

Title Effects of precooling and storage temperature on the quality of 'Manna' green peppers during export simulation

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Abstract

Quality changes were investigated during simulated export procedure of 'Manna' pepper (*Capsicum annuum*. cv. Manna) to elucidate the effects of precooling and storage temperatures. Green peppers harvested early July were precooled to different levels and then stored at 0, 4, and 8°C for 4 weeks under modified atmosphere (MA) packaging conditions. Weight losses inside MA packages were less than 1% during 4-week shipping simulation. Respiration rates measured after storage and during the shelf life tended to be higher in peppers stored at 0 and 4°C than those at 8°C. Flesh firmness and texture rating on the shelf were maintained better after 3/4 precooling plus 4 and 8°C storage. Surface color was also influenced by storage temperature, although no visible red coloration was observed even after 4-week storage plus 7 days on the shelf. Seed discoloration was severe after 0°C storage, while moderate in peppers stored at 4 and 8°C. Appearance of the pepper after export simulation was better when fruit were precooled to 1/2 level and then stored at 4 or 8°C. Potential shipping period seemed to be shorter than 4 weeks at 4 or 8°C when 7-day shelf life was taken into account as a prerequisite condition for the export program.