

# Environmental factors affect postharvest quality of *Gnetum gnemon* L. leaves

K. Bunya-atichart, S. Kangtang

Acta Horticulturae 1011: 313-318. 2013.

---

## Abstract

The effects of light intensity, relative humidity and temperature on the quality of *Gnetum gnemon* L. (melinjo) leaves were studied. The immature melinjo leaves were used in all experiments. The results showed that the leaf color change and shelf life of melinjo leaves stored under normal light or additional light of neon light (light intensity  $\sim 13 \text{ mmol m}^{-2} \text{ s}^{-1}$ ) in day time were not significantly different. Melinjo leaves were sprayed with water before packing in polyethylene (PE) bag under low, moderate, and high relative humidity then moving to a stored at room temperature (29°C). It was found that leaves packed in PE bag with moderate relative humidity had the longest shelf life about 17.6 days. Moreover, the effect of temperature on shelf life and quality of melinjo leaves was determined. Melinjo leaves packed in 12 holes-perforated PE bag were stored at 4, 8, 12, 29 and 35°C. The results showed that melinjo leaves storage at 8°C had the longest shelf life (29.4 days) and leaf color did not change to yellow color. The major loss of melinjo leaves quality after harvest and during storage was leaf wilting and decay but not leaf yellowing. In conclusion, the recommendation to keep the postharvest quality of melinjo leaves is to spray leaves with water before packing in perforated PE bag and store at 8°C.