

**RICE PRODUCTIVITY VARIATIONS IN DISTRICTS OF KELANTAN AS  
AFFECTED BY NUTRIENT BALANCE**

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## **ABSTRACT**

### **RICE PRODUCTIVITY VARIATIONS IN DISTRICTS OF KELANTAN AS AFFECTED BY NUTRIENT BALANCE**

Paddy yield is always affected by biotic and abiotic factors such as the soil fertility, the presence of pests and diseases and sufficient nutrients with the right proportions during growing period. The objectives of this study were to analyze the rice productivity in selected districts of Kelantan from the year of 2012 to 2014 and to relate productivity to crop nutrient assessment parameters obtained through the use of Diagnosis & Recommendations Integrated System (DRIS) approach. The method used secondary data (the yield of paddy and the crop nutrient analysis) obtained from the Department of Agriculture in Kelantan. The analyzed data was compared and evaluated with published data in the literature. In general, the result obtained from this study indicated that selected leaf nutrient ratio parameters in most crops in Kelantan did not exhibit nutrient ratios characterized by high yielding crops as established for rice crops in MADA. To conclude, there is a potential to increase yield of paddy in Kelantan if balanced fertilization is given during the entire cropping period.

Keywords : Rice, Productivity variations, Kelantan, Nutrient

balance

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Background of Study**

##### **1.1.1 Industry of Rice**

According to FAO (2005), most of the world's population up to 3.23 billion has been depending to the production of rice as their staple food in their diets. China, India and Thailand are recorded as the largest main rice producers with 27.5 % , 21.4% and 5.2% respectively. As for the rice production in Malaysia, our country still produce the rice in a small amount where our country still cannot cater the needs of our rice consumptions from years to years that we have to import the rice from Vietnam,Thailand and Pakistan with a percentage of 54.1%, 19.3% and 12.6%. In Malaysia, there are altogether eight rice granaries comprising of MADA,KADA IADA Kerian, IADA BLS, IADA Pulau Pinang, IADA Seberang Perak, IADA KETARA and IADA Kemasin Semerak with the total planted area of 369,273 ha and with the average yield of 5,002 kg/ha . (Perangkaan Padi Malaysia, 2013).