

Title Hot water calcium dips improve quality of fresh-cut watermelon
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Abstract

Fresh-cut watermelon is a relatively new product in Spain, with great consumer appeal. However, even under cold storage, deterioration occurs as juice leakage, and loss of texture, colour, and sweetness, reducing the shelf-life of this commodity. However, the use of calcium chloride (CaCl_2) dips using hot water helped to keep the quality of fresh-cut fruits. Cubes of watermelon were dipped into 1 % or 0.5% CaCl_2 for 2 min at 5° or 45°C. As control, non -dipped watermelon cubes were used. After treatment, fresh-cut watermelon was packaged under modified packaging up to 8 days at 5°C. The use of CaCl_2 , at 0.5% and particularly at 1% CaCl_2 , reduced the respiration rate, softness, and microbial counts whilst providing good appearance and texture. All these parameters were improved when the calcium dips were at 45°C versus 5°C, in particular, the good sensorial scores and the reduction on psychrotrophic and yeast growth. Dipping of CaCl_2 at 45°C was a very effective treatment to maintain quality during 8 days storage at 5°C.