

DEDICATION

To the soul of my beloved father who stood beside me during the early stages of this research and who took me together with the other members of my family under his wing with all compassion, guidance, inspiration and the ideal bringing – up.

Widad M.H.

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ABSTRACT

Pods of *Acacia nilotica* were tested in powder form as seed dresser against *Bruchidius incarnatus* (Boh) on broad bean.

The pod powder of *A. nilotica* was tested at three different rates viz, one gram, two grams and three grams per 400 broad-bean seeds.

In the treatments in which the doses of one gram, 2 grams and 3 grams of powder were used, the beetles died after 6, 4 and 3 days respectively compared to 8 days in the control treatment.

There were no significant differences among these rates with regard to the reduction of oviposition except the 3 grams dose rate which reduced oviposition by 67% compared to the control.

There was no significant difference between any of the two rates, one and two grams when compared with the control treatment in reducing egg hatching. The higher dose (3 grams) gave 23% reduction in egg hatching.

The 3-grams dose was the only treatment that reduced adult emergence significantly (67%) compared to the control treatment.

بسم الله الرحمن الرحيم

خلاصة الأطروحة

أختبرت إمكانية استخدام ثمار نبات السنط كمبيد نباتي تم به تعفير حبوب الفول المصري وذلك لمكافحة خنفساء الفول المصري *Bruchidius incarnatus* لقد أثبت مسحوق ثمار السنط فعاليته على موت الحشرة الكاملة ، إنتاج البيض وبقسه وكذلك خروج الحشرة الكاملة من الشرنقة.

استخدم مسحوق ثمار السنط بأوزان واحد جرام ، ٢ ، ٣ جرامات مقارنة مع الشاهد ، وكل معاملة من المعاملات أشتملت على ٤٠٠ حبة من الفول المصري. أعطي التركيز ٣ جم أفضل النتائج فقد ماتت جميع الحشرات خلال ثلاثة أيام من بداية التجربة، في المعاملات المستخدم فيها ١ ، ٢ جرام ماتت الخنافس بعد ٦ ، ٤ أيام على التوالي بالمقارنة مع الشاهد الذي استغرق موت الخنافس فيه ٨ أيام.

أما فيما يخص بوضع البيض فلم توجد هنالك فروقات معنوية بين مختلف الجرعات ماعدا الجرعة الكبرى (٣ جم) والتي أدت إلى تخفيض وضع البيض بنسبة ٦٧% مقارنة بالشاهد. أما بالنسبة لفقس بيض الخنافس لا توجد فروقات معنوية بين المعاملة ١ و ٢ جم والشاهد أما المعاملة ٣ جم فقد خفضت فقس البيض بنسبة ٢٣%.

أما المعاملة ذات ٣ جم وهي المعاملة الوحيدة التي خفضت نسبة خروج الحشرة البالغة من الشرنقة وكان ذلك بنسبة ٦٧%.

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