

(P2-2) Interspecific hybrids and hybridity confirmation in kiwifruit seedlings by ploidy and DNA analysis

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Kiwifruit belongs to the genus *Actinidia* in the family Actinidiaceae. Although the genus contains more than 60 species with ploidy levels ranging from diploid ($2n = 2x = 58$) to hexaploid ($2n = 6x = 174$), the most widespread cultivated species in the world are *Actinidia deliciosa* and *A. chinensis*, both native to China. Our main breeding objective is to develop cultivars with diversity in ripening date and fruit characteristics, which will enable us to choose suitable parental material for carrying out a crossbreeding program. Interspecific hybrids between *Actinidia chinensis* (4x, female) x *A. deliciosa* (6x, male) and *A. chinensis* (4x, female) x *A. arguta* (4x, male) have been obtained. Hybrid plants were successfully obtained by culturing full seeds (endosperm and embryo) in a medium supplemented with different plant growth regulator combinations. The effect of type and concentration of plant growth regulators has been investigated. The hybridity of the F1 plants has been efficiently confirmed at the seedling stage by DNA analysis and observation of morphological and stomata characteristics. The analysis of the relative DNA contents by flow cytometry is an easy and efficient tool to confirm hybridity and to estimate ploidy level and genomic combination

Keywords: interspecific hybridization, *Actinidia chinensis*, *A. deliciosa*, *A. arguta*, flow cytometry