

## عنوان مقاله:

(Karyological and Nuclear DNA Content Variation in Some Iranian Endemic Thymus Species (Lamiaceae

## محل انتشار:

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## خلاصه مقاله:

Thymus is a medicinal plant which contains one of the world's top ten essential oils, exhibiting antibacterial, antioxidative, food preservative and mammalian age-delaying properties. This work was aimed at identifying between-species variations requiring for selecting appropriate parents for hybridization. Six Iranian endemic Thymus accessions belonging to *Thymus daënsensis*, *T. eriocalyx* and *T. migricus* were studied. Root tips were examined for karyological studies and fresh young leaves of the standard reference (Parsley, *Petroselinum crispum*,  $2C\ DNA = 4.45\ pg$ ) and the Thymus samples stained with propidium iodide (PI) for flow cytometric (FCM) measurements. Two ploidy levels (diploid and tetraploid) and  $2n$  chromosome numbers ( $2n = 2x, 4x, 6x$ ) were recognized. The latter chromosome number is being reported for the first time on *T. daënsensis* accession. FCM measurements showed that  $2C\ DNA$  contents varied from  $1.02$  to  $2.42\ pg$ , verifying more than 2-fold variations and showing a genome size range of  $499$  to  $1182\ Mbp$ , correspondingly. The mean amount of  $2C\ DNA$ /chromosome and mean of monoploid genome size were not proportional to ploidy.  $2C$ -values were correlated with, and linearly regressed upon somatic metaphase, considering (either total chromosome volume (TCV) or total chromatin length (X

## کلمات کلیدی:

Chromosome, DNA C-value, Genome size, Medicinal plant, *Thymus daënsensis*, *T. eriocalyx*, *T. migricus*

## لینک ثابت مقاله در پایگاه سیویلیکا:

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