The Potential of Lamtoro (*Leucaena leucocephala*) and Moringa (*Moringa oleifera*) as Liquid Fertilizer for the Growth of Pakcoy (*Brassica rapa L.*)

Lovelica Queeny Bok, Anastasia Naomi Santoso, Fiona Jocelyn Susanto, Sharren Adeleine Yap, Tegguh Sastra Setiawan* SMP Xin Zhong, JI Kalisari Selatan No.5 Surabaya, Jawa Timur *Email : <u>tegguhsastra@xinzhong.sch.id</u>

Abstract

Pakcoy (Brassica rapa L.) is a green vegetable that is common in Asian countries. It is usually enjoyed as a dish because of its taste and nutritional value. Pakcoy contains chemical compounds, such as flavonoids and isothiocyanates which help prevent cancer types such as lung cancer. The need for pakcoy is increasing but the supply is still limited due to its slow production. It does not fulfill the demand of the consumers. The success of pakcoy production must be supplemented with the use of liquid organic fertilizer which could increase the growth and development of pakcoyincreasing the production rate. Lamtoro and moringa are plants which contain nitrogen, potassium, and phosphorus which could be used as a basic materials to make liquid organic fertilizer. The research uses randomized block design (RBD). The whole of sample number 24 consists of 4 treatment groups K0, K1, K2, and K3 with 6 times of repetition. The data is analyzed statistically using One Way Anova then continued with the Duncan Test to determine the differences among the fertilizer treatments. The statistical results show that there are significant effects of plant height and pakcoy leaf numbers in every treatment, where the treatment towards K3 shows the best results.

Keywords: Lamtoro, Moringa, Liquid fertilizer, Pakcoy