

Improving the quality of apples

Edited by Professor Fabrizio Costa, University of Trento, Italy



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Improving the quality of apples

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Description:

Apples are one of the most highly consumed fruits globally, with estimations that almost 88 million tonnes of apples are produced worldwide each year. As a result of this popularity, consumers have extremely high expectations of the sensory quality of the apples they consume.

Improving the quality of apples provides a comprehensive review of the wealth of research on the processes which determine the key quality attributes of apples, including texture, flavour and nutritional content. The book addresses how these properties can be enhanced during the pre- and postharvest stages to ensure product quality and customer satisfaction, as well as the role of breeding programmes in identifying genes directly related to sensory quality characteristics.

In its detailed exploration of the key quality attributes of apples, the book provides its readers with an insight into the science behind producing the 'perfect' product and how influential quality attributes are on consumer purchasing behaviours.

Key features:

- Reviews recent advances in understanding and improving the major quality attributes of apples, including texture development, flavour development and nutritional content
- Considers the utilisation of particular breeding and crop management practices to optimise fruit quality during the pre- and postharvest stages of production, including the use of preservation techniques such as hydrocooling and edible coatings
- Addresses the influence of the genetic and biochemical factors which can affect texture, flavour and the development of key nutraceutical compounds in apples

Audience:

Researchers in horticultural science, fruit growers, processors and retailers, as well as consumers, nutritionists and governmental and private sector agencies supporting the horticultural industry

Editor details:

Dr Fabrizio Costa is Associate Professor of Apple Genetics and Plant Breeding in the Centre for Agriculture, Food and Environment (C3A) at the University of Trento, Italy. He was formerly a Senior Scientist at the Fondazione Edmund Mach where he was one of the team that published in 2010 the first complete sequenced genome of Golden Delicious, the well-known apple reference variety. Professor Costa is internationally renowned for his research on the genetics of fruit ripening and post-harvest quality. He is on the editorial boards of such journals as *Fruit Research* and the *Journal of Experimental Botany*, and is the Convenor of the 14th ISHS Symposium on Plant Regulators in Fruit Production in 2022.

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