

**A CASE STUDY OF PADDY BROWN SPOT DISEASE OCCURRENCE IN  
DIFFERENT GRANARY AREA AT TANJONG KARANG, SELANGOR**

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## ABSTRACT

### **A CASE STUDY OF PADDY BROWN SPOT DISEASE OCCURRENCE IN DIFFERENT GRANARY AREAS AT TANJONG KARANG, SELANGOR.**

Paddy or *Oryza sativa* is an important crop in Malaysia after oil palm and rubber. In Malaysia, paddy has two types such as paddy field and upland rice. According to the International Rice Research Institute (IRRI), people around the world need 300 million tonnes of rice for 2020 to fulfill the need of a fast-growing human population because the paddy or rice is a staple food for more than half population in the world. To fulfill the demand of rice it has many obstacle bases on the disease that will attack the paddy crop that will reduce the yield and quantity of rice. Brown spot is one of the diseases that affect the quality and quantity of paddy yield. The fungus attacked brown spot disease was *Bipolaris oryzae*. The objectives are to determine the incident and severity of brown spot as well as the factor integrated the disease. This case study about disease incidence and severity was done at Tanjong Karang, Selangor. In this case, incidence and severity of brown spot disease was observed at three difference fields at Tanjong Karang, Selangor. The method is a pipe 1m x 1m was used to measure and places it randomly on the quadrant at three difference field at Tanjong Karang, Selangor. All data were observed and recorded. The results show that the field A is the highest percentage of disease incidence and severity (69.61%, 56.00%) and then followed by field B (65.95%, 44.89%) and field C (31.96%, 35.11%). The several factors that possibility infected to incidence and severity brown spot such as soil pH, amount of fertilizer, amount of fungicide, temperature and rainfall. As conclusion, the objective in this case study will achieve base on the result in plot A is high in incidence and severity base on several factors such as soil pH, amount of fertilizer, amount of fungicide, temperature and rainfall.

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 BACKGROUND**

Paddy or *Oryza sativa* is an important plantation in Malaysia and this crop also was supported people for the longer period of time than any crop since 8,000 to 10, 000 years ago (Dobermann, 2002). In addition, rice demand in Asian was increase by 30% in 2010 and it became the production of rice was important to the world (Najim, 2007). In Malaysia, rice is a staple food for people in this country and also staple food for 2.7 billion people almost half the world population. Furthermore, the paddy not only can use as a staple food for human, it also have their value straw for use as a fuel, animal feeding, and mulch (Dobermann, 2002). In Peninsular Malaysia, about 300,500 hectares are planting for rice cultivation. The optimum temperature and rainfall make Malaysia suitable to planting paddy (Toriman, 2013).

In Malaysia, paddy has two types such as paddy field and upland rice. For the paddy field, it was planting at areas that have good irrigation for supply water to this crop. Besides, the upland rice usually planting at Sarawak and Sabah and it needless of water supply. Paddy was covered nearly 10% of area in Malaysia and it was contribute about 85% of rice for Malaysia (Shah, 2013).