Abstract:

Durian fruits cv. Monthong were harvested at 106 days after anthesis (DAA) and stored at room temperature (28±3°C) for 10 days. Husk dehiscence score, two pectin fractions (water soluble and CDTA soluble) and activities of pectin methylesterase (PME) and polygalacturonase (PG) were studied. Husk dehiscence started after 4 days in storage. Water soluble pectin concentration remained constant during 6 days then increased toward the end of storage in both the husk and the dehiscence zone. However, the amount of this fraction was higher in the dehiscence zone than in the husk from day 8 to day 10. CDTA soluble pectin concentration continued to increase in both tissues and the content of this fraction was higher in the dehiscence zone than in the husk throughout the storage duration. PME activity also increased in both tissues but more in the dehiscence zone than in the husk at day 8 and 10. PG activity increased continuously, but there was no difference between the two tissues except on day 10. The results indicated that during husk dehiscence, pectin became more soluble as a result of both PME and PG, but the role of pectin and these pectic enzymes may play a minor role in this process.