

ABSTRACT

EFFECT OF ANTS THE PRESENCE ON THE NUMBER OF COLONIES AND ABUNDANCE OF *SACCHARICOCCUS SACCHARI* COCKERELL IN SUGARCANE FIELD

By

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The pink sugarcane mealybug (*Saccharicoccus sacchari* Cockerell) (Pseudococcidae, Hemiptera) could directly damage sugarcane or acts as vectors of sugarcane pathogens such as viruses. The pink sugarcane mealybug is associated with symbiotic ants. The research aims to study the effect of the presence of symbiotic ants in the sugarcane field on the number of colonies and abundance the pink sugarcane mealybug (*S. sacchari*). The research was conducted from June until July 2011 in PT GMP sugarcane field, Central Lampung. The survey was focused on 7 months old of sugarcane and on harvested field. The results showed that in general there was a positive correlation between the number of the ants and the number of individuals and colonies of the pink sugarcane mealybug *S. sacchari* in the harvested field as well as on 7 months old of sugarcane crop. There was a relatively strong relationship between the presence of ants in the presence of pink sugarcane mealybug *S. sacchari* in sugarcane field (47,4% - 63,1%) or in 7 months old of sugarcane (42,6% - 95,6%). The presence of *S. sacchari* was always followed by of symbiotic ants on the sugarcane that has not been harvested (above ground) or in the harvested field (below ground). By considering the mutualistic symbiosis between symbiotic ants and pink sugarcane mealybug in sugarcane field, therefore, the population dynamics of simbiotic ants should be taken into consideration when a control measure for the pink sugarcane mealybug is initiated in sugarcane field.

Keywords: Pink sugarcane mealybug, *Saccharicoccus sacchari*, interaction between symbiotic ants and pink sugarcane mealybug, sugarcane field