CONTENTS

I General Introduction 1 - 6

II Chapter 1 - Section 1 9 - 133
(Production of Compost)
1. Introduction 9 - 16

2. Materials and methods 18 - 27
   a) method of pit construction 18
   b) formation of manures 19
      i) aerobic 19
      ii) anaerobic 20
      iii) aerobic rich 20
      iv) chemical analysis of mature manures 21
   c) bio assay with organic additives 24
      i) Petri plate trial 24
      ii) Plastic cup trial 24
   d) bio assay for efficacy of aerobic, anaerobic and aerobic rich 25
      i) pot culture experiments 25

3. Results 29 - 68

4. Discussions 70 - 78

III Chapter 1 - Section 2 79 - 118
Study of science of decomposition process in the organic rich manure formation.

1. Materials and Methods 81 - 85
   a) experiment 1 81
      chemical analysis of the decomposing media 81
   b) experiment 2 82
      total microbial number MPN of nitrosomonas 82
   c) experiment 3 82
      influence of leachate of decomposing matter on growth of test crops 82
   d) experiment 4 83 - 85
      invitro bio assay (tissue culture) 85

2. Results 86 - 107

3. Discussion 108 - 118
IV. Chapter 1 - Section 3
Changes in soil characteristics due to
incorporation of organic-rich manure.

1. Materials and Methods
   Physical properties of soil
   120 - 126

2. Results
   127 - 130

3. Discussions
   131 - 133

V. Chapter 2
Attributes of organic rich manure
1. Introduction
   135 - 139
2. Materials
   140 - 141

Experiment 1 - Influence of organic rich manure on
active ingredients and anti oxidants
in vegetables.

Experiment 2 – Combined effect of auxin / caffeic
acid and organic manure on rooting
and growth in Coleus.

Experiment 3 – Integrated effect of caffeic acid,
organic manure and light wave length
for tuber production, forskolin content
and anti-oxidant phyto chemicals in Coleus forskohlii Briq.

3 Results
   161 - 209

4 Discussion
   210 - 220

VI. Summary
   221 - 225

VII. Literature cited
   226 - 236

VIII. Annexures