ABSTRACT

THE RESPONSE OF EIGHT WEED SPECIES INDICATORS ON GIVING LIQUID FERMENTATION OF CACAO PULP

By

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Cocoa pulp liquid fermented is one of by products of cocoa management, which is still not utilized optimally. Based on the preliminary test results, cocoa pulp has the potential to serve as bioherbicide. The study aimed to determine the toxicity of the ferment contained in cocoa pulp and which weeds can be toxicited.

This research was conducted in the experimental garden Village Hajimena, Natar District, South Lampung regency from February to July 2012. The treatments were arrange in a factorial treatment (2 x 8) in a strip plot design with three replications. The first factor is, fermention cocoa pulp and the second is, eight weed species indicators it's *Setaria plicata*, *Paspalum conjugatum, Axonopus compressus***,** *Cyperus kyllingia*, *Cyperus rotundus*, *Asystasia gangetica* , *Borreria latifolia*, and *Richardia brasiliensis.*. The data were analyzed by anova and if there was differenced in the mean treatment, followed by the Least Significant Difference test (LSD) at α level of 0,05.

The results showed that liquid fermentation of cocoa pulp contains organic acids that can toxicity eight weed species indicators. Percentage weed toxicity experienced by groups of grasses weeds 83%, 41% broadleaf and 33% sedges. Grasses weed has the highest percentage of toxicity but sedges has the lowest percentage of toxicity. Stover dry weight of weeds eight indicators, liquid applied either applied pulp or not applied of pulp, there was unsignificance. This showed that the substances contained in the liquid fermentation of cocoa pulp could toxicity weeds, but could not suppress and control the growth of weeds.

Keyword: Weeds, fermentation, cocoa pulp, bioherbicide