

**SUSTIBILITY OF THE INFESTATION OF COWPEA (*Vigna unguiculata*)
TO BEAN WEEVIL (*Callosobruchus macullatus*)**

BY

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ABSTRACT

Callosobruchus maculatus (bean weevil) is the major insect pest that reduce both the quality and quantity of cowpea in the store. Infested cowpea seeds were bought at Lafenwa, Kuto, Itoku, and Iberekodo market. The samples of infested cowpea that were bought at the markets were analyzed in the laboratory for the insect pests present in the infested cowpea using sample size of 500g. The number of the different growth stages of the insect i.e. the egg, larvae, pupa and adult that were found in each sample were counted and recorded.

The morphometric study of the major body parts such as the whole body length, head capsule, thorax and abdomen were carried out. The range of the whole body length ranged from 2.1-

2.75mm with a mean body size of 2.5mm. The range of the size of the head capsule fell between 0.4-0.6mm with a mean size of 0.5mm. The thorax size ranges from 0.7-0.9mm with a mean size of 0.8mm. Also, the abdominal size ranges from 0.9-1.4mm and the mean of the abdominal size is 1.2mm. Weight of 100 uninfested cowpea was 10.58g. Weight of 100 infested cowpea was 7.5g. Therefore, weight lost due to *C. maculatus* infestation was 3.08g.

The infestation of cowpea by *C. maculatus* brought about adverse effect of loss of weight of the cowpea. This will course down-grading of the cowpea grains and lowering of the market value. The existence of different developmental stages of *C. maculatus* in the grains of cowpea will course contamination of food i.e. the eggs value, larvae, pupae and the adults of *C. maculatus* will make food unattractive and cause aesthetic violation of food. Also, the infestation of *C. maculatus* will bring about reduction in the germinating capacity or seed vigor or vial ability of the cowpea seeds.

Key Words; Sustibility, Cowpea, Weevil, Infestation, Weight and Viability