VARIETAL IMPROVEMENT OF SNOW PEA FOR POWDERY MILDEW RESISTANCE

ANCHAN CHOMPUPOUNG

DOCTOR OF PHILOSOPHY IN HORTICULTURE

THE GRADUATE SCHOOL
CHIANG MAI UNIVERSITY
SEPTEMBER 2011

VARIETAL IMPROVEMENT OF SNOW PEA FOR POWDERY MILDEW RESISTANCE

ANCHAN CHOMPUPOUNG

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

THE GRADUATE SCHOOL
CHIANG MAI UNIVERSITY
SEPTEMBER 2011

VARIETAL IMPROVEMENT OF SNOW PEA FOR POWDERY MILDEW RESISTANCE

ANCHAN CHOMPUPOUNG

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

EXAMINING COMMITTEE

THESIS ADVISORY COMMITTEE

Assoc. Prof. Dr. Nuttha Potapohn

Chatre Sittigul MEMBER
Assoc. Prof. Dr. Chatree Sittigul Assoc. Prof. Dr. Angsana Akarapisan Asst. Prof. Dr. Angsana Akarapisan

MEMBER

Dr. Siripong Kumphai

M. Member

Dr. Weenun Bundithya

Abvisor

Assoc. Prof. Dr. Nuttha Potapohn

Chatree Sittigul CO-ADVISOR

Assoc. Prof. Dr. Chatree Sittigul

A. Alcarapisano-ADVISOR

Asst. Prof. Dr. Angsana Akarapisan

MEMBER

Dr. Weenun Bundithya

22 September 2011

Acknowledgement

This thesis work would not have been completed without the help of several people whom I wish to thank. First of all my warmest thanks go to Assoc. Prof. Dr. Nuttha Potapohn, Dr. Siripong Kumpai, Assoc. Prof. Dr. Chatree Sittigul, Asst. Prof. Dr. Angsana Akarapisan, and Lecturer Dr. Weenun Bundithya, for their valuable suggestion and encouragement to conduct this research.

I would like to thank the Royal Project Foundation and the financial support given me which made possible the opportunity for Ph.D. program.

In addition, I would like to thank scholarship from Center of Excellence on Agricultural Biotechnology.

Special word for thank also goes to H.S.H. Prince Bhisatej Rajani, Chairman of the Royal Project Foundation. I also expressed my full thanks to Miss. Sililuk Inthawong and Miss Ansaya Suriyawongtrakan and all vegetable extension staffs.

I am thankful to Mr. Likhit Maneesin for sharing his time, knowledge and technical expertise.

Finally, I would like to thank Mr. Wittaya and Anaphat Chompupoung to whom I dedicate this.

Copyright by Chiang Mai University

All rights reserved