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Effects of packaging material on quality of tomatoes
(Lycopersicon esculentum) stored under two storage conditions /
Tengku Zuraini Tengku Ahmad.

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**EFFECT OF PACKAGING MATERIAL ON QUALITY OF TOMATOES
(*Lycopersicon esculentum*) STORED UNDER TWO STORAGE
CONDITIONS**

**By
Tengku zuraini Binti Tengku Ahmad**

**Research Report submitted in partial fulfillment of
the requirement for the degree of
Bachelor of Science Agrotechnology (Post Harvest Technology)**

**Department of Agrotechnology
FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
UNIVERSITI MALAYSIA TERENGGANU
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**FALKULTI 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:

Effect of packaging material on quality
of tomatoes (*Lycopersicon esculentum*) stored
under two storage conditions

oleh Tengku Zuraini bt Tengku Ahmad, No. Matrik UK14084 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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Date : 23/04/09

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ABSTRACT

The effect of different materials of packaging namely polyvinyl chloride (PVC) shrink film, polyethylene (PE) plastic and unpacked was evaluated for storage of tomatoes. The samples were stored at ambient temperature and 10⁰C. Changes in fruit quality were evaluated at interval 2 days. Observations were made on weight loss, surface colour development, firmness, and total soluble solid (TSS) contents. The percentage at weight loss of unpacked tomatoes was significantly ($p<0.05$) increased during storage at ambient temperature and temperature 10⁰C. It caused faster dehydration. This occurrence can be prevented by using PVC shrink film and PE plastic packages. Tomatoes packages in PE film softened and not firm which might be due to condensation of water vapour from respiration and low O₂ content in packages in both the storage conditions. Surface colour development of tomatoes during storage shows that the temperature at 10⁰C had effectively inhibited the senescence of the fruit compare the fruit stored at ambient temperature. The storage life of tomatoes stored in ambient temperature can be maintained for 10 days. However, at temperature 10⁰C the product can be stored for 14 days. PVC shrink film can be used for commercial packaging of tomatoes at ambient temperature and 10⁰C compared to PE film and unpacked tomatoes.