

**THE EFFECT OF HEAT STRESS TOWARDS GROWTH PERFORMANCE  
AND CROP PRODUCTIVITY OF PADDY (*Oryza sativa* L.) – REVIEW**

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**Final Year Project Report Submitted in  
Partial Fulfilment of the Requirements for the  
Degree of Bachelor of Science (Hons.) Plantation Management and Technology  
In the Faculty of Plantation and Agrotechnology  
Universiti Teknologi Mara**

**JULY 2016**

## 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.

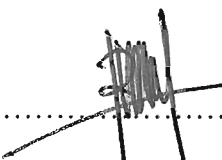
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## **ACKNOWLEDGEMENT**

Assalamualaikum W.B.T and Bismillahirrahmanirrahim,

Alhamdulillah, first and foremost, by the wish of Allah, the Almighty, this Final Year Project has been completed. Thankful to Allah S.W.T because he blessed me with healthy body, perseverance and strength to involve in this FYP.

This FYP has given opportunity and great chance for me in learning process before I expose in working environment. Therefore, I consider myself as very lucky student as I was provided with an opportunity to be in part of it.

I would like to take this opportunity to express my deepest gratitude and special thanks to my Final Year Project supervisor, Madam Shampazuraini binti Samsuri who in spite of being busy in her duties but still have time to hear, guide, and keep me on the correct path during finishing my FYP to be submitted on time.

Finally, I would like to express my heartfelt gratitude to my team members that had given their cooperation and support while finishing this FYP. Also special thanks to my family, friends and all people who had gave their support, constructive suggestion and also critics. Thanks to all for giving me a chance to involve myself in this profession area and made me more confident to get a job and be responsible after my graduation in plantation sector.

**NURUL ANIRA ZURIA BINTI MOHD ZAKARIA**

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## ABSTRACT

Paddy (*Oryza sativa* L.) is one of the global important cereals which functional as primary source of human food that are supplied for more than 3 billion human in the world. By growing population of human in the world, the demand of rice would be higher and there are already challenges to achieve the high demand such as the increasing of temperature. According to Krishnan et. al, (2011), at the end of twenty first century, the increasing of air surface temperature were probably about 1.4-5.8 °C, and this will become a big problem in fulfil the food security by the reduction of yield during the heat stress. Increasing of temperature may affect the growth and development of rice during sensitive stages and the consequences, it will reduce the rice productivity. The effect that might happen is reduction of the grain weight and grain quality. The crop yield would decrease about 7-8% in rice for each increasing 1°C in daytime maximum/night time minimum in temperature from 28/21 to 34/27°C (Baker et al. 1992). Plant will response towards the heat stress in difference developmental stages and the most sensitive is reproductive stage.

Keywords: heat stress, growth and development, crop yield