

EFFECT OF POTASSIUM CHLORIDE AND SODIUM
HYDROGEN SULPHATE ON THE SHELF LIFE
AND POSTHARVEST QUALITY OF CUCUMBER
(*Cucumis sativus* L.) FRUITS

DR. ASHWINI BILAL SAMIN

DEPARTMENT OF POSTHARVEST TECHNOLOGY AND FOOD SCIENCE
UNIVERSITY OF LAKHIMPUR, UTTAR PRADESH

2018

**EFFECT OF POSTHARVEST DIPPING USING SODIUM HYPOCHLORITE
SOLUTION ON THE SHELF LIFE AND POSTHARVEST QUALITY OF
CUCUMBER (*Cucumis sativus* L.) FRUITS**

Nor Ashikin Binti Samin

**This project is submitted in partial fulfillment of the requirement of the degree
of Bachelor of Science in Agrotechnology (Postharvest Technology)**

**FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
UNIVERSITI MALAYSIA TERENGGANU**

2008

This project report should be cited as:

Nor Ashikin, S. 2008. Effect of postharvest dipping using sodium hypochlorite solution on the shelf life and postharvest quality of cucumber (*Cucumis sativus* L.) fruits. Undergraduate thesis, Bachelor of Science in Agrotechnology (Postharvest Technology), Faculty of Agrotechnology and Food Science, Universiti Malaysia Terengganu, Terengganu. 47p.

No part of this project report may be reproduced by any mechanical, photographic, or electronic process, or in the form of phonographic recording, nor may it be stored in a retrieval system, transmitted, or otherwise copied for public or private use, without written permission from the author and the supervisor of the project.

1100065823

UP
7/5/14
2008

ACKNOWLEDGEMENTS

This project was conducted under the supervision of Prof. Madya Dr. Mohamed Senawi bin Mohamed Tamin in University Malaysia Terengganu (UMT). I am very grateful to him for his patience and his constructive comments that enriched this research project. His time and efforts have been a great contribution during the preparation of this thesis that cannot be forgotten for ever. I would also like to acknowledge with much appreciation the crucial role of the staff in Postharvest Technology Laboratory, for their valuable comments, sharing their time and knowledge on this research project during the project was carried out and giving a permission to use all the necessary tools in the laboratory.

I also gratefully acknowledge the assistance of everybody who helped in the execution of this project in UMT. I also thanks to all my friends for their friendship and help when thinking through problems and for sharing their knowledge of experimental apparatus and computer systems. Special thanks to Dr. Chuah Tse Seng against as the Final Year Coordinator, who has given some advice and share his knowledge on this final year project. Finally, I would like to thanks to my family for their continuous support and confidence in my efforts.

ABSTRACT

An experiment was conducted using sodium hypochlorite solution to determine the effect of postharvest dipping on the shelf life and postharvest quality of cucumber (*Cucumis sativus* L.) fruits. The cucumber fruits were dipped in 1%, 3% and 5% of sodium hypochlorite solution concentration for 5 min with one control (untreated fruit). Each treatment had 3 replicates of 16 fruit per replicate. Observation was done after 3 day interval on color, soluble solid concentration, microbial growth and weight loss of fruit samples. At the end of the experiment, 5% NaOCl solution was proved to be effective on microbial growth. The results of the experiment shown that there were also significant difference of weight loss and soluble solid concentration (SSC) of cucumbers treatment with 5% sodium hypochlorite solution compared to the control. While the color of cucumber fruits shown that there have no significant differences for all treatments.