

**THE EFFECT OF NANOSILVER ON
STERILIZATION OF *Curculigo latifolia* Dryand
SHOOT CULTURES**

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TABLE OF CONTENTS

| | PAGE |
|--|-------------|
| ACKNOWLEDGEMENT | iii |
| TABLE OF CONTENTS | iv |
| LIST OF TABLES | vi |
| LIST OF FIGURES | vii |
| LIST OF ABBREVIATIONS | viii |
| ABSTRACT | ix |
| ABSTRAK | x |
| | |
| CHAPTER 1: INTRODUCTION | |
| 1.1 Background of Study | 1 |
| 1.2 Problem Statement | 5 |
| 1.3 Significance of Study | 6 |
| 1.4 Objective of the Study | 7 |
| | |
| CHAPTER 2: LITERATURE REVIEW | |
| 2.1 Taxonomy and Biology of <i>Curculigo latifolia</i> Dryand (Lemba) | 8 |
| 2.2 Sweet modifying properties of <i>Curculigo latifolia</i> 's fruits | 12 |
| 2.3 Plant tissue culture | 12 |
| 2.3.1 Explant sources | 13 |
| 2.3.2 Medium of tissue cultures | 14 |
| 2.3.3 Sterilization | 14 |
| 2.4 Nanosilver | 14 |
| | |
| CHAPTER 3: METHODOLOGY | |
| 3.1 Materials | 18 |
| 3.1.1 Raw materials | 18 |
| 3.1.2 Chemicals | 18 |
| 3.1.3 Apparatus | 18 |
| 3.2 Methods | 19 |
| 3.2.1 Collection of samples | 19 |
| 3.2.2 Preparation on 70% alcohol | 19 |
| 3.2.3 Preparation of hormone stock solution | 19 |
| 3.2.4 Preparation of Murashige and Skoog medium | 21 |
| 3.2.5 Surface sterilization of samples | 21 |

| | |
|--|----|
| 3.2.6 Sterilization of samples | 22 |
| 3.2.7 Culture medium | 23 |
| 3.3 Parameter | 24 |
| 3.3.1 Percentage of clean culture | 24 |
| 3.3.2 Percentage of contaminated culture | 24 |
| 3.3.3 Mean Days of survival | 24 |
| 3.4 Data Analysis | 25 |
| | |
| CHAPTER 4: RESULT AND DISCUSSION | |
| 4.1 The determination of the best sterilization methods for shoots explants. | 27 |
| 4.2 Effect of concentration and time of exposure of Nanosilver towards explants | 31 |
| 4.3 The sterilizing properties of Nanosilver | 36 |
| | |
| CHAPTER 5: CONCLUSION AND REFERENCES | 38 |
| | |
| CITED REFERENCES | 42 |
| APPENDICES | 45 |
| CURRICULUM VITAE | 58 |

ABSTRACT

The Effect of Nanosilver on Sterilization of *Curculigo latifolia* Dryand Shoot Cultures

Curculigo latifolia Dryand or Lemba is a herb that usually found in the forest that possessed unique sweetening properties that obtained by consuming its fruit. This unique properties can be exhibited if the fruit was consumed with foods that contained acidic properties. Growth of *C.latifolia* is very low in the forest and even with micro-propagation techniques as it is easily contaminated and undergo browning. This is proven by many previous study on *C.latifolia* that attempt on reducing contamination or the study is limited by contamination. The shoot of *C.latifolia* was surface sterilized with 3 drops of Tween20 for 35 minutes, 30% and 20% Clorox for 15 minutes for both concentration, and 70% alcohol for 90 seconds. After surface sterilization, the shoot explants was then immersed in nanosilver for 5 different concentration (20, 40, 60, 80 and 100ppm) with combination of 3 time of exposure (30, 60 and 90 min) to determine which combination is most effective in eliminating or reducing contamination. Explants sterilized with 100ppm of nanosilver with 60 min time of exposure was the best treatment in reducing contaminants. This treatment had the longest means day of survival which is 24.70 days. Explants undergo necrosis suggesting that the cultures needed to be subcultured within range of 2 weeks to avoid depletion of nutrients.