

ORIGINAL RESEARCH

Effects of application of edible coatings and fungicides on the flavor of avocado

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Abstract

Climacteric fruits like avocado (*Persea americana*), are very economical in the global markets and contain numerous nutrients that are beneficial to humans. Avocados have a yellowish or greenish flesh and possess a nutty flavor with buttery consistency. The flavor tends to deteriorate due to biochemical changes that takes place in the fruit. This study will therefore delve to examine the effects of commercial packhouse treatments such as application of wax coatings and fungicides on the flavor quality of avocados. Previous studies have shown that application of edible wax coatings imparts shine and attractive appearance, reduce water and weight loss and minimize shrinkage of fruit. Furthermore, the use of fungicides and other additives prevent fruit decay and attack by diseases. Despite these postharvest treatments, the quality of avocado tends to diminish as a result of improper handling and management, long-distance shipping and fruit decay due a lengthy food supply chain. Although the use of wax coatings helps to maintain the quality and prolong the shelf life of avocado, it is still not clear whether permeable and nonpermeable wax coatings have similar or different effects on the flavor of avocados. To elucidate on this phenomenon, this study will explore how the use of non-permeable natural wax (candela) and permeable wax as well as the use of imazalil (fungicide) affects the flavour of avocado. Furthermore, biochemical analysis of total soluble solids (TSS) and titratable acidity (TA) will explain the changes in flavor. The study expects that TSS and TA of fruit will decrease after very long storage as compared to non-waxed fruit.

Keywords: waxing, fungicide, avocado, offflavor