

**Response of Growth and Yield of Pakchoi (*Brassica rapa* L.) Plants to
Banana Peel Organic Compost (POC) Application and Growing Media
Composition**

Oleh : M. Efick Maulana

Dibimbing oleh : Rina Srilestari dan Suwardi

ABSTRACT

The long-term use of chemical fertilizers can become a problem. There is a need for alternatives in providing nutrient elements for plants. The purpose of this research is to assess the interaction between liquid organic fertilizer from banana peels and growing media composition, as well as to determine the appropriate concentration of liquid organic fertilizer from banana peels and growing media for the growth and yield of pakchoi plants. This research was conducted as a field experiment arranged in a Completely Randomized Design (CRD) with two factors. The first factor was the concentration of liquid organic fertilizer from banana peels, consisting of three levels: 100 ml/L, 200 ml/L, and 300 ml/L. The second factor was the growing media composition, consisting of three levels: soil + goat manure (1:1), soil + goat manure (1:2), and soil + goat manure (2:1). Data were analyzed using Analysis of Variance at the 5% level, and Duncan's Multiple Range Test at the 5% level was used for further comparison. The results of the research showed that there was an interaction between the treatments of liquid organic fertilizer concentration from banana peels and growing media composition on root volume, fresh weight, and dry weight of the plants. The concentration of 200 ml/L of liquid organic fertilizer from banana peels provided the best growth and yield in terms of plant height at 7 and 28 days after planting, as well as the number of leaves at 21 days after planting. The growing media composition of soil:goat manure (1:1) resulted in the best growth in terms of root length.

Key Words: *Pakcoy Plant, Banana Peel, Growing media, POC.*