ABSTRACT

Andi Gunawan. 2019. Provision of Liquid Organic Fertilizer Kipait (*Tithonia diversifolia*) on the growth Pakcoy plants (*Brassica rapa L*) with the floating raft hydroponic system and population of *Spodoptera litura F*. Supervised by of Ahmad Taofik and Ida Yusidah.

Pakcoy plant *(Brassica rapa L.)* is a plant widely planted in Indonesia. Pakcoy cultivation can be done with a hydroponic system. In the cultivation of Pakcoy plants, one of the main obstacles that inhibits production both in quality and quantity is the presence of plant pests, one of which is the pest attack *Spodoptera litura F*. Most farmers control pests by using synthetic (chemical) pesticides with suspected pesticides it is more effective in controlling the attack of plant-disturbing organisms. However, these controls can cause negative impact, so it needs alternative environmentally friendly controls. One of them is by using weed plants such as kipait which are reported to have the potential to reduce damage to plants by plant-disturbing organisms. The research was carried out in the greenhouse of the Experimental Garden of Padjadjaran University, Ciparanje, Jatinangor, Sumedang Regency, West Java. Research time is August 2019 - September 2019. The research method used is using a completely randomized design (CRD) method with 5 treatments consisting of A = AB mix fertilizer, B = liquid organic fertilizer, C = AB mix fertilizer + *Spodoptera litura F*, D = Liquid organic fertilizer + *Spodoptera litura F*, and E = Liquid organic fertilizer + *Spodoptera litura F* + POC Spray. Based on the results of the study showed that there was no effect of Liquid Organic Kipait Fertilizer *(Tithonia diversifolia*) on the growth of pakcoy plants, but liquid Kipait organic fertilizer was able to suppress the population of caterpillar pests *Spodoptera litura. F* and able to reduce the intensity of damage Pakcoy plants.