Title Sensory properties of kiwifruit skins

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Abstract

Fruit from kiwifruit (*Actinidia*) species are available in a range of skin types. Commercial kiwifruit from *A. chinensis* and *A. deliciosa* have skins that are generally considered inedible by consumers. However, the thin, smooth, waxy skins that occur in species such as *A. arguta* are edible, and interspecific hybridisation has resulted in some large fruit with edible skins. The introduction of edible skins into mainstream kiwifruit cultivars provides innovative new fruit that are easier and less messy to eat. To pursue these types of breeding targets, it is necessary to obtain a better understanding of the sensory properties of kiwifruit skins. In this study, an analytical panel was trained to assess the sensory properties of kiwifruit skins, including: 'sweetness', 'bitterness', 'force required to chew' and 'firmness'. The fruit skin was assessed when peeled from the flesh. However, to obtain a better measure of the impact of skin on the overall sensory experience, fruit were assessed before and after peeling. The skin of 'Hayward' influences the sensory properties of whole fruit by increasing the perception of firmness and chewing force, and slightly affects bitterness and sweetness. For an edible-skinned kiwifruit hybrid, the skin did not influence any of the sensory properties of the whole fruit.