

INSECTICIDAL ACTIVITY OF ESSENTIAL OF LANTANA CAMARA LEAVE POWDER AGAINST MAIZE WEAVIL

(A REVIEW)

BY

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DECLARARATION AND APPROVAL

I Musau Oscar, declare that this review paper is my own original work and has not been presented to any institution either in total or partially for any academic award, publication or otherwise. Appropriate references have been given where the work was quoted from. I therefore wish to present a report in partial fulfillment for award of degree of bachelor in science Education of Busitema University. Signed..... date..... MUSAU OSCAR This review project by Musau Oscar and has been submitted for examination with the approval of the supervisor. Supervisor Signed..... Date. Dr. Oriko Richard Owor (PhD) Department of Chemistry Busitema University

DEDICATION

I dedicate this report project to my dad Mr. Mashandich alex, my mum mrs Chebondege Betty and to all my brother Chepkwurui Godwine, and sisters Chelanget mercyline ,Chebet faith joweria for their effort and support rendered to me during the research process and make me reach where I am now.

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CHAPTER ONE:

1.0 INTRODUCTION

Corn, Zea mays L., formerly belongs to the family Poaceae. It is a cereal grass related to wheat, ranking second after wheat in order of world grain production. This plant is regarded as versatile and with many uses since it can thrive in diverse climates; it is also processed into various food and industrial products including starches, sweeteners, oil, beverage, industrial alcohol and fuel ethanol. Moreover, thousands of foods and other everyday items such as toothpaste. In addition, corn products are rapidly replacing petroleum in many industrial applications. Polylactide (PLA), a biodegradable polymer made from corn is being used successfully in the manufacture of a wide variety of everyday items such as clothing, packaging, carpeting, and recreational equipment and food utensils of renewable resource(DN Duvick-advances in agronomy,2005-elsevier).

Cereal pests may infest the corn grain during storage and transport. Among which is the maize weevil (Sitophilus zamias Motschulsky), a ¼ inch long, and reddish brown to black snout weevil. In maize attack may start in the mature crop when the moisture content of the grain has fallen to 18-20%. Subsequent infestations in store result from the transfer of infested grain into store or from the pest flying into storage facilities, probably attracted by the odor of the stored grain. In stored maize, heavy infestation of this pest may cause weight losses of as much as 30-40%, although losses are commonly 4-5%. The chewing damage caused by the insect brings about increased respiration in the cereal (hot spots), which promotes evolution of heat and moisture and in turn provides favorable living condition for molds leading to production of aflatoxin. Subsequently, at very high moisture levels, bacterial growth is favored which ultimately gives rise to depreciation and finally total loss (SS chase-the potanical review,1989-springer).

Insect pests commonly attack stored grains like maize. They cause severe damage to the commodity resulting in losses in weight, seed viability, and nutritive quality of foodstuffs. The use of synthetic chemicals as a method of controlling pests is effective yet expensive, dangerous to human health and may create other problems in post-harvest industry, thus, the use of botanical pesticides which are indigenous, effective and with low mammalian toxicity favors the industry by providing safe, environment-friendly and cheap source of preventive measures for

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