

ABSTRACT

THE EFFECT OF THE COMBINATION OF PINEAPPLE PEEL LIQUID ORGANIC FERTILIZER AND UREA FERTILIZER ON THE GROWTH AND YIELD OF PAGODA MUSTARD (*Brassica narinosa* L.)

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The mustard pagoda has commercial value and good development prospects. Production of pagoda mustard is still relatively low in Indonesia due to poor cultivation techniques. When growing pagoda mustard, soil fertility is required for optimal results and productivity. Efforts to increase soil fertility and yield of pagoda mustard can be accomplished through the use of environmentally friendly alternative technologies, particularly the use of pineapple peel waste as a liquid organic fertilizer. Pineapple peels contain macro and micro nutrients that can reduce overuse of inorganic fertilizers. The aim of the study was to identify the combination of pineapple peel liquid organic fertilizer and urea fertilizer that had the best impact on the growth and yield of pagoda mustard. The study used a randomized block design (RBD) which was repeated four times with treatments N₀ (133 kg/ha urea fertilizer), N₁ (POC 100 ml/L + 333 kg/ha urea fertilizer), N₂ (POC 100 ml/L + 200 kg/ha urea fertilizer), N₃ (POC 300 ml/L + 333 kg/ha urea fertilizer), N₄ (POC 300 ml/L + urea fertilizer 200 kg/ha), N₅ (POC 500 ml/L + urea fertilizer 333 kg/ha) and N₆ (POC 500 ml/L + urea fertilizer 200 kg/ha). In data analysis, variance was used with the F-test and continued with Duncan's multiple range test at a 5% level of significance. The results showed that the combination of 500 ml/L liquid organic fertilizer for pineapple peel with a dose of 333 kg/ha urea had the best effect on the parameters number of leaves 21, 28 and 35 DAP, plant diameter, root length and weight of fresh stem per plant, but had no effect on number of leaves 14 DAP and root volume.

Keywords: liquid organic fertilizer, pagoda mustard, pineapple peel