

## عنوان مقاله:

Postharvest quality of strawberry (*Fragaria × ananassa* Duch.) coated with calcium and nano-chitosan as affected by different storage temperatures

## محل انتشار:

مجله باغبانی و تحقیقات پس از برداشت، دوره 4، شماره 15 (سال: 1400)

تعداد صفحات اصل مقاله: 14

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## خلاصه مقاله:

**Purpose:** The aim of the study was to identify the impacts of storage temperature on strawberries coated with ۳% calcium chloride ( $\text{CaCl}_2$ ) and ۰.۲% nano-chitosan. **Research method:** Fresh strawberry fruit were immersed in  $\text{CaCl}_2$  solution of ۳% for ۱ min and drained at room temperature before coating with nano chitosan solution of ۰.۲%. The treated fruit was then stored at ۰ °C, ۲ °C, ۴ °C and ۲۵ °C. Physico-chemical analysis was performed in each three-day interval. **Findings:** Of the four examined temperatures tested, storing the fruit at ۰ °C was the most effective in maintaining the overall quality index of strawberries up to ۲۱ days. The treatment also reduced weight loss, preserved ascorbic acid content, antioxidant capacity, and total anthocyanin content, prevented microbial growth and prolonged storage-life of treated strawberries up to ۲۱ days. **Limitations:** the industrial packaging that could affect the actual influences of the studied temperatures was not investigated in this work. **Originality/Value:** storing fresh strawberries coated with  $\text{CaCl}_2$  ۳%, nano-chitosan ۰.۲% at ۰ °C was the most effective treatment in lengthening the shelf life of the fruit up to ۲۱ days. The combination treatment of coating and storing at ۲ °C extends strawberry storage life by ۶ days when compared to uncoated fruit.

## کلمات کلیدی:

Calcium chloride, edible coating, Malondialdehyde, Nano-chitosan, strawberry

## لینک ثابت مقاله در پایگاه سیویلیکا:

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