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1992 FRUIT INSECT AND MITE CONTROL STUDIES IN EASTERN NEW YORK

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REPORT FOR
FRUIT PEST MGT. WORKSHOP, STOWE VT.
OCTOBER 20 & 21, 1992

Table 1 Early evaluation of insecticides in a seasonal program on apple[1], N.Y.S.A.E.S., Hudson Valley Lab., Highland, N.Y. - 1992.

Treatment	Formulation amt./100 gal.	Timing	% fruit damaged by insect species[2] Tarnish Plant Bug	Plum Curculio	European Apple Sawfly
Guthion 3F	8 oz.	1	1.2 cd	1.2ab	<0.1a
Guthion 35W	12 oz.	2	0.2ab	1.0ab	<0.1a
Margosan-O	5 pts.	3	0.2ab	56.1 d	2.2 b
Margosan-O	5 pts.	4	0.3abc	3.5 b	0.1a
Imidan 50W	24 oz.	5			
Margosan-O	2.5 pts. +	6	0.4abcd	0.2a	<0.1a
Guthion 3F	4 oz.	7			
Lorsban 50W	12 oz.	8	0.4abcd	0.6ab	<0.1a
Lorsban 50W	16 oz.	9	0.1ab	2.0ab	<0.1a
TD2321 40W	12 oz.	10[3]	0.1ab	37.6 c	<0.1a
Imidan 50W	24 oz.	11	0.2ab	0.7ab	<0.1a
Imidan 50W	16 oz.	12			
Imidan 50W	16 oz.	13	1.5 d	1.3ab	<0.1a
Imidan 70W	16 oz.	14	<0.1a	1.6ab	<0.1a
Imidan 70W	12oz.	15			
Imidan 70W	12 oz.	16	0.2ab	3.5 b	<0.1a
Untreated	-	-	0.6 bcd	40.1 c	0.2a
		SEM	0.20	0.11	0.08

[1]Data from 'Jersey Mc' - evaluated 11 June (prior to "June Drop").
[2]Mean separation by Fishers Protected LSD (P=<0.05). Arcsin transformation used for statistical analysis of data expressed as percentages.
[3]Petal Fall spray applied 7 days late (26 May).

Table 2 Evaluation of insecticides in a seasonal program on early apple[1], N.Y.S.A.E.S., Hudson Valley Lab., Highland, N.Y. - 1992.

			% fruit damaged by insect species[2]								
Treatment	Formulation amt./100 gal.	Timing	Tarnish Plant Bug	Plum Curculio	European Apple Sawfly	Early Lep. Species	Codling Moth	San Jose Scale	Late Lep. Species	Apple Maggot Punct.	% Undamaged Fruit
Guthion 3F	8.0 oz.	1	5.3a	6.0a	0.3a	0.0a	0.0a	0.3a	0.3ab	0.0a	86.6 cd
Guthion 35W	12.0 oz.	2	3.9a	5.5a	1.9a	0.7a	0.0a	0.0a	0.0a	0.2a	87.6 cd
Margosan-O	5.0 pts.	3	11.6a	58.1 c	1.8a	15.4 b	1.6bc	0.2a	9.1 c	2.0a	29.5a
Margosan-O	5.0 pts.	4	9.4a	10.1ab	0.7a	0.1a	0.0a	0.0a	<0.1ab	0.0a	80.2 cd
Imidan 50W	24.0 oz.	5									
Margosan-O	2.5 pts. +	6	11.4a	4.1a	1.3a	0.5a	0.0a	0.0a	0.5ab	0.2a	79.0 cd
Guthion 3F	4.0 oz.	7									
Lorsban 50W	12.0 oz.	8	3.1a	3.1a	0.0a	0.0a	0.0a	0.0a	1.3ab	0.1a	85.4 cd
Lorsban 50W	16.0 oz.	9	6.1a	5.4a	0.1a	0.0a	0.0a	0.0a	0.1ab	0.2a	89.1 d
TD2321 40W	12.0 oz.	10[3]	8.9a	55.4 c	4.0a	4.6ab	0.0a	0.1a	0.1ab	0.0a	35.6ab
Imidan 50W	24.0 oz.	11	9.4a	3.4a	2.0a	2.5a	0.0a	0.0a	<0.1ab	0.0a	80.2 cd
Imidan 50W	16.0 oz.	12									
Imidan 50W	16.0 oz.	13	6.9a	9.3a	0.9a	0.0a	0.2ab	0.0a	0.1ab	0.0a	80.0 cd
Imidan 70W	16.0 oz.	14	8.4a	4.9a	0.1a	0.0a	0.0a	0.1a	0.2ab	0.0a	85.1 cd
Imidan 70W	12.0 oz.	15									
Imidan 70W	12.0 oz.	16	17.2a	13.7ab	2.2a	2.3a	0.1a	0.3a	0.0a	0.1a	64.3 bc
Untreated	-	-	11.3a	36.4 bc	1.2a	4.1ab	2.4 c	0.0a	2.0 b	0.7a	50.8ab
		SEM	0.06	0.12	0.04	0.07	0.03	0.03	0.04	0.03	0.1

[1]Data from 'Jersey Mac' harvested 27 July.

[2]Mean separation by Fishers Protected LSD (P=<0.05). Arcsin transformation used for statistical analysis of data expressed as percentages.

[3]Petal Fall spray applied 7 days late (26 May).

Table 3 Evaluation of insecticides in a seasonal program on apple[1], N.Y.S.A.E.S., Hudson Valley Lab., Highland, N.Y. - 1992.

			% fruit damaged by insect species[2]										
Treatment	Formulation amt./100 gal.	Timing	Tarnish Plant Bug	Plum Curculio	European Apple Sawfly	Early Lep. Species	Codling Moth	San Jose Scale	Late Lep. Species	Apple Maggot Punct.	Apple Maggot Tunnel	[4]LH Injury	% Clean Fruit
Guthion 3F	8 oz.	1	5.3a	1.0ab	0.0a	0.0a	0.0a	0.0a	0.5a	0.0a	0.0a	1.2ab	92.7 d
Guthion 35W	12 oz.	2	3.6a	1.0ab	0.5a	0.0a	0.0a	0.0a	0.1a	0.0a	0.0a	1.2ab	94.0 d
Margosan-O	5 pts.	3	3.6a	23.5 d	0.5a	0.8a	0.8a	7.8a	12.8 de	9.8 d	0.9 b	1.0a	44.8 b
Margosan-O	5 pts.	4	4.1a	4.4 bc	1.6a	0.1a	0.1a	1.8a	7.9 cd	6.3 cd	0.5ab	1.0a	73.8 c
Imidan 50W	24 oz.	5											
Margosan-O	2.5 pts. +	6	7.9a	0.3ab	0.9a	0.0a	0.0a	0.0a	0.9ab	0.2a	0.0a	1.1a	87.6 d
Guthion 3F	4 oz.	7											
Lorsban 50W	12 oz.	8	4.3a	2.5abc	0.7a	0.0a	0.0a	0.0a	0.0a	0.1a	0.0a	1.5 c	92.4 d
Lorsban 50W	16 oz.	9	2.9a	2.2abc	0.1a	0.0a	0.0a	0.1a	0.0a	0.0a	0.0a	2.1 d	93.3 d
TD2321 40W	12 oz.	10[3]	4.5a	9.8 c	4.0a	0.0a	0.0a	1.5a	4.0 bc	3.5 bc	0.8ab	1.0a	74.2 c
Imidan 50W	24 oz.	11	6.0a	5.5 bc	0.1a	0.0a	0.0a	0.0a	0.5a	0.0a	<0.1ab	1.3abc	87.5 d
Imidan 50W	16 oz.	12											
Imidan 50W	16 oz.	13	5.7a	0.1a	0.8a	0.1a	0.0a	0.7a	0.1a	0.5ab	0.0a	1.4 bc	90.9 d
Imidan 70W	16 oz.	14	5.4a	2.0abc	0.8a	0.0a	0.3a	0.3a	0.3a	0.0a	<0.1ab	1.3abc	88.1 d
Imidan 70W	12oz.	15											
Imidan 70W	12 oz.	16	4.3a	3.9 bc	0.7a	0.0a	0.0a	0.0a	0.5a	0.0a	0.0a	1.1a	94.0 d
Untreated	-	-	8.0a	55.6 e	2.2a	0.5a	11.1 b	9.0a	20.4 e	17.6 e	6.17 c	1.2ab	16.7a
		SEM	0.04	0.05	0.21	0.03	0.04	<0.01	0.04	0.04	0.03	0.05	0.04

[1] Data from 'McIntosh' - harvested 11 September.

[2] Mean separation by Fishers Protected LSD (P=<0.05). Arcsin transformation used for statistical analysis of data expressed as percentages.

[3] Petal Fall spray applied 7 days late (26 May).

[4] Leafhopper injury ratings of fruit finish : 1 = Clean 3 = Moderate 5 = Severe

Timing and application dates for seasonal program, HVL -1992

Appn. Timing	5/1 P	5/19 PF		6/3 1C		6/17 2C	6/24	7/1 3C		7/15 4C		7/28 5C		8/12 6C		Total Appns.
1	X	X		X		X		X		X		X		X		8
2	X	X		X		X		X		X		X		X		8
3		X		X			X*	X		X		X		X		7
4							X*	X		X		X		X		7
5		X		X												
6		X		X			X*	X		X		X		X		7
7		X		X			X*	X		X		X		X		
8		X		X		X		X		X		X		X		7
9		X		X		X		X		X		X		X		7
10			X**	X		X		X		X		X		X		
11		X		X												7
12						X		X		X		X		X		
13		X		X				X		X		X		X		6
14		X		X												7
15						X		X		X		X		X		
16		X		X				X		X		X		X		6

* Delay in resupply of Margosan-O

** TD2321 late in arriving; PF spray 1 week late

Table 4 Evaluation of insecticide schedules in a seasonal program on apple[1], N.Y.S.A.E.S., Hudson Valley Lab., Highland, N.Y. - 1992.

			% fruit damaged by insect species[2]									
Treatment	Formulation amt./100 gal.	Timing	Tarnish Plant Bug	Plum Curculio	European Apple Sawfly	Early Lep. Species	Codling Moth	San Jose Scale	Late Lep. Species	Apple Maggot Punct.	Apple Maggot Tunnel	% Clean Fruit
Guthion 35W	12 oz.	1	0.7a	0.5a	0.2a	0.0a	0.0a	0.0a	0.0a	0.0a	0.0a	97.8a
Guthion 35W	12 oz.	2	2.9a	0.0a	0.1a	0.0a	0.0a	0.0a	0.0a	0.1a	0.0a	95.9a
Imidan 50W	20 oz.	1	1.5a	3.3a	0.2a	0.0a	0.1a	0.0a	0.0a	0.0a	0.0a	93.7a
Imidan 50W	20 oz.	2	4.3a	0.9a	0.8a	0.0a	0.0a	0.0a	0.0a	0.0a	0.0a	92.7a
Untreated	-	-	4.3a	23.5a	1.3a	0.2a	0.8a	0.0a	1.8 b	0.2a	0.0a	67.6a
		SEM	0.04	0.01	0.04	0.02	0.02	0.00	0.02	0.03	0.00	0.09

[1]Data from 'Empire - harvested 25 September.
[2]Mean separation by Fishers Protected LSD (P=<0.05). Arcsin transformation used for statistical analysis of data expressed as percentages.

Spray Timing :
1 14 day schedule beginning 20 May (PF), ending19 August.
2 21 day schedule beginning 20 May (PF), ending19 August.

Table 5 Evaluation of seasonal insecticide program for control of STLM and LH Complex on apples[1,2], N.Y.S.A.E.S., Hudson Valley Lab., Highland, N.Y. - 1992

Treatment	Formulation amt./100 gal.	Appl. date	STLM # mines / 3 min. (7/7)	STLM # mines / 3 min. (7/21)	STLM # mines / leaf (9/15)	LH # nymphs/ leaf (7/14)	LH # nymphs/ leaf (7/20)
Guthion 3F	8.0 oz.	1	-	46.3e		3.0ab	2.4abc
Guthion 35W	12.0 oz.	2	12.7d	46.0de		4.7abc	2.1ab
Margosan-O	5.0 pts.	3	3.0a	13.0ab	2.4a	3.8ab	0.9ab
Margosan-O	5.0 pts.	4	11.3cd	12.7ab		4.5ab	1.5ab
Imidan 50W	24.0 oz.	5					
Margosan-O	2.5 pts. +	6	6.3abc	36.7cde		4.7abc	3.0abc
Guthion 3F	4.0 oz.	7					
Lorsban 50W	12.0 oz.	8	-	20.7abc	2.3a	1.2ab	0.0a
Lorsban 50W	16.0 oz.	9	-	8.3a		<0.1a	0.0a
TD2321 40W	12.0 oz.	10[3]	3.3ab	5.0a	1.5a	<0.1a	0.0a
Imidan 50W	24.0 oz.	11	-	45.0de		3.2ab	2.1abc
Imidan 50W	16.0 oz.	12					
Imidan 50W	16.0 oz.	13	8.7bcd	28.0bcd	4.2a	7.9bc	8.0c
Imidan 70W	16.0 oz.	14	-	34.0cde		5.2abc	4.1abc
Imidan 70W	12.0 oz.	15					
Imidan 70W	12.0 oz.	16	-	28.0bcd		11.8c	6.6abc
Untreated	-	-	7.0abc	31.3cde	3.1a	8.0bc	8.0c

[1]Data taken from 'McIntosh".

[2]Treatment means followed by the same letter are not significantly different ($P<0.05$; Fishers Protected LSD)

[3]Petal Fall spray applied 7 days late (26 May).

STLM=Spotted Tentiform Leaf Miner; LH=Rose Leaf Hopper, White Apple Leaf Hopper, Potato Leaf Hopper

Table 6 Evaluation of insecticides for control of aphid species on apple[1], N.Y.S.A.E.S., Hudson Valley Lab., Highland, N.Y. - 1992

Treatment	Formulation amt./100 gal	Appl. date	Colonies of Aphid Species[2,3] % infested terminals 6/22	% infested terminals ~~6/12~~ 6/22
Guthion 3F	8.0 oz.	1	64.0bcd	-
Guthion 35W	12.0 oz.	2	41.3ab	-
Margosan-O	5.0 pts.	3	88.0d	-
Margosan-O	5.0 pts.	4	49.3abc	-
Imidan 50W	24.0 oz.	5		
Margosan-O	2.5 pts. +	6	62.7bcd	-
Guthion 3F	4.0 oz.	7		
Lorsban 50W	12.0 oz.	8	17.3a	2.7a
Lorsban 50W	16.0 oz.	9	24.0a	1.3a
TD2321 40W	12.0 oz.	10	48.0abc	-
Imidan 50W	24.0 oz.	11	62.7bcd	-
Imidan 50W	16.0 oz.	12		
Imidan 50W	16.0 oz.	13	76.0cd	-
Imidan 70W	16.0 oz.	14	62.7bcd	-
Imidan 70W	12.0 oz.	15		
Imidan 70W	12.0 oz.	16	76.0cd	-
Untreated	-	-	93.3d	90.7b

1Data taken from "Golden Delicious".

2Colonies composed primarily of Spirea and Green Apple Aphids.

3Treatment means followed by the same letter are not significantly different (P<0.05; Fishers Protected LSD).

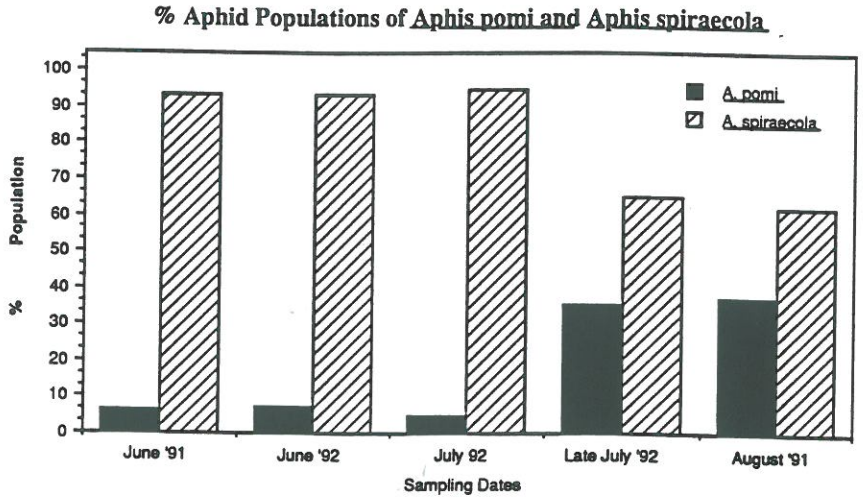


Table 7 Evaluation of insecticides for control of European red mite on apple[1], N.Y.S.A.E.S., Hudson Valley Lab., Highland, N.Y. - 1992

Average # of mites or eggs/ leaf on 13 May[2]

Treatment	Formulation oz/100 gal.	Timing	ERM	ERME	TSM	TSME	AMB	AMBE	ZM	ZME	ARM
Lorsban 50W	12.0 oz.	8	0.4a	1.0a	0.0a	<0.1a	0.0a	0.0a	0.0a	0.0a	6.8a
Lorsban 50W	16.0 oz.	9	0.5a	3.0a	<0.1a	<0.1a	<0.1a	<0.1a	0.0a	0.0a	3.8a
TD2321 40W	12.0 oz.	10[3]	2.1a	3.4a	<0.1a	0.1a	<0.1a	<0.1a	0.0a	<0.1a	12.6a
Untreated	-	-	1.5a	8.2a	<0.1a	0.2a	<0.1a	<0.1a	<0.1a	<0.1a	35.3 b

Average # of mites or eggs/ leaf on 3 August[2]

Treatment	Formulation oz/100 gal.	Timing	ERM	ERME	TSM	TSME	AMB	AMBE	ZM	ZME	ARM
Guthion 35W	12.0 oz.	2	27.3a	65.0a	0.5a	0.3a	0.3b	<0.1a	0.1a	0.0a	28.4a
Lorsban 50W	12.0 oz.	8	4.8a	10.2a	0.1a	0.8a	<0.1a	<0.1a	<0.1a	<0.1a	189.2a
Lorsban 50W	16.0 oz.	9	2.3a	5.5a	0.1a	0.2a	0.1a	<0.1a	<0.1a	<0.1a	269.2a
TD2321 40W	12.0 oz.	10[3]	13.4a	31.8a	0.9a	2.3a	<0.1a	<0.1a	<0.1a	<0.1a	55.2a
Imidan 50W	24.0 oz.	11	32.3a	50.0a	0.9a	0.8a	<0.1a	<0.1a	<0.1a	0.1a	21.8a
Untreated	-	-	6.8a	15.3a	0.3a	0.6a	<0.1a	<0.1a	<0.1a	0.2a	56.5a

[1]Data from 'Red Delicious'.

[2]Mean separation by Fishers Protected LSD (P=<0.05). Treatment means followed by the same letter are not significantly different

[3]Petal Fall spray applied 7 days late (26 May).

Table 8 Evaluation of miticides for control of European red mite on apple[1], N.Y.S.A.E.S., Hudson Valley Lab., Highland, N.Y. - 1992

			Average # of mites or eggs/ leaf[2,3]									
	Formulation		6/1		6/15		6/24		7/6		7/22	
Treatment	oz/100 gal.	Timing	ERM	ERME	ERM	ERME	ERM	ERME	ERM	ERME	ERM	ERME
Dormant Oil	1.0 gal.	1	<0.1ab	2.0a	3.7ab	1.5ab	0.7ab	3.4a	4.0ab	5.3abc	3.1bc	9.3b
Kelthane 50W	16.0 oz.	2										
Dormant Oil	1.0 gal.	1	0.5b	7.0ab	13.3c	8.4c	0.3ab	2.6a	7.7ab	3.2abc	0.2a	0.5a
Omite 30W	1.5 lbs.	2										
Dormant Oil	1.0 gal.	1	<0.1a	2.7a	3.6ab	1.5ab	0.7ab	3.5a	6.9ab	2.4abc	0.1a	0.4a
Omite 6E	10.0 oz.	2										
Dormant Oil	1.0 gal.	1	0.3ab	3.0a	4.3ab	1.2ab	-	-	0.7a	0.5a	0.3a	0.8a
Sunspray Oil	1.0 gal.	3										
Kelthane 50W	16.0 oz.	4										
Untreated	-	-	0.1ab	4.2a	3.2ab	1.9ab	-	-	10.0ab	4.6abc	4.6c	12.6b

[1]Data from "Red Delicious".

[2]Treatment means followed by the same letter are not significantly different ($P<0.05$; Fishers Protected LSD).

[3]All treatments recieved a cover sprays of Lorsban 4E @ 1 pt./100 and 2% dormant oil for RAA and SJS control (14 April) and Lorsban 50W @ 12 oz./100 for control of aphid colonies and leafhopper complex (7 July).

Timing : Application Dates (Petal Fall, May 19)

1 7 April (Silver Tip)
2 16 June, 7 July
3 16 June, 21 July
4 4 June, 7 July

Con't. Evaluation of miticides for control of European red mite on apple[1], N.Y.S.A.E.S., Hudson Valley Lab., Highland, N.Y. - 1992

Average # of mites or eggs/ leaf[2,3]

Treatment	Formulation oz/100 gal.	Timing	8/3 ERM	8/3 ERME	8/19 ERM	8/19 ERME
Dormant Oil Kelthane 50W	1.0 gal. 16.0 oz.	1 2	5.3 c	16.3 c	3.8 b	3.1 b
Dormant Oil Omite 30W	1.0 gal. 1.5 lbs.	1 2	0.2a	0.9a	0.3a	0.3a
Dormant Oil Omite 6E	1.0 gal. 10.0 oz.	1 2	0.2a	0.9a	0.4a	0.3a
Dormant Oil Sunspray Oil Kelthane 50W	1.0 gal. 1.0 gal. 16.0 oz.	1 3 4	<0.1a	1.0a	0.6a	0.7a
Untreated	-	-	3.0 bc	7.1ab	0.5a	3.1 b

[1]Data from "Red Delicious".

[2]Treatment means followed by the same letter are not significantly different (P<0.05; Fishers Protected LSD).

[3]All treatments recieved a cover sprays of Lorsban 4E @ 1 pt./100 and 2% dormant oil for RAA and SJS control (14 April) and Lorsban 50W @ 12 oz./100 for control of aphid colonies and leafhopper complex (7 July).

Timing : Application Dates (Petal Fall, May 19)

1 7 April (Silver Tip)
2 16 June, 7 July
3 16 June, 21 July
4 4 June, 7 July

Table 9 Evaluation of insecticides in a seasonal program on pear[1], N.Y.S.A.E.S., Hudson Valley Lab., Highland, New York. - 1992

Treatment Rate/100gal.	Application Date	# pear psylla nymphs/leaf[2]											
		22 June			29 June			15 July			21 July		
		Nymphs	Eggs	PRM	Nymphs	Eggs	PRM	Nymphs	Eggs	PRM	Nymphs	Eggs	PRM
NTN 33893 FS 79 MI	2 June	1.7abc	6.5bc	0.0a	0.3a	6.6bc	0.0a	3.2b	8.9bc	0.0a	0.5a	1.4ab	0.0a
NTN 33893 FS 79 MI + Sillwet/Defm	2 June	1.1ab	6.6bc	0.0a	0.4a	6.6bc	0.0a	1.4ab	9.5c	0.0a	0.7a	0.8ab	<0.1a
AgriMek + 1% Oil 20 oz./A	26 May	0.4a	1.4a	0.0a	0.5a	4.2abc	0.0a	0.5a	1.7a	<0.1a	0.4a	0.9ab	0.0a
AgriMek + 1% Oil 20 oz./A	4 June	1.1bc	5.9bc	0.0a	0.1a	1.9ab	0.0a	0.5a	1.1a	0.0a	1.1a	2.2ab	<0.1a
AgriMek + 1% Oil 20 oz./A	15 June	3.7c	4.6ab	0.0a	<0.1a	0.4a	0.0a	0.5a	0.8a	0.0a	0.2a	0.4a	0.0a
Mitac 1.5 EC 32 oz.	23 June	2.9bc	9.3c	0.0a	0.4a	3.9ab	0.0a	0.4a	0.8a	0.0a	0.8a	1.4ab	<0.1a
Asana XL 0.66 EC 5.8oz.	23 June	2.7abc	9.2c	0.0a	0.6a	10.0c	0.0a	0.3a	4.3ab	0.2a	1.3a	2.4ab	0.3a
Untreated	-	6.5d	6.8bc	0.0a	2.2b	17.0d	0.0a	0.4a	1.9a	0.0a	0.8a	0.6ab	0.0a

[1]Data taken from "Bartlet". (Petal Fall, May 19)

[2]Treatment means followed by the same letter are not significantly different (P<0.05; Fishers Protected LSD). Leaf samples taken from early spurs and young terminals.

Con't. Evaluation of insecticides in a seasonal program on pear[1], N.Y.S.A.E.S., Hudson Valley Lab., Highland New York. - 1992

Treatment Rate/100gal.	Application Date	# pear psylla nymphs / leaf[2] 12 August Nymphs[3]	Nymphs[4]	Eggs	PRM	TSM	4 September Nymph	Eggs	PRM	TSM
NTN 33893 FS 79 MI	2 June	0.2a	0.2a	1.1abc	<0.1a	0.0a	0.3a	0.1a	0.2a	0.0a
NTN 33893 FS 79 MI + Sillwet/Defm	2 June	<0.1a	0.4a	2.4abc	<0.1a	0.1ab	0.9a	0.7ab	0.3ab	0.0a
AgriMek + 1% Oil 20 oz./A	26 May	<0.1a	0.3a	1.4abc	<0.1a	0.0a	<0.1a	0.2a	0.0a	0.0a
AgriMek + 1% Oil 20 oz./A	4 June	<0.1a	0.4a	0.4a	0.0a	0.0a	0.2a	0.1a	0.0a	0.0a
AgriMek + 1% Oil 20 oz./A	15 June	<0.1a	0.3a	1.2abc	0.0a	<0.1a	0.6	0.2a	0.0a	0.0a
Mitac 1.5EC 32 oz.	23 June	0.0a	0.3a	1.0abc	0.0a	<0.1a	0.2a	0.1a	0.0a	<0.1a
Asana XL 0.66L 5.8 oz.	23 June	0.1a	1.6b	4.7d	<0.1a	0.1b	4.1a	1.9b	0.7b	0.2b
Untreated	-	0.0a	<0.1a	2.2bc	0.0a	0.0a	0.2a	0.4a	0.0a	0.0a

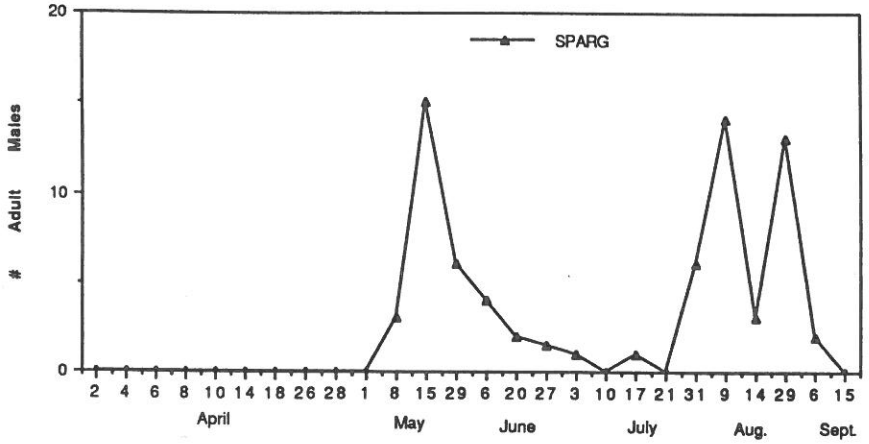
[1]Data taken from "Bartlet". (Petal Fall, May 19)

[2]Treatment means followed by the same letter are not significantly different (P<0.05; Fishers Protected LSD). Leaf samples taken from early spurs and young terminals.

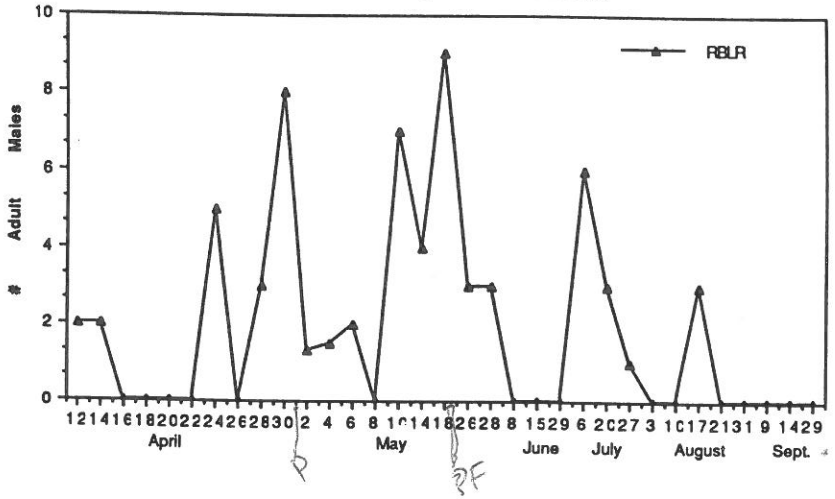
[3]Leaf Samples taken from older terminals.

[3]Leaf Samples taken from young terminals (water sprouts).

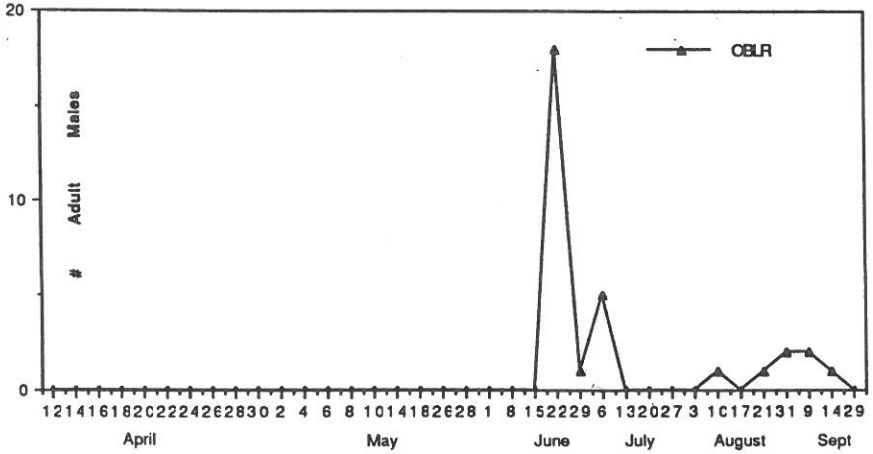
'92 Adult Male SPAR (Phermone Trap)



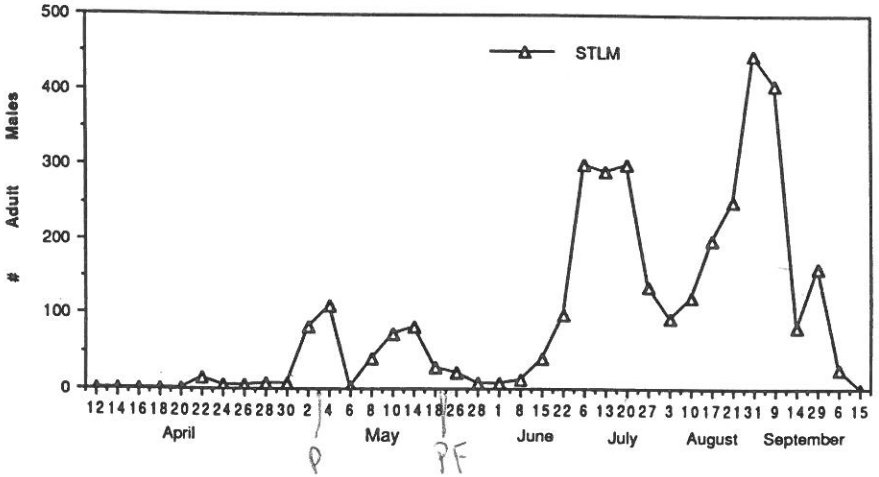
'92 Adult Male RBLR (Phermone Trap)



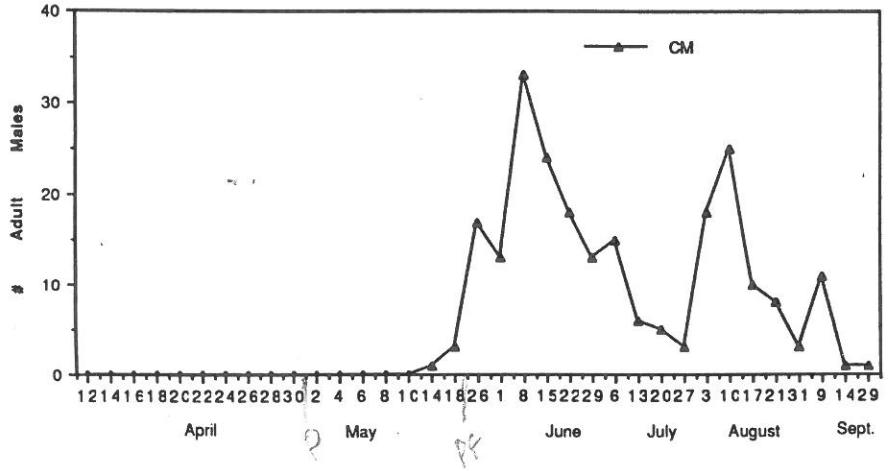
'92 Adult Male OBLR (Phermone Trap)



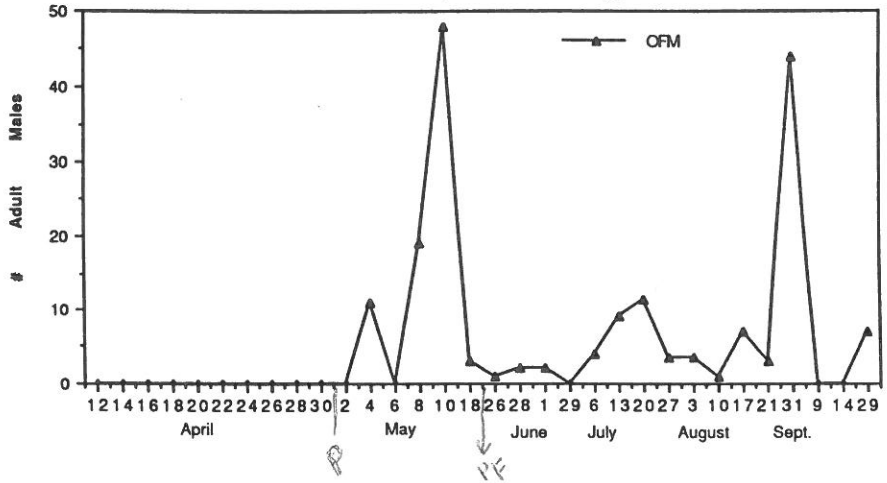
'92 STLM Adult Males (Phermone Trap)



'92 Adult Male CM (Phermone Trap)



'92 Adult Male OFM (Phermone Trap)



1992 MAXIMUM AND MINIMUM TEMPERATURES AND PRECIPITATION
Hudson Valley Laboratory, Highland, NY

All readings were taken at 0800 EST on the dates indicated

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
Date	Max	Min	Precip	Max	Min	Precip	Max	Min	Precip	Max	Min	Precip	Max	Min	Precip	Max	Min	Precip
1	55	26		63	48		62	58	1.63	87	65		74	61	1.60			
2	55	26	<0.01	67	54	0.04	63	56	0.03	89	59		78	54				
3	45	29		84	57	0.54	76	49		76	51		81	61				
4	43	27		70	45		82	54		71	59	0.76	83	66				
5	51	26		57	42	<0.01	81	58	<0.01	76	62		79	56	0.10			
6	53	31		51	41	0.08	69	60	1.19	77	62	0.89	80	50				
7	57	31		58	36		75	62		77	54		81	53				
8	59	40	<0.01	64	44		85	68		78	54		82	54				
9	60	29		64	54	0.09	84	57	0.08	82	66	0.24	77	65	0.81			
10	58	43	0.07	71	51		78	49		89	63		80	66	0.04			
11	67	39	0.04	69	52		79	49		87	68		81	66				
12	44	40	0.12	74	39		77	51		83	61		85	54				
13	50	25		78	59		84	55		82	70	0.50	76	53				
14	45	26		76	57		84	60		85	63	0.12	65	55	0.04			
15	59	28		72	53		87	62		90	68		69	58				
16	54	35		74	54	0.44	77	49		79	65	1.54	62	57	0.06			
17	44	35	0.16	58	47	0.07	77	51		79	64		62	57	0.07			
18	45	41	0.01+	69	54	<0.01	82	52		77	67	0.04	66	62	0.72			
19	50	42	?	73	46	0.15	75	63	<0.01	84	64		74	57				
20	49	44	?	75	39		72	65	0.03	86	63		76	51				
21	62	48		79	43		77	53		87	69		72	45				
22	75	59	0.07	86	48		71	46	0.04	79	52		76	48				
23	70	57	0.21	87	50		64	46		75	58	0.02	80	55				
24	71	46		90	56		75	55		66	59	0.27	81	52				
25	76	43	0.44	60	41	0.63	72	57	0.20	74	55		82	62	0.01			
26	46	40	0.07	61	44		73	52		78	59		86	62				
27	53	41	0.02	61	49	<0.01	80	60	0.65	74	66	0.17	86	63				
28	59	37		58	40	<0.01	76	57	1.05	85	57		87	67				
29	63	35		68	42		81	55		76	55		81	62	0.12			
30	65	34		72	45		83	62		85	65	0.55	70	50				
31				71	57	0.46				76	63		75	50				
AVG/TOT	56	37	2.72	70	48	2.54	77	56	4.92	80	61	5.10	77	57	3.57			