ACKNOWLEDGEMENT

First and foremost, I would like to express sincere gratitude to my research supervisor Dr. Sudripta Das, Department of Biotechnology, Tocklai Experimental Station, TRA, Jorhat for his constructive support and encouragement throughout my work.

I am indebted to my co-supervisor Prof. (Dr.) Arun Kumar Handique, Department of Biotechnology, Gauhati University for his valuable suggestion, cooperation and help. I would also like to extend my sincere gratitude to Dr. P.J. Handique, HOD, Biotechnology, Gauhati university for allowing me to pursue my work with enthusiasm in the department.

I would also like to thank Dr S. B. Tripathi and Dr M. S. Negi, TERI, Delhi for their help in carrying out my cDNA AFLP experiments.

I would also like to thank Dr. Biswajit Bera, then in charge, Department of Biotechnology, Tocklai Experimental Station, TRA, Jorhat (presently, Director of Research, Tea Board, Govt. of India) who has given me the opportunity to join the Department in the year, 2006 and initiate my research work.

I would also like to express my gratitude to Dr. T. S. Barman, Plant Physiologist, Department of Plant Physiology and Breeding, Tocklai, for his valuable guidance and suggestions in carrying out the induced water stress experiment. I would also like to thank Dr. U. Baruah, Scientist Department of physiology of for active help and cooperation during the entire induced water stress experiment.

I would also like to thank Dutta Da and Baruah Da of Department of Soil Science, Tocklai, for providing the plant materials for the induced water stress experiment and also for valuable suggestions.

I wish to thank all the members of Department of Biotechnology, Tocklai, for their contribution to my personal as well as professional life at Tocklai during the entire period of my work. I would like to thank my lab mates Sangeeta Borchetia, Bornali Gohain, Raju Bharalee, Tirthankar Bandyopadhyay,

I would also like to thank the suppliers, specially Rajib da and Jain ji for their kind effort for supplying chemicals in time.

I would also like to express my gratitude to Department of Biotechnology (DBT), Govt. of India, for the funding to carry out the research. I also extend my gratitude to the Director; Tea Research Association, Tocklai, Dr. M. Hazarika for providing me the laboratory facilities to carry out my work.

Last but not least, I would like to offer my regards to all those who have helped me in one or the other way towards completion of this piece of work.

Sushmita Gupta