Influence of Onion Seedlings Planting Period and Age on Seeds Quality Indicators

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Abstract: In the dry, hot climate of the Republic of Uzbekistan, the effect of planting onion seedlings of different ages on the soil free from the previous vegetables as a repeated crop for different periods on their growth and development is highlighted. It has been scientifically proven that when onion is grown from seedlings as a repeated crop, its planting dates and the age of seedlings differ from each other with more or less real leaves on each bush, as well as with the length, weight and diameter of the largest leaf, and the thickness or thinness of the false stem.

Keywords: onion, variety, seed, plant, planting period, harvest, care.

Introduction. In order to fully satisfy the demand of the population of Uzbekistan and to achieve the export of onions in large quantities, the need to increase the production of onions remains a necessity of the time. It is impossible to increase its production at the expense of expanding its cultivated area, because our land for irrigated agriculture is limited. One of the reserves for increasing onion production is to grow it from seedlings as a recurrent crop in irrigated agricultural land, which is freed from the legendary vegetables cabbage, radish, ultra-quick potatoes, corns, etc. But these lands are empty of fairy crops at the end of May and early June, planting onion seeds in these lands artificially shortens the growing season, so the onion heads do not fully form and ripen. This can be achieved by planting onion seedlings in order to obtain a ripe onion head in a short season.

The method of obtaining fully ripened onion heads by planting onions from seedlings is partially used as a main crop in regions where onion crops are grown for two years.

Research methods. The manuals of B. J. Azimov, B. B. Azimov "Methodology of conducting experiments in vegetable, vegetable and potato growing" (2002), "Methodology of experimental business in vegetable growing and melon growing" (1992) by V.F. Belik were used in carrying out research.

It was found that the duration and age of planting onion seedlings in a repeated crop have different effects on their quality indicators (see Table 1).

The number of ching leaves produced in 25-day-old seedlings planted in the first period (May 21-25) was 2.4, in the second period - 2.3, and in the third period - 2.4.

Seedlings differed from each other according to planting dates, not only by having more or less true leaves on each plant, but also by the length, weight and diameter of the largest leaf, and whether the diameter of the false stem was thick or thin (see Table 1).
Table 1. Effect of planting time and age on seedling quality indicators

<table>
<thead>
<tr>
<th>Planting period</th>
<th>25 days</th>
<th>35 days</th>
<th>45 days</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The number of true leaves in 1 bush, pcs</td>
<td>length of the largest leaf, cm</td>
<td>Weight of 1 seedling, g</td>
</tr>
<tr>
<td>May 21-25</td>
<td>2.4</td>
<td>15.2</td>
<td>1.3</td>
</tr>
<tr>
<td>June 1-5</td>
<td>2.3</td>
<td>14.1</td>
<td>1.5</td>
</tr>
<tr>
<td>June 11-15</td>
<td>2.4</td>
<td>14.4</td>
<td>1.4</td>
</tr>
</tbody>
</table>

The average length of the largest leaf of seedlings prepared for the first (May 21-25) planting period was 15.2 cm, in the second period - 14.1 cm, and in the third period - 14.4 cm. The average weight of the seedlings planted in this period is 1.3–1.5 g, the diameter of the false stem, respectively, according to the planting period: 2.3; It was 2.5 and 2.4 mm.

The growing age of planted seedlings also affected their quality indicators. It was found that the number of leaves formed in each bush of 35-day-old seedlings was 2.8–3.1 pieces according to the planting period, and it was 0.6-0.9 more than the number of leaves of 25-day-old seedlings. It was also found that the length of the largest leaf is 6.2 cm, the average weight of one seedling is 1.1 g higher, and the diameter of the false stem is 0.7 mm more.

It was found that the highest quality indicators occur in 45-day-old seedlings. That is, the average number of leaves formed in seedlings prepared for planting in all periods was 4.2 pieces. It was found that the number of leaves formed in the seedlings planted on May 21-25 was 4.6, and the number of leaves in the seedlings planted in the second and third period was 4.2 and 3.8, respectively.

Prepared seedlings differed from each other according to the length of the largest leaf, the weight of the seedling and the diameter of the false stem. In this case, the average length of the largest leaf of a 45-day-old seedling prepared for the first term was 27.8 cm, this indicator of seedlings planted in the second and third term was 1.4; It turned out to be 0.9 cm shorter. The average weight of the seedlings is 6.2 g, the weight of seedlings planted in the first period is 6.7 g, the weight of those planted in the second and third periods is 6.1; It was 5.8 g, or it was found to be 0.6 - 0.9 g lighter than the weight of the seedling planted in the first term. The pseudostem diameter of 45-day-old seedlings was found to be in the range of 5.1–4.3 mm.

25, 35 and 45-day seedlings of different ages prepared for all planting periods differed sharply from each other in terms of quality indicators. This was influenced by different air temperatures during and during the germination and growth period.

So, to grow onions as a repeated crop, the time of planting and preparation of seedlings has a different effect on their quality indicators.

**Used literatures**


3. Agricultural crops recommended for planting in the territory of the Republic of Uzbekistan. State register. 2017
