

THE EFFECT OF JICAMA (*Pachyrhizus erosus*) AND NEEM (*Azadirachta indica* A.Juss) SEEDS EXTRACTS WITH DIFFERENT SOLVENT ON *Plutella xylostella* L.

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ABSTRACT

The damage in mustard production caused by *Plutella xylostella* L. pest attack could reach up to 100% damage. The management of *Plutella xylostella* using bio pesticides is still quite limited because the results obtained usually tend to be gradual and not instantaneous. This research aims to (a) Identify the effect of using jicama and neem seeds extract with different solvents in increasing mortality and biology of *P. xylostella*. (b) Determining the best type of solvent in increasing the mortality of *P. xylostella* and suppressing other biology component. This research was conducted at the Plant Protection Laboratory, Faculty of Agriculture, UPN "Veteran" Yogyakarta using a one-factor CRD experimental method with eight treatments and three replications. The treatments were control (without treatment); chemical pesticide (deltamethrin); jicama seed extract with ethanol, methanol and water solvent; neem seed extract with ethanol, methanol and water solvent. The data obtained were then analyzed for variance with ANOVA at the 5% level and further tests were carried out with DMRT at the 5% level. The use of ethanol and methanol as solvents in making extracts of jicama seeds and neem seeds can bind active compounds contained therein so as to suppress the attack of *P. xylostella* pests.

Keywords: Mustard, *Plutella xylostella* L., Jicama Seed, Neem Seed, Ethanol, Methanol