# Effect of Stage of Maturity at Harvest on Susceptibility to *Fusarium* Rot in "Red Lady Papaya"

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Main cause for postharvest loss of papaya was pathological rot followed by mechanical injuries. *Fusarium* fruit rot, caused by *Fusarium moniliforme* is the main postharvest disease affecting quality of papaya. Disease becomes evident during fruit ripening. Lesions become enlarge rapidly causing a severe postharvest loss. Fruit harvested at different maturity stages colour break, 10% ripen, 25% ripen and 30% ripen. Yellow colour developments were used as treatments to find out the effect of stage of maturity on disease developments. A set of fruits from all maturity stages, were kept at room temperature for ripening. Another set of fruits were inoculated with $0.1x10^3$ conidial/ml and allowed for natural ripening. Percentage weight loss, Peel colour development, Visual quality rating, Disease severity, Lesion development were observed in ripe fruits.

The highest percentage weight loss was observed in the 30% ripen stages. Least colour development of peel was observed in fruits harvested at colour break stages. Fruits harvested at 30% peel colour development stages showed the maximum peel colour development. Higher disease severity was observed in fruits harvested at 30% yellow colour stage and it was the minimum in fruits harvested at 10% yellow colour stages. The same trend in all parameters was observed in inoculated fruits with *Fusarium spp.* Results showed that *Fusarium* rot in "Red lady" papaya is mainly affected by stage of maturity at harvest.

Key words: Red lady papaya, *Fusarium* fruit rot, *Fusarium moniliforme*