

UNIVERSITI TEKNOLOGI MARA

**THE ELUCIDATION OF *Dioscorea hispida*'s ROLE IN
MOLECULAR OXIDATIVE DAMAGE-MEDIATED
TOXICITY IN LIVER OF MATERNAL RATS**

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of the requirements for the degree of
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AUTHOR'S DECLARATION

“I hereby declare that this thesis is based on my original work and has not been submitted previously or currently for any other degree at UiTM or any other institutions.”



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ABSTRACT

Dioscorea hispida, or “Ubi Gadung”, has been studied widely in ethnobotany, ethnomedicine, nutritional sources, toxic content, structure and metabolism process and process of removing toxic content. This yam contains highly toxic alkaloid known as dioscorine, and other toxic substances such as cyanide. These toxic contents have shown pathogenic effect to human. The yam is believed can induce oxidative stress which leads to DNA damage. This study is conducted by using ROS assay and comet assay. The results show the DNA damage is directly proportional to *D.hispida* concentration. The toxicity of *D.hispida* has potential to induce genotoxicity.