

**Title** Impact of postharvest technologies on the flavour of fresh produce  
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### **Abstract**

A wide variety of postharvest technologies have been developed to prolong the storage and market-life of fresh fruits and vegetables. However, typically these technologies have been developed to optimize appearance, maintain firmness, and prevent decay while often neglecting product flavour. The complex and dynamic nature of produce flavour contributes to the challenge of its assessment and optimization during postharvest handling, storage and marketing. Postharvest technologies have varying impacts on produce flavour. Postharvest treatments, storage environments and minimal processing may alter normal metabolism resulting in flavour changes. In some cases, extreme atmospheres or other stresses can induce fermentation that leads to the formation of objectionable off-flavours. The interactions of volatile flavour components with packaging may also impact product flavour. Technologies to slow or stimulate ripening of fruit can inhibit or enhance flavour and aroma. Supplying fruit with flavour compounds or precursor for their synthesis also show potential for providing fruit with enhanced or novel flavours. Reassessing postharvest technologies for their impact on product flavour is needed to meet consumer demands and expectations. Our current understanding and future research needs for postharvest technologies to optimize product flavour will be discussed.