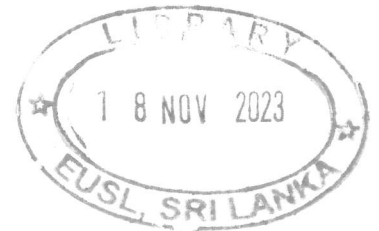




**STUDY THE EFFICIENCY OF SELECTED BOTANICALS ON  
STORAGE PRODUCT PEST OF *Tribolium* sp.**



**BY**

**M.I.F HASMA**



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**FACULTY OF TECHNOLOGY**

**EASTERN UNIVERSITY**

**SRI LANKA**

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## ABSTRACT

Various insect acts as pests for crops and storage grains that cause a lot of damage and economic losses. Common control agents are synthetic compounds that are unsafe for humans and the environment. Certain parts of plants and herbs are historically used for their repellent activity against insects for grain storage and tree protection. In this context, this study was planned to investigate the efficiency of selected botanicals of Neem and Tulsi against *Tribolium* sp. that cause damage to stored grains and flour. Insect repellency and mortality were tested using three different concentrations of 20%, 50%, and 75% of both plant extracts.

Two bioassays were conducted, the first to evaluate the mortality percentage and the second to evaluate repellency percentage. Results of this study demonstrated that these plant extracts proved to have effective repellent activity and mortality rate against the insect. The most effective extract was Neem followed by Tulsi in different concentrations. 75 % concentration Neem extract was found to be most effective with 85% mortality and 82.5% repellency after 72 hours and 4 hours respectively. The study revealed the highest concentration increasing the mortality and repellency percentage along with time duration. It is concluded from the results that these plants are natural sources of repellent material and hence are a potential source of natural/biological insect repellents.

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