



Determination of Appropriate Planting Period for Growing Leaf Cabbage

1. Abdaliev Hayitboy Khaliqul ugli
2. Nizomov Rustam Akhrolovich
3. Aripova Shakhnoza
Rakhmanovna, PhD

Abstract: This article provides information on the results obtained in determining the optimal sowing time, one of the technologies for growing cabbage (*Brassica oleracea* var. *acephala*), an unconventional vegetable crop in agriculture around the world, depending on the soil and climatic conditions of Uzbekistan.

Key words: leafy cabbage, sowing period, seedlings, leaf, yield.

Received 2nd Aug 2023,
Accepted 19th Aug 2023,
Online 20th Sep 2023

¹ first-level doctoral student

² DS, Professor

³ Research institute of vegetable, melon
crops and potato

Introduction. Population growth, increased demand for land, water and energy resources, as well as drastic climate change are the main factors affecting food security. Concepts of state policy in the field of healthy nutrition of the countries of the world envisage wide consumption of a wide range of vegetable crops. It is widely believed that vegetables are not only food, but also medicine [3, 6].

In recent years, as a result of the implementation of a number of measures to strengthen food safety in the republic, Uzbekistan has strengthened its position in the world and gradually improved its position in global rankings. The volume of production of vegetables, fruits, potatoes and potatoes in Uzbekistan is significantly higher than the level of consumption [4, 5].

In this regard, PF-4947 of the President of the Republic of Uzbekistan dated February 7, 2017 "On the strategy of actions for the further development of the Republic of Uzbekistan", October 23, 2019 "Agriculture of the Republic of Uzbekistan In Decree No. -5853 "on approval of the development strategy for 2020-2030" It is defined as one of the important tasks of "developing and implementing the national food safety policy" [1, 2].

Uzbekistan's agriculture can compete with highly developed countries in terms of the area of cultivated vegetable crops. However, the range of vegetables in Uzbekistan is limited. Unfortunately, 88% of vegetable products are served with only six types of plants.

Therefore, increasing the variety and types of vegetable crops and improving some elements of the technology of growing cabbage (*Brassica oleracea* var. *acephala*) from non-traditional vegetable crops suitable for climatic conditions is one of the urgent problems.

Research method. Researches were carried out at the experimental site of the Research Institute of Vegetable, Melon Crops and Potato. Researches were carried out on 20 plants in each sample, with 4 rows, 2 rows, rows 5.15 m long, calculated area 5.6 m² and planting scheme 70x40 cm. Leaf cabbage was planted in different periods in the experiments. 4 deadlines of March 1, March 10, March 20, and April 1 were set..

The second date (March 10) was chosen as the control period, taking into account that the air temperature in early spring should not be higher than the minimum of 15-20⁰C, as well as the average soil moisture. Due to the lack of scientific research on kale (kale) in the conditions of Uzbekistan, there is no variety included in the state register of kale, so the research is carried out by planting the "Oldenbor" variety, which belongs to the Dutch selection of kale, in different periods. studied.

In the studies, the seeds of leafy cabbage were sown in greenhouse conditions in 10x10 cm cups. In the experiments, 10-75% phenological observations were made on the germination of seedlings of the plant and the release of 1 true leaf and 4-5 true leaves. According to the observations, 10-75% of the sprouts of the sprouts of cabbage planted in the control period were 8-12 days, while the sprouts of the sprouts of cabbage planted in the 3-4 periods were 1-2 days earlier than the control option, as well as It was found in the experiments that the release of 1 true leaf was 2-3 days earlier than that of the control variant in terms of the release of 4-5 true leaves.

It was reflected in the phenological observations that the sprouts of leafy cabbage planted in the first period were 1 day later than the control period in terms of germination, 1 leaf and 4-5 leaves. In experiments, 35-day-old seedlings of leafy cabbage planted according to dates were planted in open fields on March 1, March 10, March 20, and April 1.

Biometric measurements of the plant height, the number of leaves and the level of the leaves of the cabbage planted in different periods were carried out.

The height of the plant in one bush of cabbage in the "Oldenbor" variety planted in the control period was 68,5 cm 100%, compared to the height of the plant in one bush of the variety planted in the third and fourth periods was 11,7; It was found to be 10,7% higher. Also, in terms of the number of leaves and leaf level of plants in one bush, the indicators of the third and fourth periods are 22,3 more leaves than the control period; 33,3 percent at the leaf level, 47,6; The fact that 35,7 percent died above the control period was reflected in the results of biometric measurements. The indicators of the plant height, leaves, number and level of leaves of the cabbage planted in the first period are 4,5 compared to the variety planted in the control period; 22,2; It became clear that it was 16,3% lower.

According to the results of the research, the leaf length of the cabbage planted in different periods was 13 cm 100% in the control period, and the width of the leaves was 8 cm 100%, compared to that, the leaf length of the cabbage planted in the third and fourth periods was 7.7; 23.1 percent, leaf width 25.0; It was found that 37.5% of the indicators were higher than the control option.

Experiments showed that the results of the "Oldenbor" variety planted in the first period of cabbage planted in different periods were 15,4 leaf length and 25,5% lower than the control period. Leaf weight per bush, total yield and product yield of cabbage planted in different periods differed according to periods.

When calculating the leaf weight of cabbage planted in different periods in early spring, total yield and market yield, the leaf weight of cabbage planted in the control period was 1.2 kg, compared to 100%. The indicators of the cabbage planted in the third and fourth periods (1,4-1,5 kg) are 16,7 and 25,0% higher than the control, and the total yield is also 16,7 and 25,0% higher than the control. It was reflected in the results of the accounting book that the indicators of the yield of the cabbage planted in these periods were higher compared to the variety planted in the control period.

The results of the study showed that the "Oldenbor" cabbage variety, planted in the first period, was 33,3 and 33,2 percent lower than the control variant in terms of fruit weight per bush, total yield and product yield.

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