

ABSTRACT

STUDY OF SPREADING AND POPULATION OF KUTU KEBUL (*Bemisia tabaci* Genn.), RAINFALL, AND YELLOW DISEASE AT CHILI IN WEST LAMPUNG

By

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Red chili (*Capsicum annum* L.) is an important vegetable commodity for people in their daily needs. The production of red chili (*C. annum* L.) in Indonesia is still low, the national average production is only 5,5 tons/ha. One of the problems for the improvement of production and quality in red chili is yellow disease caused by gemini virus. Gemini virus is contaminated by vector kutu kebul (*Bemisia tabaci* Genn.). This research aims to know the spreading of yellow disease and vector kutu kebul at chili in West Lampung sub-province.

The result shows that (1) yellow disease's spreading and kutu kebul population at chili in West Lampung : Padang Cahya Village (Balik Bukit district) equal to 89,9% and 15,38 flea/plant, Seranggas village (Balik Bukit district) equal to 86,9% and 13,77 flea/plant, Batu Ketulis district equal to 85,4% and 6,75 flea/plant, and Sekincau district equal to 85,7% and 9,43 flea/plant. (2) Populations development of kutu kebul (*B. tabaci* Genn.) influence the improving happened of yellow disease in chili. Regression analysis result shows the relation of population in kutu kebul and the happened of disease with regression equation $Y = 0,453x + 81,83$ and correlation coefficient = 0,873, while (3) rainfall affect the population's development kutu kebul (*B. tabaci* Genn.), the higher rainfall makes population's development of kutu kebul (*B. tabaci* Genn.) decreasing, linear regression analysis result shows the relation

between rainfall and kutu kebul population in regression equation $Y = -0,055 x + 19,32$ and correlation coefficient $r = 0,918$.

Keyword : Kutu kebul (*Bemisia tabaci* Genn.) and yellow disease