ABSTRACT

A'yun, Qurrota. Strain Selection 2015. Resistance Strains and Varieties Soybean (*Glycine max* L. Merrill) Based on Morphological Characters pods as suckers Pest Control Pods (*Riptortus linearis* F.). Thesis, Department of Biology, Faculty of Science and Technology of the State Islamic University of Maulana Malik Ibrahim Malang. Supervisor: Dr. Eko Budi Minarno, M.Pd**,** Dr. M. Muchlish Adie, MS dan Ach. Nasihuddin, MA.

Keywords: Soybean (*Glycine max* L.Merrill), Morphology Character pods, Security Selection, Hama suction pods (*Riptortus linearis* F.).

Soybean is one of the important food crops as a source of vegetable protein, animal feed industry raw materials, food and industrial raw materials. Pod sucking pests (*Riptortus linearis* F.) to the soybean plants are factors that constrain farming, therefore the pest control needs to be done with the use of pest-resistant strain that is through the selection of morphological characteristics of pods. This study aims to determine differences in the resistance against multiple strains of soybean pod sucking bug based on morphological characters, to determine the morphological characters of soybean pods that determine resistance to pod sucking bug, to determine the strain of soybean pods most resistant and most susceptible to pod sucking bug, as well as to determine the correlation between the morphology of pods with the level of damage to the pod.

This study is experimental and correlational using completely randomized design (RAL) with three replications. If there is a real difference, then continued with Least Significant Difference test (BNT) 5%. While the relationship between morphological factors to the level of damage to the pods is calculated using Person correlation analysis. The treatment used is 10 soybean lines and 60 pairs of adult R. linearis F. Research conducted in the Crops Research Institute Kasa Assorted Nuts and tubers (Balitkabi) in the District Kendalpayak Pakisaji Malang and Optics Laboratory Department of Biology, Faculty of Science and Technology of the State Islamic University of Maulana Malik Ibrahim Malang.

The results showed that there were differences in the resistance of 10 soybean lines of the pod sucking bug. Morphological characters pods that have the best resistance that has long trichomes ± 146.10 mm, the number of trichomes ± 33.33 with the thickness of the skin as much as ± 112.56 mm pods, pod length and width cm ± 5:43 ± 1.23 cm pods. Soybeans are the most resistant to pod sucking bug is G100H dan Grobogan. Morphological characters pods showed a very strong negative correlation with the level of damage on soybean pods, which means the higher the value of morphological characters pod, the lower level of damage on soybean pods.