

STUDY ON EFFECTS OF EXCESS LEAD ON CUCUMBER  
DURING STORAGE AT AMBIENT TEMPERATURE

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A study on effects of mixed load on cucumber during storage at  
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**A STUDY ON EFFECTS OF MIXED LOAD ON  
CUCUMBER DURING STORAGE AT  
AMBIENT TEMPERATURE**

**Sabihah Izzati Bt Ahmad Badri**

**This project report is submitted in partial fulfillment of the requirement  
of the degree of Bachelor of Science in Agrotechnology  
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## ABSTRACT

Cucumber is non climacteric but sensitive to presence of ethylene which can induce its ripening. Common assumption when cucumber are mixed load with ethylene producer, i.e. tomato it will cause adverse effect on cucumber. The aim of this study is to see the effects of ethylene produced by tomato on cucumber during storage at ambient temperature. In this study, 1 kg of cucumber are packed together with tomato in 1:0, 1:1, 1:2, and 1:4 ratio by weight. Evaluation of ripening of cucumber based on weight loss, loss of firmness and degreening of cucumber is taken daily for eight days. The results derived from this study shows in weight loss, there is no significant difference ( $P < 0.05$ ) between the treatments. Thus, weight loss is not a good indicator of ripening of cucumber during 8 days of storage with tomato. On the other hand for loss of firmness being the parameter for ripening of cucumber, there is significant difference between the treatments. Treatment 1 that is storing cucumber and tomato with ratio 1:1 appears to give minimal effect of loss of firmness of cucumber whereas treatment 2, ratio 1:2 and 3, ratio 1:4 are about the same. This is due to 2kg of tomato is enough to generate saturation concentration of ethylene to give effect on cell wall degradation. For the third parameter, that is surface color change, treatment 1 also appears to give minimal effect on degreening of chlorophyll in cucumber. Treatment 2 and 3 give higher impact on degreening of cucumber. In conclusion, the best ratio by weight if mixed load is unavoidable is 1kg of cucumber to 1kg of tomato for 8 days of storage where the ripening effect of cucumber based on the parameter that has been determined is minimal.