Online journal ISSN - 1676-5680
GMR Genetics and Molecular Research
EVOLUTION AND TECHNOLOGY

Karyological features of wild and cultivated forms of myrtle (*Myrtus communis*, Myrtaceae)

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Genet. Mol. Res. 9 (1): 429-433 (2010)
Received November 29,2009
Accepted January 4, 2010
Published March 9, 2010

ABSTRACT. Myrtle is an evergreen shrub or small tree widespread throughout the Mediterranean region. In Turkey, both cultivated and wild forms, differing in plant and fruit size and fruit composition, can be found. These differences may have resulted from the domestication of the cultivated form over a long period of time. We investigated whether wild and cultivated forms of myrtle differ in karyological features (i.e., number of somatic chromosomes and relative genome size). We sampled two wild forms and six cultivated types of myrtle. All the samples had the same chromosome number ($2n = 2x = 22$). The results were confirmed by 4',6-diamidino-2-phenylindole (DAPI) flow cytometry. Only negligible variation (~3%) in relative fluorescence intensity was observed among the different myrtle accessions, with wild genotypes having the smallest values. We concluded that despite considerable morphological differentiation, cultivated and wild myrtle genotypes in Turkey have similar karyological features.

Key words: Chromosome number; Flow cytometry; Polyploidy; Myrtle

