EFFECT OF SELECTED PREHARVEST AND POSTHARVEST TREATMENTS ON STORAGE LIFE OF OKRA (*Abelmoschus esculentus* L.)

By

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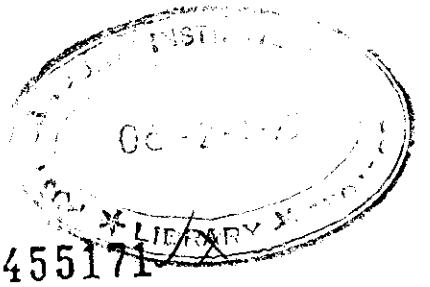

ABSTRACT

The extent of post harvest losses of vegetables has been highlighted in recent years. The identification of major causes of postharvest losses can lead to effective preventive measures in the future.

Okra pods are very susceptible to postharvest losses due to their tenderness and high respiration. Therefore, a study was conducted to develop a suitable method of storage and identification of preharvest treatments to prolong the storage life of okra.

The experiment consisted of two varieties harvested at two maturity levels, two potassium fertilizer levels and different storage conditions. Storage quality variables measured were visual parameters (discoloration, shrivelling, snapping quality and visual quality rating), total percentage of weight loss, total soluble solids and crude fibre content.

The storability of pods based on visual parameters was similar in both varieties. However, weight loss in variety VT was higher than variety, MI-18. Excessive potassium fertilization had no influence on the storage life of okra.

Pods stored in polyethylene (150 and 300 gauge) at different temperatures and in cardboard containers at $20\pm1^{0}C$ with $93\pm2\%$ RH, showed a significant reduction in weight loss when compared with pods stored under ambient conditions at $27\pm2^{0}C$ with $70\pm5\%$ RH (control). Pods stored in polyethylene

(300 gauge) at 11±2°C and 20±1°C showed a marginal increase of total soluble solids. Storage conditions tested reduced the crude fibre content in comparison to the control.

Storage in polyethylene (300 gauge) at 11±2°C was the best condition for longer storage life. Both immature and mature pods maintained an acceptable appearance under this condition for 5 to 7 days, respectively. Additionally, this storage condition reduced the weight loss, total soluble solids and crude fibre content when compared with other storage conditions tested.