Title The sensory profiles of kiwifruit hybrids involving *Actinidia eriantha*

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Abstract

In an attempt to broaden the consumer appeal of kiwifruit, breeders are developing a range of novel fruit with enhanced convenience characteristics, particularly ease of eating. Kiwifruit skin is normally unpalatable, so consumers usually scoop out the flesh with a spoon. The ability to remove flesh cleanly without the need for utensils may therefore improve perceptions of convenience. Selections of *Actinidia chinensis* and *A. deliciosa* (particularly the green kiwifruit *A. deliciosa* var. *deliciosa* 'Hayward') are poor peeling with good flavour, while selections of a related species *Actinidia eriantha* are generally peelable but with typically poor flavour. Hybrid populations between *Actinidia deliciosa* (A. Chev.) C.F. Liang et A.R. Ferguson and *A. eriantha* Benth. include selections that are highly peelable, but with unknown flavour profiles. The aim of the current study was to understand the range of sensory attributes (including the existence of novel flavours/odours/textures) present in *A. deliciosa* and *A. eriantha* hybrids in relation to 'Hayward' and another commercially available cultivar, 'Hort16A' (A. chinensis) to determine whether hybridisation may be a viable approach for breeding peelable cultivars with appealing flavours. The current study confirmed that introduction of *A. deliciosa* parentage to *A. eriantha* selections produces fruit that occupy a much broader flavour space than those of *A. eriantha* on their own, and indicates that hybridisation is a feasible means of creating good flavour cultivars with added convenience attributes.