ACKNOWLEDGEMENTS

I wish to express my thanks to:

* Dr. N. Sethunathan, F.A.Sc., Division of Soil Science and Microbiology, Central Rice Research Institute, Cuttack for invaluable guidance and constant encouragement throughout the course of this investigation;

* Dr. S. Patnaik (Director) and Dr. H.K. Pande (former Director), Central Rice Research Institute for interest in this work;

* Dr. V.R. Rao and Mr. T.K. Adhya for helpful suggestions towards improving the manuscript and Mr. U.D. Singh, Dr. S.K. Mohanty, Dr. P.K. Nayyar and Scientists of the Soil Science Division for help;

* K. Ramanand, Soudamini Panda, P.K.Jena and my other colleagues for help in experiments and suggestions;

* Mr. A.V. Surya Rao and Mr. S. Rawlo for help in statistical analysis;

* Department of Environment and Forests, Government of India, New Delhi and US-India Funds (Grant No. FG-IN-693) for financial support;

* Hrushikosh Behera of M/s. Tripathy Xerox for neatly typing the thesis; and

* My parents, brother and sister for their patience and encouragement.

Any omission in this brief acknowledgement does not imply ingratitude.

Laboratory of Soil Microbiology, Central Rice Research Institute, Cuttack 753 006, India.

Sharmila Manikonda

(Sharmila Manikonda)