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Effect of mixed loading of pineapple and mango during storage  
at ambient temperature / Azlina Anuar.

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THE EFFECTS OF MIXED LOADING OF PINEAPPLE AND MANGO DURING  
STORAGE AT AMBIENT TEMPERATURE

By  
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Research Report submitted in partial fulfillment of  
the requirements for the degree of  
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FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE  
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**FAKULTI AGROTEKNOLOGI DAN SAINS MAKANAN  
UNIVERSITI MALAYSIA TERENGGANU**

**PENGAKUAN DAN PENGESAHAN LAPORAN  
PROJEK ILMIAH I DAN II**

Adalah ini diakui dan disahkan bahawa laporan ilmiah bertajuk:

*Effects of mixed loading of pineapple and mango during storage  
at ambient temperature*

oleh *Aafina biati Abuar*, No. Matrik *4112928* telah  
diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini  
dikemukakan kepada Jabatan *Agroteknologi* sebagai memenuhi  
sebahagian daripada keperluan memperoleh Ijazah Sarjana Muda  
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## DECLARATION

I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledged.

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## ABSTRACT

Studies on the storage of pineapple with mango were conducted. Pineapple is non climacteric but sensitive to presence of ethylene which can induce its ripening. Common assumption when pineapple are mixed load with ethylene producer, i.e. mango it will cause adverse effect on pineapple. The aim of this study is to see the effects of ethylene produced by mango on pineapple during storage at ambient temperature. In this study, 1.4 kg of pineapple are packed together with mango in 1.4:0, 1.4:1.0, 1.4:2.0, and 1.4:4.0 ratio by weight. Evaluation of ripening of pineapple based on total soluble solids, ascorbic acid, total titratable acidity and pH were conducted every 2 days for up to ten days. For total soluble solids and pH, treatment 1 that is storing pineapple and mango with ratio 1.4:1.0 appears to give minimal effect on ripening of pineapple whereas treatment 2, ratio 1.4:2.0 and 3, ratio 1.4:4.0 are about the same. This is due to 2 kg of mango is sufficient to produce the concentration of ethylene to its saturation point. For ascorbic acid and total titratable acidity, treatment 1 also appears to give minimal effect on ripening of pineapple. Meanwhile, treatment 2 and 3 give higher impact on ripening of pineapple. In conclusion, the best ratio by weight if mixed load is unavoidable is 1.4 kg of pineapple to 1 kg of mango for ten days of storage where the ripening effect of pineapple based on the parameter that has been determined is minimal.