

IN-VIVO PROPAGATION OF GINKGO  
BILOBA L.

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DEGREE IN BOTANY

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Date: 16<sup>th</sup> January, 2007

**RECOMMENDATION**

This is to certify that the dissertation work entitled “***In-vivo Propagation of Ginkgo biloba L.***” was conducted by Nabin Bhattarai under my supervision. The result of this work has not been submitted for any other degree.

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**LETTER OF APPROVAL**

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## ABSTRACT

Propagation of *Ginkgo biloba* L. was conducted through stem cutting of hardwood and semi hard wood. The cuttings from basal part of the tree were selected for the experiment. Auxins like IAA, NAA and IBA were effective to induce rooting.

The stem cuttings treated with 1000 ppm IAA for 30 minutes showed highest percentage (90 %) rooting. The average root length measured 4.66 cm. The cuttings treated with 500 ppm IBA for 30 minutes could induce healthy roots measuring 12 cm the cuttings treated with IAA showed higher rooting percentage in rainy season i.e. June, July. The cuttings treated with higher concentration of IBA and NAA showed less rooting. IAA was found the most effective hormone for rooting of *Ginkgo biloba* cuttings. Anatomical studies of normal and rooted stems were also performed. Vascular cambium, secondary phloem, cortical cells and pericycle cells took part on rooting.

Propagation of cuttings is an effective practice for ex-situ conservation of plants. The well-rooted cuttings were planted in the natural condition.

## TABLE OF CONTENTS

Page No.

Recommendation	
Letter of Approval	
Acknowledgement	
Abstract	
Table of Contents	
List of Tables	
Abbreviations	

### CHAPTER ONE

<b>INTRODUCTION</b>	<b>1</b>
1.1 General Background	1
1.2 <i>In- vivo</i> Rooting	3
1.3 Hormones	9
1.3.1 Auxins	10
1.4 Importance of this Study	13
1.5 Objectives of the Study	13
1.6 Limitation of this Study	14

### CHAPTER TWO

<b>LITERATURE REVIEWS</b>	<b>15</b>
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### CHAPTER THREE

<b>MATERIALS AND METHODS</b>	<b>22</b>
3.1 Rational of the Plant Selection	22
3.2 Collection of Material	22
3.3 Preparation of Cuttings	22
3.4 Preparation of Hormone Solution	23
3.5 Bed Preparation	23

3.6 Treatment of cuttings	24
3.7 Plantation of Cuttings	24
3.8 Anatomical Study	25
3.9 Data Collection	25
3.10 Statistical Analysis of Data	25
3.11 Acclimatization	25

#### **CHAPTER FOUR**

<b>OBSERVATION</b>	<b>26</b>
4.1 Morphology of the plant	26
4.2 Presentation of Data	32
4.3 Studies on Anatomical Features of Stem of <i>Ginkgo biloba</i> L.	36
4.4 Statistical Analysis	37

#### **CHAPTER FIVE**

<b>DISCUSSION</b>	<b>38</b>
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#### **CHAPTER SIX**

<b>CONCLUSION</b>	<b>45</b>
<b>RECOMMENDATIONS</b>	<b>45</b>

#### **CHAPTER SEVEN**

<b>REFERENCES</b>	<b>46</b>
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**Photo Plates**

**Annexes**

## LIST OF TABLES

Title	Page
Table No. 1: Effect of IBA on roots formation on cuttings in rainy season under varying concentration.	27
Table No. 2: Effect of IBA on roots formation on cuttings in summer season under varying time of treatment.	28
Table No. 3: Effect of NAA on roots formation on cuttings in rainy season under varying concentration.	29
Table No. 4: Effect of NAA on roots formation on cuttings in summer season under varying time of treatment	29
Table No. 5: Effect of IAA on roots formation on cuttings in rainy season under varying concentration.	31
Table No. 6: Effect of IAA on roots formation on cuttings in summer season under varying time of treatment.	31



## ABBREVIATIONS AND SYMBOLS

ABA:	Abscisic Acid
ANOVA:	Analysis of Variance
b:	Breadth
CDB:	Central Department of Botany
Cm:	Centimeter
<i>et al.:</i>	<i>et alibi</i>
h:	Height
IAA:	Indole-3 Acetic Acid
IBA:	Indole-3 Butyric Acid
L.S.D.:	Least Significance Difference
m.	meter
Mins:	Minutes
NAA:	Naphthlene Acetic Acid
°C:	Degree centigrade
ppm:	parts per million
sps:	Species
SPSS	Statistical Package for Social Sciences