Abstract

Mature-green sapota fruits were harvested by hand and stored at ambient temperature (32-34° C). Generally, it is quite hard to distinguish green color, chlorophyll pigment, on the sapota fruit surface since the yellowish-brown defunct parenchyma was dominant. It was found that chlorophyll appeared in the pulp, 0.1-0.3 cm deep from peel. Total chlorophyll content of sapota fruit pulp was 217 μg/mgFW at day 1 after harvest and sharply decreased to 110 μg/mgFW after storage for 6 days, while chlorophyllase activity slightly decreased from 0.3 to 0.05 unit/min/mg protein during storage. Interestingly, peroxidase activity sharply increased from 1.5 to 28.6 unit/min/mg protein. This result indicated that peroxidase may play an important role in degradation of chlorophyll in sapota fruit. At ambient temperature, sapota lost their weight about 7% after storage for 8 days. The flesh firmness distinctly decreased from 25 to 0.78 Newton after storage for 2 days. When fruit ripening, total sugar increased from 0.05 to 0.15 mg glucose/g FW whereas titratable acidity content increased from 0.004 to 0.019%.