

**EFFECT OF BASIL AND BREADFRUIT LEAF POWDER TO
Sitophilus zeamais POPULATION AND CORN SEED QUALITY
IN STORAGE**

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ABSTRACT

Damage to stored corn seeds due to the pest *Sitophilus zeamais* can be suppressed by control. One of alternative to pest control is using botanial pesticides with basil and breadfruit leaf powder. This study aims to determine the effect composition and type of leaf powder in suppressing of *Sitophilus zeamais*. The research was conducted in February – April 2024 at Plant Protection Laboratory, UPN "Veteran" Yogyakarta. The research method used a Complete Random Design with 6 treatments and 4 repetitions. There are 6 treatments of the composition control; 1:0; 0:1; 1:1; 2:1; and 1:2. The analysis used ANOVA, followed by the DMRT at 5%, and continued with the Orthogonal Contrast test at 5%. The data from study showed that the composition of basil and breadfruit leaf powder was suppressing *S. zeamais* and maintaining the quality of seeds in storage by increasing mortality, number of living imago of *S. zeamais*, and efficacy. The most effective leaf powder and composition in suppressing *S. zeamais* is the composition of basil and breadfruit leaf powder 1:1 which can increase the mortality of *S. zeamais* by up to 100% after application. There were differences in mortality, number of living imago of *S. zeamais*, and efficacy of the control treatment.

Keywords: corn seeds, *Sitophilus zeamais*, basil leaf powder, breadfruit leaf powder.