

**Title** Peach quality and postharvest technology  
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### **Abstract**

New peach cultivars are being planted that have markedly different flavor qualities (low acid, high acid, high soluble solids concentration, highly aromatic, non-melting, etc.), and are reaching new markets with diverse consumer groups. Short- and long-term approaches to maintain flavor are being tested. In the short-term, proper temperature management for packers, shippers, buyers and receivers; and preconditioning/preripening treatments at the shipping point are commercially used with success in California and Chile. Educational and promotional programs on peach handling/ripening for peach shippers, buyers, retailers and consumers have been established as well. In the long-term, programs must address understanding the genetic and biochemical basis of flavor, antioxidant pathways, and the genetic control of chilling injury using available molecular genetics technology. The use of this new information and techniques will allow breeding programs to develop peach cultivars with acceptable flavor, improved antioxidant content and freedom from chilling injury. In addition to the basic research described above, there is the need for applied research focusing on understanding and describing peach quality through sensory evaluation, nondestructive sensors, and industry quality surveys. The role of orchard factors on peach quality also requires study. A classification of current peach cultivars into different organoleptic/flavor groups would be useful. The creation of these specific and well-defined peach flavor groups can be used for promotion and marketing activities focused toward different ethnic groups. Work on postharvest decay control screening different food additives and low-toxicity chemicals as potential alternatives or complements to synthetic fungicides for the control of the most important postharvest pathogens is being carried out. This work needs to be developed further as pesticide residues on produce will become an even greater consumer concern in the future.