

### **Abstract**

Mangosteen fruits at mature green stage with 5% red spotting were harvested by hand and fruits with uniformity in color and size were randomly separated into Two groups and placed in plastic baskets with polyethylene sheet (0.0625mm thickness) lining. The first group was stored at room temperature (31-35°C, 84±2% RH) and the other one was stored at 13°C (90±2% RH). Firmness, pectin content and activities of pectin methylesterase (PME) and polygalacturonase (PG) in the pulp (aril) were monitored every two days. It was found that pulp firmness rapidly decreased at room temperature from day 0 to day 4 after storage and slightly decreased there after, while pulp firmness slowly decreased at 13°C. Chelating soluble pectin content in pulp slightly increased at both room temperature and 13°C but chelating soluble pectin in pulp increased more slightly at room temperature than at 13°C. Water soluble pectin content in pulp increased more rapidly at room, temperature than at 13°C. Similarly activities of PME and PG in pulp rapidly increased more rapidly at room temperature than at 13°C. Changes in pectin fractions and cell wall hydrolase enzymes in relation to pulp softening of mangosteen fruits were discussed