

## CONTENTS

|                                                                           | Page |
|---------------------------------------------------------------------------|------|
| LIST OF TABLES AND FIGURES .....                                          | i    |
| I- INTRODUCTION .....                                                     | 1    |
| II- REVIEW OF LITERATURE .....                                            | 6    |
| III- MATERIALS AND METHODS .....                                          | 37   |
| IV- RESULTS AND DISCUSSION .....                                          | 54   |
| IV.1. Vegetative growth .....                                             | 54   |
| IV.1.1. Periodical growth measurements ....                               | 54   |
| IV.1.2. Other growth measurements (final<br>destructive) .....            | 103  |
| IV.1.2.1. Linear measurements of under-<br>ground organs .....            | 103  |
| IV.1.2.2. Dry weight .....                                                | 125  |
| IV.1.2.2.1. Dry weight of above-ground<br>system (pseudostem + leaves)... | 125  |
| IV.1.2.2.2. Dry weight of under ground<br>system (corm + roots) .....     | 129  |
| IV.2. Mineral Constituents in various banana<br>plant's organs .....      | 144  |
| IV.2.1. Nitrogen content .....                                            | 144  |
| IV.2.2. Phosphorous content .....                                         | 155  |
| IV.2.3. Potassium content .....                                           | 164  |
| V- SUMMARY AND CONCLUSION .....                                           | 174  |
| VI- LITERATURE CITED .....                                                | 195  |
| VII- ARABIC SUMMARY.                                                      |      |