ACKNOWLEDGEMENT

I wish to place on record my most sincere gratitude and earnest heartfelt thanks to Dr. T. Senthivel, Ph.D., Professor of Agriculture, Faculty of Agriculture & Animal Husbandry, Gandhigram Rural Institute (DU), Gandhigram for being a guiding lodestar in framing the thesis topic and evincing great interest with incessant and steadfast inspiration and putting in ineffable efforts to bring the diesis to full shape.

The members of the Advisory Committee, Dr. V. Thirumurugan and Dr. N.S. Venkatraman Professor of Agronomy, TNAU are gratefully acknowledged for their valuable suggestion and constructive criticism. I express my profound sense of gratitude and sincere thanks to Dr. T.T. Ranganathan, Professor of Agriculture and Dr. R. Udayakumar, Dean and Professor of Agricultural Engineering, Faculty of Agriculture and Animal Husbandry, GRI (DU), Gandhigram.

I extend my esteemed thanks to Dr. Vinod Kumar and Dr. Rajul Edoliya, E.I.DuPont India Pvt Lt., for their support and guidance to accomplish this task. I wish to place my inexpressible gratitude and indebtedness Dr. M. Balasubramaniam, President, Crop Protection Division, Atul Ltd., for the initiative taken and encouragement rendered by him to pursue the Ph.D programme which happened to be a stepping stone. I extend my heartfelt thanks to Dr. C. Chinnusamy, Professor of Weed Science, TNAU, Coimbatore, Dr. C.T. Abraham Professor of Weed Science, KAU, Trichur and Dr. P.M.M. David, Professor of Entomology, TNAU, Killikulam for their constant support, ideas, information and help provided during the course of this study. I feel extremely fortunate to express my sincere thanks to Dr. N. Kempuchetty, Principal, Vanavarayar Institute of Agriculture, Pollachi for his inputs on perusal of the manuscript.

Words are insufficient to thank my friends Messes. Kandasamy, Thiruselvan, Joseph, Murugan, Winston Furtol and Thangapandi who had helped me in conducting the trials at the diverse locations and for their land and cooperative help rendered during various stages of the study. I feel extremely happy to express my gratefulness to my friends Anderson and Baskaran for their voluntary services rendered during the thesis preparation.
I extend my sincere heartfelt thanks to the farmers at Tanjore, Kanchipuram, Trichur and Alleppy who had been part of my research study by lending their land to conduct the field trials.

I feel extremely fortunate to express my sincere thanks to the staff members of the Faculty of Agriculture & Animal Husbandry, Gandhigram Rural Institute for their help and affection during the study period.

I acknowledge my parents E.Jeyasingh and M.Hepzibah, wife G. Guvin Suvij, brothers J. Rajasingh and J.Johnsingh, near and dears for their love, affection and encouragement showered upon me but for which the whole task would have been possible.

I sincerely acknowledge and thank the timely and neat execution of the thesis draft by Indian Printers, Chinnalapatti.

J.ED WIN ROGBELL