# FOREST FIRE

# ABD MALEK BIN SAMSUDIN

DIPLOMA IN WOOD INDUSTRY UNIVERSITI TERNOLOGI MARA MAY 2009

### **ACKNOWLEDGEMENT**

A piece of research certainly does not exist in a vacuum and indeed I am very much indebted to the intellectual, social, and financial support given to me by various quarters. Without their help and support, this project could not have been possible.

First and foremost, I would like to express my deepest gratitude and appreciation to my advisor, Prof Madya Haji Abdul Jalil Bin Ahmad @ Pak AJ for his invaluable guidance and extreme patience. His constructive comments on the early drafts have been immensely helpful and instrumental in improving the quality of this paper.

I would also like to extend my deep gratitude to my lecturer and supervisor, Prof Madya Jamaludin Bin Kassim.

Finally thanks are also due to my fellow colleagues and beloved friends for their understanding, tolerance, help, and constant encouragement. In particular, I owe special thanks to my someone special, Intan Farradiana Binti Arzami for sharing some of her materials with me.

## TABLE OF CONTENT

TIT	LE	PAGE		
APPROVAL SHEET				
DE	DEDICATION			
AC	ACKNOWLEDGEMENT			
TABLE OF CONTENT				
LIST OF TABLES				
LIST OF ABBREVIATIONS				
ABSTRACT				
ABSTRAK				
CH	APTER			
1.0	INTRODUCTION	1		
1.1	General Background	1		
1.2	Objectives	3		
2.0	LITERATURE REVIEW	4		
2.1	Fire Season	4		
2.2	Types Of Forest Fires	5		
	2.2.1 Surface Fire	5		
	2.2.2 Crown Fire	6		
	2.2.3 Ground Fire	6		
2.3	Surface Fire	8		
2.4	Weather And Fuel Consideration on Forest Fire	9		
2.5	Causes Of Forest Fires	10		
3.0	DISCUSSION	13		
3.1	Protection Of Resources From Forest Fire	13		
3.2	Effect Of Forest Fire	15		

	3.2.1	Effect On Trees	15	
	3.2.2	Effect On Soil	16	
	3.2.3	Effect On Ecology	16	
	3.2.4	Effect On Economy	17	
3.3	Fire D	Danger Rating Calculations	19	
	3.3.1	Rainfall	19	
	3.3.2	Fire Danger Rating (Drought Indices)	21	
	3.3.3	When To Start	25	
3.4	Zero 1	Burning – A Viable Option?	27	
	3.4.1	History and Background	28	
	3.4.2	What is 'Zero Burning'?	29	
	3.4.3	'Zero Burning' for Whom?	30	
	3.4.4	The Malaysian Legislation – Environmental Quality Act 197		
		(amended 2000)	32	
4.0	CON	CLUSION AND RECOMMENDATIONS	34	
4.1	Concl	usion	34	
4.2	Recor	mmendation	35	
RE	REFERENCES			
N/I/T A				

### **FOREST FIRE**

By

### **Abd Malek Bin Samsudin**

May 2009

#### **ABSTRACT**

Forest fire is a new phenomenon in Malaysia. It is separated into three parts. Three parts are surface fire, crown fire, and ground fire. Forest fire can happen because of several factors. Among them are bad weather, forest utilization, land preparations, land occupancy, incendiary and natural causes. Forest fire has effected the environment and human for a long time or in short time period such as air pollution, disease infection, and increase world temperature and other. Steps that were taken by certain party such as give awareness to people about the danger of forest fire in our life. Using the high technology equipment in detecting forest fire help to decrease it and also by using the incendiary. In that way total of fire forest can be decrease and problem can be settled.