

**EFFECTS OF FISH WASTE TOWARDS SOIL CHEMICAL
PROPERTIES AND GROWTH PERFORMANCE OF BRINJAL
(*Solanum melongena* L.)**

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DECLARATION

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

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ABSTRACT

EFFECTS OF FISH WASTE TOWARDS SOIL CHEMICAL PROPERTIES AND GROWTH PERFORMANCE OF BRINJAL (*Solanum melongena* L.)

By 2020, the rate of food waste produced in Malaysia is expected will be increased and mostly the food waste comes from the household, especially during the preparation of food which also including of fish waste. Therefore, the purpose of this study was to overcome this problem by turning the fish waste into compost, organic fertilizer that is useful for the agricultural sector. These studies are also to determine the effectiveness of fish waste compost in improving the soil chemical properties and growth performance of brinjal (*Solanum melongena* L.). To achieve the aim of this study, five treatments with different rate of fish waste compost with six replicates were carried out as follows: Treatment 1: NPK Blue Special (12:12:17:2), Treatment 2: Fish waste (100% dry matter), Treatment 3: Fish waste (80 % dry matter), Treatment 4: Fish waste (60% dry matter), Treatment 5: Fish waste (50% dry matter). For the soil analysis parameter (soil pH and soil EC) and yield parameter (No. of fruit and Fruit weight) were showed the significant different value same as well as the plant growth parameters (Shoot length, Shoot weight, Root weight, Plant height and Fresh weight) except for the root length parameter due to the high bulk density factor of the soil that had been used in this study. Based on all of this treatment, the T3 (18g of FW) were showed the highest significant values compare to the other treatments in pH value and EC value. While, T3 (18g of FW) and T4 (13g of FW) was showed the highest significant values in plant growth parameters. However, the significant value for the yield parameters in T5 with 11 g of FW application. In a nutshell, I would recommend the most significant value of FW application was Treatment 5 (11 g of FW). It is because, without need to apply a huge amount of the FW and even the treatment 5 are not shows the highest values in plant growth parameters, it showed the highest result in yield production. So, it can save the expenses on fertilizer and produce high yield productions of brinjal (*Solanum melongena* L.) at the same time.

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