

ABSTRACT

EFFECT OF REDUCTION TILLAGE AND MULCHING AGAINST ATTACKS OF RAT (*Rattus sp.*) AT SUGARCANE PLANTATIONS (*Saccharum officinarum* L.)

By

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The lower production of sugarcane is caused by pest infestation, such as rat attack. Sugarcane attacked by rat cannot be processed to produce sugar because of the stem were broken even died. The objective of this research was to determine the effect of tillage and mulching system on rat (*Rattus sp.*) infestation to sugarcane plantations (*Saccharum officinarum* L.).

This research was conducted from June to September 2011 at the sugarcane plantation owned by PT. Gunung Madu Plantations. The Split Plot Experimental Design consisted of tillage system as main plot and mulching as subplot. The tillage system consisted of full tillage system and no tillage system, while mulching consisted of giving mulch bagasse (80 ton/ha) mulch and no giving mulch. Each treatment plots sizing of 25 x 40 meter were replicated 5 times

The results showed that the no tillage system could increase crop damage by rats and the amount of bait, whereas no significant effect at mulch treatment. Mulching on no tillage system can increase crop damage caused rat attack.

Keyword: Full tillage, No tillage, Mulch, Rat, Sugarcane