

**EFFECT OF POTASSIUM CHLORATE ON PROTEINS  
CHANGES IN LONGAN LEAVES**

**THERAPAS SINLAPHASOMBOON**

**A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN  
PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF  
DOCTOR OF PHILOSOPHY  
IN HORTICULTURE**

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่  
Copyright © by Chiang Mai University  
All rights reserved

**THE GRADUATE SCHOOL  
CHIANG MAI UNIVERSITY**

**APRIL 2007**

**EFFECT OF POTASSIUM CHLORATE ON PROTEINS  
CHANGES IN LONGAN LEAVES**

**THERAPAS SINLAPHASOMBOON**

**THE THESIS HAS BEEN APPROVED  
TO BE A PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY  
IN HORTICULTURE**

**EXAMINING COMMITTEE**

*Tanachai Pankasemsuk*

CHAIRPERSON

Lect. Dr. Tanachai Pankasemsuk

*Kesinee Ramingwong*

MEMBER

Assoc. Prof. Kesinee Ramingwong

*Chantana Suwanthada*

MEMBER

Lect. Dr. Chantana Suwanthada

*Tavatchai Radanachales*

MEMBER

Assoc. Prof. Dr. Tavatchai Radanachales

*Amonnat Chattrakul*

MEMBER

Asst. Prof. Dr. Amonnat Chattrakul

19 April 2007

© Copyright by Chiang Mai University

### Acknowledgements

Firstly, I am deeply indebted to my thesis advisor, Dr. Tanachai Pankasamsuk, for his intellectual supervision, invaluable guidance and comment to successful completion of my thesis. Furthermore, I am deeply grateful to thank the committee members, Assoc. Prof. Kesinee Ramingwong, Dr. Chantana Suwanthada for their suggestion, teaching and encouragement to conduct this research immensely and also Assoc. Prof. Dr. Tavatchai Radanachaless, Asst. Prof. Dr. Amonnat Chattrakul and Prof. Douglas D. Archbold for comments to improve the accuracy of this dissertation.

I would like to thank Dr. Venun Vesommay for her comments and Mrs. Pornrat Sirikhum and Mr. Pasu Sulareewattana for their help and advice in laboratory technique.

I am also thankful to Dr. Daranee Kiatsakun, Ms. Sawaman Vijarn, Ms. Porntip Phawong, Mr. Wacharapol Singhakun, Mr. Kiatrawee Phunchaisri the horticulture laboratory staffs and the post-graduate students of Horticulture department from year 2002-2007 who provided me with assistance to complete my study.

I feel very thankful to Ms. Prapapun Plaichun, head office of agricultural library, and her staff for helpful in write my thesis.

This study was partially financial supported by Agricultural Nanotechnology and Staff Development, Department of Horticulture, Faculty of Agriculture, Chiang Mai University.

And finally, I am grateful to special thank my great sister, niece and nephews for their understanding, encouragement and help fullness during many years of my Ph.D. degree.

Therapas Sinlaphasomboon