

ACKNOWLEDGEMENTS

All my praises and appreciations are for almighty lord jesus, for bestowing upon me the wisdom and potential for successful accomplishment of this manuscript. I offer my humblest salutations upon the Holy spirit, (peace up on him) who is forever, a torch of guidance and knowledge for all mankind.

I take this opportunity to acknowledge all those involved directly or indirectly in the successful realization of the thesis.

It gives me pleasure to express my deep sense of gratitude to my Research Supervisor Prof. N. Savitramma, Head, Department of Botany, Sri Venkateswara University, Tirupathi, India. She allowed me to develop and encouraged me to pursue scientific interests but at the same time sensibly guided me throughout my Ph.D. Without her guidance, comments, constructive criticism, inexhaustible patience, and her support, it would be have been impossible for me to complete this work successfully. I acknowledge her dynamic celebrity and genial thinking were always a source of incentive in all the phases of decisive analysis.

I humbly express my deep sense to gratitude to Prof. Appa Rao, Head of the Department, Prof. Thygarajulu, Chairman, BOS, Department of Biotechnology, Sri Venkateswara University, Tirupati for their encouragement, kind co-operation and providing me necessary atmosphere to complete the work.

I am thankful to Retd. Prof. D.C. Reddy, Department of Aquaculture, Sri Venkateswara University, Tirupathi, for his supervision doing work in his lab.

I am highly indebted to the Ministry of Earth Sciences (MoES), Government of India for the financial support.

I am thankful to Brother Dr. Annkanna, Post Doctoral Fellow, for his suggestions with a great intimacy when working problems arise. I am pleased to convey gratitude to my labmates Yugandhar, Siva prasadh.

A special thanks to my dear friends D. Anitha, P. Chandrakala and G. Bhumi for their moral support and encouragement.

At last, when i thank of my parents, Mr. P. Nagarathnam and N. Vijaya kumara, my beloved sister, P. N. Thejovathi, My joy and gratitude find no bounds for what they have sacrificed for me.

I thanks my loveable son K. Thej Barath for his co-operation during the period of thesis typing.

I thanks my husband K. Nagur Babu for his encouragement.

Finally, i would like to thank everybody who was important to the successful completion of thesis, as well as expressing my apology that I could not mention personally one by one.

P.N. Pallavi.....✍