

## ABSTRAK

The study aims to determine the type and dose of insecticide effect in controlling plant pests *Callosobruchus* spp . the green bean seeds ( *Vigna radiata* L. ) . This research was conducted at the Laboratory of Plant Protection, Faculty of Agriculture, University of National Development " Veteran " Yogyakarta , from February to April 2014. The research method using completely randomized design with 9 treatment is a combination of treatment and dose kinds of vegetable insecticide . Kinds of vegetable insecticide is lemongrass leaves , neem leaves , and leaf hog peanut , while the dose is 0.5 g , 1 g , and 1.5 g . To compare with the seed without insecticide treatment plant made 1 control . Research using 3 replications .

Parameters measured were the percentage of mortality , pest populations , electrical conductivity , shrinkage of seeds , germination , vigor index and seedling dry weight . Data were analyzed by using analysis of variance at 5% significance level . To compare the presence of significant difference between treatments used Duncan 's multiple range test at 5% significance level , while the comparison between treatment with the control method is used orthogonal contrasts .

The analysis showed that vegetable insecticide can control the pest *Callosobruchus* spp . significantly , which is able to increase the percentage of mortality , suppress pest populations , minimize electrical conductivity and lower shrinkage seed . Effect of vegetable insecticide neem leaves , lemon grass leaves and leaf hog peanut given at a dose of 1.5 , not significantly different , but the third is a combination of treatments markedly better .

**Keywords** : green bean seeds , vegetable insecticide , *Callosobruchus* spp .