

ABSTRACT

Cowpea (*Vigna unguiculata* (L.) Walp) belongs to the family Fabaceae and is one of the pulses that suffer postharvest losses greatly. The major insect that attacks stored cowpea seed in Kenya is the cowpea weevil (*Callosobruchus maculatus*). The insect can damage 100% of stored cowpea seeds causing weight loss of up to 60%. Although insecticides are widely available, they have high potential risks to users and also pollute the environment. In drier areas of Kenya where the pest is common, small-scale farmers use botanicals with varying levels of success. This study sought to assess the effectiveness of a locally available botanical, *Ocimum americanum*, in the management of the cowpea weevil. Different plant parts of *O. americanum*, the leaves, flowers and whole mature young plants were dried and ground into powder. From each plant part, 0.5, 1.0, 2.0, 4.0 and 8.0 g were used to determine their effectiveness against the weevil in stored cowpea seed. Two controls were used, that is, no protectant and Actellic super dust. For each treatment, 10 g of cowpea seeds were placed in plastic vials containing ten pairs (male and female) cowpea weevil adults. The experiments were laid out in a completely randomized design at the Kenya Agricultural and Livestock Research Organization (KALRO), Nairobi, Entomology Laboratory. Lowest post-harvest weight loss (3.0 g) of cowpea seed and highest mortality (92.5%) of cowpea weevil was recorded when 8 g of leaf powder were used. Since wild basil is a common weed in drier parts of Kenya such as Mbeere, Tharaka-Nithi, Kitui, Makueni and Mwingi, it can be utilized in these areas as a cheap control bioinsecticide for cowpea weevil.