

Title Sprouting and quality control of fresh ginger rhizomes by modified atmosphere packaging with film perforation

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Abstract

The quality of ginger rhizomes packaged in low density polyethylene bags (modified atmosphere packaging - MAP) without perforations (P-0), with 2 perforations (P-2), and 12 perforations (P-12) have been investigated for 5 months at $12\pm 1^{\circ}\text{C}$. Sprouting and rotting rates of ginger in P-2 and P-12 were lower than ginger in P-0. Weight loss was higher in P-12 than P-0 and P-2. Surface L^* (lightness) and a^* (redness) values in P-2 and P-12 were lower and higher, respectively, than those found for P-0. Sensory appearance and overall acceptability were rated significantly better in P-2 and P-12 than in P-0. Internal color, firmness, soluble solids, and pH of ginger in MAP were not affected by presence of perforations. Therefore, MAP with the appropriate number of perforations (in this work, 2 perforations) could be a useful method to control sprouting and maintain quality except for surface color of stored ginger rhizomes.

<http://www.springerlink.com/content/c1312751917315rq/fulltext.pdf>