

**A STUDY OF RICE BLAST DISEASE AT DIFFERENT FIELD IN SUNGAI
RAMBAI, MALACCA**

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ABSTRACT

A STUDY OF RICE BLAST DISEASE AT DIFFERENT FIELD IN SUNGAI RAMBAI, MALACCA.

Rice (*Oryza sativa*) is the staple food and a source of income for farmers in Malaysia. Generally, rice blast reduces rice production and cause economic loss to the farmer and grower at Sungai Rambai, Melaka. In fact, rice blast disease cause by fungus *Magnaporthe oryzae* can affect all the above ground part of paddy plant, especially at leaf, node, grains and panicle and sometimes at leaf sheath. In this study, data on disease incidence and disease severity were collected and analyzed. Meanwhile, soil pH, meteorology data (rain, relative humidity, wind, temperature), farmers practices information were also obtained. Result showed the percentage (%) of disease incidence and severity are different among the selected field. However, in general all field recorded low percentage (%) disease incidence and severity which are below than 30 % for both. The occurrence factor of rice blast disease on disease incidence and severity was possibly due to water management, rate and timing of fertilizer application and also the environmental factor.

CHAPTER 1

INTRODUCTION

1.1 Research Background

As an Asian country which is located in Southeast Asia, Malaysia experienced a humid and hot climate throughout the year. The temperature of this country almost constant which is 27 degree Celsius for average annual temperature. Meanwhile, for citizen population, there are over 31 million inhabitants in the country (Department Of Statistics Malaysia, 2016). With the largest number of people, rice is a staple food in this country.

Rice is a seed grass from the species of *Oryza sativa* and it is a staple food for most human population in the world for source of energy especially in Asian country. Paddy is agricultural commodity which is third highest production in Malaysia after oil palm and rubber production. According to Department of Statistic Malaysia (2016), in 2013 rice grown on area 606846 thousand hectares with total production 2555132 metric tons and average yield is 4211 kg per hectares but until nowadays Malaysia still can't produce enough rice to fulfill the market demand and still depends on neighboring country for example is Thailand and Vietnam. There are various disease attack paddy field which can cause the yield reduction like rice blast, sheath blight, bacterial leaf streak, brown leaf spot