

Acknowledgements

First and foremost, I would like to thank God Almighty for giving me the strength, knowledge, ability and opportunity to undertake this research study and to persevere and complete it satisfactorily. Without his blessings, this achievement would not have been possible.

Though only my name appears on the cover of this thesis, a great many people have contributed to its production. I owe my gratitude to all those people who have made this thesis possible and because of whom my experience has been one that I will cherish forever.

I would like to express my deep sense of gratitude to my research guide, Prof. Susy Albert, Professor, Department of Botany, Faculty of Science, The Maharaja Sayajirao University of Baroda, for her inspiring guidance, constructive criticism and unstinted cooperation. Her motherly attitude, constant help and encouragement made this work a reality. Without her continuous optimism concerning this work, enthusiasm, encouragement and support this study would hardly have been completed. I will always relish the academic freedom and friendly atmosphere I enjoyed in her laboratory.

I would like to express my special gratitude to Prof. J. J. Shah for imparting his knowledge and expertise in this study.

I sincerely thank Prof. Sandhya Kiran, Head and Prof. Arun Arya, Ex Head, Department of Botany, Faculty of Science, The M.S. University of Baroda, for providing the department facilities throughout this research work. I am extremely thankful to all teaching and nonteaching staff of the department.

My special thanks are to Shri S. N. Tyagi and Shri Yadaiah (CF, Working Plan circle, Vadodara) Forest Department, Vadodara support provided to me by making me a part of research team in project "Fruit, Seed, Seedling" carried out in association with Prof. Susy Albert and Prof. Neeta Pandya. As a research fellow I was privileged to use the Forest Department facilities out to reach the study area and work comfortably. Thanks are also due to the Forest Department officers CFO, ACF, Forest guards and villagers of the area.

I am thankful to the team of Council of Scientific & Industrial Research, New Delhi for granting me SRF which facilitated me in fulfillment of my research work.

Thanks to Dr. M. M. Patel, Department of Metallurgical and Materials Engineering, Faculty of Technology and Engineering, The M. S. University of Baroda who personally took interest and had the patience to help me examine and take photographs using Scanning Electron Microscope.

I am extremely grateful and indebted to Mr. Rakesh Pandya for his valuable guidance in statistical analysis of my thesis work. I express my sincere thanks to Prof. Neeta Pandya, Dr. P.S. Nagar for constant moral support and encouragement.

Words fail me to express my appreciation to my labmates: Dr Bhavna Sharma, Dr. Ameer Padhiar, Dr. Bhavika Pandya, Dr. Hiral Buch, and Ms. Mitu Mevada. I also thank faculty members Mr. Ravi Patlavath and Mr. Sanket Charola for their unceasing encouragement and support. They were always beside me during the happy and hard moments to push me and motivate me.

I wish to thank Dr. Nirav Mehta and Krishna Panchal for motivating and help me throughout the research.

It's my fortune to gratefully acknowledge the constant support of some special individuals in my life my husband and my prince Dhruv who patiently and morally supported me throughout my work. Thanks to my parents, my in laws, younger brother and bhabhi, sister in law and other family members were always by my side, supporting me with their endless love and encouraging me with their best wishes which made the hard time so much easier.

Dhara Gandhi