

**THE EFFECTS OF ORGANIC AMENDMENT TOWARDS SOIL  
PROPERTIES AND GROWTH OF CHINESE KALE (*Brassica  
oleracea var. alboglabra*) UNDER RAIN SHELTER.**

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## DECLARATION

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## ABSTRACT

### THE EFFECTS OF ORGANIC AMENDMENT TOWARDS SOIL PROPERTIES AND GROWTH OF CHINESE KALE (*Brassica oleracea var. alboglabra*) UNDER RAIN SHELTER.

Organic amendment application towards agricultural soil can be highly beneficial for plant productivity. However, information on how plant productivity response and soil properties response towards amendment application which affected by different types of amendment properties and different amount of amendment under rain shelter structure is still inadequate in order to improve agriculture food production to meet the increasing food demand. Therefore, a research to identify the effects of different types and rates of organic amendment towards soil properties and growth of Chinese kale (*Brassica oleracea var. alboglabra*) under rain shelter structure was conducted. This research was conducted under rain shelter structure in UiTM Perlis. It was arranged in randomized complete design (CRD) with four replications. There are three levels (0g, 39g and 52g) of treatments. The treatments used in this research are organic amendments which are chicken dung and rice husk. In this research 6.5 gram of NPK 15:15:15 was applied as an essential fertilizer. Treatments were applied once only, where it was applied five days before transplanting the seedling. The parameter in this research are plant height, leaves number, root length, shoot length, fresh weight, soil moisture and soil pH. Data was taken every week starting from the transplanting days which are on day 7, 14, 21 and 28. Research result shows that application of organic amendment influenced the Chinese Kale growth performance and soil properties. The selected rate of amendment is 52 gram due to better result in producing yield and improved soil pH. Meanwhile, the selected type of amendment is chicken dung due to optimum yield and optimum soil moisture.

**Keywords:** Rice husk, Chicken dung, Soil properties, *Brassica oleracea var. alboglabra*, Rain shelter.

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