SUMMARY

Muhamad Luthfie Tri Meiadi. 105040201111036. The Effect of *Arachis pintoi* Krapov. & W.C. Greg. and *Ageratum conyzoides* Linn. to Parasitism of Fruit Flies Parasitoids on Starfruit. Supervised by Dr. Ir. Toto Himawan, SU. and Dr. Ir. Sri Karindah, MS.

Fruit flies is one of important pest in horticultural crops, especially on starfruit, rose apple, guava, mango, jackfruit, watermelon, melon, and chili. Fruit flies have some parasitoids is there natural enemies. The Population of there parasitoids in the field is still low. Therefore, conservation efforts are fruit flies parasitoids given the important role of fruit flies parasitoids in pest control of fruit flies. One of the conservation efforts of fruit flies parasitoids is the provision of refugia. The experiment purpose to determine the effect of *Arachis pintoi* Krapov. & W.C. Greg. and *Ageratum conyzoides* Linn. to spesies of fruit flies parasitoids, number of fruit flies parasitoids, and parasitism of fruit flies parasitoids on starfruit. The experiment was conducted in starfruit orchard at Argosuko, Poncokusumo, Malang and Laboratory of Pests Department of Plant Pests and Diseases, Agriculture Faculty, Brawijaya University, Malang from March to June 2014.

The experiment was designed in Randomized Block Design (RBD) with three treatments, namely: 1) starfruit surrounded *A. pintoi*, 2) starfruit surrounded *A. pintoi* and *A. conyzoides*, and 3) starfruit without being surrounded *A. pintoi* and *A. conyzoides* (control). The treatment was repeated five times. Observed variables are type and number of fruit flies were found on starfruit, type and number of fruit flies parasitoids were found on starfruit, parasitism level of the fruit flies parasitoids, and number of flowers on plants of *A. pintoi* and *A. conyzoides*.

The results showed that fruit flies were found on starfruit are *Bactrocera carambolae* Drew & Hancock. There are three species of parasitoids were found on *B. carambolae* which are *Fopius* sp., *Diachasmimorpha* sp., and *Tetrastichus* sp.. The number of fruit flies parasitoids from *B. carambolae* were found on starfruit surrounded *A. pintoi* and starfruit surrounded *A. pintoi* and *A. conyzoides* is higher than the starfruit control. The mean number of fruit flies parasitoids on starfruit surrounded *A. pintoi*, *A. pintoi* and *A. conyzoides*, also starfruit control which are 7,33, 7,43, and 0,93 tail/starfruit. The parasitism level of fruit flies parasitoids on starfruit surrounded *A. pintoi* and starfruit surrounded *A. pintoi* and *A. conyzoides* is higher than the starfruit control. The parasitism level of fruit flies parasitoids on starfruit surrounded *A. pintoi*, *A. pintoi* and *A. conyzoides*, also starfruit control which are 24,87%, 20,94%, and 3,64%. Plant of *A. pintoi* and *A. conyzoides* not appropriate if combined because it can reduce the parasitism level of fruit flies parasitoids.