

جامعة دمشق
كلية الزراعة
قسم وقاية النبات

دراسة بيولوجية لذبابة ثمار الزيتون
Bactrocera (Dacus) oleae Gmel.
Diptera : Tephritidae (Trypetidae)
في منطقة السويداء (جنوب سورية) واختبار بعض عوامل مكافحة المتكاملة

دراسة أعدت لنيل درجة الماجستير في علوم وقاية النبات

إعداد المهندس
سلامة جميل رشيد

بإشراف

الدكتور
محمد جمال الحجار

الأستاذ الدكتور
وجيه قسيس

finish mating is $103, 33 \pm 2, 78$ minutes. None fertilized females start laying eggs in the fifth day after emerging.

Females mate one or two times during its first month, and lay eggs at $12, 9$ C and above. Laboratory trials showed that females can lay eggs into small olive fruit ($2 \times 2, 0$)mm, and into other species fruit such as cherry, fig, pear and grapes. Laboratory studies for laying eggs period into fruit showed that females need between ($90-180$) sec. to finish laying, and they may sting the same fruit for three times in maximum before moving to another neighboring one.

The mean numbers of obtained pupa and adults from one medium size fruit were $8, 0$ pupa/fruit, developed $0, 9$ adults. Evaluating Sensitivity of some olive varieties to olive fly in laboratory showed that Tophahy is the most sensitive one, followed by Doaibly zaiety, Khashaby and Neebaly. Green olive fruit was highly infected than black ones.

Laboratory trails showed that the fly needs $22-23$ days from egg to adult at ($27-30$) C and ($50-60\%$) RH, and it needs $10-11$ days from pupa to adult at ($23-27$) C and ($50-70\%$) RH.

The mortality of none fertilized females in room temperature was 74% in its first three months, and 4% of these females survived around nine months (between September to June).

The influence of low temperature on adults was studied in laboratory, it was showed that the mortality in adults which exposed to ($2, 0-0$)C for 12 days was significantly more than those exposed to ($20-20$)C for the same period.

Laboratory studies to determine Pupating proper depths Showed that ($0-0$)cm is the best depth, and no pupa was found beneath ($7, 0$)cm. In another trial, all pupae, that were put in soil between ($0-10$)cm depth, developed to active adult, whereas no adult could emerge from pupae that were put in soil on (20)cm depth.

Field trails to study olive fly population dynamic were done in Alswaieda region, Adults were observed from June 2003 until October 2005 , by using Diammonium in Mecfail traps, adults were available all the year except in unusual sever cold

conditions in Winter, but its population increased in Spring and Autumn, and decreased in Summer.

In field, eggs were found in olives fruit from late June and early July till the end of year, and in Spring newly eggs were found in the hanged olives fruit from the last season.

Larvae were found in olives fruit in field from early July till late April next year, these larvae pupated in olives fruit in Summer and early Autumn, whereas the larvae which developed after pupated in soil, and its best soil depth to pupating were (0-5) cm, but, no pupae were found beneath (5,6)cm.

Opius concolor were found in olives fly pupae that collected from soil in 2006 Autumn, and its parasitism rate was 18,98%. Comparative field study was conducted to explain the preference of rates and mixtures of Diammonium phosphate and protien hydrolysate, and treatments did not show any significant differences.

Efficiency of Dimethwat was assessed. Another trail to assess treated straw bags with toxin baits to reduce olives fly population was conducted.