ACKNOWLEDGEMENTS

Appreciation for any part of this dissertation should be directed primarily to Dr. B.R. Gaur, M.Sc. (Ag.), M.S., Ph.D. (Purdue, U.S.A.), Head of Plant Physiology Section, Biology and Agriculture Division, Bhabha Atomic Research Centre (BARC), for whose able guidance I am deeply indebted. I gratefully acknowledge the kind and continued encouragement received from Shri N.S. Rao, Head, Biology and Agriculture Division, BARC, for carrying out the work reported in this thesis.

It is a pleasure to express my gratitude to Dr. (Miss) P. Fatterpaker, Head, Regulation of Intracellular Functions Section, Biochemistry and Food Technology Division, BARC, for her interest and advice during experimentation on energy metabolism Section and for critical evaluation of the writeup of this section. Thanks are also due to Dr. S.S. Katyre for thoughtful suggestions during preparation of the manuscript.

I am indeed indebted to all my colleagues in Plant Physiology Section for their help in various ways during the course of these investigations.