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INSECTS INFESTING MANGO AND GUAVA
TREES

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ABSTRACT

Scale insects are the most important pests which attack different, important economic crops in Egypt. *Aulacaspis tubercularis*, *Pulvinaria psidii* and *Insulaspis tapleyi* are infesting mango and guava trees. Ecological, toxicological and physiological studies have been conducted on these insects. The population of *A. tubercularis* on mango trees were lower than the population of *P. psidii* on mango and guava trees. Alternative insecticides gave satisfactory reduction against *P. psidii* on mango trees. Data also, indicated that the highest effect of the tested compounds were cleared after 4 weeks postspraying. Oriented spraying technique could be recommended as it seems to give the highest efficiency against *P. psidii* on guava trees and less costly comparing with the whole spraying and spot spraying techniques. Physiological studies showed that the infestation with *P. psidii* on mango and guava leaves caused a decrease in chlorophyll a, b, total chlorophyll, leaf area, total free amino acids, total soluble phenols and total sugar. While, the alternative insecticides did not cause any significant decrease in the same parameters in mango leaves.

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الخلاصة

تعتبر الحشرات القشرية من الآفات الهامة التي تسبب أضراراً بالغة للمحاصيل الإقتصادية و من أهمها حشرة المانجو القشرية التي تصيب أشجار المانجو و حشرة البلفيناريا و التي تصيب أشجار المانجو و الجوافة، و حشرة الجوافة القشرية التي تصيب أشجار المانجو و المحاصيل الأخرى. و قد تم إجراء الدراسات البيئية و التوكسولوجية و الفسيولوجية على هذه الحشرات . و قد شملت الدراسة البيئية دراسة تعداد حشرة المانجو القشرية على أشجار المانجو و حشرة البلفيناريا على أشجار المانجو و الجوافة . و كان التعداد الكلى لحشرة المانجو القشرية أقل من حشرة البلفيناريا على كلا من أشجار المانجو و الجوافة . و قد أظهرت النتائج أن بدائل المبيدات القشرية المستخدمة فى عملية مكافحة لتلك الحشرات على أشجار المانجو و الجوافة أعطت نسب خفض عالية لتعداد الحشرات و كانت النتائج مرضية ، كما لوحظ زيادة الكفاءة الإبادية بمرور الوقت من الأسبوع الأول إلى الأسبوع الرابع من الرش. و بالمقارنة بين طرق الرش المختلفة لترشيد إستهلاك المبيدات ووضحت النتائج أن طريقة الرش الجزئى (الموجة) أعطت أعلى نسبة إبادة لحشرة البلفيناريا على أشجار الجوافة و كانت أقل تكلفة بالمقارنة بطريقة الرش الكلى و طريقة رش الأشجار المصابة فقط. و قد وضح من نتائج الدراسة الفسيولوجية على أوراق المانجو و الجوافة أن مقدار الفقد فى مساحة الورقة و بعض الصبغات النباتية و الأحماض الأمينية الحرة و الفينولات الكلية الذائبة و السكريات الكلية بأوراق المانجو و الجوافة نتيجة الإصابة بحشرة البلفيناريا أكبر منه فى حالة الرش ببدائل المبيدات المستخدمة.

حمدي السعيد
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