

ACKNOWLEDGMENT

At the very onset, I take the opportunity to express my deep sense of gratitude to my supervisor, Prof. P.K. Basu for his novel guidance. I shall remain ever grateful to him for his sympathy throughout the course of work.

I am thankful to Prof. K.B. Dutta, Head of the Dept. of Botany, North Bengal University, and Prof. A.K. Chakravarty, Director, Centre for Life Sciences, University of North Bengal for giving certain facilities to carry out the work.

My sincere thanks to Dr. P.K. Sarkar, Lecturer in Botany, North Bengal University, Dr. B.N. Chakravarty, Lecturer in Botany, North Bengal University, and Dr. (Mrs.) Usha Chakravarty, Lecturer in Botany, North Bengal University for giving me enthusiasm to complete the work.

I gratefully acknowledge Dr. B. DasGupta, Principal, Darjeeling Govt. College, for giving me inspiration during the course of work.

I am very much grateful to Dr. T.K. Sadhu, Assistant Professor in Botany, Krishnanagar College, from whom I've learnt the A.B.C. of Plant Physiology.

I like to express my sincere thanks my class mates and co-workers Shri Bharat Rai, Shri Saimon T. Lepcha and Shri Harka B. Chhetri for their helps and good wishes throughout the course of work.

I am thankful to Shri Asit Baran Mandal, Lecturer in Botany, Siliguri College, for helping me in preparing the tables.

My sincere thanks to my special mates Shri Madan Yonzon, Shri Md. Dabirul Islam and Shri Madan Mukhia for their encouragements during the course of work.

I am thankful to my co-workers Smt. Nivedita Biswas (Banerjee), Smt. Kakali Pal (Mandal), Shri Shuvendu Bhusan Mandal and Shri Apurba Hati for various helps during the experimental work.

I am also thankful to Smt. Rama Kar, Lecturer in P.D. Womens' College, Jalpaiguri.

I thankfully acknowledge Shri Sourav Sarkar, Research Scholar in Zoology Dept., North Bengal University and Shri Debashis Hazra for photoprinting.

My sincere thanks to Shri Bhupen Bagchi for excellent drawing of the figures.

I am also thankful to the staff of the Centre for their co-operation and Shri Asim Bose for typing the thesis.

I thankfully acknowledge the Hindustan Fertilizer Education Project, Siliguri, with whose collaboration analyses of soil samples were performed.

I like to thank the Department of Environment, New Delhi, for awarding me the Junior and Senior Research Fellowships during

the experimental work.

Finally, I express my sincere gratitude to my dear parents, elder brother and sisters, sister-in-law and brother-in-laws, and my youngest sister Sakuntala, whose constant inspirations and encourages helped me to complete this work.



(Ishani Gupta)

Plant Physiology and Pharma-
cognosy Research Laboratory,
Department of Botany,
Centre for Life Sciences,
North Bengal University,
Darjeeling, India - 734 430.

Dated 10. 9. 1988.