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Poster Abstract - E.05

ANTHER CULTURE IN CITRUS: A WAY TO RIGENERATE TRI-HAPLOIDS

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Regenerants from anther culture of *Citrus clementina* Hort. ex Tan. cvv. 'Nules', 'SRA 63', and 'Monreal' were obtained in different experiments from 1994 to 2002. Genetic analysis of 37 such regenerants was carried out using 4 microsatellite markers that were heterozygous in the parental genotypes. The results showed that in all cases but one the regenerants carried only one or the other allele of the parental genotype, and were therefore homozygous and produced through a process of gametophytic embryogenesis. Ploidy analysis by flow cytometry of 94 regenerants showed as many as 82% of them were tri-haploids, rather than haploids or doubled-haploids as expected, with other ploidy levels such as *n*, 2*n*, 4*n*, and 6*n* occurring at very low percentages (2, 10, 3, and 3% respectively). Regeneration from anther culture is therefore proposed as a rapid, and attractive method of obtaining new triploid varieties in clementine, which could be of great interest for the fresh fruit market that now requires fruit to be seedless.