

Title Minimally processed fruits: an update on browning control
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Abstract

Purpose of review: This article reviews studies conducted on minimally processed fruit in the past five years, particularly those that focus on probably the main quality attribute of fresh-cut fruit, colour.

Findings: Many of these papers indicate that a combination of different methods, both chemical and physical, might control the browning of cut surfaces more efficiently. The use of alternative gas mixtures and volatile compounds, in modified atmosphere packaging, has been studied with positive results for maintaining colour. Edible coatings and wraps have also been suggested as promising new tools that can be used in preventing the discolouration of minimally processed fruits.

Limitations: Consumers dislike the use of additives on fresh-cut produce and some chemicals are prohibited in many countries. The cost of preservative technologies (both chemical and physical) should be worth the improved quality.

Direction for further research: More attention should be focused on the physiology of fresh-cut fruits to better understand the metabolic reactions that occur at cutting and how they influences browning. Researchers should also give more attention to studies on varieties more suitable for minimal processing, and on the choice of the optimum ripening stage for processing.