ACKNOWLEDGEMENT

It is not an easy task for the author to express in words her deep sense of gratitude and heartfelt feelings towards the helping hands and minds without which this work would never have been complete.

The author expresses her profound gratitude towards Dr. S. C. Das, Head, Plant Improvement Division, Tea Research Association, Tocklai Experimental Station, Jorhat, for his active guidance, inspired suggestions and untiring efforts to inculcate scientific aptitude in the author.

The author also expresses her deep sense of indebtedness to Dr. M. C. Khaita, Professor, Department of Biotechnology, Guwahati University, Guwahati, for his constant encouragement and inspired suggestions throughout the course of study and preparation of the thesis.

The author expresses her heartfelt gratitude to the Director, Tea Research Association, Tocklai Experimental Station, Jorhat, for his kind permission to carry out the work in the Plant Improvement Division.

The author expresses her earnest gratitude towards Dr. T.S. Barman, Dr. B. Bera, Dr. S. Das, Mr. S. C. Bordoloi, Dr. A. C. Handique and Mr. C. S. Mazumdar for their constructive suggestions during the period of investigation.

The author is also deeply indebted to Dr. Uttam Baruah, Dr. (Mrs.) Nazina Ahmed, Mr. Ranjan Kr. Dutta, Mr. Ranjit Kr. Bordoloi, Late Biren Baruah, Mrs. Anu Baruah, Mrs. Manju Dutta, Mr. Biswajyoti Bordoloi, Mr. Hemanta Saikia, Mr. Nabajyoti Neog and Mr. Jayanta Saikia for providing necessary help to carry out the investigations smoothly.

The author also expresses her gratitude to Mr. Kanurum Koch, Late Deoram Gogoi, Mr. Sailen Gogoi, Mr. Alekh Tanti, Mr. Gajen Gandhua, Mr. Swapan Baruah and Miss Bina Das for their help at different stages of work.

The author is highly obliged to all the Scientists and employees of the Statistics Department and the Library Section of Tocklai Experimental Station for providing necessary facilities for the conduct of this study.

The author also wishes to convey her whole hearted gratitude to all the Faculty members of the Department of Biotechnology, Guwahati University, Guwahati, for their precious suggestions during the course of this study.
It is a great pleasure for the author to acknowledge her fellow Research Scholars for their constant cooperation and valuable help.

The author is also highly grateful to all the labourers of Tea Research Association, Tocklai Experimental Station, Jorhat, for providing necessary help during the course of the study.

The author is immensely pleased to express her heartfelt gratefulness to her beloved father, Late Biren Borthakur whose inspiration and mental support during his lifetime enabled her to reach this stage of her academic career.

The author also owes a great deal to her beloved mother, Mrs. Jyotsna Borthakur and brother, Mr. Kapil Borthakur whose affection and blessings were the source of inspiration for completion of the work.

Last, but not the least, the author is grateful to Dr. Binay Kr. Ray and Mr. Munin Gogoi for their painstaking effort in typing this manuscript.

Dated Jorhat

The April, 2009

( The author)