf surface of the control variant seedlings.

This means that the weight of the seed affects the different formation of the surface of the potato. Seedlings formed from light and heavy tufts of weight cause various lesions with nausea diseases Table 1.

Table 1. The effect of seed weight on the disease of early potato seedlings with nausea

Seed weight, grams	Nausea, %					
	Tubing the leaves	Wrinkled mosaic	line mosaic	Gothic	"Alvasti supurgi"	Total
30-40	24,1	10,1	11,7	0,3	0,1	46,3
40-50	21,7	8,9	10,2	0,1	-	40,9
50-60	15,2	5,7	5,9	-	-	26,8
60-70 (control)	11,1	3,2	3,1	-	-	17,4
70-80	8,0	1,3	2,1	-	-	11,4

The figures in Table 1 show that early potato seedlings were affected to varying degrees by common types of nausea.

It was found that 24.1% of seedlings formed from seeds weighing 30-40g were infected with viral nausea, 10.1% with twisted mosaic and 11.7% with road mosaic - a total of 46.3%.

The increase in the weight of the seed pods had a negative effect on the degree of infestation of seedlings with diseases, a decrease in the number of affected plants was observed.

That is, in the first variant of the experiment, 46.3% of plants were infected with viral diseases, while in the second and third

variants, 40.9 and 26.8% were infected. The experiment found that the rates of plant disease infestation from seeds of the previous three weights (30-40, 40-50 and 50-60g) were 9.4% to 28.9% higher than the damage to seedlings of the nazoart variant (60-70g).

It was observed that seedlings formed from seeds weighing 70-80 g were infested with rot diseases, and the rate of infestation of control variant plants decreased by 6.0%.

This means that the use of seeds weighing 70-80 g to reduce the incidence of nausea in potato seedlings planted at an early stage has a positive effect.

The weight of sown seeds formed in each bush and hectare had a different effect on the yield and its quality Table 2.

Table 2. Influence of the weight of seed pods on the yield and quality of early potatoes

Influence of the weight of seed pods on the yield and quality of early potatoes	Actual number of plants per hectare, thousand	Seed consumption, t / ha	Yield		Yield		The amount of commodity in the total yield, %	The average weight of 1 commodity end, ha
			On 1 bunch, g	In 1 hectare, t	t/ha	relative to control, %		
30-40	44239	1,7	380	16,1	14,4	59,5	90,5	84,3
40-50	43620	2,1	450	19,5	17,1	70,7	92,2	89,8
50-60	44096	2,4	590	26,0	23,2	95,9	97,1	98,7
60-70 (control)	44144	2,7	610	26,9	24,2	100	98,8	114,1
70-80	45287	3,4	690	30,3	26,9	114,9	98,8	119,8

As the weight of sown seeds increased (Table 2), the amount of seeds sown per hectare also increased (1.7 ... 3.9 t / ha), while the yield per bush (380 ... 690 g / bush) and an increase was observed. This in turn had a positive effect on the gross and net yield per hectare.

Among the tested seed weights, the lowest yield (380g) per bush compared to the control was formed by seed plants weighing 30-40g. The yield per hectare of this variant plants was 9.8 t / ha or 40.8% lower than the yield of the control variant.

It was found in practice that plants weighing 70-80 g yielded 4.7 tons more per hectare than the control. Seeds of 80-90g should theoretically yield more than seeds of 70-80g, but seeds of this weight produced more stems due to the formation of a large number of stems, but their fractionation reduced the gross and net yield.

Among the tested seed weights, the highest yield (31.2 t / ha) was formed by seedling weighing 70-80 g, which was 14.9% higher than the control. The weight of the seed pods also affected the quality of the crop.

The first and second variants of the experiment accounted for 90.5 and 92.5% of the yield formed by plants, respectively, with an average weight of 84 ... 89g. The amount of customary ends of these options is 8.3 times

the amount of control ends; 7.9% and weight was found to be 7-8g lower.

From the studied seed weights, it was found that the largest (119.8g) cultivars yielded from control and the highest net yield per hectare (27.8 t / ha) yielded plants grown from seeds weighing 70-80g.

CONCLUSION:

1. From the studied seed weights, it was found that the largest (119.8g) cultivars yielded from control and the highest net yield per hectare (27.8 t / ha) yielded plants grown from seeds weighing 70-80g.
2. The use of seeds weighing 70-80 g to reduce the risk of early blight of potato seedlings has a positive effect.

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