

RESPONSE OF GROWTH AND YIELD OF CUCUMBER (*Cucumis sativus* L.) TO BIOFERTILIZER DOSAGE AND PRUNING

By: Ahmad Nur Rizki

Supervised by: Darban Haryanto and Maryana

ABSTRACT

Efforts to increase cucumber production need to be carried out while considering the impact on the environment. This study aims to determine response of growth and yield of cucumber plants to the dosage of biofertilizer and lateral branch pruning. The research method used was a field study with a Completely Randomized Block Design with two factors. The first factor was the dosage of the Petrobio biofertilizer, consisting of 3 levels: 45 kg/ha, 60 kg/ha, and 75 kg/ha. The second factor was pruning, consisting of 3 levels: lateral branch pruning at nodes 6-12 leaving 1 leaf, leaving 2 leaves, and leaving 3 leaves. The data were analyzed using ANOVA at a 5% level and the DMRT test between treatments. The results of the study showed an interaction in fruit weight per fruit at the 4th harvest and fresh fruit weight at the 4th harvest. A biofertilizer dosage of 75 kg/ha provided the best results for the parameters of plant length at 21 (DAP), leaf count at 21 (DAP), fruit length, fruit diameter, fruit weight per fruit at the 1st harvest, fruit weight per fruit at the 2nd harvest, total fruit weight, fresh fruit weight at the 1st harvest, fresh fruit weight at the 2nd harvest, and harvest index. Pruning the lateral branches at nodes 6-12 leaving 3 leaves provided the best results for fruit length and fruit diameter.

Keywords: cucumber, biofertilizer, pruning