THE EFFECT OF BABADOTAN WEED AND AJERAN WEED EXTRACT COMPOSITION ON MORTALITY AND FEEDING ACTIVITY OF TRITIP CATERPILAR (*Plutella xylostella*) ON CAISIM COLLARD (*Brassica chinensis* var,. Parachinensis)

By : Ridwan

Supervised by : Mofit Eko Poerwanto

ABSTRACT

Plutella xylostella is a pest that attacks caisim mustard plants, causing holes in the leaves. An alternative for controlling *P. xylostella* pests is with botanical pesticides because they are more environmentally friendly. The research aims to determine the effect and effectiveness of using *Ageratum conyzoides* weed extract and *Bidens pilosa* weed extract on the mortality and feeding activity of tritip caterpillars (*Plutella xylostella*) in the third instar. The research was carried out in December 2023 - January 2024 at the Plant Protection Laboratory, Faculty of Agriculture, UPN "Veteran" Yogyakarta. The experiment used a single factor of Completely Randomized Design (CRD), using 8 treatments with positive and negative controls, with 3 repetitions of each treatment. Data from the research results were analyzed using variance analysis (ANNOVA) at the 5% level, then the data was further tested using the Duncan Multiple Range Test (DMRT) at the 5% level. A mixture of *Ageratum conyzoides* weed extract and *Bidens pilosa* weed extract had an influence on larval mortality and feeding activity of *Plutella xylostella* . A mixture of babadotan weed extract 10% + ajeran weed extract 10% is effective for controlling *Plutella xylostella* on the parameters of percentage of larval mortality, percentage of larvae becoming pupae, percentage of pupae becoming imago, feeding capacity and feeding resistance.

Keywords: Mortality, feeding activity, Babadotan extract, Ajeran extract, *P. xylostella* larvae