

ABSTRACT

THE INFLUENCE OF KIND AND CONCENTRATION OF PINEAPPLE WASTE COMPOST EXTRACT ON THE GROWTH AND PRODUCTION OF MUSTARD PLANT (*Brassica rapa* L.)

By

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Fertilizer is one production input of farming that important to keep and increase farming production stability. So the farmer is needed it. Now the fertilizer price is so expensive now and scarce in market, so farmer is hard to get it. It influence to every production cost that is token, especially to fertilizer. The farmer needs alternative fertilizing like pineapple plants. Pineapple skin is industrial waste that can be alternative fertilizer. It contains compounds humat and other that stimulate plants. It mixes by water or sour extract and alkali. Compound that had extract will be able to be formulated be organic fertilizer.

The aim of this research are to know the influence of kind and concentration of pineapple waste compost extract on the growth and production of mustard plant (*Brassica rapa* L.) and find the best concentration of pineapple waste compost extract on the growth and production mustard plant.

This research was done by using random group plan and arrange as factorial (3x5) with 3 repetitions. The first factor is extractor kind (E) that consists of: 1. Aquades (E₁), 2. Citrate 2% (E₂), and 3. Sour acetate 0,01 N (E₃). The second factor is pineapple skin's compost extract (K) consist of: 1. Concentration 0% (K₁), 2. Concentration 25% (K₂), 3. Concentration 50% (K₃), 4. Concentration 75% (K₄), and Concentration 100% (K₅). If it done by atomizing with leaf by using *hand sprayer* plastic as many as 50 ml tan⁻¹. The observation was done by plant high, total leaf, root wet heavy, root dry heavy, part wet heavy on plant, part *dry* heavy on plant. Data got by *Burtlett* test and aditivity data by *Turkey* test. Analyses used sidik kinds, on the 5% stage used BNT test and the last used polynomial respond test.

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This research shows that pineapple skin's compost extract by using sour acetate 0,01 N on concentration application 62,71% give positive influence toward and production mustard green plants that showed by part wet heavy variable on plants that reflects the production.

Keywords: agroindustrial waste of pineapple; alternative liquid organic fertilizer; extractant aquades, citrate, sour acetate; mustard plant; pineapple waste compost extract.