

Title            Quality evaluation and influence of 1-MCP on *Sechium edule* (Jacq.) Sw. fruit during postharvest  
Title            J. Cadena-Iñiguez, L. Arévalo-Galarza, L.M. Ruiz-Posadas, J.F. Aguirre-Medina, M. Soto-Hernández,  
Author          M. Luna-Cavazos and H.A. Zavaleta-Mancera  
Citation        Postharvest Biology and Technology Volume 40, Issue 2, May 2006, Pages 170-176  
Keyword        *Sechium edule*; 1-Methylcyclopropene; Temperature; Germination

### **Abstract**

Three types of wax coverings and different doses of 1-methylcyclopropene (1-MCP) were assessed with the purpose of prolonging storage life and maintaining fruit quality of chayote (*Sechium edule* (Jacq.) Sw.). The variables evaluated were respiration rate, stomata frequency, weight loss, color, soluble solids content (SSC), titratable acidity, ascorbic acid, ethanol and acetaldehyde content, and germination percentage. The results show that chayote has stomata in the fruit epidermis and low respiration rate and ethylene production. During the storage period at 10 °C for 28 days, the fruit did not show significant biochemical changes that would modify internal quality, but germination and weight loss deteriorated its commercial appearance. Below 10 °C, damage due to cold occurs. The original appearance of the fruit improves with applications of wax. Fifty percent of the control fruit germinated 6 days after having been removed from refrigeration, whereas only 20% of the fruit treated with 1-MCP germinated. Likewise, fruit treated with 1-MCP and covered with Brimex20™ wax experienced half of the control's weight loss during cold storage.