

**UNIVERSITI TEKNOLOGI MARA**

**INVESTIGATION ON THE LIFESPAN OF GAHARU TEA**

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## ABSTRACT

Gaharu tea is a tea that made up from leaves of *Aquilaria* species. This species has a lot of benefits towards human health such as anti-allergic, anti-diabetic, anti-cancer and anti-inflammatory (Yumi Zuhani Hashim, 2016). In this study, *Aquilaria malaccensis* has been chosen as the sample due to high distribution of this species in Malaysia. *Aquilaria malaccensis* is one of the natural species that grow in peninsular Malaysia. This study will investigate the effect of different moisture content and the effect of different storage conditions on the lifespan of gaharu tea. The leaves will be processed using green tea processing method. it will undergo drying process at fix temperature (50°C) and pressure (0.6 bar) with different drying time which is 60 mins, 90 mins, 120 mins, 150 mins and 180 mins by using Vacuum Far-Infrared Radiation (VFIR) dryer. Another sample will undergo drying process at fix temperature (50°C, pressure (0.6 bar) and drying time (120 mins) but different storage conditions. All of the samples will be going through moisture content analysis and chemical analysis (antioxidant and bacterial colony count).

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## TABLE OF CONTENTS

<b>AUTHOR'S DECLARATION .....</b>	<b>i</b>
<b>SUPERVISOR'S CERTIFICATION .....</b>	<b>ii</b>
<b>APPROVAL BY KPP &amp; COORDINATOR.....</b>	<b>iii</b>
<b>ABSTRACT.....</b>	<b>iv</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>v</b>
<b>TABLE OF CONTENTS .....</b>	<b>vi</b>
<b>LIST OF TABLES .....</b>	<b>ix</b>
<b>LIST OF FIGURES .....</b>	<b>x</b>
<b>LIST OF GRAPHS .....</b>	<b>xi</b>
<b>LIST OF SYMBOLS .....</b>	<b>xii</b>

### **CHAPTER 1: INTRODUCTION**

1.1 Research Background .....	1
1.2 Problem Statement .....	2
1.3 Research Objectives.....	3
1.4 Scope of Study .....	3
1.5 Significance of Research.....	5

### **CHAPTER 2: LITERATURE REVIEW**

2.1 Introduction.....	6
2.1.1 Overview of <i>Aquilaria</i> .....	6
2.1.2 Benefits of <i>Aquilaria</i> .....	8
2.2 <i>Aquilaria malaccensis</i> .....	9
2.2.1 Leaves of <i>Aquilaria malaccensis</i> .....	10
2.3 Tea.....	11
2.3.1 Black Tea .....	12
2.3.2 Oolong Tea.....	15
2.3.3 Green Tea.....	16

# CHAPTER 1

## INTRODUCTION

### 1.1 Research Background

Tea is originated from China and it is made from leaves of plant *Camellia Sinensis*. The definition of tea is a hot drink made by infusing the dried crushed leaves of the plant in boiling water. It is the most popular beverage consumed by two-thirds of the world's population. Since ancient times, tea has been considered a health-promoting habit because of the benefits (Naghma Khan, 2013). There are different types of tea based on processing or harvested leaf development. Nowadays, there is more than 50 countries that produced tea such as Malaysia, China, India and Britain.

Currently, there are few types of tea such as black tea (fermented), green tea (non-fermented) and oolong tea (semi-fermented). These types of tea differ in how the tea is produced and processed based on the different process of drying and fermentation. Black tea is processed by letting the tea leaves ferment for several hours before being either smoke fired, flame fired or steamed. Young tea leaves were used to produced green tea without fermentation after withering, steaming or pan firing, drying and grading. Oolong tea is produced by a partial oxidation of the leaf, intermediate between the process for green and black tea.

As the technology of producing tea is continuously develop, there are other tea that have been produced from different plant such as gaharu tea. The step in producing this tea is just the same as the normal tea. gaharu tea is made from leaves of *Aquilaria* species (*Aquilaria malaccensis*) tree. *Aquilaria malaccensis* is one of the expensive trees in the world and this tree mostly used in fragrance industry because of the essential oil from its