

EFFECT OF DIFFERENT HARVESTING DATES ON
SHELF-LIFE OF MUSKVELOIN, *Cucumis melo*

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The effects of different harvesting dates on shelf life of muskmelon (*Cucumis melo*) / Sarimah Ariffin.

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THE EFFECT OF DIFFERENT HARVESTING DATES ON SHELF LIFE OF
MUSKMELON (*Cucumis melo*)

By
Sarimah binti Ariffin

Research Report submitted in partial fulfillment of
the requirements for the the degree of
Bachelor of Science Agrotechnology (Postharvest Technology)

DEPARTMENT OF AGROTECHNOLOGY
FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
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ENDORSEMENT

The project report entitle **The Effect Of Different Harvesting Dates On Shelf Life of Muskmelon (*Cucumis melo*)** by **Sarimah binti Ariffin** Matric No. **UK 16121** has been reviewed and corrections have been made according to the recommendations by examiners. This report is submitted to the Department of Agrotechnology in partial fulfillment of the requirement of the degree of Bachelor of Science Agrotechnology (Postharvest Technology), Faculty of Agrotechnology and Food Science, Universiti Malaysia Terengganu.




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DECLARATION

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

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ABSTRACT

This study was conducted to investigate the effects of harvesting dates on shelf life of muskmelon (*cucumis melo*) in laboratory study. The harvesting dates for muskmelon are refer to 65 days one week before actual date, 75 days was the age of muskmelon after transplanting and the third harvesting was 80 days. After harvested, it was stored at ambient temperature 25⁰C for 9 days. The parameters that been used for this experiment were ph, Total Soluble Solid (TSS), color changes of flesh, firmness flesh of muskmelon and vitamin C content. The second and third harvesting had a higher value of TSS which means it contain higher amount of sugar than the first harvesting. Second and third harvesting showed that the values of vitamin C were decreased after storage. The second harvesting and third harvesting also had consistently the value of pH. . The third harvesting showed the texture of fruits had softer. It is because fruits harvested at third harvesting over mature and soften progressively during ripening. The lightness (L value) decreased slightly in muskmelon as maturity was increased. Muskmelon became darker in color. Result indicated that the second harvesting is the best harvested because it contain high value of vitamin C and sugar. It also have the good quality of shelf life .

ABSTRAK

Kajian ini di jalankan bagi mengkaji kesan waktu penuaian ke atas jangka hayat muskmelon (*cucumis melo*). Waktu penuaian muskmelon merujuk kepada 75 hari selepas pemindahan pokok dikenali sebagai waktu biasa penuaian, 65 hari merujuk kepada seminggu sebelum waktu biasa penuaian ditentukan sebagai penuaian pertama dan 80 hari adalah penuaian ketiga. Muskmelon yang dipetik telah disimpan pada suhu bilik 25⁰C selama 9 hari. Dalam eksperimen yang telah dijalankan ini, pepejal terlarut (gula), perubahan warna pada isi, kekerasan isi muskmelon dan juga kadungan vitamin C. Penuaian kedua dan ketiga menunjukkan nilai TSS yang tinggi kerana kandungan gula yang tinggi berbanding penuaian pertama. Penuaian kedua dan ketiga menunjukkan penurunan vitamin C selepas penyimpanan. Penuaian kedua dan ketiga juga menunjukkan nilai pH yang konsisten. Kekerasan pada buah menunjukkan buah penuaian ketiga menjadi lembut. Ini kerana buah yang dituai pada waktu ini, terlebih masak dan perkembangan semasa pemasakan. Kecerahan pada muskmelon menurun dengan sedikit jika kematangan naik menyebabkan muskmelon menjadi gelap. Keputusan ini menunjukkan penuaian kedua adalah yang terbaik kerana mempunyai kandungan vitamin C and gula yang tinggi. Ia juga menunjukkan kualiti yang baik untuk jangka hayat.