

ACKNOWLEDGEMENTS

It has been my great privilege to have worked with Dr. M. Balasundaran, my supervisor for the last four years. The immense freedom he allowed in my research work, encouragement and guidance has nourished my self confidence to further my research career.

I thank Dr. K.S.S. Nair, former Director and Dr. J.K. Sharma, Director, KFRI, for permitting me to use the laboratory facilities of this Institute.

Dr. E.M. Muralidharan, Division of Genetics, has been a great source of inspiration for me. His cogent advice and discerning approach made me look beyond some difficult moments that I faced during the earlier stages of my work. I am thankful to Dr. E.M. Muralidharan and Dr. I.S. Bright Singh, Reader, Department of Environmental Studies, CUSAT, for the generous help and advice for carrying out this work.

My special appreciation to Dr. K.V. Sankaran and Dr. M: Balagopalan for permitting me to use the ACIAR Soil Chemistry Laboratory and Ms. Smitha Sridharan for assisting in my work.

I remember with gratitude the service rendered by Mr. M.S. Santhosh Kumar for maintaining the animal house and glass house and Mr. E.O. Mathai for assisting me in collecting specimens from the field.

I express my sincere thanks to Dr. Maria Florence, Mrs. Sumangala Amma, Mr. Subash Kuriakose, Mrs. T.B. Suma, Mr. P.R. Swaran, Mr. K.C. Joby, Mr. M.M. Roy and all the research fellows of the Division of Pathology for the timely help.

The ultrastructural studies were carried out at the Sophisticated Instruments Facility for Electron Microscopy at the All India Institute of Medical Sciences, New Delhi, and the HPLC studies at Central Institute of Fisheries Technology, Kochi. I acknowledge the help rendered by the staff of both the laboratories.

My sincere thanks to the Department of Biotechnology, Govt. of India, for a Junior Research Fellowship (1996-1998) and CSIR, Govt. of India, for a Senior Research Fellowship (1998-2000).

Finally, I pay my respects to my parents for their love and prayers and recall the support and encouragement from my brothers, sisters, relatives and well-wishers. I thank God Almighty for giving me strength, courage and wisdom to complete the challenging work successfully.

Sunil Thomas

AD MAJOREM DEI GLORIAM