



The Impact of SWD on NJ Blueberry IPM Programming - 2014

Insects, Monitoring, Insecticide Programs and Insecticide use

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What IPM programs used to be in NJ blueberries

- Insecticides used
- Key pests
- Monitoring and timing
- Insecticide use then and now

Actara - 4a	Esteem - 7c
Admire - 4a	Imidan - 1b
Altacor - 28	Intrepid - 18
Asana - 3a, No CA MRL	Lannate - 1a
Assail- 4a	Malathion - 1b
Avaunt - 22a	M-Pede- Un
Aza-Direct - Un	Mustang-Max - 3a, No CA MRL
Brigade - 3a, No CA MRL	Platinum - 4a
Bt Products - 11a	Pyganic - 3a
Confirm - 18	Pyrellin - 3a
Danitol - 3a	Rimon - 15
Delegate - 5	Sevin - 1a
Diazinon - 1b	Oil - Un
Entrust - 5	Surround - Un
Exirel - 28	Thionex (7/15) - 2a
Hero - 3a, No CA MRL	

NJ Blueberry Insects

Aphids

Blueberry Maggot

Bud Mite

Cranberry Weevil

Cranberry Fruitworm

Cherry Fruitworm

Japanese Beetle

Leafrollers

Oriental Beetle (Grubs)

Plum Curculio

Putnam, San Jose Scales

Sharpnosed Leafhoppers

Spotted Wing Drosophila

Thrips

Major Post Bloom Pests Were:

Plum Curculio: 1-2 Appl.

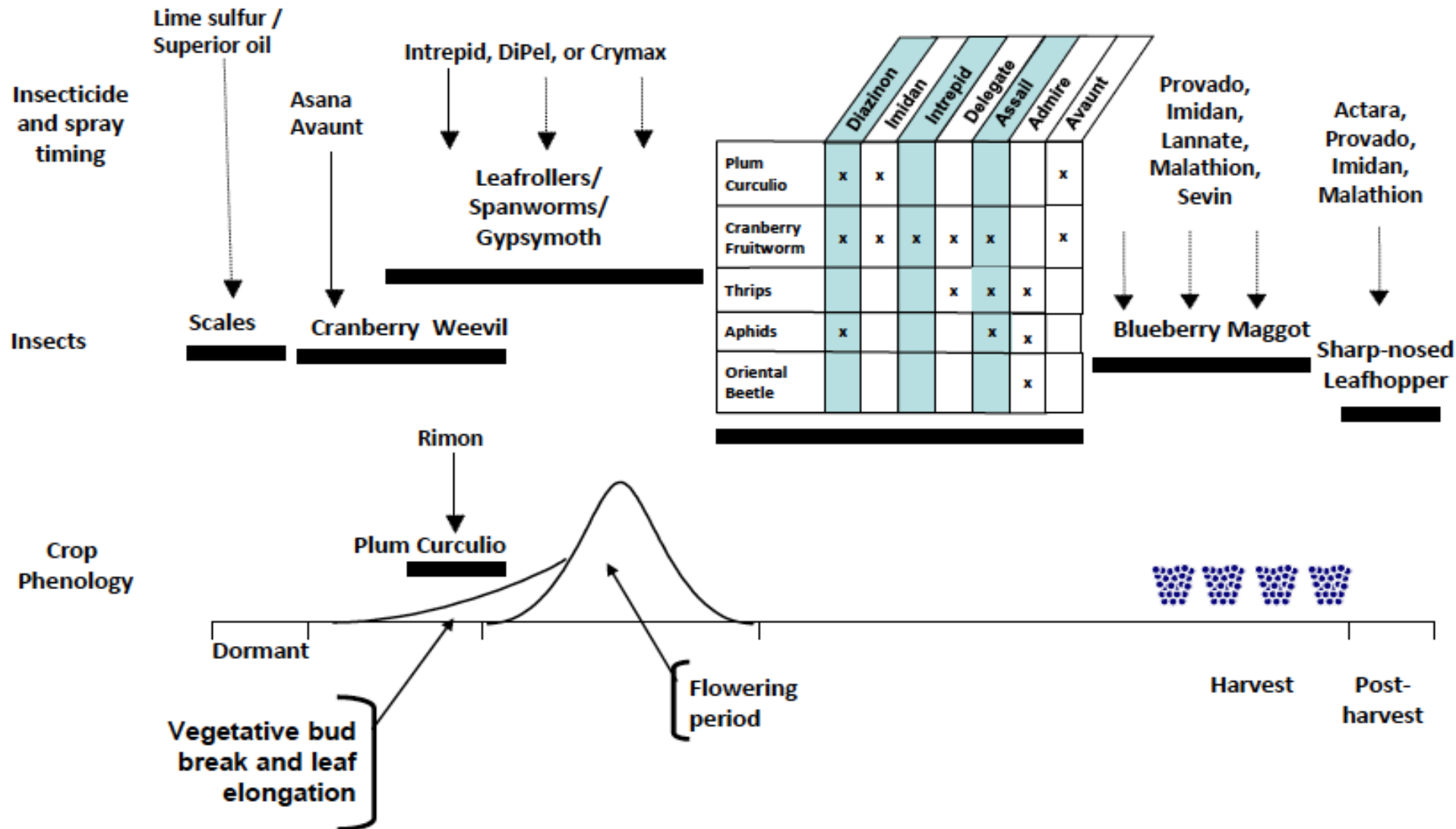
Cranberry Fruitworm: 1 Appl.

Aphids: 2 Appl.

Blueberry Maggot: 3-4 Appl.

Leafhopper: 1-2 Appl.

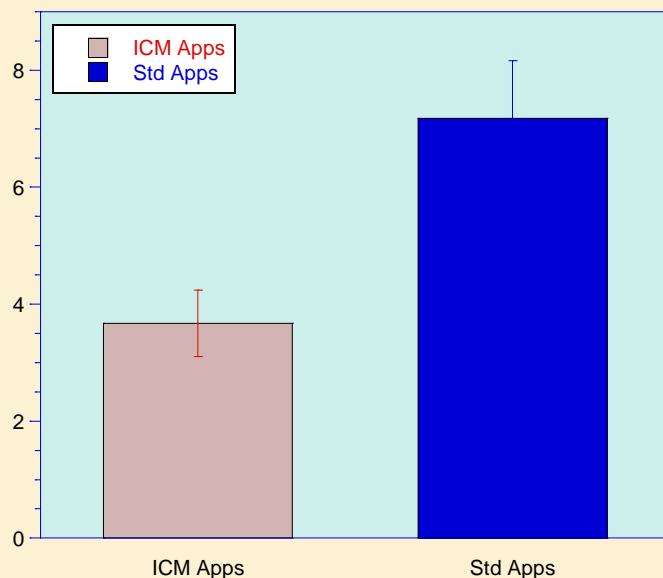
Blueberry Insect Management for New Jersey



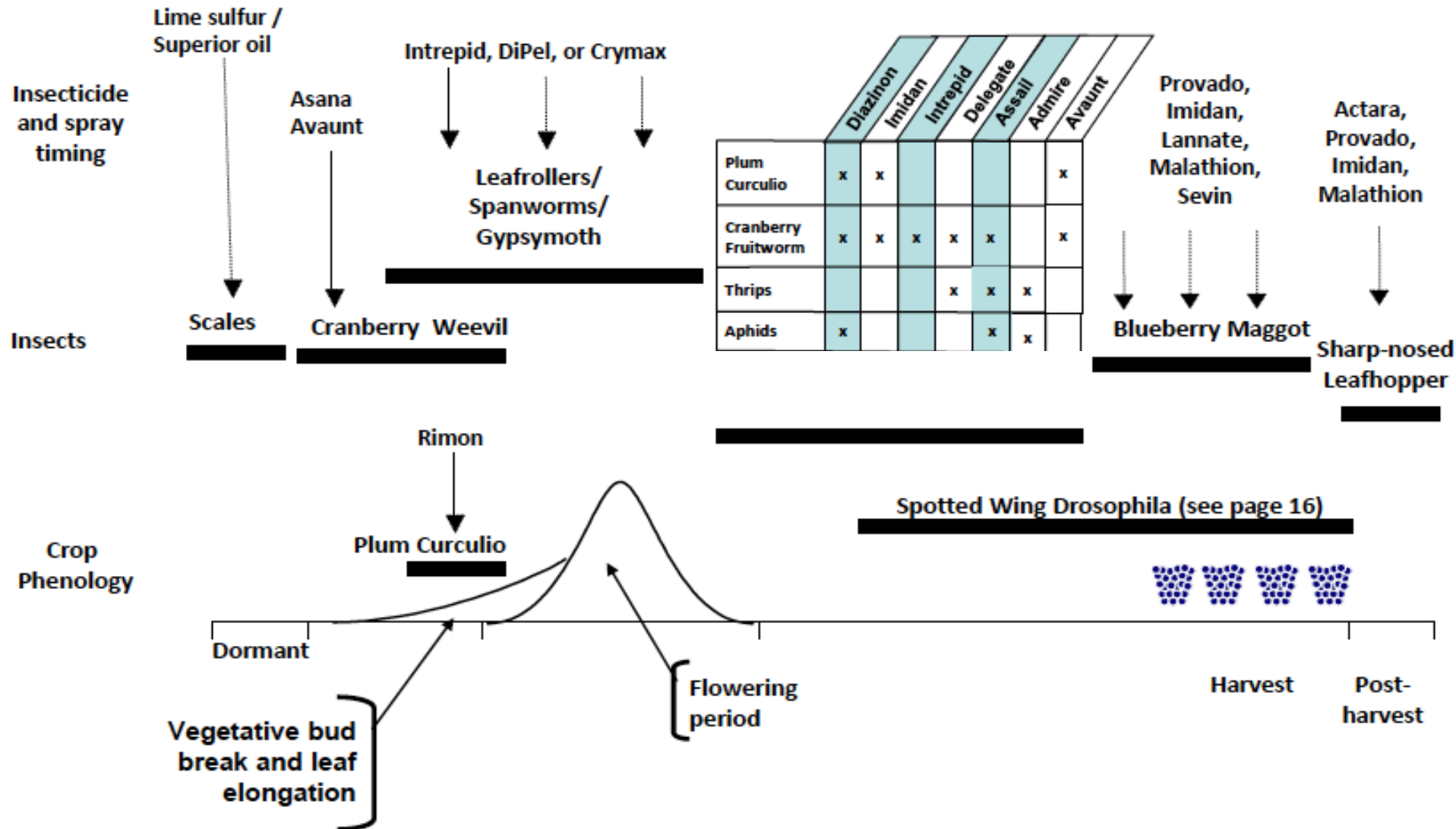
2009 ICM Project Spatially Identifying BBM Areas

Bluecrop - No Admire						
Grower	ICM Apps	Std Apps	ICM Lb	Std Lb	ICM Cost	Std Cost
HAR	3.2	6.5	1.80	2.79	\$32.46	\$100.39
WH	4	4	3.65	3.65	\$48.02	\$48.02
DR	2	10	1.89	5.14	\$24.84	\$167.18
MC	5.48	8.2	2.82	5.09	\$70.96	\$94.66
Grower Mean	3.67	7.2	2.54	4.17	\$44.07	\$102.56

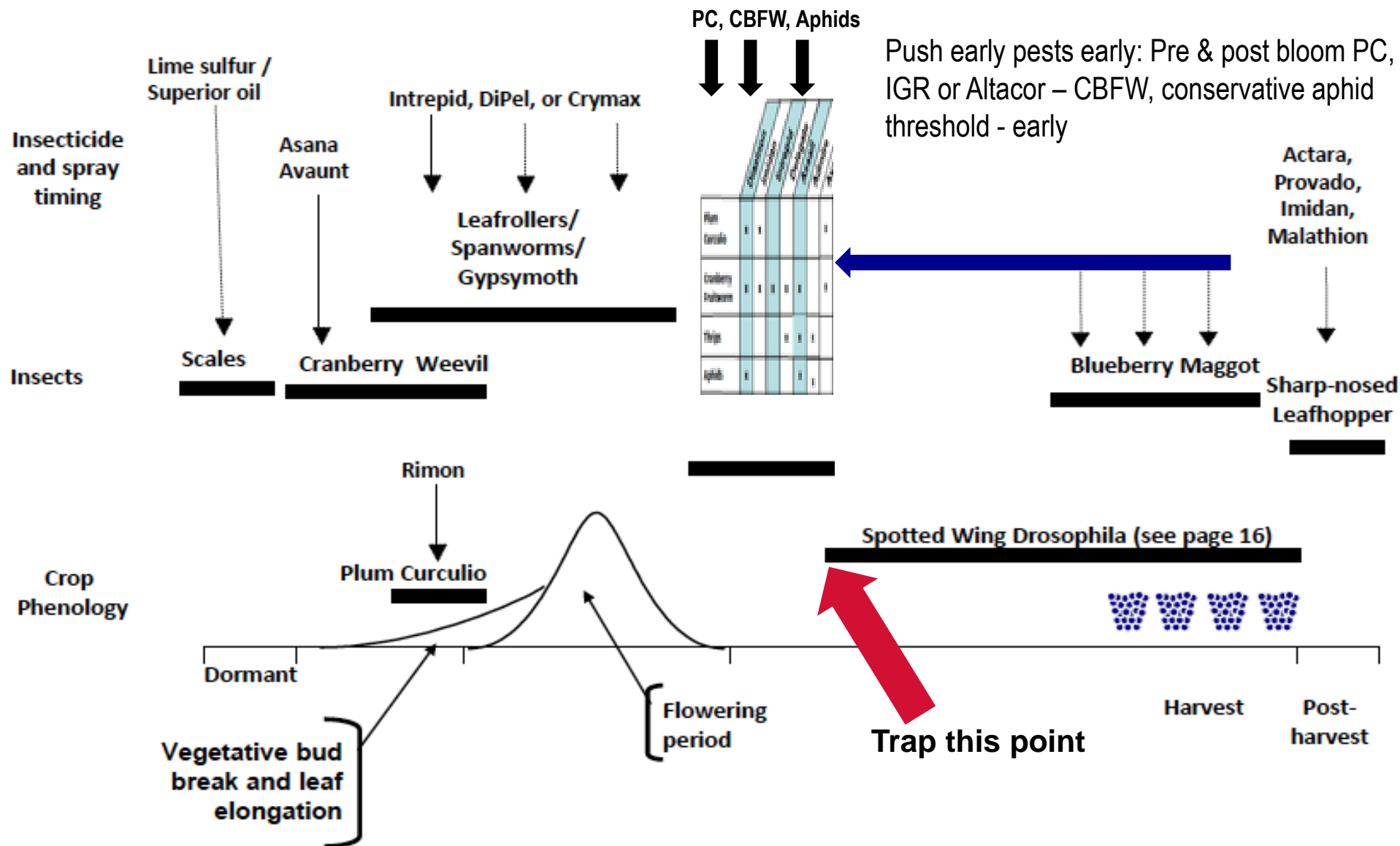
No. of ICM vs Std Applications - Bluecrop 09



Blueberry Insect Management for New Jersey



Blueberry Insect Management for New Jersey



Goal is 2 weeks post bloom the main insects are
SWD & BBM

After post bloom for SWD:

<u>Product</u>	<u>Max # Appl</u>
Assail	1
Imidan	2 (2 appl in Canada)
Lannate	4
Diazinon	1
Malathion	2 (2-2.5 lb ai) sec 24C
Delegate	3 (5 Oz) (alternate with other prod.)
Danitol	2
Exirel	4 (15 oz) Cost?\$\$?
Total	15 applications, 5 IRAC groups w/Exirel - 19 appl, 6 IRAC groups

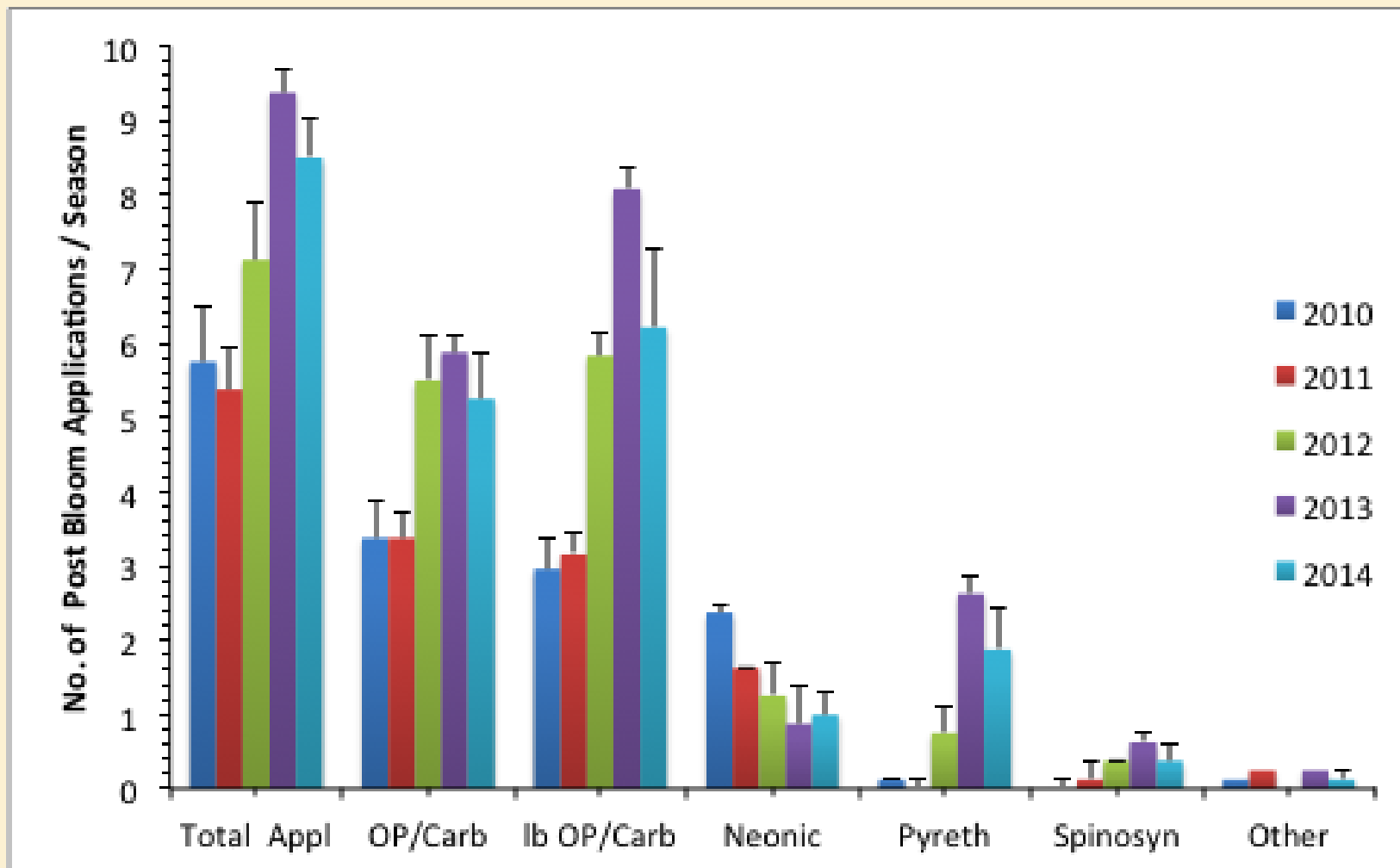
Changes in Insecticide Use

Bluecrop - No Admire

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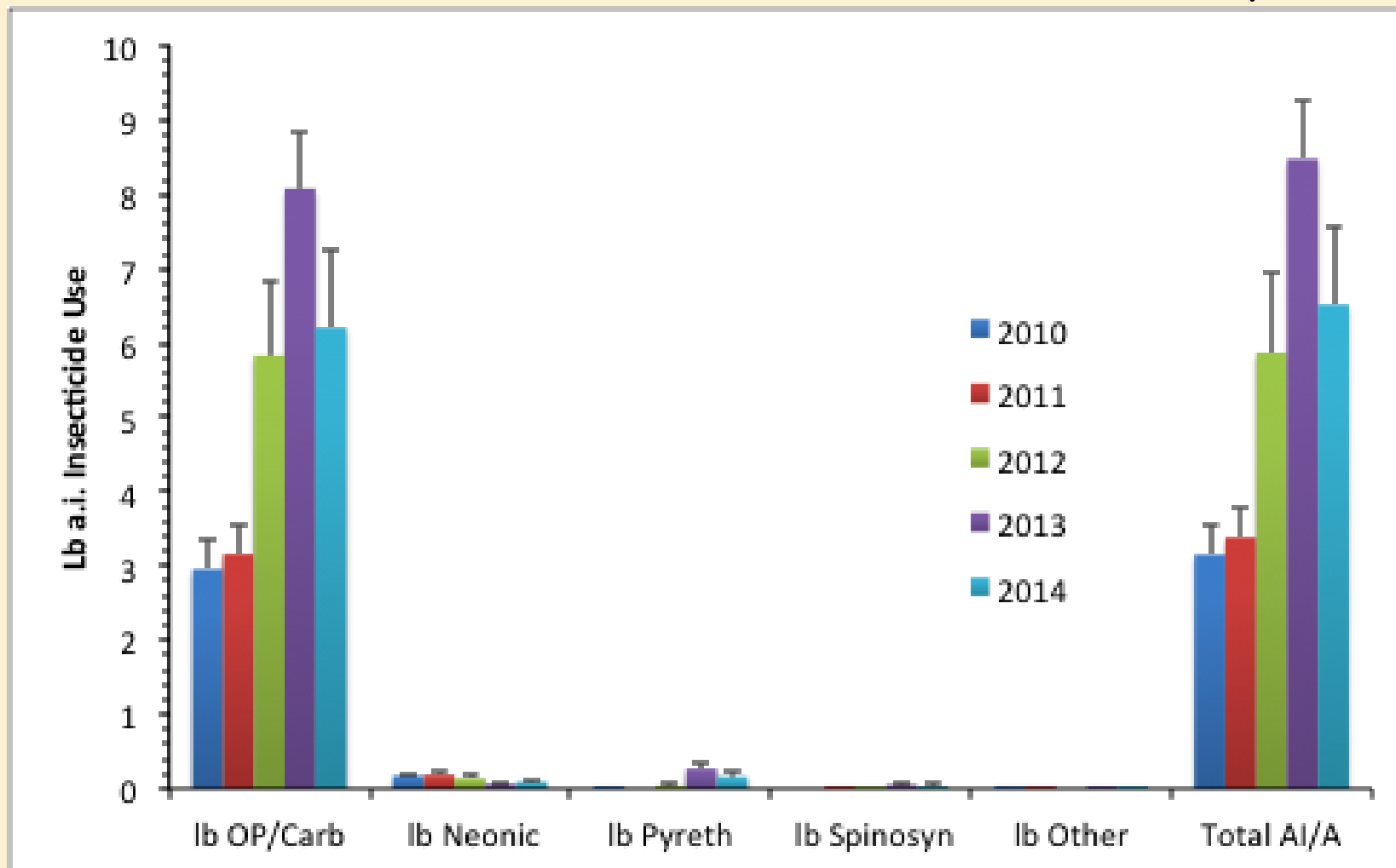
Insecticide Use Trends 2010-2014

Number of Post Bloom Applications, same 8 farms, Bluecrop



Insecticide Use Trends 2010-2014

Lb AI/A Post Bloom, same 8 farms, Bluecrop

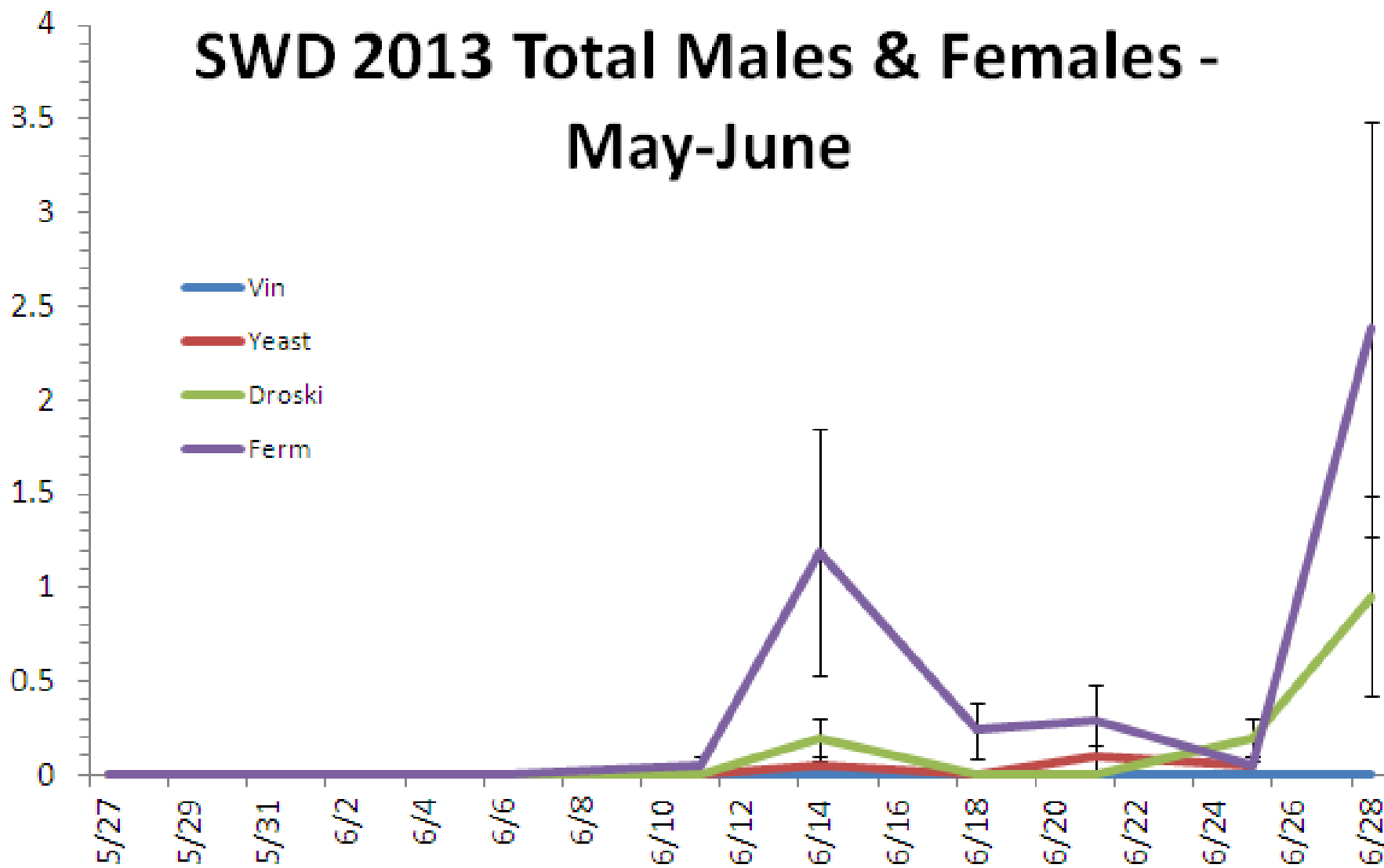


Trapping and Trap Efficiency

Use of a Fermenting Bait Trap. 2013

Treatment	Ingredients - All solutions ~ 150 ml/1 L trap
ACV	Apple cider vinegar plus unscented dish soap, 2 drops
Yeast and Sugar	2 Tbsp yeast (8g), 8 Tbsp (40g) sugar, 24 fl oz water, .76 ml unscented soap
DroskiDrink	ACV 450ml, red wine (merlot) 150ml, muscovado sugar 12g
Fermenting Bait	Fermenting specimen cup sitting in drowning solution: In specimen cup - whole wheat flour 69g, sugar 8g, ACV 4ml, yeast 1.3g, water 100ml (4 oz mixture). Drowning solution - ACV 600ml, 95% ethanol 67 ml, unscented soap 3.3ml

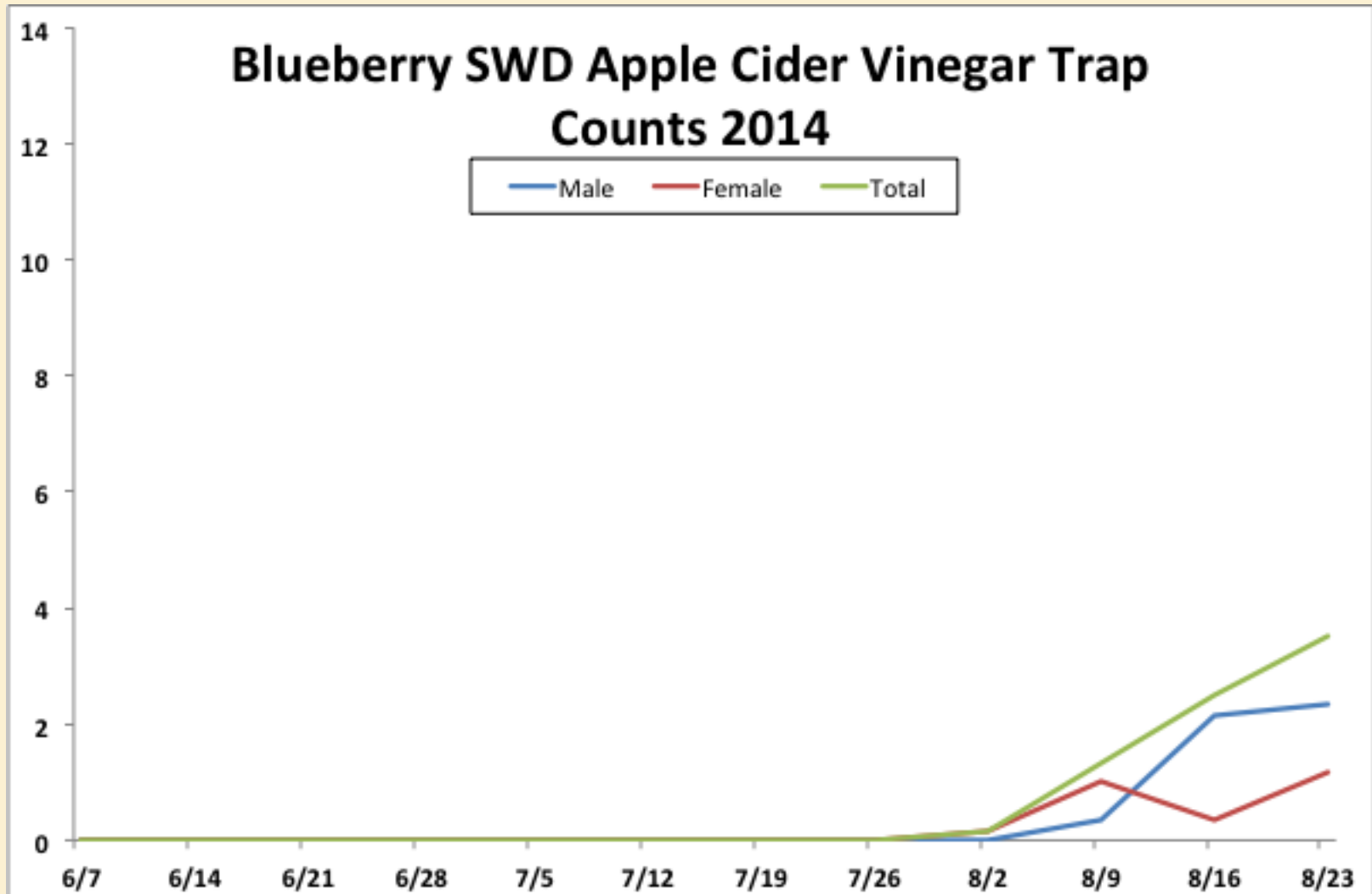
SWD 2013 Total Males & Females - May-June



Trap Types 2014

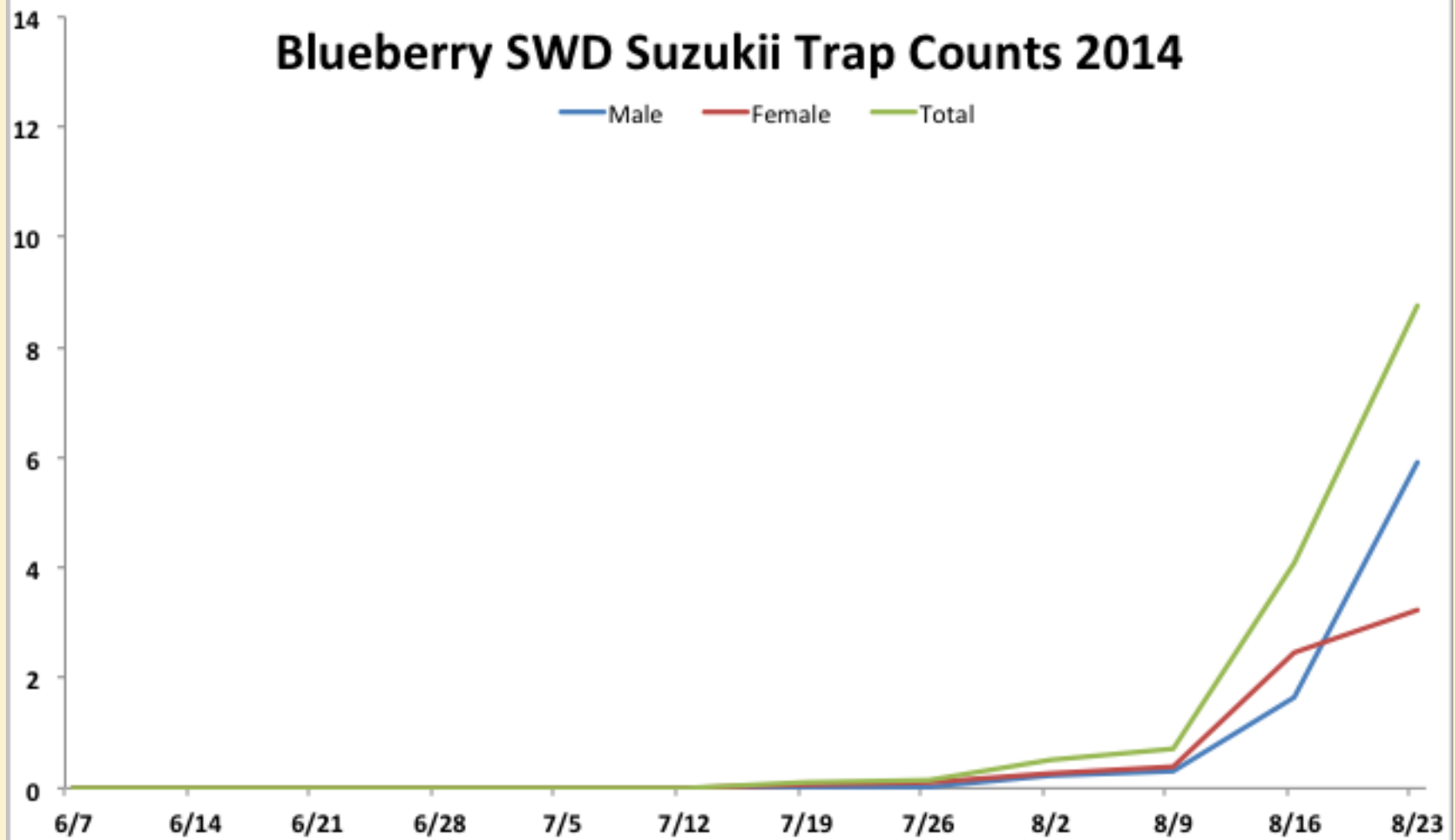
Treatment	Ingredients - All solutions ~ 150 ml/1 L trap
ACV	Apple cider vinegar plus unscented dish soap, 2 drops
Trecé	Duel lure with ACV and unscented soap Changed every 4 weeks
Suzukii Bait	Changed every 4 weeks



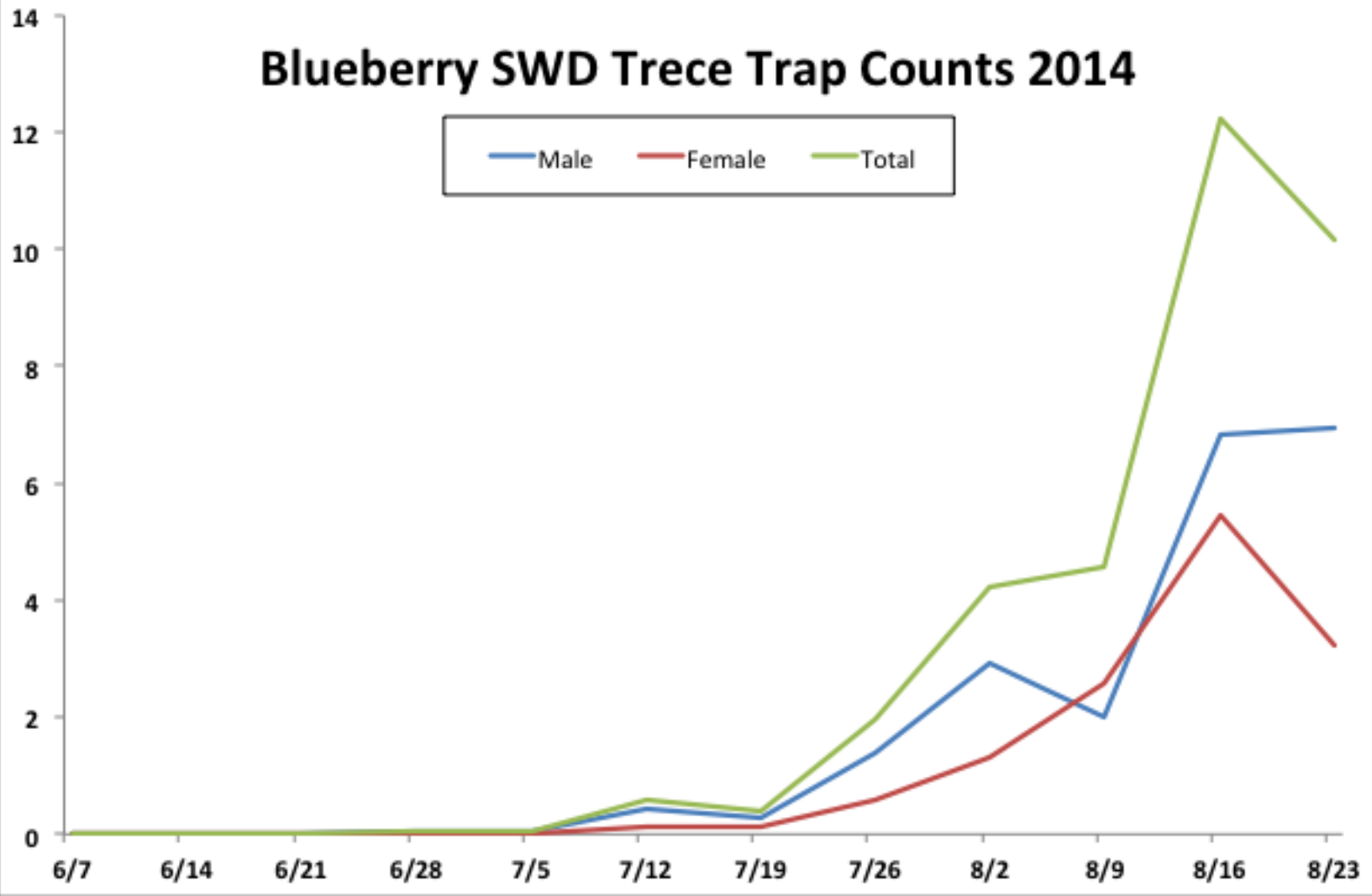


Blueberry SWD *Suzukii* Trap Counts 2014

— Male — Female — Total



Blueberry SWD Tree Trap Counts 2014



A question for next year:

Given the location of alternate hosts, can first catch be influenced by location?

Location by woods edge

Location in the woods

Questions?

A raccoon is sitting on the ground in a field of fallen blueberries and leaves. The raccoon is looking towards the camera. The ground is covered with green moss, brown leaves, and several ripe blueberries. A tree trunk is visible in the background.

Thanks to funding from:
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