ABSTRACT

Khulaifi, Hanif. 2012. **Mite population of Kutu Kebul (*Bemisia tabaci* Genn.) and Its Effect on Growth of Soybean.** Thesis. Biology Department, Faculty of Science and Technology, Maulana Malik Ibrahim Islamic State University of Malang. Advisor I: Dwi Suheriyanto S.Si, M.P. Advisor II: Dr. Ir. Yusmani Prayogo, M.Si Advisor III: Dr. Ahmad Barizi, M.A

Key words: *B. tabaci*, population growth, soybean

Soybean is one of the important foods crop for Indonesian people. One obstacle to the improvement and stabilization of soybean production in Indonesia are pests (Tengkano and Soehardjan 1985). Bemisia tabaci is one of the important pests that can cause a decrease in soybean production. According to Berlinger (1986), there are three kinds of damages that can be caused by these pests, namely: (1) direct damage, (2) indirect damage, and (3) its role as a viral vector. Population of B. tabaci abundance during the vegetative phase (linear) and decreased in the generative phase (logarithmic) allegedly because of the quality and quantity of crops. The quantity of plants can be measured by the growing biomass crops, while crops are affected by the quality of the content of various nutrients found in plants (Heinz et al., 1982). The Research on attack B. tabaci on plants has been carried out. As in pepper (Sudiono *et al*., 2006), on ornamental plants, vegetables, fruits and wild plants (Setiawati *et al*., 2004). However, the influence of population information *B. tabaci* on soybean plants has not been found.

This research aims to study the influence of the number of infestation of *B. tabaci* to changes B. *tabaci* population and soybean growth. This study did in May-August 2012 in the screen house Pulses Research and Tubers (BALITKABI), Kendalpayak - Pakisaji - Malang. The study design used was completely randomized design (CRD) are arranged in factorial with 3 replications. The first factor in the form of a different number of infestations is 1 pair, 5 pairs, 10 pairs and 15 pairs. While the second factor is the different age soy age 2 weeks, 3 weeks, 4 weeks and 5 weeks. Parameters measured were population density *B. tabaci* and soybean plant height. The data obtained were analyzed by using analysis of Varian, an analysis of the values obtained F test > F table, then followed by Duncan's test distance with a significance level of 0.05.

The results showed that the infestation 1 pairs exert a significant effect on population density of *B. tabaci* on soybean plants. Infestation of *B. tabaci* on soybean's age of 2 weeks gives significant effect on soybean plant height.