

Declaration by student

**UNIVERSITI TEKNOLOGI MARA**

**ASSESSMENT OF IMAZAPIC HERBICIDES  
RESIDUES IN SOIL AT SAWAH SEMPADAN  
RICEFIELD AND ITS POTENTIAL HEALTH RISK**

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**Project submitted in fulfillment of the requirements  
for the degree of**

**Bachelor in Environmental Health and Safety (Hons)**

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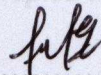


## Declaration by student

Project entitled “assessment of imazapic herbicides residues in soil at sawah sempadan ricefield and its potential health risk” is a presentation of my original research work. Whenever contribution of others are involved, every effort is made to indicate this clearly, with due reference to literature, and acknowledgement of collaborative research and discussion. The project was done under the guidance of Profesor Madya Dr Hazilia Bt Hussain as project supervisor. It has been submitted to the faculty of health sciences in partial fulfilment of the requirement for the degree of bachelor in environmental health and safety (hons.)

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## ABSTRACT

### ABSTRAK

#### ASSESSMENT OF IMAZAPIC HERBICIDES IN SOIL AT SAWAH SEMPADAN RICEFIELD AND ITS POTENTIAL HEALTH RISK

PENILAIAN RACUN HERBISIDA IMAZAPIC DI DALAM TANAH SAWAH PADI DI SAWAH SEMPADAN DAN POTENSI KEPADA RISIKO

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**Introduction:** Weed occurrences is one of the factor that affecting yield potential of rice. The use of pesticides in order to overcome this kind of problem has been increasing over the years. Although the use of pesticides has led to increased agricultural production but, their use has also been associated with several concern, including risk to human health and environment (Bhupander, 2011).

**Methodology:** Study location was selected at Block C of Sawah Sempadan ricefield. In this study, 112 samples of soil was analyzed by using HPLC and statistical analysis that is statistical package for the social science (SPSS) version 18 was used. The questionnaires also were distributed among the farmers.

**Results:** The result for chemical parameter found out that the imazapic residues were detected in each of the soil sample collected. The imazapic concentration detected varies in each soil sample. There were statistically significant differences between imazapic concentration and sampling day for both season 1 and 2 ( $P < 0.05$ ). Health risk assessment found out that there is no adverse health effect ( $HI < 1$ ) associated with the exposure of herbicide via dermal contact.

**Conclusion:** as the conclusion, there was imazapic residues detected in soil but it is assume that it might not cause significant health hazards in future.

**Keywords:** Soil, Ricefield Soil, Imazapic, Potential Health Risk

**Kata kunci:** Tanah, sawah Tanah, Imazapic, Potensi Risiko Kesihatan