P-15 (112)

MORPHÓLOGICAL, BIOLOGICAL AND BIOCHEMICAL CHARACTERISTICS OF SATUREJA SUBSPICATA BARTL. EX VIS (LAMIACEAE) INTRODUCED IN THE NIKITA BOTANICAL GARDENS

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Introduction of Mediterranean aromatic plant species to the southern coast of Crimea is very perspective in order to use them for breeding and creation of new promising hybrids. The species Satureja subspicata Bartl. ex Vis. (Satureja montana ssp. illvrica (Host) Nyman) has been introduced to the collection of aromatic plants in the Nikita Botanical Gardens from Germany. In the conditions of the Crimea S. subspicata species has adapted, passes through all the phenological phases and produce viable seeds. Because the detailed descriptions had not been presented for this species yet we studied and describe in details morphology of the aerial parts S. subspicata plants. It was found that the studied plants under the conditions of the Southern Coast of the Crimea had broad leaves (4-5 mm) with a great number of essential oil glands on both sides of leaf blades. The flowers are small, clustered in limited monotelic inflorescences dithyrse. Eight years-old squat shrubs form up to 300 generative stems per shrub and there are about 1000 flowers along a single stock. The productivity of the plants is high and varies from year to year, an average on is 152 kg/ha. The plants are promising for further studies and perspective as an essential oil crop, the mass fraction of the essential oil is 0.9-1.32% of the dry weight, an oil production is 53-60 kg/ha. The essential oil is of a carvacrol type (carvacrol 50-60%) that indicates its high antimicrobial and antibacterial activity and possibility for its use in the food and pharmaceutical industries. Squat evergreen S. subspicata shrubsare characterized with a long flowering period and could be used in an ornamental horticulture in rockeries, foreground mixborders, gardens on gravel.

<u>Keywords</u>: Introduction; morphological description; Satureja subspicata; essential oil; essential oil component composition

**Acknowledgement:** This study was funded by a research grant № 14-50-00079 of the Russian Science Foundation