

ABSTRACT

Hasanah Uswatun. 2011. **Evaluation of Resistance few Accession Sunflower (*Helianthus annus* L.) of armyworm (*Spodoptera litura* F.).** Thesis, Department of Biology, Faculty of Science and Technology, Islamic University (UIN) Malang Maulana Malik Ibrahim. Advisor I: Dwi Suheriyanto, MP, Advisor II: Drs. Dwi Adi Sunarto, M.P, Religious Advisor: Dr. H. Ahmad Barizi, M.A.

Keywords: Sunflower (*Helianthus annus* L.), **Plant Resistance, armyworm** (*Spodoptera litura* F.).

Sunflower (*Helianthus annus* L.) is one potential source of plant oil producer. Armyworm (*Spodoptera litura* F.) is an important pest on sunflower plants. Pest control business is often done by spraying pesticide synthesis because it is considered the easiest for the application and quick results can be seen. The use of synthetic pesticides on an ongoing basis will cause a negative impact on the environment, such as: the development race against insecticide-resistant pests, resurgence, killing the bodies of the target pests as natural enemies (parasitoids and predators) and other useful insects (pollinators, wasps). Other impacts include environmental pollution, including air pollution, water and soil. Solutions to overcome the problems of pest attack on sunflower crop one of them with resistant varieties (resistant), particularly to reduce dependence on synthetic chemical insecticides. Because of pest resistant varieties is an integral part of integrated pest management (IPM), because resistant varieties have an important role in reducing pest attack and the use of synthetic chemical insecticides.

The study was conducted in July through September 2010, at the Laboratory of Research Institute for Tobacco and Fiber Crops (BALITTAS) Malang. The design used in this study was completely randomized design (CRD) with 7 treatments, namely: Accession 50, 45, 36, 26, 25, 12, and 1 and 4 repetitions, if there are real differences then followed by least significant difference test (LSD) 5%. Research data include: Mortality, age larvae and pupae, larvae and pupae weight, Keperidian *S. litura*, and the density of leaf hairs (trikom) sunflower.

Based on the results of this study concluded that larval mortality parameter indicates the level of resilience that is not different, but based on growth parameters especially pupal mortality accessions 12, 25, 36, and 50 have higher survival rates compared with other accessions namely: 26, and 45.