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# **Morphobiological Estimation of the Basilic Initial Material and its Use in Selection**

**Nurmamatov Furkat Abduganievich**

Assistant, Tashkent State Agrarian University, Termez branch, Termez, Uzbekistan.

**ABSTRACT:** The article presents the agrotechnology of cultivation of basil (*Ocimum L.*), as well as an assessment of the main morphological, phenological, and main economically useful traits for their use in the selection process of basil.

**KEY WORDS:** basil, varieties, leaf size, yield, quality, economically useful traits.

## **I. INTRODUCTION**

Today, the existing range of cultivated plants can be obtained by creating new varieties, studying methods and biology of the less-developed crops, and increasing the seeds and seedlings for proper sowing.

Many new and less common plants are particularly remarkable with their fertility, ripeness, high levels of vitamins, amino acids, mineral salts, and season selection. Therefore, the country attaches great importance to the full satisfaction of the population's demand for foodstuffs and the increase of their vegetation.

Basilic's (*Ocimum basilicum L.*) country the southern parts of Asia are India and Sri Lanka and are cultivated in almost all countries of the world as a valuable vegetable crop. Basilic is one of the few and most recently studied plants in Uzbekistan.

Basilic is used as an ornamental plantation for greenery, if used in the food industry (meat processing, canning, and soft drinks), spice, folk medicine, medical, pharmaceutical, and perfume.

There are about 200 nearby species of basilic, which are cultivated by close to 10 species of ordinary rhinoceros (*Ocimum basilicum L.*) sown as a spice and ornamental plant in the natural environment. In order to reproduce this plant as food and ornamental plant, nowadays, research works are being carried out in the Republic of India, the Republic of Belarus and the Russian Federation.

## **II. THE MATERIALS AND METHODS OF RESEARCH**

For the morphological study of the primary source of basilic selection, more than 30 varieties of varieties were studied at the Surkhandarya Research Station of Vegetable and Growing Plants and Potato Studies Scientific Research Institute in 2018 - 2019. Experts Researchers from the Belarusian State Agricultural Academy T.V.Sachivko, VN. (BGSXA: Gorky - 2015), which was developed by Bosak et al., "Osobennosti Agrotechnics and Selection basilica (*Ocimum L.*)".

The purpose of the experiment is to select the best varieties of biological and biological marks by selecting a comprehensive assessment, quality analysis and taking into account the phenological observations. In order to create new varieties of modern requirements, the varieties were selected for high productivity, suitable for environmentally friendly, mechanized agro-machinery mechanization and obtain high-quality finished products.

In the phenological observations, along with different ecological and geographical origin of the region, their major economic features, morphology, such as the size of the plant, the size of the leaf plate, the number of leaves, leaves and shoots in the plant, the length of the bulbous branches, and the gingival horned branches were studied.

As a result, the significance of the minimal and maximal morphological features of the rhythm was determined and the samples studied were divided into the following groups:

- on plant height: low, medium and high;
- according to the size of the leaf: small, medium and large leaf;
- on the color of the leaf: green and purple;
- smell.

Table 1. The result of phenological observations of basilic varieties

№	Samples of varieties	sprouting		Color of the leaf	Length and width of the sheet plate, cm		Edge edge of the leaf	Overall height	Smell
		10%	75%						
1	Black basilic (control)	18.02	22.02	Purple	5,6	3,5	Without edge	Medium	Fragrant odor
2	Black basilic №1	18.02	22.02	Purple	5,2	2,8	Without edge	Medium	Buyimordon
3	Black basilic №2	18.02	22.02	Purple	4,8	2,9	Without edge	High	Peppermint
4	Violet	17.02	21.02	Green	5,2	3,4	Without edge	High	Peppermint
5	Violet №1	19.02	23.02	Purple	5,4	3,5	With edge	High	Pepper beard odor
6	Violet №2	19.02	23.02	Purple	6,3	4,2	With edge	Medium	Buyimordon
7	Purple coral №1	18.02	23.02	Purple	5,4	3,3	With edge	High	Smells like caramel
8	Purple coral №2	18.02	22.02	Purple	5,5	3,6	Without edge	High	Pepper beard odor
9	Purple coral №3	18.02	23.02	Purple	6,0	3,7	With edge	High	Buyimordon
10	Purple coral №4	20.02	24.02	Purple	5,8	3,6	Without edge	Medium	Pepper beard odor
11	Purple coral №5	20.02	24.02	Purple	5,6	4,5	Without edge	Medium	Peppermint
12	Sada Rayhan (light green) №1	18.02	22.02	Purple	5,4	2,6	Without edge	Low	Smells like Dianthus
13	Sada Rayhan (light green) №2	20.02	25.02	Green	4,9	3,5	Without edge	High	Pepper odor
14	Sada Rayhan (light green) №3	19.02	23.02	Green	5,1	3,2	Without edge	High	Buyimordon
15	Sada Rayhan (light green) №1	18.02	22.02	Green	4,8	3,6	Without edge	High	Pepper beard odor
16	Sada Rayhan (light green) №2	20.02	24.02	Green	4,9	2,9	Without edge	High	Smells like caramel
17	Philosopher №1	18.02	22.02	Purple	5,4	3,3	Without edge	Medium	Smells like Dianthus
18	Philosopher №2	18.02	22.02	Purple	4,9	3,5	Without edge	Medium	Peppermint
19	Jon Rayhan №1	19.02	24.02	Green	5,5	4,4	Without edge	High	Fragrant odor
20	Jon Rayhan №2	18.02	22.02	Purple	5,2	3,4	Without edge	Medium	Pepper beard odor



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21	Osh №1 Rayhan	19.02	24.02	Green	4,6	3,4	Without edge	High	Smells like Dianthus
22	Osh №2 Rayhan	18.02	22.02	Green	4,2	2,6	Without edge	High	Smells like apple
23	Vz 003	18.02	22.02	Purple	6,2	4,9	Without edge	Medium	Smells like lemon
24	Vz 001	18.02	22.02	Purple	1,4	0,8	Without edge	Low	Smells like apple
25	Vostorg	18.02	23.02	Purple	6,5	3,7	With edge	Medium	Pepper beard odor
26	Purple basil giant	18.02	22.02	Purple	6,6	3,9	With edge	Medium	Fragrant odor
27	Green leaf	20.02	22.02	Green	2,8	1,8	Without edge	Low	Fragrant aromatic fragrance
28	Baxt	18.02	22.02	Green	6,4	5,0	Without edge	Medium	Smells like lemon
29	Kuk Rayhan	18.02	22.02	Green	5,3	2,8	Without edge	Medium	Fragrant odor
30	Siyohrang Rayhan	19.02	24.02	Green	4,2	2,4	Without edge	High	Smells like caramel

Seeds are planted on the 9th of February, 2019 at a depth of 2 to 3 cm, 2 grams per square meter, and 10% of most varieties are sprouted for 9 days and 75% of seeds are grown in 14 days. These indicators are valid for 1-2 days, depending on the control.

From the varieties studied as the starting point for basilic selection, the following promising varieties were selected:

- according to time of manufacture - Fioletovyy;
- according to the size of leaf - green and varieties of the leaf;
- Plant height – Fioletoviy and Purpuriy Korall №3 varieties.
- odor - green leaf;
- according to the antitumor pigments in the leaf plate - Purpurnyi Korall №3.

### III.SUMMARY

As a result of the phenological observations on different varieties of ecological and geographical origin, 4 varieties of highly variable varieties were selected in the country, which is considered to be the most promising for the region. Fioletovyy, Bakht, Bargi Yashil and Purpurin Korall No. 3 were selected for the selection of the main breeding grounds, as well as for selective breeding purposes in industrial and domestic farms.

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**AUTHOR'S BIOGRAPHY**

№	FULL NAME PLACE OF WORK, POSITION, ACADEMIC DEGREE AND RANK	PHOTO
1	<p><b>Nurmamatov Furkat Abduganievich,</b> Assistant, Tashkent State Agrarian University, Termez branch, Termez, Uzbekistan.</p>	