

Sex Pheromon Traps As a Monitor For The European
Grape Vine Moth, *Lobesia botrana* (Schiff.) (Lep, Tortricidae)

By

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INTRODUCTION

The aim of the present study was to determine the distribution of *Lobesia botrana* (Schiff.) On grape vines (Scitana) in Bahiera Governorate, Egypt, based on field observations, and Catches using Pheromone traps.

Sex Pheromone traps were applied in Italy, Czechoslovakia and Egypt and other countries, Valli, G. (1980), Caffarelli, et al (1981), Candusso and Mariani et al (1985), Fatma (1982), Gabel et al (1985). In Hungary Ujvary (1985), identified (7E-9Z)-7,9-dodecadienyl acetate and (7E-9E)-7,9-dodecadienyl acetate as synthetic sex-pheromones of *Lobesia botrana* (Schiff) in attracting the males.

MATERIAL AND METHODS

Experiments were carried out during summer of 1989 and 1990 in Bahiera Governorate (Bahaklies, El Nubaria and Bahariya El-Tahar), the sex Pheromone traps 7,9-dodecadienyl acetate were used for *Lobesia botrana* (Schiff) One pheromone Kit per trap was used in European Grape yards. The traps were examined weekly by counting the trapped male moths of *Lobesia botrana*. The Pheromone lure was changed weekly. The traps and sex pheromone lures were supplied by Centre of Dr. Basile Sciterra and by INECC (Incorporated Italian) (Callisto 1989). The monthly averages of rainfall, air, ground temperature, relative humidity and soil temperature were recorded.

RESULTS AND DISCUSSION

The field test using the pheromone traps was carried out in vine yards in Bahiera Governorate in 2 locations. Starting from April till September 1989 and 1990.

Data in Tables 1 and 2 and Figs. 1-6 indicated that *L. botrana* pest is active during spring and summer from March till the end of July or the first half of August. The most active period occurred during April and May. By the end of August activity declined very sharply. From table 2 it is clear that rate of activity was much higher during the season of 1989.

From the Tables 1,2 and Fig.7 the data indicated that L.botrana has three annual generations. The first occurs from March to June, the second from June till September and the third from September till April.

Large numbers of adults of the 1st generation were caught but no oviposition occurred on the vine, and the 2nd generation was the most injurious.

It could be concluded that sprays should be applied either as a preventive measure immediately after a population peak was indicated, or as a remedial treatment immediately the economic damage threshold had been reached.

The results may reveal the possibility of reducing the number of chemical applications by accurate timing according to the trap catches.

Table 1: Monthly numbers of males of *L. botrana* Caught during
Season, 1989 by pheromon traps of Ganklies, Nubaria,
North of Tahrier

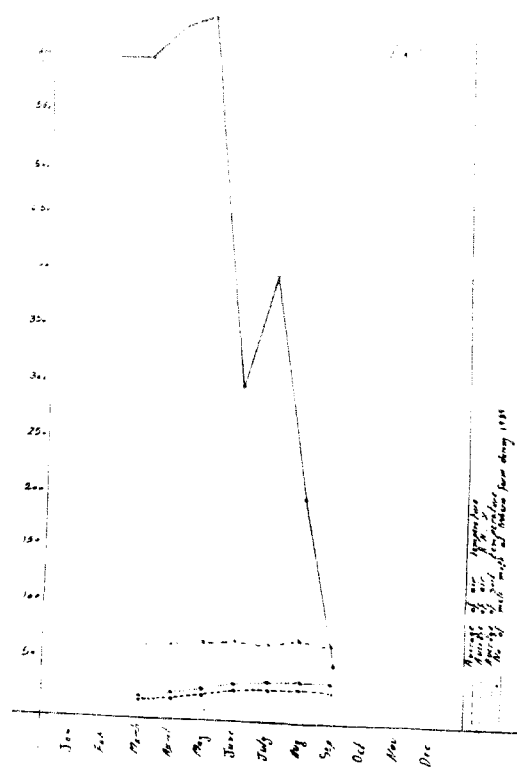
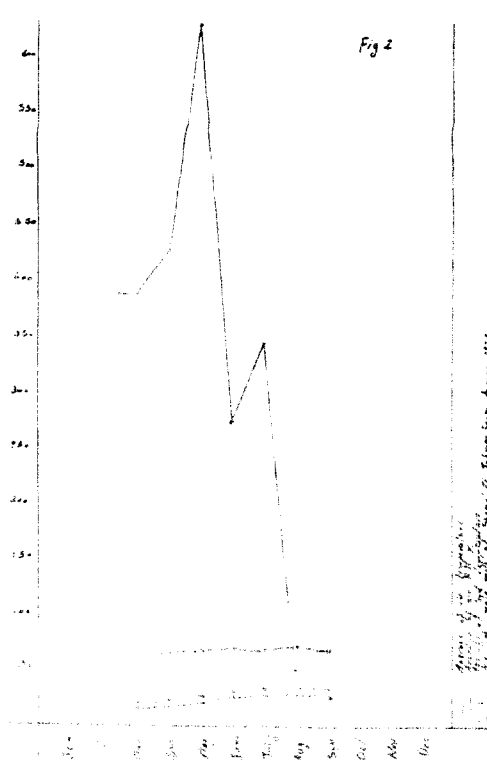
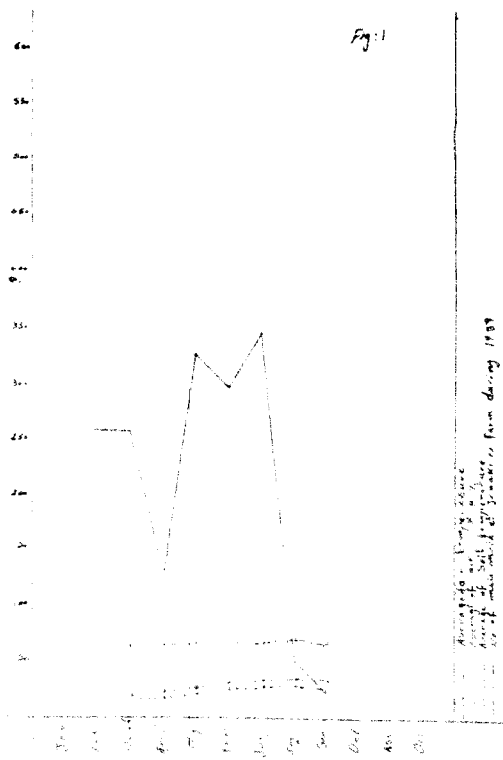
Month	Number of males caught by pheromone traps during season 1989			Average Number for season 1989
	Ganklies	Nubaria	North of tahrier	
March	260	600	320	393.3
April	130	840	325	431.7
May	330	1330	350	670
June	300	300	200	266.7
July	350	400	300	350
August	50	200	250	166.7
September	20	50	50	40
Average	205.7	531.4	256.5	418.4

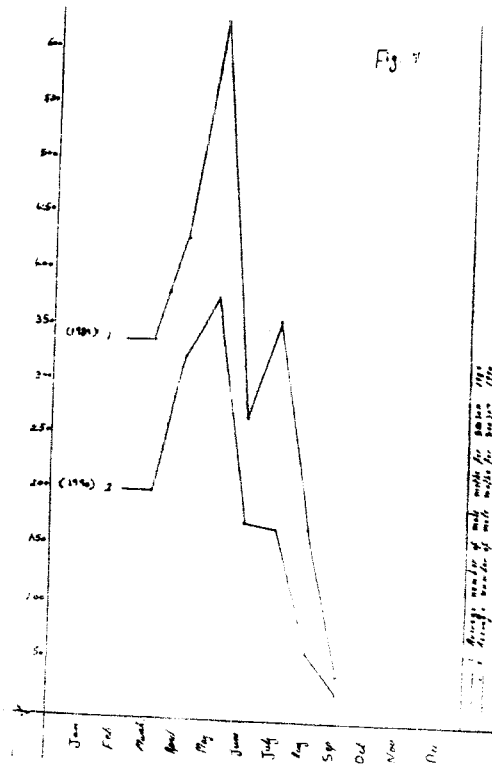
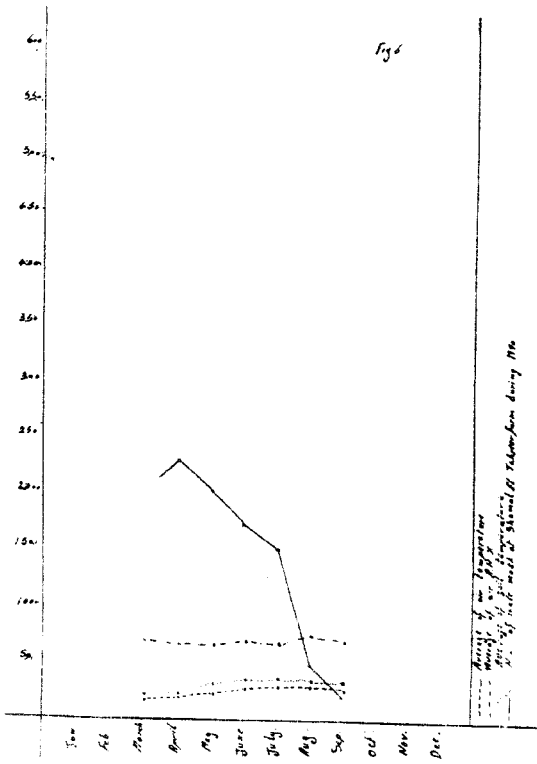
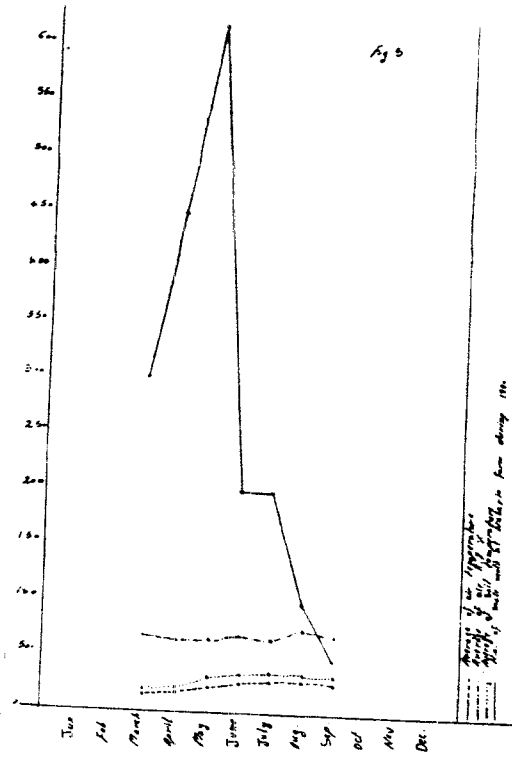
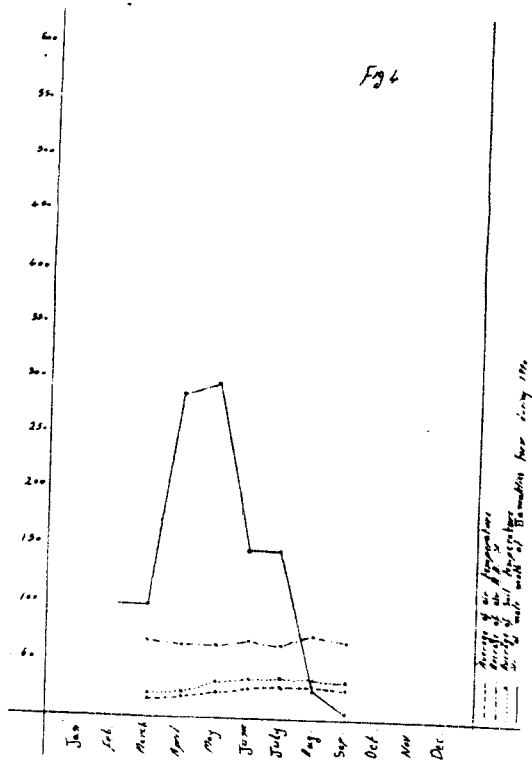
Table 2: Monthly numbers of males of *L. botrana* Caught during
season 1990 by pheromon traps at ganaklies, Nubaria, North
of Tahrier.

Month	Number of males caught by pheromon traps during season 1990			Average Number for season 1990
	Ganklies	Nubaria	North of Tahrier	
March	100	300	200	200
April	290	450	230	316.7
May	300	630	200	376.7
June	150	200	170	173.3
July	150	200	150	166.7
August	25	100	50	58.3
September	5	50	20	25
Average	141.7	275.7	145.7	188.1

Table 3 : The monthly average of air temperature, air relative humidity and average of soil temperature at 5 cm depth at Behiera Governorat during the period from March until september (1989, 1990).

Month	Average of air temperature C	Average of air relative humidity R.H. %	Average of soil temperature
Mareh 89	16.0(10.8-21.3)	65	17.5
90	15.7(10.4-20.9)	68	19
April 89	18.7(13.2-24.1)	65	21.4
90	17.5(12.7-22.2)	64	21
May 89	21.6(16.5-26.8)	67	28.5
90	21.5(15.7-27.2)	64	31.5
June 89	24.5(20.2-28.7)	70	31.5
90	24.5(19.0-30)	69	31.9
July 89	26.0(22.8-30.6)	65	34.7
90	26.7(22.0-30.1)	66	34.95
August 89	26.7(22.8-30.6)	71	34.8
90	27.4(23.3-31.5)	74	33.8
september			
89	25.4(21.1-29.6)	68	32
90	25.4(21.2-29.6)	69	31.95





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