COMPARATIVE STUDY ON THE PEEL OF THREE DIFFERENT VARIETIES OF [illegible] ([illegible]LE) BANANA STORED AT TWO DIFFERENT TEMPERATURES

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2009

Comparative study on the peel of three different varieties of dessert (table) banana stored at two different temperatures / Sylviati Sopirou.

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COMPARATIVE STUDY ON THE PEEL OF THREE DIFFERENT VARIETIES OF DESSERT (TABLE) BANANA STORED AT TWO DIFFERENT TEMPERATURES

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

Department of Agrotechnology
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2009

DECLARATION

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

Signature :......................................

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ACKNOWLWDGEMENT

First of all, I would like to convey my greatest gratitude to my supervisor, Prof. Dr. Abdul Rahman Abdul Razak for giving me this opportunity to do my final year project under him. He has helped me and my friends through out our project. His guidance and knowledge that he shares with us are a very important and encouraging. We are very grateful for the time he spent for us even though he himself very busy with his own works and research.

In the between, I would like to thanks the Agrotechnology and Food Science faculty for giving me opportunity to complete my final year project by using the Post Harvest Laboratory. I would like to thank the science officers and laboratory assistant in Post Harvest Laboratory for the help, time and material that we used through out my project progress. Thanks to Mdm. Saidatul, Mdm. Rafidah, Mr. Ruzairi and Mr. Fauzi.

Beside that, I appreciated the help and cooperation of the staff in SEM laboratory in INOS. Mdm. Norita and Mr. Nasir that has taught me the techniques and help me in get the best result in my project. Thanks for the time that they spent with us all.

Then I want to thank Biology department of Science and Technology Faculty for allowing me and my friends to use the histology laboratory. Thanks to Mr. Hj. Mohammad Embung that has helped us a lot. I can't complete my project if not from his dedication to teach us step by step about the histology technique.

Not forgetting my friends whose support me and helped me in many ways. I want to thank Nik Nur Hanani, Vekneshwari a/p Samugam and Siti Sahidah whose completed their project together with me.

Last but not lease, I want to thank my family for their support and love they gave me all these time.

ABSTRACT

Chilling injury is physiology damage occur in many tropical fruits such as banana. Chilling injury occur when the banana is stored below its optimum temperature for a prolong time. The optimum temperature for banana is 12-14°C and storage below this temperature can cause blackening of the peel (symptom of chilling injury). This study is done to determine the effect of chilling injury on the peel of banana and compare the peel structure of three different varieties using microscopic methods. Three varieties of dessert banana (Cavendish, Gros Berangan and Monkey banana) were used and compared. For each variety of bananas, it stored in two temperature condition i.e room temperature (16-20°C) and cold temperature (10°C). To observe the result, two microscopic methods were used i.e Scanning Electron Microscope (SEM) and histology method. The results were compared for the two different storage conditions by studying the tissue condition of the samples. From the result, temperature has major effect on the peel of banana. The peel tissue was damaged and collapsed. This is because cool temperature makes the tissue harden and fragile when cut. Monkey banana has the thinnest peel compare to the other two varieties, shows that it is the most affected by temperature.