**THE EFFECT OF MIXTURE OF PESTICIDE OF COSMOS LEAVE**

**(*Cosmos caudatus*) AND LEMOGRASS (*Cymbopogon nardus*)**

**ON WHITEFLY (*Bemisia tabaci* Genn.) IN EDAMAME**

**SOYBEAN CULTIVATION**

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# *ABSTRACT*

*Bemisia tabaci* is the main pest on edamame soybean. Biopesticides has a potential to control *Bemisia tabaci* with active ingredients like flovonoid, polyphenols, tannins, saponins, citronella, and essential oils. This research aims to determine the effectiveness of insecticides, population, intensity of *Bemisia tabaci* attacks, pod weight and number of Edamame pods. This research is implemented at March to May 2019 in the Dukuh Mencek village, Sukorambi District, Jember City by comparing Organic and Conventional Conversion land. Data were analyzed using a non-parametric test using SPSS 15. Based on the results of the Insecticide Efficacy test against *Bemisia sp*., The results Obtained were a combination of 15% insecticide concentration with an average mortality of 83.33%. The population in the organic conversion treatment was 4,887 individuals per family and the population in the conventional treatment was 2,364 per family. The intensity of attacks on organic conversion treatment is 0.054% and conventional treatments are 0.055%. In the cultivation technique of organic conversion pod weight is 46.96 grams per clump with a number of pods 26.50 fruit and in conventional cultivation techniques pod weight is 52.72 grams per clump with a number of pods 30.02 pieces.

***Keywords*** : *Bemisia tabaci Genn, mix biopesticides, organic conversion cultivation.*