

**UNIVERSITI TEKNOLOGI MARA**

**ASSESSMENT OF IMAZAPIC RESIDUES IN FISH  
(*ANABAS TESTUDINEUS S.P*) AND ITS POTENTIAL  
HEALTH RISK AT SAWAH SEMPADAN  
PADDYFIELD.**

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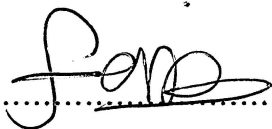
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### **Declaration by Student**

Project entitled “Assessment of Imazapic Residues in Fish (*Anabas Testudineus S.P*) and Its Potential Health Risk at Sawah Sempadan Paddyfield” is a presentation of my original research work. Wherever contributions of others are involved, every effort is made to indicate this clearly, with due reference to the literature, and acknowledgement of collaborative research and discussions. The project was done under the guidance of my project supervisor, Assoc Prof Dr. Hazilia Binti Hussain It has been submitted to the Faculty of Health Sciences in partial fulfillment of the requirement for the Degree of Bachelor in Environmental Health and Safety (Hons).

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## ABSTRACT

### ASSESSMENT OF IMAZAPIC RESIDUES IN FISH (*Anabas Testudineus s.p*) AND ITS POTENTIAL HEALTH RISK AT SAWAH SEMPADAN RICEFIELD.

Muhammad Faaizuddin Mohd Salleh

**Introduction:** Pesticide is considered as the most widely used form of agricultural chemical. Imazapic is one of the herbicides applied to rice field. Imazapic residue can accumulate in fish muscles after a certain period of time. **Objectives:** This study was conducted to assess the imazapic residues in fish and the potential health impacts to the consumers. **Methodology:** Ten samples of fish (*Anabas Testudineus s.p*) with same sizes and species from twenty-eight sampling points at Block C, *Sawah Sempadan*, Tanjung Karang were caught and analysed to detect the imazapic residues and Health Risk Assessment (HRA) had been conducted with 30 respondents through questionnaires. **Results:** High Performance Liquid Chromatography (HPLC) analysis detected the highest level of imazapic residue was found in sampling point four which are 5.4349 mg/kg while the lowest level is detected in sampling point twenty-seven with the concentration value was 0.2178 mg/kg. Hence, the samples exceed the maximum residue limit of 0.1 mg/kg by Codex Alimentarius Commission. The Hazard Index (HI) below than 1 ( $H < 1$ ) which is  $9.95 \times 10^{-4}$  indicate there was no adverse human health effect when consuming fish. **Conclusion:** This study revealed even that imazapic residues concentrations exceeding maximum limit set by Codex Alimentarius Commission, but according to Health Risk Assessment (HRA) calculation, the result found that fish (*Anabas Testudineus s.p*) are deemed safe for human consumption.

*Keywords: Imazapic, Health Risk Assessment*