

**THE DIFFERENT LEVEL OF LIGHT INTENSITY BETWEEN SHADED  
AND UNSHADED ON THE GROWTH PERFORMANCE OF COCOA**

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## DECLARATION

This Final Year Project is a partial fulfilment of the requirements for a degree of Bachelor of Science (Hons.) Plantation Technology and Management, Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA.


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I hereby declare that I have checked this project and in my opinion, this project is adequate in terms of scope and quality for the award of the degree of Bachelor of Science (Hons.) Plantation Technology and Management, Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA.

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## **ABSTRACT**

### **THE DIFFERENT LEVEL OF LIGHT INTENSITY BETWEEN SHADED AND UNSHADED ON THE GROWTH PERFORMANCE OF COCOA**

The review was observed to determine the reaction of cocoa plant to growth performance in difference level of light intensity and to identify the right level of light intensity to growth performance of cocoa plant. The cocoa crop needs canopy to avoid it from the direct sunlight which can cause in problems to their growth and the level of light intensity is important to their performance of growth. The level of light intensity can be measure by using light meter or LI-COR quantum sensor on the differences between shaded and without shaded for the cocoa crop. The observation shows the cocoa plant needs to planting under the range from 50 to 55 percent shaded because the growth performances (plant height, distances, leaf area) are highest at that level while at the without shaded shows the decreases and slower in their growth performance . Meanwhile the distance is recommended to use 3 m x 3 m apart from the permanent or semi-permanent plants. The shaded shows the excellent results in growth performance compare to without shaded on cocoa crop.