Acknowledgements

It gives me happiness to express my deep sense of gratitude for my research guide Dr. C.T.Karande, Department of Botany, Yashvantrao Chavan Institute of Science, Satara, for suggesting this problem and valuable guidance throughout the period of investigation.

I am grateful to Principal, Dr. A. S. Bhoite Yashavantrao Chavan Institute of Science, Satara for constant encouragement. I am also thankful to Head, Department of Botany Dr. V. P. Khandekar for providing laboratory facilities. I am thankful to all my teachers of Botany Department, - Dr. Mahamulkar S. H., Dr. Pawar A. B., Dr. Jadhav D. N., Prof. Kadam D. A., Prof. Patil P. R., Dr. (Mrs.) Karande V. C., Prof. Dhage R. B, Prof. Shinde Y. T., Dr. Kore B. A. and Prof. S. S. Gaikwad

I would like to extend my deep sense of gratitude to Hon. Chairman Shree Prataprao Bhosale and the Members of management committee, Janta Shikshan Sanstha, Wai, Dist. Satara, for permitting me for research work.

I would fail in my duties if I do not express my deep sense of gratitude to former Principal, Dr. J. S. Chaudhari Kisan Veer Mahavidyalaya, Wai for giving me this opportunity of research work and Principal Dr. J. D. Desai for encouragement.

I am grateful to Prof. G.B.Dixit, Head department of Botany, Shivaji University, Kolhapur, for constant encouragement.

I am also honest to express my thanks to Dr. S.D.Patil Head, Dept. of Botany, my colleagues Dr. E.B.Bhalerao., Prof. R.R.Vaidya and non teaching staff of Botany department, Kisan Veer Mahavidyalaya, Wai for their strong support and encouragement. Thanks are due to Librarian and their staff members of Yashavantrao Chavan Institute of Science, Satara, for their kind help in the completion of the work.

It is my duty to extend my sincere thanks to, Deepali, Lata, Madhuri, Aruna, Pranali, Uday, Damaji, Vijay and other research colleagues, lab assistants and non-teaching staff members for their help during the research work.

Last but not the least I must acknowledge my parents, brother, sister, Mai, Appa, daughter Shwetambari and son Revan for their constant help, moral support and inspiration. I would fail in my duty if I do not remember at this juncture, my husband Vijay. This dissertation would have been incomplete without his patience, help and encouragement throughout the progress of this work.

--- Manjusha Vijay Ingawale