

Title Effect of modified atmosphere storage on the ripening and quality of ripe banana fruit
Authors S. Ahmad, A.K. Thompson
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Abstract

The research was carried out to test the effect of modified atmosphere packaging on the ripening and quality of ripe fruit. Bananas were treated with different concentrations of ethylene and then packed in 0.025, 0.037 and 0.050 mm thick polyethylene bags. It was observed that effectiveness of ethylene in hastening ripening was not reduced with CO₂ levels less than 5% and O₂ levels greater than 10 % in polyethylene bags. The reduction in firmness of fruit packed in polyethylene bags was directly proportion to weight loss. Modified atmosphere packaging produced firmer bananas, which would be less susceptible to bruising which is advantage. Packaging of fruit in polyethylene bags did not affect their total soluble solids contents during ripening. Bananas ripened in 0.050mm of polyethylene bags extended 5 days shelf life with attractive fresh appearance. However, these fruit received similar score for acceptability by the panelists to those from 0.025 and 0.037 mm packaging. Packaging of banana fruit in 0.025 and 0.037 mm polyethylene with ethylene treatment also showed the best results in regards to flavour, sweetness and acceptability as compared to unpacked fruit. Panelists preferred packed bananas to unpacked bananas because of their better flavour and appearance.