

## ABSTRACT

National rice demand continues to increase in line with population growth, but storage faces challenges from post-harvest pests such as *Sitophilus oryzae*, *Tribolium castaneum*, and *Oryzaephilus surinamensis*, which reduce rice quality and quantity. The use of synthetic pesticides has a negative impact on the environment and health, so environmentally friendly alternatives are needed. One of them is the use of plant-based pesticides from soursop plants that contain bioactive compounds as pest control agents. This research aims to evaluate the effectiveness of soursop leaf extract in repelling and killing post-harvest pests. The research used a completely randomized design (CRD) with the tested factors being the concentration of soursop leaf extract consisting of 0%, 0.5%, 1%, 2%, 4%, and 8% (w/v). The results showed that soursop leaf extract was effective and could repel and kill the imagoes of *Sitophilus oryzae*, *Tribolium castaneum*, and *Oryzaephilus surinamensis*. The highest repellency and mortality effects were observed at the 8% concentration, which exceeded 50%. This soursop leaf extract has potential as a natural insecticide.

Keywords: *Oryzaephilus surinamensis*, Rejection Activity, *Sitophilus oryzae*, Toxicity, *Tribolium castaneum*.