



## Research regarding the influence of the variety on biometric attributes at *Melissa officinalis* L

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**Abstract:** Medicinal plants are cultivated or spontaneous plant species, and which, under various forms - serve health from the beginning of the world. As the chemical industry develops, some of the popular remedies were given another form, they were modernized. Most of the time the effect of using medicinal plants is slower, requiring longer treatment, but it is less - risky and cheaper.

### • Introduction

Roinita is one of the oldest medicinal plants to be grown on small areas since ancient times (PAUN, 1988).

The plant is important for its leaves harvested during flowering - Folium Melissa - or for obtaining volatile oil 0.05 – 0.30% (made up of citral, citronellol, citronel, geraniol, linalool, tannin, caffeic acid - a crystallized bitter principle, ursolic and oleanolic acid, stachiosis, etc. ), when it can be used as raw material and the aerial part at the beginning of flowering -Herba Melissa.

### • Material and method

The comparative culture was organized on a uniformly fertilized background of phosphorus, potassium and manure and with varying doses of nitrogen, within the Experimental Didactic Station, on a soil of the cambic chernoziom type, with the following graduation:

a1 - of De Dobrotesti;

a2 - of De Brosteni;

a3 - of De Voivodina.

The rehearsal number was three.

One may notice that the forerunner plant was the autumn wheat crop.

After harvesting the wheat, 20 t/ha of very well fermented manure and phosphorus and potassium fertilizers were applied, after which the ploughing was carried out at 23 to 25 cm, which incorporated the fertilizers.

The multiplication was done by parting with the bushes.

In the spring, nitrogen fertilizers were applied, which were incorporated with discs harrow. The bushes separated by segmentation and were replanted in the gutters at a distance of 60 cm between rows and 30 cm between plants at a time.

Planting took place in the second decade of March. After planting, watering was carried out.

During the growing season, three hoeing and folds were carried out at a time.

### • Results and discussions

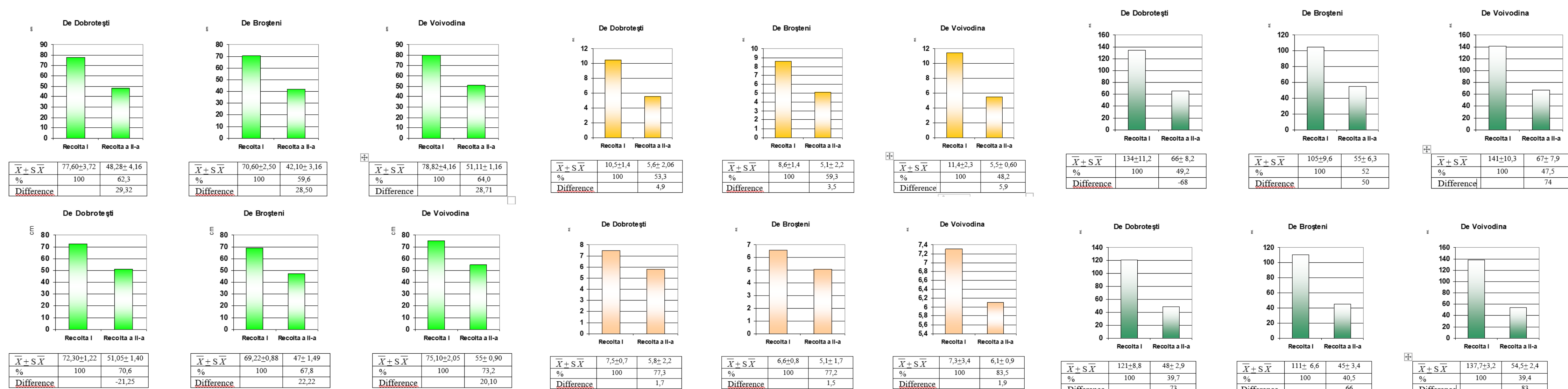


Figure 1. Plant height recorded in 2018 and 2019

Figure 2. Degree of branching recorded in 2018 and 2019

Figure 3. Number of leaves recorded in 2018 and 2019

The degree of branching was lower in the third year of vegetation compared to that of the second year. The values of the determinations were between the limits 6,3 (the origin of the De Brosteni) and 7,5 (the origin of De Dobrotesti) at harvest I, and between 5,1 (De De Brosteni) and 6,1 (De Voivodina) at the second harvest.

The results of the determined elements are positively correlated with the herba harvests obtained from the two harvests of the third year of vegetation

### • Conclusions

The height of the plants in the second year at the first harvest was between 69 cm in the population of De Brosteni and 75 cm in the population of De Voivodina, and in the second harvest between 47 cm (De Brosteni) and 55 cm (De Voivodina), and in the third year between 70 cm and 78 cm at the first harvest and between 42 cm and 51 cm at harvest II, the highest values belonging to the population of De Voivodina, and the lowest population of De Brosteni.

The degree of branching, depending on genotype and harvest, oscillated in year II at the first harvest between 8 and 11, and in the second harvest between 5 and 6, and in the third year at the first harvest between 6,6 and 7,5 on the first harvest and between 5,1 and 6,1 at the second harvest.

Number of leaves/plant in year II at harvest I between 105 (De Brosteni) and 141 (De Voivodina), and in the second harvest between 55 and 67 in the same populations, and in year III, at the first harvest between 111 (De Brosteni) and 137 (De Voivodina), and in the second harvest, in the same populations ranged from 45 to 54.