

Application of Steinernema carpocapsae as a biological agent for control of caterpillars (Spodoptera litura) in Cultivation

Cowpea

Supervised by Iqbal Erdiansyah, SP, MP

Silvia Dwi Ayu Fanadi

*Food Crops Production Technology Study Program
Agricultural Production Department*

ABSTRACT

This study aims to determine the effect of application Steinernema carpocapsae as biological agent for controlling the pest caterpillar (Spodoptera litura) in cowpea cultivation. This research was conducted for 3 months from February to April 2021. All of these activities were carried out in Tegal Gede Village, Summersari District, Jember Regency. This study used a non-parametric test with a comparison of two treatments consisting of biological agents and chemical pesticides. The biological agent Steinernema carpocapsae uses a concentration of 10,000 JI, while the chemical pesticide with the active ingredient cyhalothrin uses a concentration of 0.5 ml. Analysis of the data using the SPSS application with the Mann-Whitney test and to find out the correlation using a simple linear regression test. The results showed that the intensity of attack on biological agents was 3% and the intensity of attack on chemical pesticides was 2%. The correlation between attack intensity and yield showed a low effect, in the treatment of the biological agent Steinernema carpocapsae by 6% and in the treatment of chemical pesticides with the active ingredient cyhalothrin by 12%.

Keywords: Cowpea, Steinernema carpocapsae, Cyhalothrin.