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# COMBINED EFFECTS OF CHEMICAL DIP AND/OR EDIBLE COATING AND/OR CONTROLLED ATMOSPHERE ON QUALITY OF FRESH-CUT BANANA

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The combined effect of chemical dip and/or edible coating and/ or controlled atmosphere on quality of fresh-cut banana slices was investigated. Three different solution formulations were tested for the chemical dip: combinations of 1% or 2% (w/v) calcium chloride with 0.5% or 0.75% (w/v) ascorbic acid and combined with 0.75% (w/v) cysteine; and five different coatings were used based on: alginate, carrageenan, pectin, carboxymethyl cellulose, or chitosan. The controlled atmosphere composition was 3% $O_2$ + 10% $CO_2$. Physico-chemical and microbiological qualities were evaluated during five days of storage at 5°C. Dip with 1% (w/v) calcium chloride, 0.75% (w/v) ascorbic acid and 0.75% (w/v) cysteine combined with CA treatment contributed better to maintain colour, firmness, pH, TA and TSS values and total phenolic content, and to prevent from weight loss and from increase of polyphenol oxidase activity of fresh-cut banana during five days of storage. Microbial analysis showed that minimally processed bananas were within the acceptable limits during five days of storage at 5°C.

**KEYWORDS:** fresh-cut banana, chemical dip, edible coating, controlled atmosphere.