

## CHAPTER 5 FRUIT AND VEGETABLE GROWING

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### THE INFLUENCE OF PLANT PLACING SCHEME ON THE CROP PRODUCTIVITY OF KOHLRABI

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**Formulation of the problem.** Importance in the formation of kohlrabi rotation has the density of placement of plants. For liquefied plants, the plants are well lit, the conditions for soil nutrition are improved, as a result of the increase in the crop of each plant. However, with an increase in the feeding area, the harvest usually increases more slowly than during the thickening of plants in this area. Consequently, the question of the density of plants of kohlrabi is relevant and needs to be studied in specific soil-climatic conditions.

**Presenting main material.** The research was carried out on the experimental field of the Department of Fruit and Vegetables and Storage of the KNAU named after V. V. Dokuchaev during 2012–2014. In accordance with "Methodology of the experimental case in vegetable". The soil of the experimental site - black typical, little humus, medium loamy on carbonate forest. The object of the research – the cabbage kohlrabi of the Snigana variety – entered in the State Register of plant varieties, suitable for distribution in Ukraine. Plants in experiments were placed according to the schemes:

1. (40+100)×20 (71,4 th. pcs/ha) – control
2. (40+100)×10 (142,8 th. pcs/ha)
3. (40+100)×30 (47,6 th. pcs/ha)
4. (40+40+60)×10 (212,7 th. pcs/ha)
5. (40+40+60)×20 (107,5 th. pcs/ha)
6. (40+100)×30 (71,4 th. pcs/ha)
7. 70×10 (142,8 th.pcs/ha)
8. 70×20 (71,4 th. pcs/ha)
9. 70×30 (47,6 th. pcs/ha).

Seedlings planted in the third decade of May. The repetition of the four-fold, the area of the registration area of 11,2 m<sup>2</sup> of placement of variants in the experiment is systematic. Harvesting and harvesting were carried out by weight method.

There is a direct relationship between yield and plant density – the higher the density the higher yield. But it must be borne in mind that, with a significant increase in density, the marketability of the crop is partially reduced (Table 1).

Table 1

Crop productivity of kohlrabi depending on placing plant scheme  
(average for 2012–2014)

Placing plants scheme	density, th. pcs. /ha	Total	Commodity	Commodity, %
(40+100)×20(κ)	71,4	11,9	11,7	98,3
(40+100)×10	142,8	16,4	15,9	97,0
(40+100)×30	47,6	8,7	8,6	98,9
(40+40+60)×10	212,7	26,2	23,0	87,8
(40+40+60)×20	107,5	12,8	11,8	92,1
(40+40+60)×30	71,4	12,1	11,7	96,7
70×10	142,8	21,9	20,0	91,3
70×20	71,4	9,0	8,4	93,3
70×30	47,6	7,6	7,4	97,4

The best result of commodity yield was obtained by the tape-laying method (40+40+60)×10 cm and a density of 212,7 th. pcs/ha (23,0 t/ha), but the content of standard products was higher than the cultivation scheme of 70×10 cm – 17,3 t/ha.

**Conclusions.** Our studies have shown that, on average, over three years, in conditions of different densities, the plants formed the standard sizes both in size and weight of stemplots, but their yield was different. In the conditions of the Left Bank Forest-steppe of Ukraine, the arrangement of 70×10 cm was the best, which provided the largest yield of standard products per hectare – 17,3 t/ha.

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