

## Influence on the Yield of the Seedling Age and Planting Period when Planting an Onion Seedling in a Repeated Period

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### ABSTRACT

*the article highlights the impact of the cultivation of onion seedlings of different ages in dry, hot climates of the Republic of Uzbekistan as a repeated crop for different periods on their growth and development by planting them in loose ground from early vegetables. It is scientifically substantiated that if an onion is grown from a seedling as a repeated crop, the timing of its planting and the age of the seedling differ in the total and commodity yield, as well as the amount of ripened and immature onions in the commodity crop. It is based on the fact that the 45-day seedling of onions has an economic effect on the repeated crop for all periods.*

**KEYWORDS:** *onion, variety, seed, plant, planting scheme, harvest, care.*

**Introduction.** Onions are one of the most important crops along vegetables. The dry matter contains 13-20% (including 4-8% (including 4-4%), protein 3,5-4,5, mineral salts 0,6-1,1%, A, B, B<sub>1</sub>, B<sub>2</sub>, S, RR of RR stores.

Meterus of vitamin C and 3.75 mg of carotene in the green leaves of onions (100 g of raw material). In the contents of onions are vitamin C 2-3 times less than (3). Onions, especially bitter varieties, store phytosides that have a strong bactericity (decontamination).

Onions are based on the soil of the earthquake in the soil of the soil for three terms (early February in late March, in August and November), in August, and November). Onion yields not only the republic is ensured, but export a portion of the product. The gross product to be from it is the cultivation of the fields, not the expansion of the fields, but as a repeat of vegetables and cosures, as a repeat crop.

**Discussion.** In the context of the context of Uzbekistan, the technology of seedlings as a repetitive crop of seedlings is still not studied and there are no data in sources. However, information information can be used in the regions that sow the onions 45-65 days in regions that sow the onions of onions sow the seasons, sowed the satisfactory seedlings(1; 4; 5). Field experiments were conducted on the basis of the approved program and B.D.Dospexov (1986) (2).

Based on this, we conducted research work with the aim of determining the age of seedlings and planting deadlines for growing onions as a repeat crop. Field experiments for growing seedlings of different ages- (25, 35, 45 days) for three years (2016-2018), onion seeds were planted in the nursery on April 1, 11, 21 and May 1, 11 and grown in natural conditions.

45, 35, 25-day seedlings of the onion "Istikbol" variety were planted in 2 rows of 3 meters each in 3 repetitions in 3 terms (may 21-25, June 1-5, June 11-15), the seedlings to be taken into account were placed on an area of 4.2 m<sup>2</sup>. Onion three-row ribbon ( $\frac{40+15+15}{3} \times 7,5$  cm) planted in the method, sprouts were placed on each tape from 40 bushes, and on each repeat in total from 120 bushes. The research was carried out on this basis.

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When planting and growing onion sprouts for different periods in the summer season, their growth in different conditions and the variety of stages of development of seedlings influenced its yield (Table1).

**Table 1. The effect of planting time and seedling age on the overall yield of onions, ga/t (2016-2018)**

Planting periods	Seedling youth					
	25 days		35 days		45 days	
	Average yield, ga/t	In relation to the first term, %	Average yield, ga/t	In relation to the first term, %	Average yield, ga/t	In relation to the first term, %
May 21-25	33,6	100	37,1	100	44,2	100
June 1-5	29,3	87,2	35,7	96,2	41,8	94,6
June 11-15	24,2	72,0	29,8	80,3	40,2	91,0

One of the most important indicators of them in evaluation of planting periods in re-crops is a general formation from the surface unit.

In the observations of the same scheme ( $\frac{40+15+15}{3} \times 7,5 \text{ cm}$ ) in observations conducted in 2016, 2017 and 2018 on the influence of the age of planted onion sprouts and the yield of planting deadlines, it was found that 25 – day seedlings give an average of 33.6 t per hectare in the first planting period (may 21-25), 35 – day seedlings – 37,1 and 45-day seedlings-44,2 t.

The push of seedlings of different ages from the early term (may 21-25) towards the late term (June 11-15) negatively affected their yield. That is, 25 – day seedlings are planted in the second sowing period, compared to the first period-4,3 t. (12,8 %); in the third term – 9,4 t. (28,0%); 1.4 t in the second term on 35-day seedlings. (3,8 %); 7,3 t. (19,7 %) and by the terms of planting seedlings for 45 days, it turned out that the yield decreases by 2,4 (5,4 %); by 4,0 t/ha (9,0%), respectively. The average yield that seedlings planted on June 11 – 15 for 25 days formed for three years did not exceed 24,2 tons, and the sprouts of the same age planted in the first term were 12,8% less than their yield, and in comparison with those received from the second term-28,0%. So, in a repeated crop, it turned out that planting a 25-day seedling of onions in the second decade of June is practically irrelevant.

Planting onion sprouts of different ages in different periods of the summer season affected not only its, but also the overall yield, but also the quality indicators of the crop (weight of the onion, the amount of onions that are fully made and not produced, as well as the amount of notavar harvest). In the observations carried out to determine the quality of the crop for three years, the following became known. (Table 2).

in the first term, 85,1% of the total (33,6 t/ha) yield obtained from planted 25-day seedlings was commodity, of which the amount of ripening onions was 87,2%. The average weight of ripe onions was 74,1 g, and unripe ones – 36 g. When seedlings of the same age were planted in the second and third term, the commodity yield obtained from them was 23,8 t/ha (81,2 %), 18,5 t/ha (76,2 %), the amount of ripening onions – 20,3 t/ha (85,1 %), the immature ones – 3,5 t/ha (14,9 %), the average weight of ripening onions – 71,9 g, 61,1 g, and the weight of– 37,9 g, 32,1 g.

The fact that the age of onion seedlings is 25 days older than 10-and 20-day sprouts ensured that the total and commodity yield obtained by sowing periods and its quality were higher.

35-day seedlings, when planted in the first (21-25 V) period, 89% of the total (37,1 t/ha) yield is commodity onions, which should consist of 90% overripe, 9,6% overripe onions, and the weight of the set onions is 79,2 g., while those that are not reached – 40,9 g it was determined that it would

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make up.

In the second (1 – 5 VI) term, the commodity crop grown by planting a 35-day seedling is 30.1 Ha/t. consists of, of which the ripening onion heads – 26,6 ha/t, and the immature ones – 3,5 ha/t. established onion heads weight – 75.2 g, and immature ones – 40,1 g it turned out that the organization.

The onion crop is 77,1% (23,0 t/ha) of the total crop (29,8 t/ha) of commodity onions when grown by planting 35 – day seedlings in the third term (11-15 VI), of which the ripening onions – 84,1 % (19,4 t/ha), the immature ones – 15,9 % (3,6 t/ha) the average weight of ripening onions-72,1 g, while the immature ones were found to be – 35,9%.

**Results.** It was practically determined that the quality indicators of the crop, which the seedling formed for all periods of 45 days, were significantly higher than the quality indicators of the yield of 25 and 35 days of sprouts studied by comparison. The sprouts at this age are 98,9% (43,0 t) of the total (44,2 t/ha) yield formed by the first sowing period, of which the ripening yield is 98,9 % (42,6 t/ha), the immature is 11 % (0,4 t/ha), and the average weight of the onion heads made is 90,7 g, those that were not reached-the presence of 65,2 g was determined in the experiment. Having planted sprouts of the same age in the second and third term, the quality indicators of the resulting crop turned out to be as follows. The commodity yield is 96,0 % (40,2 t/ha) and 94,2 % (37,9 t/ha); the ripening onion in the total yield is 95,9 % (38,6 t/ha) and 94,5 % (35,9 t/ha), while the immature crop was found to be 4,1 % (1,6 t/ha), 5,5% (2,0 t/ha), respectively. The average weight of ripe onions is 85,7 and 80,0, and those of immature ones – 69,4 and 69,9 g was (table-2 and 3).

**Table 2. The impact of planting time and seedling age on the quality of the onion crop (2016-2018)**

Planting periods	Commodity yield, t / ha (%)			Ripened onion, stone crop, t / ha (%)			Unripe onions, a small crop, t / ha (%)		
	Seedling Age, Day								
	25	35	45	25	35	45	25	35	45
May 21-25	28,6 (85,1)	33,1 (89,2)	43,0 (97,1)	25,0 (87,2)	30,0 (90,4)	42,6 (98,9)	3,6 (12,8)	3,1 (9,6)	0,4 (1,1)
June 1-5	23,8 (81,2)	30,1 (84,3)	40,2 (96,0)	20,3 (85,1)	26,6 (88,2)	38,6 (95,9)	3,5 (14,9)	3,5 (11,8)	1,6 (4,1)
June 11-15	18,5 (76,2)	23,0 (77,1)	37,9 (94,2)	14,3 (77,1)	19,4 (84,1)	35,9 (94,5)	4,2 (22,9)	3,6 (15,9)	2,0 (5,5)

**Table 3. The impact of planting time and seedling age on the Average weight of onions (2016-2018)**

Planting periods	Average weight of onions, g						non-commodity yield, t / ha (%)		
	established			not found					
	Seedling Age, Day								
	25	35	45	25	35	45	25	35	45
May 21-25	74,1	79,2	90,7	36,0	40,9	65,2	5,0 (14,9)	4,0 (10,8)	1,2 (2,7)
June 1-5	71,9	75,2	85,7	37,9	40,1	69,4	5,5 (18,8)	5,5 (15,4)	1,6 (3,8)
June 11-15	61,1	72,1	80,0	32,1	35,9	69,9	5,7 (23,5)	5,4 (18,1)	2,3 (5,7)

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Planting periods and seedling age are non-commodity (10 g. the amount of onions) also affected the amount of onions. In all terms of planting a 25 – day seedling, non – commodity onions were found to be from 5,0 t/ha to 5,7 t/ha or from 14,9% to 23,5 %; when planting a 35-day seedling - from 4,0 t/ha to 5,4 t/ha or from 10,8% to 18,1, and when planting a 45-day seedling, respectively-1,2-2,3 t/ha or 2,7-5,7%.

The fact that the differentiation between experiments was not large enough is a sign that the research was carried out correctly.

**Conclusion.** So, it was scientifically substantiated that in the soil – climatic conditions of the central region of the Republic of Uzbekistan, onions can be grown as a replant crop.

Onions as a repeated crop provide a high-quality harvest if seedlings of 35 and 45 days are planted in the second December of June on the lands vacated from early vegetables (fairy-tale cabbage, potatoes, rediscobs and cobs) and multiply the total yield obtained in one season from one land by two drums. It is no doubt that the cultivation of onion crops in this method will bring an economic effect to the farm. In a repeated crop, it is not recommended to plant a 25-day seedling of onions on the second and third terms.

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