

**Title** Effect of Low Oxygen Atmospheric on Quality and Physiological Responses of Fresh-cut 'Red Maradol' Papaya

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#### **Abstract**

The physiological responses of 'Red Maradol' papaya cubes were determined under a continuous flow of 1, 3, 5 and 21% O<sub>2</sub> (Air) with N<sub>2</sub> as balance atmosphere, at 10°C for 6 days. Decreasing O<sub>2</sub> concentrations from 1 to 5% reduced respiration rate and ethylene production of the cubes. Water soaking increased during storage and was reduced by low O<sub>2</sub> atmospheres compared with cubes kept in air atmosphere. The cubes from 1% O<sub>2</sub> maintained a much higher contents of total soluble solid (TSS), titratable acidity (TA), vitamin C, and delayed loss of cube flesh firmness compared with the cube kept in 3, 5 and 21% O<sub>2</sub>. Cubes color was not significantly affected by different atmosphere treatment. Low O<sub>2</sub> atmospheres could be used in controlled atmosphere storage of papaya cubes to maintain quality for at least 6 days at 10°C.