ACKNOWLEDGEMENT

I place on record my deep sense of gratitude to my research supervisor Dr. M. M. Das, Professor, Dept. of Geography and Ex-Dean, Faculty of Science of Guwahati University for his inspiring guidance, constant encouragement and valuable suggestions during the course of this investigation and also for painstaking efforts while preparing the manuscript.

I sincerely thank Dr. V. Rajagopal, the present Director, CPCRI, Kasaragod and Dr. K.U.K. Nampoothiri, Ex-Director of CPCRI for providing all the facilities to conduct the study. I thank Dr. P. M. Kumaran for his help in carrying out the survey work in Kasaragod as well as in Kamrup. I owe a lot to him. I am thankful to Dr. Anuradha, Mrs. Manimekalai, Mr. Rajesh and Mr. Jayadev of the Biotechnology section of CPCRI, for helping me in conducting the DNA finger printing. My special thanks are due to Dr. Geetha Lakshmi for her generous help during the course of this work. I thank Dr. K. Muralidharan of statistics Division for his help in arrangement of the statistical data of the thesis. I thank Mr. K. K. Nair and Mr. Sebastian George for their help in computer work.
I thank Dr. A. Santhakumari, Professor, Dept.of Geography, Madurai Kamaraj University for her valuable and timely help for completing the thesis. I am indebted to Dr. N.K. Mohan, Chief scientist, Horticultural Research station, Kahikuchi for his help in carrying out my survey in Kamrup District without which it would not have been possible to do this work.

I place on record my gratitude to my friends Dr. Anitha, Mrs. Sajini, Mrs. Radha, Dr. Siril, Mr. K. Devakumar, Mr. Ramesh Kumar, Mrs. Sobha, Mrs. Chitra, Mr. Mujib Rehman for their support.

I am highly indebted to Mr. Jayarajan of IISR Calicut for his painstaking help in editing the thesis. I am thankful to Drs. Chempakam, Kandiannan, Srinivasan, Hamza, and Madan for the ready help rendered and to Ms. Sreena and Mr Sudhaharan of IISR for the support to complete the thesis work.

I am grateful to the staff of the Forestry Department of NRSA, Hyderabad for enlightening me on the modern protocol to understand the satellite imageries and GIS which are applied in the thesis. I am thankful to NRSA data center for providing for the satellite imageries of Kasaragod and Kamrup.
I express my sincere gratitude to Dr. G. Bhowmik, professor of the Bio-technology, Guwahati University for his valuable help starting from the registration to the submission.

The help rendered by Dr. Aswath of Indian Institute of Horticultural Research, Bangalore is gratefully acknowledged.

I owe a lot to my cousin Dr. (Mrs) Sujatha Purkayastha, of Guwahati University for the immense help she did to me.

I express my gratitude to my husband Dr. V.A. Parthasarathy, Director, Indian Institute of Spices Research. He has been my friend, philosopher and guide and the thesis is actually his brainchild. I thank my daughter Ms. Gayathri for her continuous inspiration and sacrifice.

Lastly I express my deep reverence to my sister-in-law Dr. V.A. Vasantha and brother-in-law Mr. Thiruvangadathan for their useful help to complete the thesis.

I am extremely grateful to my mother and other family members for their co-operation and constant encouragement during the course of this study.

Place: Calicut
Date: 3-5.9.04.

[Signature]
Utpala Parthasarathy