Preface

Microorganisms in soil are critical to the maintenance of soil function in both natural and managed agricultural soils because of their involvement in such key processes as soil structure formation, decomposition of organic matter, toxin removal and the cycling of carbon, nitrogen, phosphorus, and sulphur. In addition, microorganisms play key roles in suppressing soil borne plant diseases, in promoting plant growth and changes in vegetation. With the rise in utilizing ‘organic products’ worldwide, the use of Beneficial Microorganisms in agriculture is considered to be the next alternative against harmful chemicals and pesticides. Considering the role of these microbes, the present study was undertaken to isolate and characterize Agriculturally Important Microorganisms from different soil types of one of the Biodiversity hot spots of the world- Darjeeling Hills and to evaluate their effect in enhancing the growth of plants.

The research work presented in this thesis is a part of work that was carried out in Immuno-Phytopathology laboratory, Department of Botany under the network project “Application of microorganisms in Agriculture and Allied sectors (AMAAS) of National Bureau of Agriculturally Important Microorganisms (NBAIM) funded by Indian Council of Agricultural Research (ICAR).

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