ACKNOWLEDGEMENT

I express my sincere and whole-hearted thanks to all those who have rendered their help and support to accomplish this endeavour fruitfully.

First, I would like to express my deep and sincere gratitude to Dr. K. K. Seethalakshmi, Supervising Guide for accepting me as her student and guided my work on the Ph.D. thesis. I am thankful to her in sharing her great experience, good advice and countless ideas and providing a good working environment. I deeply acknowledge her for the liberties she gave me to develop my research ideas, constant inspiration and suggestions during each phase of study.

I am indebted to Dr. V. N. Rajasekharan Pillai, Executive Vice President, Kerala State Council for Science, Technology and Environment (KSCSTE), currently the Director, Dr. K. V. Sankaran and Dr. R. Gnanaharan, former Directors and Dr. Sudheendrakumar, V.V. Registrar of Kerala Forest Research Institute for providing me the best ambience for the work. Their keen interest, positive criticism and help provided to me during the course of study are acknowledged deep from heart. I express my sincere thanks to Dr. M. Balagopal, Chairman, Research Advisory Committee for his valuable suggestions and help rendered during the course of study. I would like to express my special thanks to Dr. Jayson, Nodal Officer for the whole hearted advices and encouragement throughout the study period and also for fulfilling the official requirements of Ph.D.

My warm thanks go to Dr/s. S. Sankar, Thomas P. Thomas, Muktesh Kumar, M S. and K. Jayaraman, members of Research Advisory Committee for their valuable suggestions and encouragement during the course of investigation. They challenged me, improved my writing skills and taught to think critically which helped me a lot in shaping the manuscript. Thanks are also due to Dr. Sunanda for her great support during statistical analysis and interpretation of data.

I am thankful to Mr. V.P. Raveendran, Scientist, Extension and training Division for his valuable help rendered during the study especially in field work. He was always with me whenever I was in need.

The valuable suggestions and positive criticism offered by Dr. Sandeep S, Soil Science Department in framing the litter dynamics studies is also deeply acknowledged.
Dr. Hrideek T.K., scientist, Forest Genetics and Tree Breeding Department was a source of constant inspiration and the help rendered by him during the course of investigation is duly acknowledged.

I owe my deepest gratitude to all staff in the KFRI library. I am indebted to all colleagues in the Tree Physiology Department for their greater support during the investigation. I would like to specially mention the names of Ms Srijita Suresh, Hema, P., Biju K.P., Lakshmi, C.J., Sabeena, C.S. and Drs Beena V.B. and Robi, T.J. I would like to convey my special thanks to T.P. John and Santhosh Kumar, M. Mr. Jibi P.O. was always a constant source of inspiration and had contributed greatly in executing the field work. I am indebted to him in successfully completing the field work. I would like to extend my deep thanks to Mrs. Soumya M.T. who was always with me to support in each phase of study.

Mr. Kuruvila Thomas, Chief Conservator of Forest, Uttar Pradesh was always with me as a source of inspiration and his care and support rendered during the study is deeply acknowledged.

I am indebted to Dr. Ajith K. Associate Professor, College of Horticulture, Assistant Professors Mrs Binu N Kamalolbhavan, Shaji M. and Srinivasan K. for their timely help for the successful completion of the project.

I take this opportunity to thank the innovative farmers who allowed me to conduct studies on their bamboo plantations and showing keen interest in my studies.

My final and most deeply felt appreciation goes to my family for their great support, love and encouragement to me.

Jijeesh C.M.