

# CONTENTS

| Chapter No | Title  | Page No. |
|------------|--|----------|
| <b>I</b>   | <b>INTRODUCTION</b>                                    | 1        |
| <b>II</b>  | <b>MATERIALS AND METHODS</b>                           | 19       |
|            | 1. Plant Material                                      | 19       |
|            | 2. Enzyme Studies                                      | 19       |
|            | A. Enzyme peroxidase                                   | 19       |
|            | B. Enzyme catalase                                     | 20       |
|            | C. Enzyme polyphenol oxidase                           | 22       |
|            | D. Enzyme IAA oxidase                                  | 23       |
|            | E. Qualitative determination of isozymes of peroxidase | 24       |
| <b>III</b> | <b>RESULTS AND DISCUSSIONS</b>                         | 28       |
|            | 1. Enzyme Kinetics of Hydroxyperoxidase                | 28       |
|            | A. Peroxidase  | 28       |
|            | B. Catalase  | 41       |
|            | 2. Study of Other Related Enzymes                      | 56       |
|            | A. IAA oxidase   | 57       |
|            | B. Polyphenol oxidase                                  | 59       |
|            | 3. Isozymes of Peroxidase                              | 61       |
| <b>IV</b>  | <b>SUMMARY AND CONCLUSIONS</b>                         | 64       |
|            | <b>BIBLIOGRAPHY</b>                                    | 71       |