PRODUCTIVITY OF MAIZE / LABLAB INTERCROP

NABA RAJ DEVKOTA

A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN

PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

MASTER OF SCIENCE
(AGRICULTURE)

IN AGRICULTURAL SYSTEMS

GRADUATE SCHOOL
CHIANG MAI UNIVERSITY
CHIANG MAI, THAILAND
JUNE 1993

PRODUCTIVITY OF MAIZE / LABLAB INTERCROP

NABA RAJ DEVKOTA

THIS THESIS HAVE BEEN APPROVED TO BE A PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

MASTER OF SCIENCE (AGRICULTURE)

IN AGRICULTURAL SYSTEMS

EXAMINING COMMITTEE:

B. Rulcoldon

CHAIRMAN

Assoc. Prof. Dr. Benjavan Rerkasem

Dr. Kanok Rerkasem

MEMBER

C. Surget MEMBER

Assoc. Prof. Mr. Chalermpone Sampet

Phaek Gypmantasiri

MEMBER

Mr. Phrek Gypmantasiri

II rights reserve

JUNE 1993

Copy right of the Graduate School, Chiang Mai University

ACKNOWLEDGEMENTS

It is my pleasure to appreciate the help of many people and institution in the completion of this thesis research which I can not adequately acknowledge them all, though I wish I could express the gratitude to each and everyone.

My sincere thanks go to Assoc. Prof. Dr. Benjavan Rerkasem, my academic as well as thesis advisor and chairman of my examining committee, Dr. Kanok Rerkasem, Assoc. Prof. Mr. Chalermpone Sampet, and Ajarn Phrek Gypmantasiri, committee members, for the most valuable advice, guidance, encouragement and helpful criticisms.

I am please to express my profound thanks to the all teachers and administrative staff of Agricultural Systems Program, Faculty of Agriculture, Chiang Mai University for their help, cooperation, sharing knowledge and services during my stay. It is worthy to mention Khun Nuansri for official works, Khun Jamlong for field and Khun Sitichai for assisting lab work.

My family and I are very grateful for the financial support provided by the Ford Foundation to complete graduate study. It is equally praise worthy to acknowledge the administrative authority in TU/ Institute of Agriculture and Animal Science (IAAS), Rampur campus, Nepal for granting me the study leave, to pursue M.S. in Agricultural Systems at Chiang Mai University. Special thanks is extended to the farmers for their cooperation, understanding and help during the field study in Chitawon, Nepal, to whom this work is dedicated.

My field experimentation would have never come into shape without constant help, deep patience and moral support of my beloved wife Durga. Always it will be too less to acknowledge her genuine help. It is my pleasure to count my son Pramukh, who stayed with me at Chaing Mai during field research and shared love, affection and gave a wonderful family environment. Equally, I am grateful to the help and candid cooperation from my Nepalese friends, Jharendu, Devendra, Bijaya, Milan, Suja Bhauju and Chhabi. Especial help from Jharendu in field work, Bijaya for lab as well as computer work, and from Khun Lung and Khun Daeng to prepare some graphs and tables are highly appreciated. I am thankful to my seniors, Ellen, De, Cheng, Khun Lek, Khun Ngaew, Khun Panya and to all of my classmates in AGS Batch's 1991. Especially, I enjoyed a friendly environment with Sanzid, Gan, Yuan, and Khun Aruni.

Finally, I am highly grateful to my parents (Govinda and Bhagabati), Uncle (Bhim), grand mother, younger brothers (Bharat and Jana), sister sakun and all relatives, friends and villagers for their constant support, motivation and sacrifices while I am far away from the locality.