CALLUS INDUCTION FROM THE SEED OF ARCHIDENDRON PAUCIFLORUM (JERING)

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS TABLE OF CONTENTS LIST OF TABLES LIST OF PLATES LIST OF ABBREVIATIONS ABSTRACT ABSTRAK			
СНА	PTER 1 : INTRODUCTION		
1.1	Background of Study	1	
1.2	Problem Statement		
1.3	Significance of Study	2 3	
1.4	Objectives of the Study	3	
СНА	PTER 2 : LITERATURE REVIEW		
2.1	Archidendron pauciflorum	4	
2.1	2.1.1 Background of <i>Archidendron pauciflorum</i>		
	2.1.2 Botanical description and distribution	4 5 5 6	
	2.1.2 Botanical description and distribution 2.1.3 The uses of <i>Archidendron pauciflorum</i>	5	
	2.1.4 Pharmacological report	6	
2.2	Nutrient Rich-substance in <i>Archidendron pauciflorum</i>	7	
2.3	Culture Media for Callus Induction	9	
2.4	Callus Induction With The Aid of Plant Growth Regulator	10	
2.1	(PGR)	10	
2.5	Selection of Seed	11	
OFF.	PETER 4. METHODOLOGY		
	PTER 3: METHODOLOGY	10	
3.1	Materials	12	
	3.1.1 Raw materials	12	
2.2	3.1.2 Chemicals	13	
	3.1.3 Apparatus	13	
3.2	Methods	14	
	3.2.1 Explant sterilization	14	
2.2	3.2.2 Callus induction	14	
3.3	Statistical Analysis	15	

CHAP	ΓER 4:	RESULTS AND DISCUSSION	
4.1	Effect of	of Plant Growth Regulator (PGR) on Callus Induction	16
	4.1.1	Callus induction with 2,4-D	16
	4.1.2	Callus induction with NAA	17
	4.1.3	Callus induction with IAA	17
4.2	Discuss	sion	24
СНАР	ΓER 5 :	CONCLUSIONS AND RECOMMENDATIONS	27
CITED REFERENCES			
APPENDICES			
CURR	ICULUI	M VITAE	39

ABSTRACT

CALLUS INDUCTION FROM THE SEED OF ARCHIDENDRON PAUCIFLORUM (JERING)

Archidendron pauciflorum (Jering) is the traditional medical plant from the family of Leguminosae that is native in Southeast Asia. It has been used traditionally to treat a various range of ailments. Genetic improvement is vital in the development of plants in order to increase their yield and quality, however there is no local data on plant tissue culture of Archidendron pauciflorum available. A protocol for successful callus induction from the seed of Archidendron pauciflorum was developed by using the embryo and cotyledon. The explants were inoculated onto Murashige and Skoog (MS) media supplemented with different levels (1.0 - 5.0 mg/L) of 2,4-dichlorophenoxyacetic acid (2,4-D), indole-3-acetic acid (IAA) and naphthalene acetic acid (NAA). After 21 days, compact white callus was obtained from the embryo supplemented with 2 mg/L of 2,4-D and friable white callus from 5 mg/L of NAA and 1 mg/L of IAA. Overall results showed that the presence of 2,4-D is the most suitable auxin to induce the callus on the seed of Archidendron pauciflorum.