

**METEOROLOGICAL CONDITIONS AND PECULIARITIES OF CARROT
SPRINGING IN REPEATED CULTURE**

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ANNOTATION

It is reported that due to elevated temperatures in the first half of the vegetation of the plants, the carrot, when re-cultivated, gain a high sum of temperatures higher than 10 0 C for the entire growing season in the range 1393-14000 C . The carrot gives the highest yield in the second crop when sowing seeds on July 10th. The lowest yield forms plants sown on July 20.

Keywords; carrots, leaves, seeds, temperature, humidity, sowing, sowing dates, root crops, productivity, re-culture.

INTRODUCTION

Due to the high content of nutrient and biological active substances, carrots are a valuable product and have a therapeutic value in the nutrition of the population. Demand for it in the market is constantly growing.

The organization of a healthy diet requires the consumption of fresh vegetables, including carrots, throughout the year. To extend the deadlines for the receipt of carrots from open ground in Uzbekistan, its early spring, late spring and summer terms. At different growing times, the development of plants proceeds at different temperatures and relative humidity. It is of great interest how much they meet the requirements of plants and what effect they have on the growth, development and productivity of carrots. The results of our research on this issue are presented below.

The study of the issue

Carrot is a two year old and cold resistant plant. Their seeds germinate at a temperature of 4-60 C, seedlings bring in frosts of 2-30 C. The marketable part of plants is better formed at temperatures of 15-250 C. Carrots are long-day plants. With shading and thickened crops, they sharply reduce the yield. Young shoots of carrots are especially in need of intensive lighting. Therefore, germination of seedlings destruction of weeds is one of the most important conditions for obtaining a high yield.

Carrots are a relatively drought tolerant plant, but also for it during the period of seed germination, which has a dense shell, and during the intensive growth of root crops, high soil moisture is required (70-75%. HB).

The climate of the northern zone of Uzbekistan is characterized by the presence of warm weather without severe frosts from the second half of March to the end of October. The summer period is characterized by high temperature (up to 41-430 C) and low relative humidity (28-40%), which is very unfavorable for carrots.

Therefore, the study of the meteorological conditions for the growth of carrots with a repeated growing period and their influence on the characteristics of plant growth is of great scientific and practical interest.

MATERIALS AND RESEARCH METHOD

To study the meteorological conditions for the growth of carrots during re-culture, we conducted an analysis of long-term and annual indicators of temperature and relative humidity according to daily average data and compared them with the requirements of plants for these environmental factors.

When determining the influence of meteorological conditions on the growth and development of plants, we used data on the number of leaves, the average mass of root crops, and the yield obtained for different periods of sowing carrots in the repeated culture grown from early July to late October.

RESEARCH RESULTS

An analysis of the weather conditions for the growth of carrots in a re-culture indicates that it passes at a constant drop in temperatures that are below the limits that stop leaf growth (below 250 C) and have been established since mid-August. It is optimal from September to the first decade of October, and then it becomes lower than optimal, but still sufficient for the formation of root crops (Table 1).

Due to elevated temperatures in the first half of the growing season, carrot plants during repeated culture gain a high sum of temperatures higher than 100 C for the entire growing season within 1393-1400 0 C.

Plants, when re-cultivated, grow until early October in the absence of precipitation, only in October it rains lightly. The absence of precipitation and high temperatures cause low relative humidity. Until October, it is 41-43%. In October, increases slightly (48-49%), but remains unfavorable.

Table 1

Meteorological conditions for growing carrots in re-culture at different sowing dates, (long-term data m / s "Chimbay")

Month	Decades	Average daily temperature 0 C	Sum of higher temperatures 100 C	Rainfall mm	Relative humidity, %
July	1	31,7	217	-	44
	2	31,6	216	-	34
	3	28,7	187	0,0	42
August	1	28,2	182	-	40
	2	25,6	156	5,8	42
	3	21,0	110	-	43
September	1	18,7	87	-	47
	2	19,5	93	-	45
	3	17,4	74	1,7	53
October	1	15,2	52	0,0	42
	2	8,6	-	18,0	53
	3	11,3	13	1,9	49

Of the tested dates for sowing carrots (July 1, July 10 and July 20) during summer culture, the highest yield is formed when sowing on July 10. (Table 2).

table 2

The number of leaves, the average mass of the root crop and the yield at different planting dates. (2017-2019)

The timing sowing	Variety Mirza yellow		
	The number of leaves pieces / plants	Average weight root vegetables g	Commodity harvest, t / ha
	10,5	118	28,5
July 1	13,5	121	33,5
July 10th	11,5	112	26,5
July 20	-	-	3,3

The smallest yield, due to low temperatures in the second half of the growing season, is formed by sowing carrot seeds on July 20.

FINDINGS

1. During the summer culture, carrot crops grow with a drop in temperature: until mid-August at excessively high, then from September to the first decade of October (15-180 C) at optimal.
2. The largest root crops and the highest yield are formed when sowing carrot seeds -10 July, the smallest -20 July.

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