

Title Quality changes of pineapple (*Ananas comosus* 'Josapine') as affected by controlled atmosphere

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Abstract

Pineapple (*Ananas comosus* 'Josapine') fruits were stored in an atmosphere consisting of 3, 5 or 7% O₂ in N₂ or in air (21% O₂; control) with 8% CO₂ for 5 weeks at 10°C. The quality changes were observed based on colour, total soluble solids (TSS), total titratable acidity (TTA) and total sugar. Results showed that fruits stored in 3-5% O₂ exhibited the greatest suppression in value of chroma and TSS as compared to the others. The hue angle, TTA and total sugar in low-O₂ atmosphere for 5 weeks were significantly ($p < 0.05$) higher than air-stored (control) fruit, whilst chroma value and TSS values were lower during storage at 10°C. This study indicates that the quality of 'Josapine' was maintained as a result of storage in 3 and 5% O₂ atmosphere for up to 5 weeks at 10°C.