

ABSTRACT
EFFECT OF POWDER DOSAGE MIXTURE OF SOURSOP (*Annona muricata* L.) SEEDS AND SUGAR APPLE SEEDS (*Annona squamosa* L.) ON PEST *Callosobrunchus chinensis* L. IN MUNG BEAN SEEDS

By : Antika Endah Panuntun
Supervised by : Rukmowati B. dan Chimayatus Solichah

Mung bean is a plant that is widely cultivated in Indonesia, but improper postharvest can cause a decline in seed quality. This study aims to determine the effect of composition and dosage of powdered mixture of sugar apple seeds and soursop seeds to reduce the development of *C. chinensis* pests and maintain the quality of mung bean seeds. This research was conducted in Singkar I, Wareng, Wonosari, Gunungkidul and the Plant Protection Laboratory at the University of Pembangunan Nasional “Veteran” Yogyakarta. The research was conducted in July-October 2020. This study used a one-factor Completely Randomized Design. The treatment consisted of a mixture of soursop seed powder and sugar apple seeds based on the dose applied to 50 g of mung bean seeds.. The treatment consisted of P0: Control (without seed powder), P1: soursop seeds : sugar apple 1:1 1.5g; P2: soursop seeds : sugar apple 1:1 2.5g; P3: soursop seeds : sugar apple 1:1 3.5g; P4: soursop seeds : sugar apple 1:2 1.5g; P5: soursop seeds : sugar apple 1:2 2.5g; P6: composition 1:2 dose 3, 5 g/50g, P7 : soursop seeds : sugar apple 2:1 dose 1.5 g/50g, P8 : soursop seeds : sugar apple 2:1 2.5g; P9 : soursop seeds : sugar apple 2:1 3.5g. Data were analyzed Analysis of Variance (ANOVA) at the level 5% and to find out the differences between treatments with Least Significant Difference Test. The results showed that all treatments of soursop seed powder and sugar apple seed powder had a significant effect on *C. Chinensis* pests, namely increasing mortality, reducing the number of eggs, reducing the number of imago, lowest weight loss, lowest damage intensity, lowest electrical conductivity, maintaining seed moisture content, germination and the number of pests included in the treatment was small. Treatment of a 1:2 mixture of soursop seed powder and sugar apple seeds with a dose of 3.5 g/50 g of mung bean can maintain seed quality based on germination parameters.

Keywords : Mung bean, sugar apple seeds, soursop seeds, *Callosobrucus chinensis*