EVALUATING THE EFFICACY OF *MELIA VOLKENSII* EXTRACTS AS POTENTIAL BOTANICAL PESTICIDE AGAINST AFRICAN CROP INSECT PESTS OF ECONOMIC IMPORTANCE

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INTRODUCTION

***Melia volkensii*, an indigenous tree species that grows in East Africa**

African sweet potato weevil, *Cylas puncticollis,* an insect pest that attacks the leaves and tubers of sweet potatoes, an imporatant staple crop in Sub-Sahara

***Spodoptera spp* also known as army worms cause tremendous damage to vegetables and other crops such as maize. Many populations show high levels of insecticide resistance**

The red flour beetle, *Tribolium castaneum*, is a world problem in stored products. New control methods for this insect pest are urgently needed

GENERAL RESEARCH FLOW

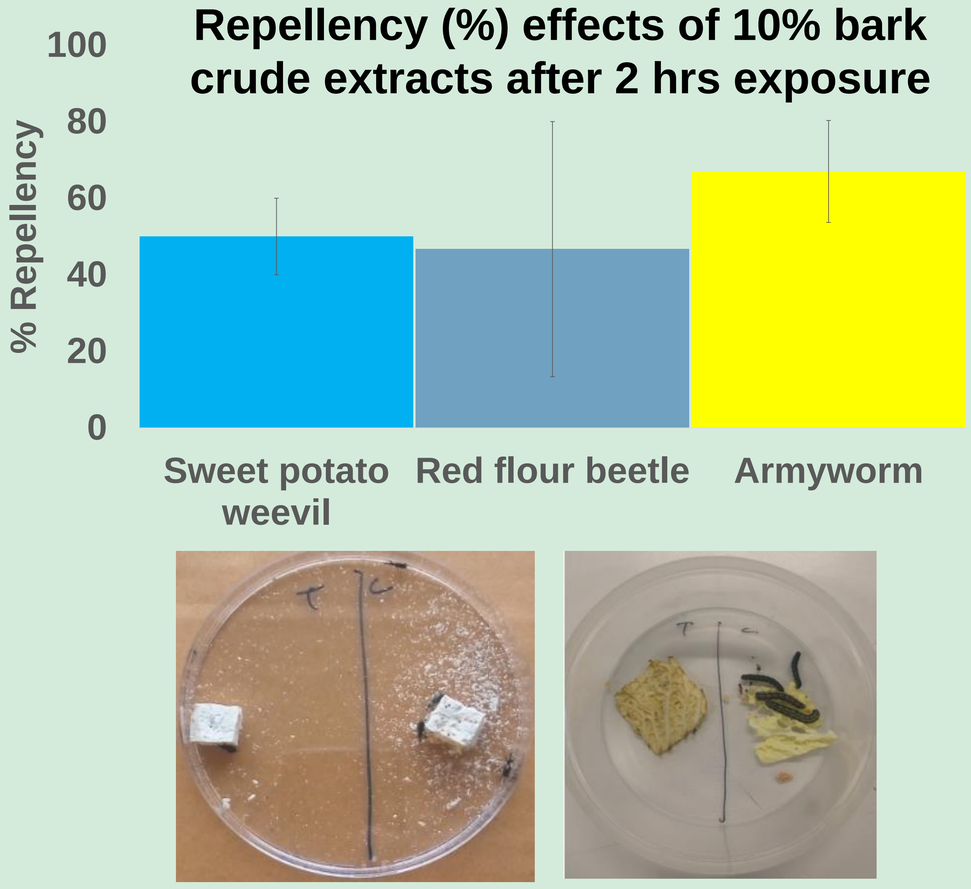
***Melia volkensii* extracts** → **Bioactivity against pest insects of economic importance** → **Botanical insecticide for IPM control**

RESULTS

% yield of *M. volkensii* crude extracts

Plant part	Yield (%)
Bark extract	5.33
Nuts extract	7.03
Fruit peels extract	10.04
Leaf extract	10.22

Repellency (%) effects of 10% bark crude extracts after 2 hrs exposure



Antifeedant indices of crude extracts at 10% (w/v) concentration

Pest insect	Bark extract	Nut extract	Leaf extract	Fruit peels extract
Sweet potato weevil	0.29	0.38	0.38	0.40
Red flour beetle	0.45	1.00	0.72	0.74
Armyworm	1.00	1.0	1.00	1.00