Title The use of calcium chloride in minimally processed apples: A sensory approach
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## Abstract

A treatment to maintain the colour and the instrumental texture of minimally processed 'Fuji' apple cubes for 16 days under refrigeration was selected from various calcium chloride concentrations with fixed amounts of ascorbic acid and propionic acid. The sensory acceptability (colour, texture, taste, overall) of the selected product over the storage period was studied by means of a consumer panel. This consumer response was related to the evolution of the sensory attributes measured by a trained panel (appearance: roughness; odour: ripe, alcoholic, aged; texture: hardness, crunchiness, sound produced, mealiness, granularity, juiciness; taste: fresh, sweet, acid, ripe, alcoholic; aftertaste: astringent, alcoholic). The pectin content of the minimally processed apples was also measured. Consumer scores for the samples with the selected treatment (1% calcium chloride -3 min dipping) up to 8 days of storage showed no significant differences in overall acceptability compared with the fresh apple, so they would be commercially acceptable at least until day 8 of storage. There was no variation in the textural attributes evaluated in the sensory descriptive analysis, showing that the selected treatment was able to maintain the structure of the apple tissue; nevertheless, the trained panel observed significant differences in the odour and taste parameters in comparison with the fresh sample.

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