

SOME ASPECTS OF MORPHOLOGICAL CHARACTERS WITH THE DECORATIVE VALUE AT *Tagetes* sp.

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ABSTRACT

The objective of this work was to characterize Tagetes sp. for the following morphologic characteristics: plant height, number of stems and inflorescences / plant, stem and inflorescence diameters, flowering cycles and other characters. The work has been carried out in a greenhouse at the U.S.A.M.V.B.T from Timișoara. The results revealed higher plants thicker stems and bigger inflorescences.

Keywords: Tegetes sp., plant height, number of leaf/sprout, height of flower , number of ligulae flowers

INTRODUCTION

The world production of ornamental plants and flowers covers an estimated area of 190,000 hectares. Among the decorative plants, the annual species are used generally for the garden composition. In the Asteraceae family, there are several general (Calendula, Chrysanthemum, Dahlia, Gaillardia, Gerbera, Tagetes), among others, with multiple uses in the project of the landscape. The species from the genus Tagetes, known extensively as "Marigold", are characterized by easy cultivation and very decorative plants, showing relatively long blossoming lengths. Those species are ranked in groups, as follows: american T. erecta, french T. patula, signet T. signata. The objective of this work was to characterize morphogenetic traits scored in Tagetes patula, Tagetes erecta, Tagetes signata cultivars .

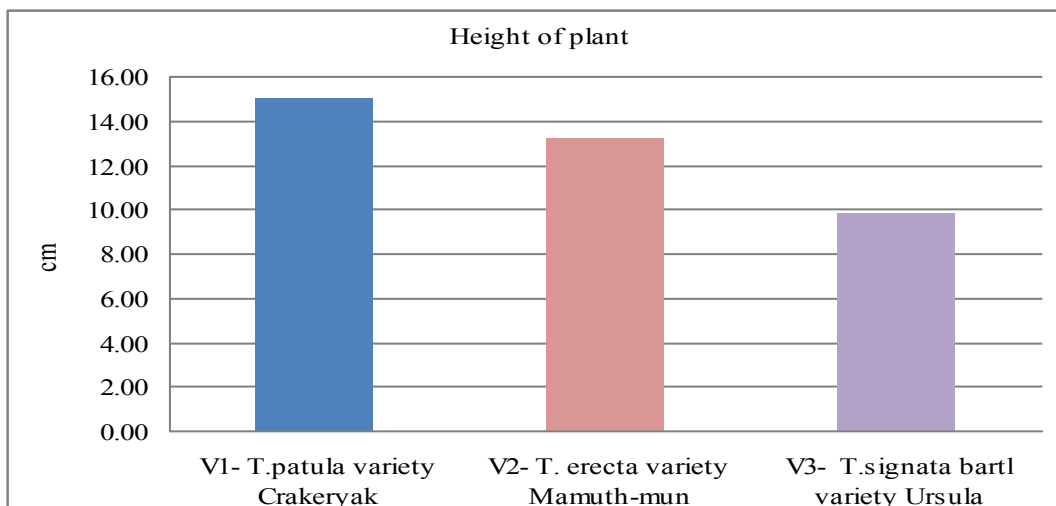
MATERIAL AND METHODS

The experiment has been carried out during eight months in a greenhouse of U.S.A.M.V.B.T from Timișoara. Plant material – Morphogenetic trait analyses - There were placed two seeds / pot , previously filled with a mixture of soil and kept in the greenhouse under daily irrigation. Fifteen-day old seedling were transplanted to pot bags (11 x 22 cm), filled with a substratum made up of sieved top soil. Evaluations were performed at full blooming, for the following traits: plant height, number of leaf on plant, number of leaf/sprout, height of flower , number of ligulae flowers. The collected data were statistically computed and analyzed.

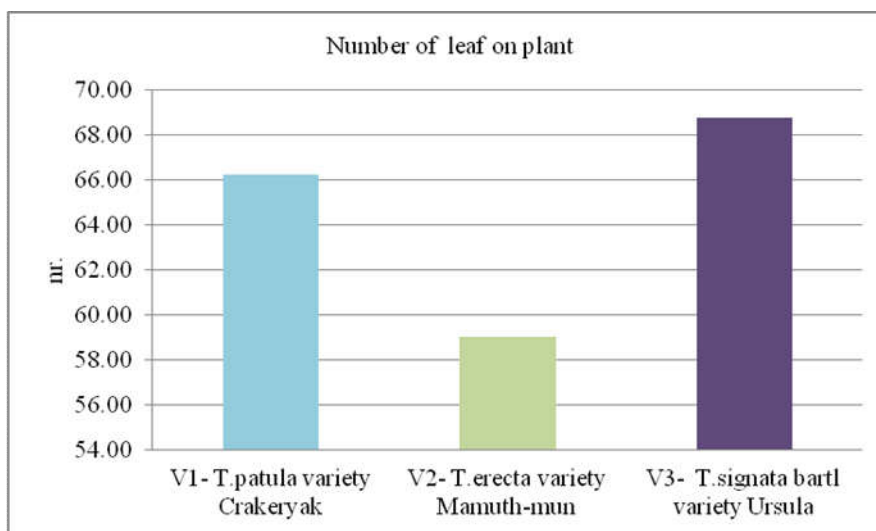
DISCUSSION AND RESULTS

Plant height significant differences were detected among cultivars, the cultivar. That difference could be due to different substratum used for cultivation. GUPTA (2009). For plant height and flower size, additive gene action was more important. MERRITT and

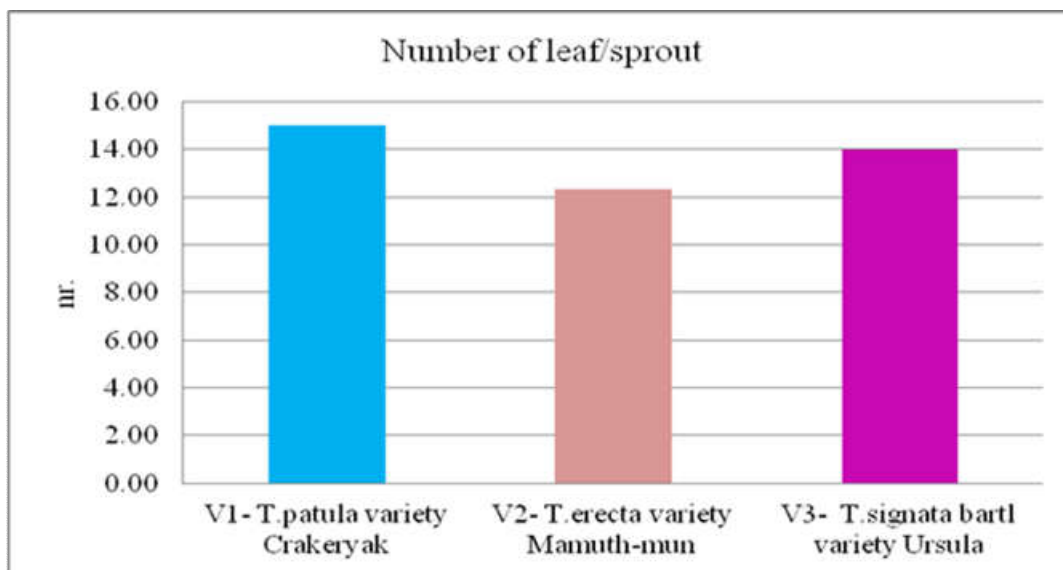
TING (1995) worked with Marigold and other species grown up to 60% anthesis in a greenhouse under three temperature regimes. From fig 1.1 we can see that the lowest values it is present in variant V3 with the height media for *T.signata* bartl variety Ursula ($9,83 \pm 0,15$) and a variability coefficient of 3,40%, medium values it is present in variant V2 *T,erecta* variety Mamuth-mun ($13,28 \pm 0,73$). The biggest value is present in V1 *T.patula* variety Crakeryak where de media for standard deviation was $15,03 \pm 0,53$ with the variability coefficient of 7,88. It highlights species such *T.petula* variety Crakeryak.



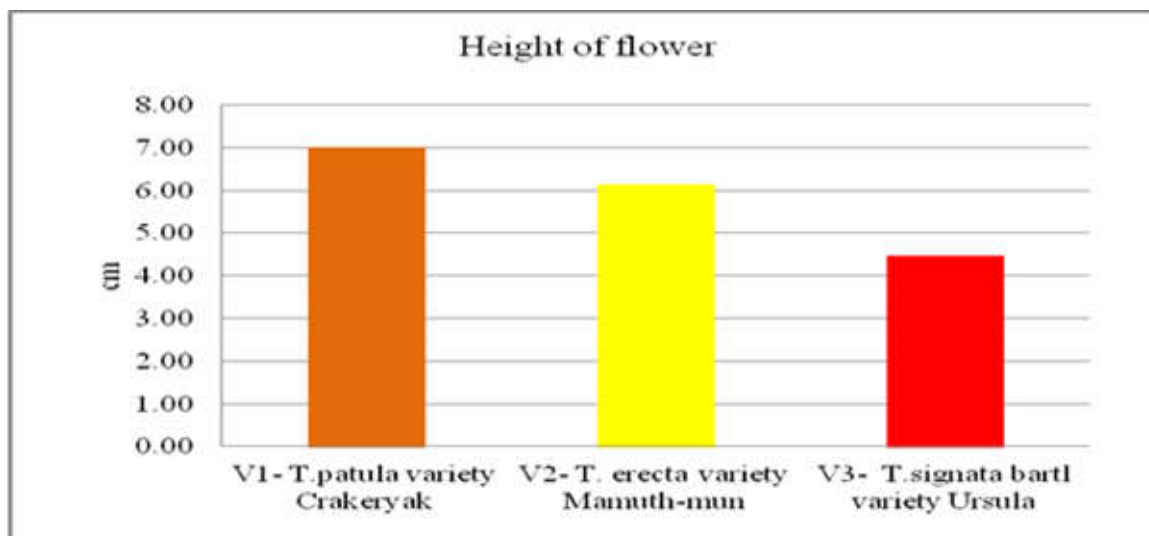
The number of leaf on plant diverse between the species or variety. As we can see in table 1.2 variant V3 *T.signata* bartl variety Ursula has the biggest number of leaf s having the value of ($68,75 \pm 1,16$) and the variability of 3,76 ,for variant V2- *T,erecta* variety Mamuth-mun we have the lowest value of ($59.00 \pm 3,12$) and the variability of 11,80.



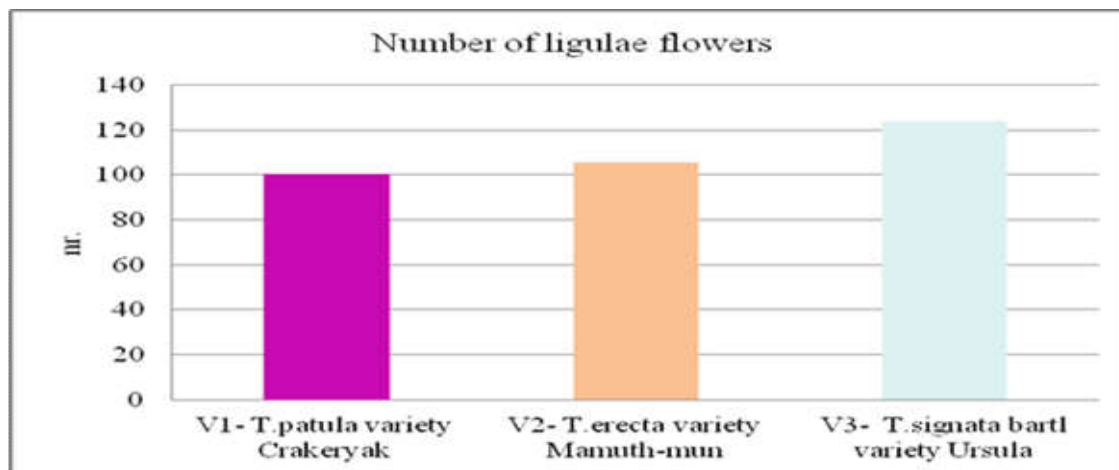
The number of leaf/sprout are diverse between the species or variety. As we show variant V1- *T.patula* variety Crakeryak has the biggest number of leaf/sprout having the value of ($15,00 \pm 1,42$) and the variability of 16,33 , V2- *T,erecta* variety Mamuth-mun has the lowest value of ($12,33 \pm 1,19$) and the variability of 20,41



We can see that the values at height of flower are the biggest for V1- T.patula variety Crakeryak $7,00 \pm 0,06$, and the lowest for V3- T.signata bartl variety Ursula $4,48 \pm 0,18$ in comparison with V2- T,erecta variety Mamuth-mun with the value of 6,15 cm



Number of ligulae flowers show the are close values the only evident difference in value is between V3- T.signata bartl variety Ursula in comparison with V2- T,erecta variety Mamuth-mun and V1- T.patula variety Crakeryak. The values varies between 105 and 124 of linguae flowers.



CONCLUSIONS

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The flowering for *Tagetes patula* cultivars produced higher plants and thicker stems, bigger inflorescences, more developed aerial parts and roots and a shorter flowering duration period compareate with *Tagetes erecta* and *Tagetes signata* cultivars .

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