

Abstract:

In the last decade, total production of new yellow and white flesh peach cultivars with different titratable acidities and flavors has increased rapidly. However, USA peach consumption has remained steady at approximately 2.0 Kg/per capita/per year in the last 20 years. Consumer surveys have associated low peach consumption mainly to the lack of consumer understanding between mature and ripe peaches, and to the presence of flesh browning and flesh mealiness (chilling injury or internal breakdown). In both cases, consumers do not perceive potential peach flavor. Short and long-term approaches to increase peach consumption are being tested. In the short-term: proper temperature management for packers, shippers, transportation, buyers and receivers, and preconditioning/preripening treatments at the shipping point are commercially used with success in California; and educational promotional programs on peach handling/ripening for peach shippers, buyers, retailers and consumers have been established. As a long-term solution, programs to understand the genetic and biochemical basis of flavor, antioxidant attribute pathways, and chilling injury genetic control by using available molecular genetics technologies are developing. The use of this new information and techniques for breeding programs will allow the development of peach cultivars with new flavor and improved antioxidant attributes and freedom from chilling injury susceptibility.