VERNONIA AMYGDALINA AND OCIMUM GRATISSIMUM AS GRAIN PROTECTANTS AGAINST MAIZE WEEVIL (SITOPHILUS ZEAMAIMS MOTSCHULSKY) (COLEOPTERA: CURCULIONIDAE).

Musa A.K.

Department of Crop Protection, University of Ilorin, P.M.B. 1515, Ilorin, Kwara State, Nigeria.

ABSTRACT

Aqueous leaf extracts of two naturally growing plants in Nigeria viz: Vernonia amygdalina and Ocimum gratissimum were admixed with maize grains infested with maize weevil, Sitophilus zeamais Motsch. in the laboratory at 30±3°C and 75±2% relative humidity. The plant extracts showed efficiency against the test insect with respect to adult mortality, larval and progeny emergence and percentage grain damage. Adult mortality was highest (88.9%) in maize grains treated with 3% (v/w) of the leaf extracts 3 days post treatment. It was observed that leaf extracts of V. amygdalina and O. gratissimum applied at 3% per 30 g maize grains caused significantly higher (P<0.05) adult mortality than the 1% rate of treatment during storage. There was significant difference in the rates of treatment of V. amygdalina causing grain damage compared to the control. The results suggest the ability of using these plant extracts for maize protection against maize weevils with V. amygdalina showing greater potential.

Keywords: Vernonia amygdalina, Ocimum gratissimum, Sitophilus zeamais, mortality, emergence, grain damage.

E-mail (Corresponding author):akmusa@yahoo.com