Areawide Diamondback Moth Trapping Network

In response to the recent outbreaks of Diamondback moth (DBM) , *Plutella xylostella* in Yuma, we have established a pheromone trap network in January of 2017 designed to monitor the activity and movement of adult populations of DBM. PCAs had difficulty controlling DBM in cabbage, broccoli and cauliflower last season. In the 2017 -2018 season we have expanded out network to include traps placed in Texas Hill, Tacna, Roll, Wellton, Dome Valley, Gila Valley, Yuma Valley and in the Bard /Winterhaven area in locations where cole crops are presently being grown or in areas where infestations were known to occur last fall.

The data is not intended to indicate field infestations, as trap data is largely a reflection of adult movement. The data may reflect emergence of adults in adjacent fields with known infestations, or provide an indication that DBM may be moving into fields not previously infested. If nothing else, the data may make PCAs aware of increased pest activity in some areas and encourage intensified scouting in susceptible produce fields.

Historically, from 1998-2001, we established a trap network in Yuma which included DBM. Data from those studies is provided below for a historical perspective. We will continue to monitor DBM trap activity throughout the season. We will also continue to trap population activity throughout the summer to determine whether DBM is active when brassica hosts are not available. This may give us an indication of the potential for more problems on next years fall crops. From a historical perspective we ran traps during the summer of 1999-2001 in the Yuma Valley and consistently found DBM moths in traps at low levels (0-1.2 moths/trap/night from July-August). We concluded at that time that many of the DBM captured may have come in with transplants, but were not certain whether DBM is capable of over summering in the desert. We hope to gain more insight into the pest's activity during summer moths in Yuma this year.

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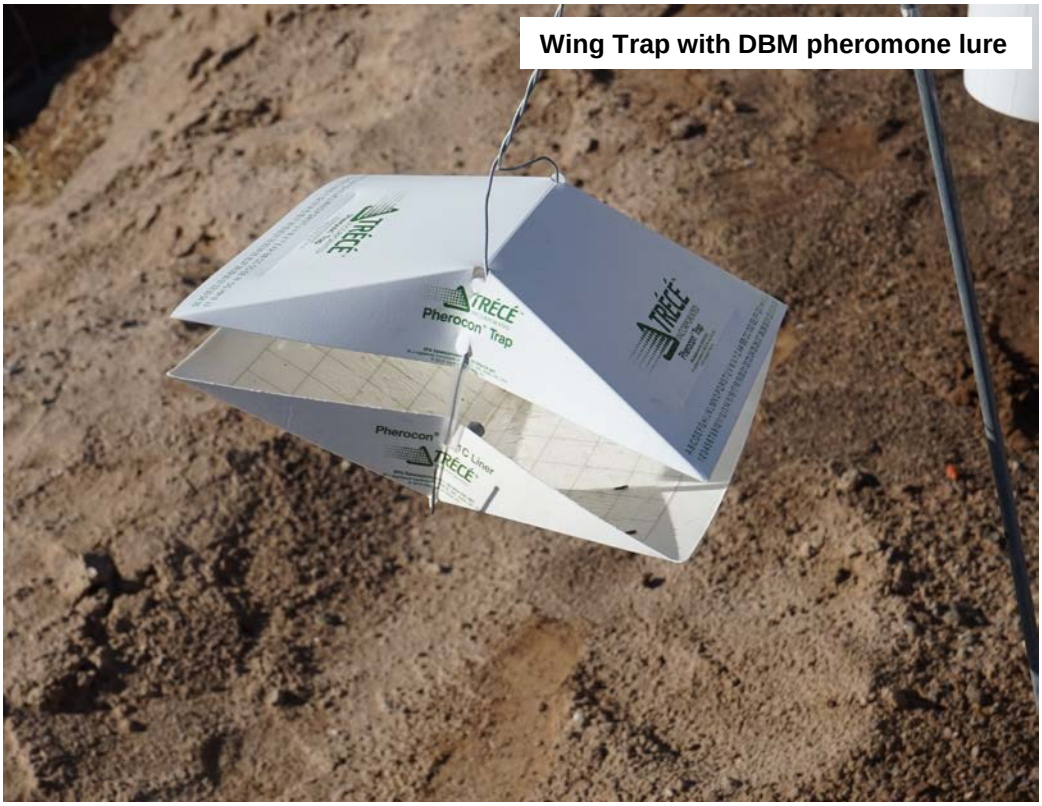
Area-wide DBM Trapping Network
Yuma, Arizona



Wing Trap with DBM pheromone lure

DBM moths captured in trap

Trapping Data – by Location and Crop

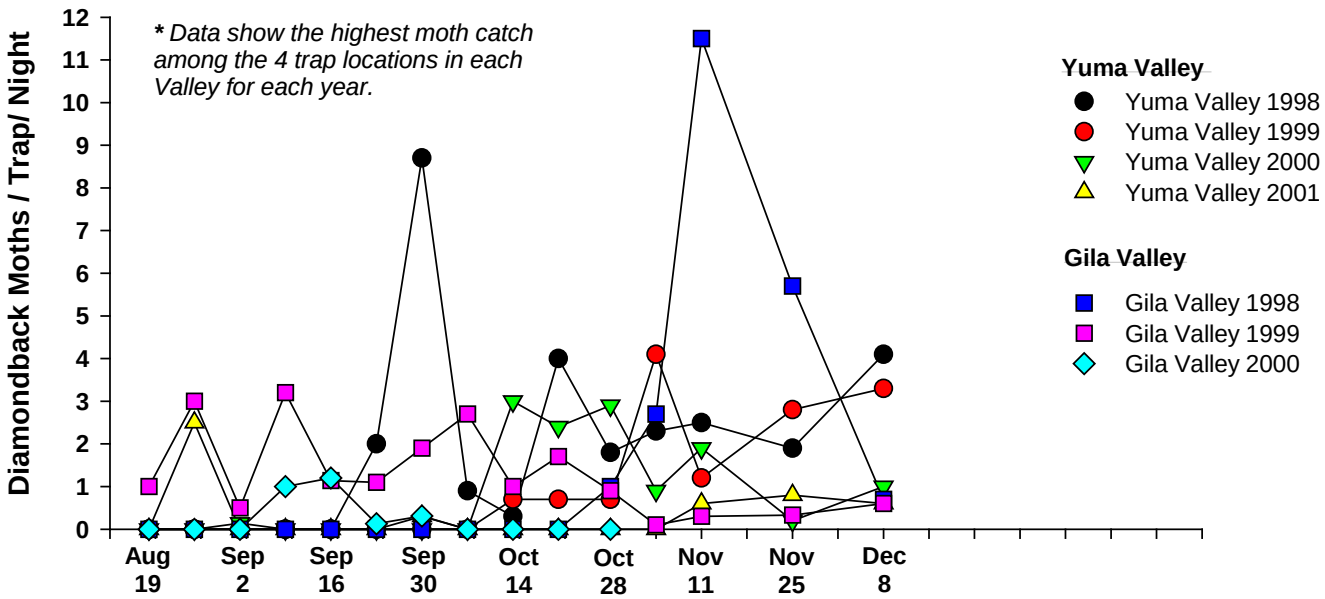
THE UNIVERSITY OF ARIZONA
COLLEGE OF AGRICULTURE AND LIFE SCIENCES
COOPERATIVE EXTENSION
Yuma Agricultural Center

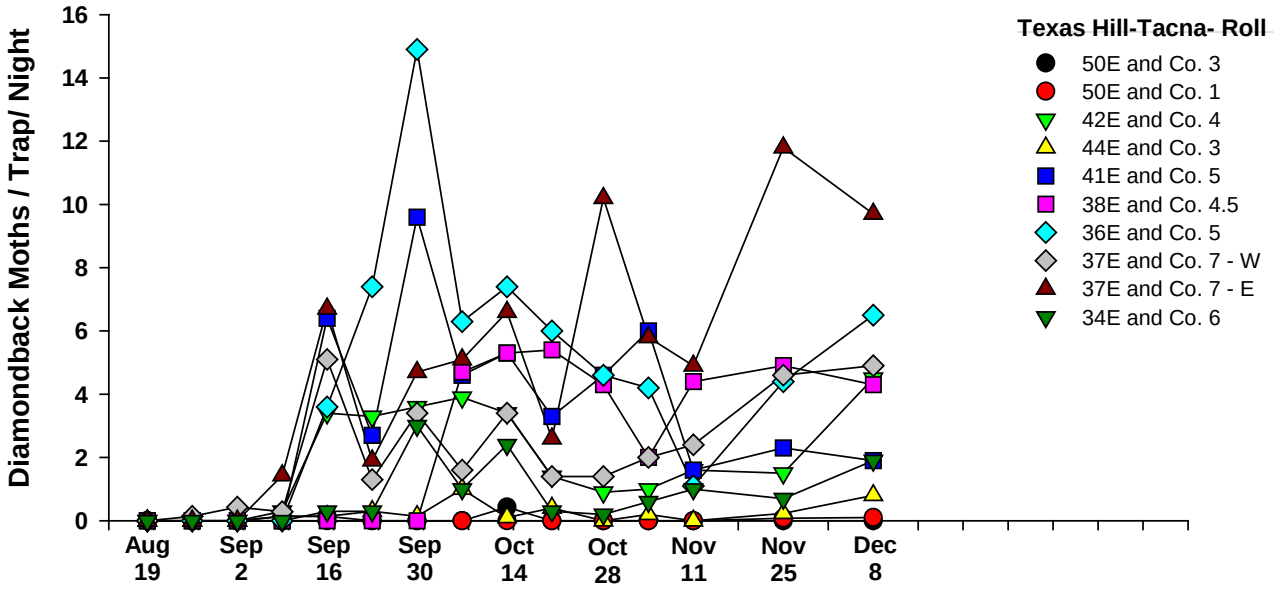
			Diamondback Moths / Trap / Week			
Area	**Location**	**Crop**	**4-Nov**	**11-Nov**	**24-Nov**	**8-Dec**
Texas Hill	50E and Co. 2.5	Cabbage TP	0	0	0	0
Texas Hill	50E and Co. 1	Cabbage TP	2	0	1	1
Tacna	42E and Co. 4.5	Cauliflower TP	5	11	20	67
Tacna	44E and Co. 3	Cauliflower TP	1	0	3	12
Tacna	41E and Co. 5	Flower/Broccoli	31	11	30	28
Roll	38E and Co. 4.5	Broccoli	10	31	63	64
Roll	36E and Co. 5	Broccoli	21	8	57	98
Roll	37E and Co. 6.5-E	Cauliflower TP	10	17	60	74
Roll	37E and Co. 6.5-W	Cauliflower TP	29	34	153	146
Roll	34E and Co. 6	Broccoli	3	7	9	29
Wellton	30E and Co. 9	Cabbage TP	4	0		28
Wellton	27E and Co. 10	Lettuce	0	2	7	11
Dome Valley	22E and Co. 8	Cauliflower TP	10	3	0	40
Dome Valley	21E and Co. 8	Fallow	4	1	24	25
Dome Valley	19E and Co. 7	Cauliflower TP	15	10	19	46
Dome Valley	17E and Co. 5	Broccoli	21	20	14	Down
Dome Valley	18E and Co. 5.5	Broccoli	11	7	1	12
Dome Valley	16E and Co. 4	Cauliflower TP	4	2	2	5
Gila Valley	10.5E and Hwy 95	Cauliflower TP	Down	32	78	72
Gila Valley	7E and Co. 8	Cauliflower TP	6	2	5	3
Gila Valley	7E and Co. 3	Celery	7	5	16	8
Gila Valley	6E and Hwy 95	Broccoli	20	64	84	216
Gila Valley	Pacific and Co. 10	Cabbage TP	6	3	17	16
Gila Valley	3E and Co. 10	Broccoli	33	82	87	132
Yuma	2.5E and 24th St-W	Cauliflower TP	0	0	2	0
Yuma	2.5E and 24th St-E	Cauliflower TP	0	0	4	0
Yuma Valley	Co 14 and Ave C	Kale	21	17	**115**	61
Yuma Valley	Co. 14 and Ave D	Fallow	0	0	**9**	7
Yuma Valley	Co. 15.5 and Ave G.5	Cauliflower	4	7	**52**	15
Yuma Valley	Co. 16.5 and Ave G	Caulfilower TP	15	11	**2**	26
Yuma Valley	Co. 16.5 and Ave G.5	Cabbage TP	10	10	**13**	40
Yuma Valley	Co. 17 and Ave F	Cauliflower TP	4	10	**27**	4
Yuma Valley	Co 18 and Ave D	Cauliflower TP	41	23	**0**	53
Yuma Valley	Co. 22 and 4th Ave	Broccoli	26	42	**26**	141
Yuma Valley	Co. 21 and Hwy 95	Fallow	6	4	**45**	44
Yuma Valley	Co. 20 and Ave H	Cauliflower	36	41	**75**	75
Yuma Valley	Co. 19 and Ave I	Broccoli	40	75	**16**	89
Yuma Valley	Co. 17th and Ave J	Cauliflower TP	18	17	**36**	80
Yuma Valley	Co. 15th and River	Broccoli	20	12	**77**	167

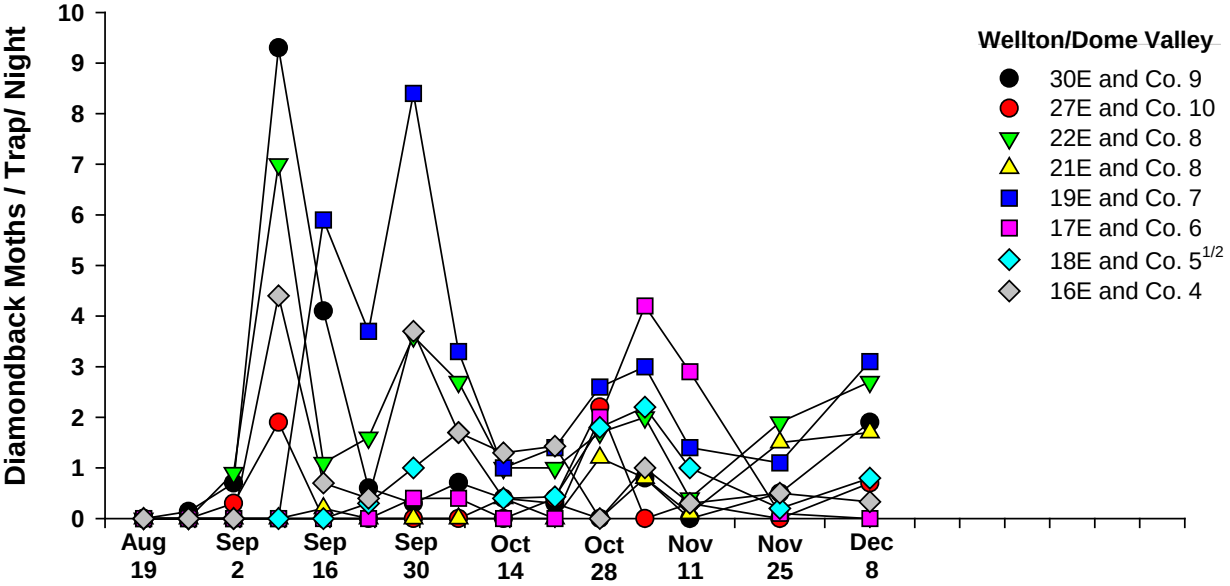
Trapping Data – by Location and Crop

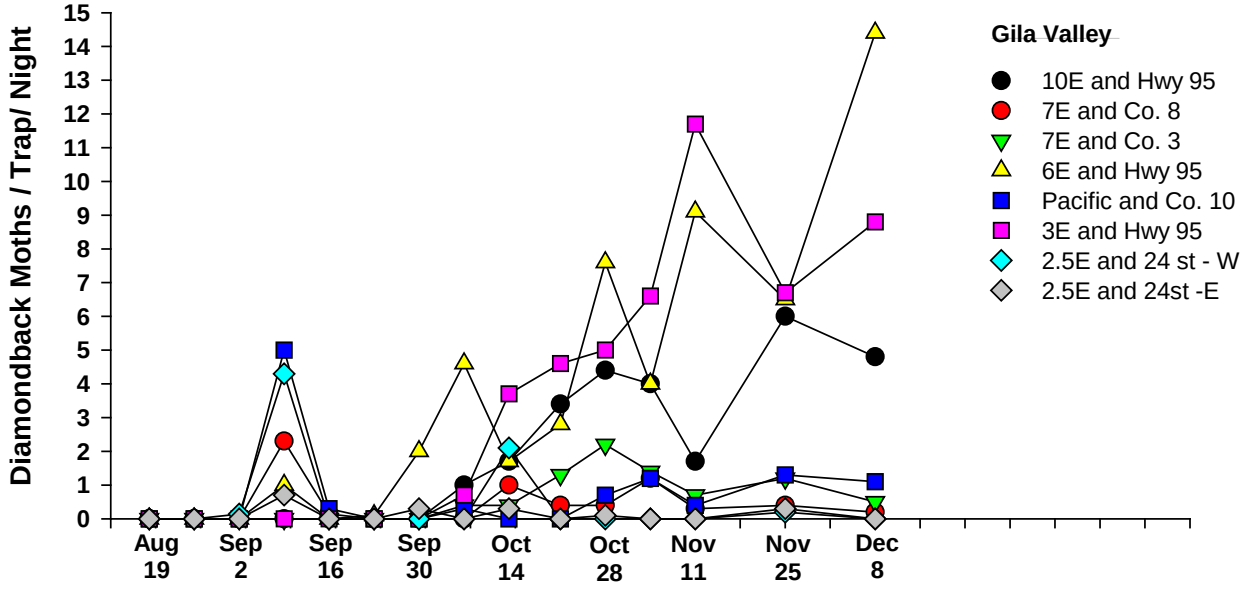
			Diamondback Moths / Trap / Week			
Area	**Location**	**Crop**	**4-Nov**	**11-Nov**	**24-Nov**	**8-Dec**
Yuma Valley	Co. 13 and Ave G	Cauliflower TP	47	9	18	2
Yuma Valley	Co. 13th and Ave H	Fallow	5	0	15	38
Yuma Valley	Co. 12th and Ave G	Fallow	7	7	24	21
Yuma Valley	Co. 11 and Ave F	Brassicas	Down	2	3	37
Yuma Valley	Co. 11 and Ave F1/2	Cauliflower TP	27	11	42	7
Yuma Valley	Co 11 and Fortuna	Cabbage TP	4	0	1	60
Yuma Valley	Co. 8.5 and Ave F	Cauliflower TP	62	34	41	1
Yuma Valley	Co. 8 and Ave E	Fallow	4		0	120
Yuma Valley	Riverside and Hope	Cauliflower TP	122	186	370	0
Yuma Valley	Co. 7 and Ave C	Cauliflower TP	8	30	27	280
Yuma Valley	Co. 14 and Ave F	Broccoli	-	Set	18	125
Bard/Winterha	Ross Rd and Perez	Cauliflower TP	0	2	**3**	4
Bard/Winterha	Flood and Hoppe	Broccoli	2	6	**4**	2
Bard/Winterha	Ross and Picacho	Kale	3	6	37	46
Bard/Winterha	Indian Rock/Picacho	Broccoli	22	7	**5**	120
Bard/Winterha	Indian Rock/ Horne	Cauliflower	28	7	**7**	70
Bard/Winterha	Horne and Arnold	Cauliflower	33	28	10	62
Bard/Winterha	Yuma and Rodenbagh	Broccoli	14	9	16	60

Historic DBM Trap Data – 1998-2001




Diamondback Moths / Trap/ Night
0
2
4
6
8
10
12
14
16
Aug 19
Sep 2
Sep 16
Sep 30
Oct 14
Oct 28
Nov 11
Nov 25
Dec 8
Texas Hill-Tacna- Roll
50E and Co. 3
50E and Co. 1
42E and Co. 4
44E and Co. 3
41E and Co. 5
38E and Co. 4.5
36E and Co. 5
37E and Co. 7 - W
37E and Co. 7 - E
34E and Co. 6


Diamondback Moths / Trap/ Night
0
1
2
3
4
5
6
7
8
9
10
Aug 19
Sep 2
Sep 16
Sep 30
Oct 14
Oct 28
Nov 11
Nov 25
Dec 8
Wellton/Dome Valley
30E and Co. 9
27E and Co. 10
22E and Co. 8
21E and Co. 8
19E and Co. 7
17E and Co. 6
18E and Co. 5 1/2
16E and Co. 4


Diamondback Moths / Trap/ Night
0
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11
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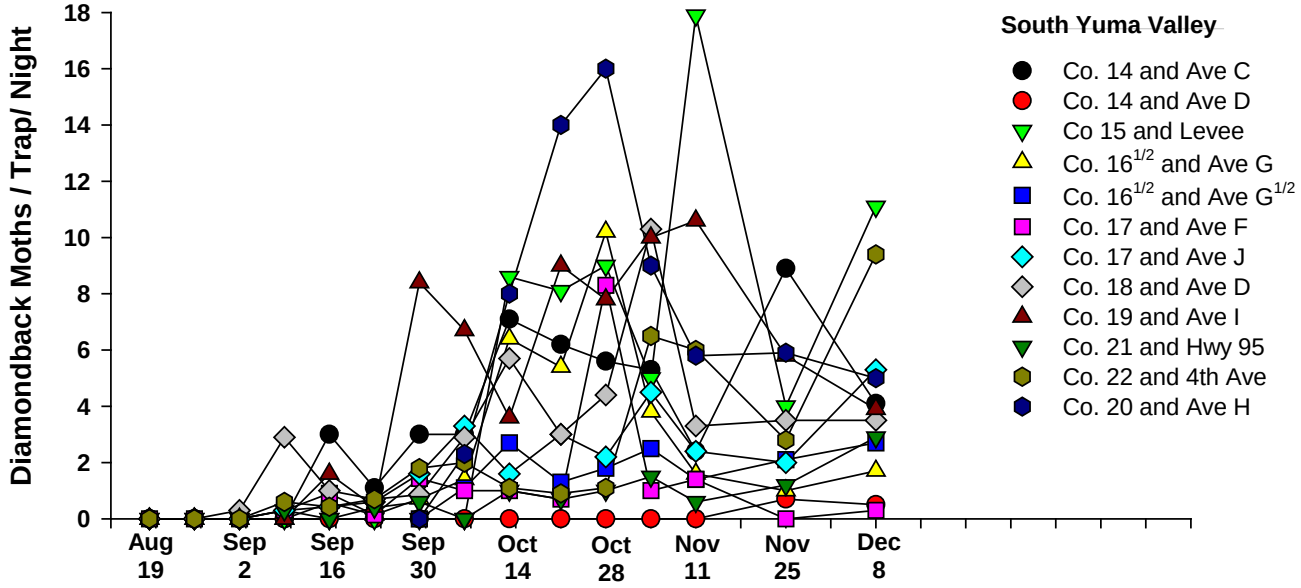
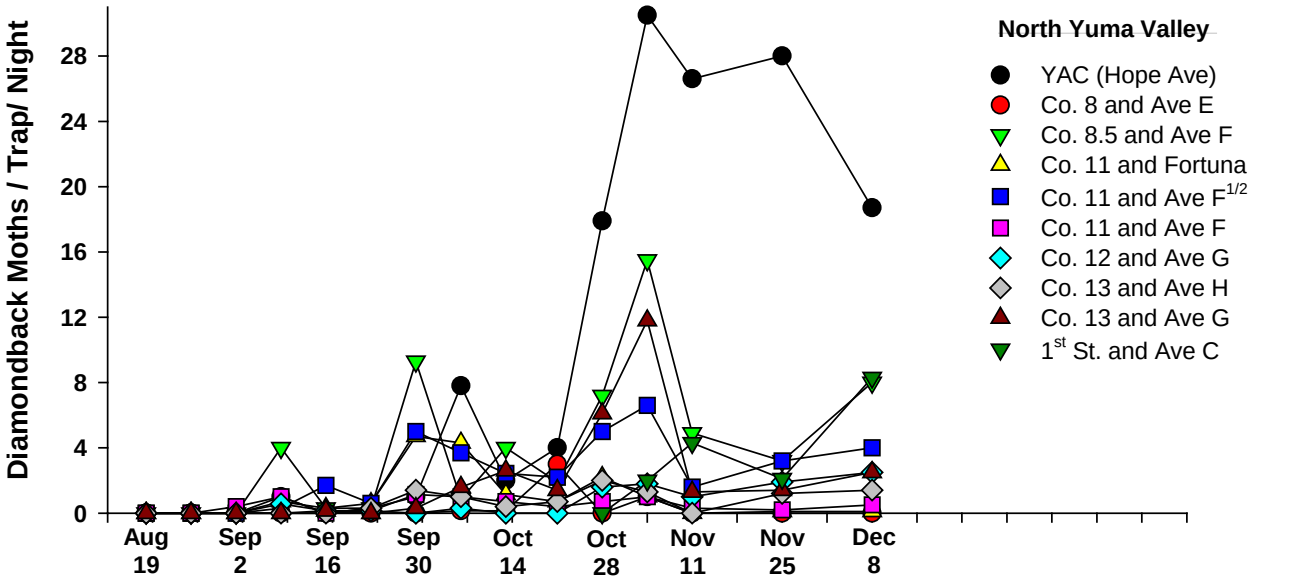
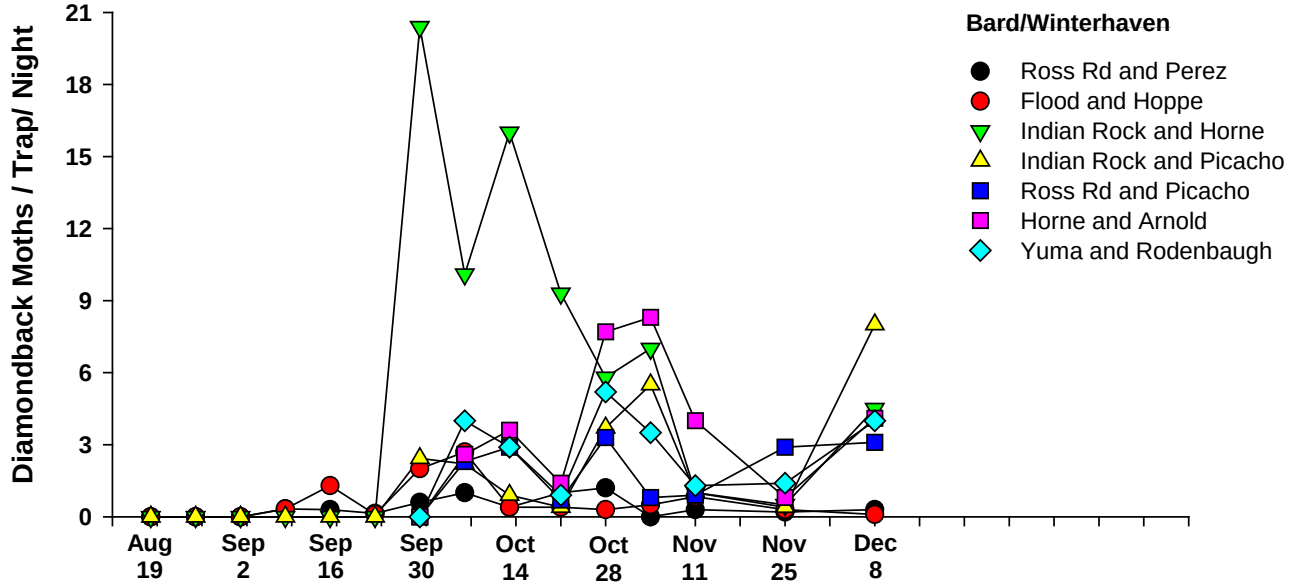
14
15
Aug 19
Sep 2
Sep 16
Sep 30
Oct 14
Oct 28
Nov 11
Nov 25
Dec 8
Gila Valley
10E and Hwy 95
7E and Co. 8
7E and Co. 3
6E and Hwy 95
Pacific and Co. 10
3E and Hwy 95
2.5E and 24 st - W
2.5E and 24st -E


Diamondback Moths / Trap/ Night
0
2
4
6
8
10
12
14
16
18
Aug 19
Sep 2
Sep 16
Sep 30
Oct 14
Oct 28
Nov 11
Nov 25
Dec 8
South Yuma Valley
Co. 14 and Ave C
Co. 14 and Ave D
Co 15 and Levee
Co. 16 1/2 and Ave G
Co. 16 1/2 and Ave G 1/2
Co. 17 and Ave F
Co. 17 and Ave J
Co. 18 and Ave D
Co. 19 and Ave I
Co. 21 and Hwy 95
Co. 22 and 4th Ave
Co. 20 and Ave H


Diamondback Moths / Trap/ Night
0
4
8
12
16
20
24
28
Aug 19
Sep 2
Sep 16
Sep 30
Oct 14
Oct 28
Nov 11
Nov 25
Dec 8
North Yuma Valley
YAC (Hope Ave)
Co. 8 and Ave E
Co. 8.5 and Ave F
Co. 11 and Fortuna
Co. 11 and Ave F 1/2
Co. 11 and Ave F
Co. 12 and Ave G
Co. 13 and Ave H
Co. 13 and Ave G
1st St. and Ave C


Diamondback Moths / Trap/ Night
0
3
6
9
12
15
18
21
Aug 19
Sep 2
Sep 16
Sep 30
Oct 14
Oct 28
Nov 11
Nov 25
Dec 8
Bard/Winterhaven
Ross Rd and Perez
Flood and Hoppe
Indian Rock and Horne
Indian Rock and Picacho
Ross Rd and Picacho
Horne and Arnold
Yuma and Rodenbaugh