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The effect of irrigation procedures on the indicators of the white cabbage root system and the upper part of the earth

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Summary: Many studies have been conducted in the country on the development of elements of technology for the selection and cultivation of white cabbage varieties, and its promising varieties have been selected and other elements of planting time, planting schemes, and cultivation technology have been developed and widely introduced. But research on the cultivation of white cabbage through drip irrigation technology has hardly been carried out.

Keywords. White cabbage, cabbage, limited field wet capacity, soil moisture, irrigation order, root system.

Many studies have been conducted in the country on the development of elements of technology for the selection and cultivation of white cabbage varieties, and its promising varieties have been selected and other elements of planting time, planting schemes, and cultivation technology have been developed and widely introduced. But research on the cultivation of white cabbage through drip irrigation technology has hardly been carried out.

Water is taken up through the tree's roots and treated to the leaven, washed or pulled down. Also, nutrients along with water are absorbed through the roots of the plant.

In order for the plant to absorb water through the root system and the process of evaporating through the leaf to go right, there must be enough moisture in the soil, which is achieved by irrigating the plant.

Water is taken up through the tree's roots and transported to the leaves by a sophisticated surface.

Therefore, in a resourceful method of irrigation, it is necessary to study the demand for water for cabbage, taking into account the level of water. The development of new technologies that will reduce water consumption and, as a result, improve soil agrophysics will play a major role.

Scientists and researchers believe that one such technology is the method of drip irrigation of crops.

During the growth and development of cabbage, irrigation methods and norms are of great importance.

The process of growth in plants is carried out by the growth of cells, tissues and organs. (A.S. Krujilin, 1977) Jehovah's Witnesses would be pleased to discuss these answers with you.

Since cabbage is a fast-growing plant, it is considered water-demanding. Especially when the reproductive organs are formed, its demand for water greatly increases. Maintaining the optimal water order, it is possible to maximize the growth of all bodies of cabbage and thus increase its productivity.

White cabbage is a very demanding crop for moisture. This is characterized by its morphological characteristics, that is, if the large size of the leaf surface causes a large amount of evaporation, the lack of deep penetration of the root system into the soil does not allow moisture in the lower layers to absorb.

Lack of soil moisture in dry and hot climates in the province of Surkhandarya is a factor that restricts stable high yields from white cabbage. This prohibits the use of water-saving technologies in the cultivation of this crop.

Since then, research has been conducted to examine the impact of drip irrigation technology on white cabbage growth, development and harvesting.

As the object of our research, the Thermal-2500 variety, which corresponds to the hot climate in the province of Surxondary, served.

Physical properties of the soil: the volume mass was determined by cylinders (Kachinsky style, cylinder size - 500 cm3), porous Doyarenko style, lumbling water physical properties (in Rozov mode), and the ability of the soil to conduct water in square-Rom mode.

The resulting productivity data was mathematically processed based on the B.A. Dospexov (1985) method.

It is known that soil moisture plays an important role in determining the development and yield of cabbage growth. Therefore, irrigation at various stages of development requires an optimal level of soil

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moisture. With the optimization of soil moisture, it is possible to control the growth and development of cabbage.

Table 1 shows the growth dynamics of underground and above-ground parts throughout the Thermal-2500 navi development phases. It has been noted that the growth rate in tyre development phases is not the same. That is, at the beginning of the vegetation period, seedlings grow slowly, since the root system does not develop well. Then there was the active growth period of the aboveground part, and it was noted that growth slowed down again at the end of the vegetation period.

Table 1
The effect of irrigation procedures on the indicators of the root system and the upper part of the earth's surface

Indicators	Irrigation order, % compared to CHDNS		
	70	80	90
Ball formation phase			
Height of the upper part of the earth, cm	20,4	21,1	21,8
Root length, cm	21,9	22,5	20,8
Cabbage wrapping phase			
Height of the upper part of the earth, cm	25,5	26,4	29,7
Root length, cm	33,4	29,3	26,6
Technical ripening phase			
Height of the upper part of the earth, cm	38,6	40,5	42,2
Root length, cm	48,2	41,4	40,5

The growth process of the thermal-2500 variety of the aboveground part took place rapidly during the ball formation phase and was 0.3-0.35 cm per milk.

While the growth rate of the root system was relatively low to the generative organ formation phase, from the beginning of this phase to the karambosh wrapping phase, the root developed very quickly. After that, by the end of the vegetation period, the growth process of the root system slowed down.

Thus, plants have a strong correlation between the top of the earth and the growth and development of the root system, and the larger their top-of-the-earth, the more advanced the root system becomes. Therefore, proper organization of irrigation favorably affects the development of the aboveground part and the root system, resulting in high yields.

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