

# Early Summer Berry "To Do" List

Spotted Wing Drosophila has appeared in eastern NY. This week we found 1 female in a cherry block in Columbia county. There have been a few isolated finds elsewhere in the state. At this writing there have been no monitored blocks where we have found SWD for



two weeks in a row. If you have ripening fruit, and are in the Columbia county vicinity, you may want to spray your crop. BUT the populations are still VERY low. Adult monitoring now, in your own fields, makes a LOT of sense – this would help give you a better idea of the threat and then you could make informed decisions re: your June strawberry crop, your ripening summer raspberries etc.

As fruit ripens more quickly, trapping adults becomes a less reliable indicator of SWD. The ripening fruit is a far greater attractant than the traps. Fruit sampling becomes the primary method for monitoring crop risk in the field. Air temperatures in the 70's and 80's with night temperatures dropping into the 50's is still a very good scenario

#### Remember:

- Monitor for adults early in the season.
- Monitor fruit for larvae as the crop ripens.
- Pick the fruit clean and remove culls from field.
- Store harvested fruit at 32 degrees asap.
- Keep weed growth under control.
- Begin weekly SWD insecticide program when adult flies are found in your vicinity.

for SWD populations to increase. The one thing that might help slightly is that it's dry. That keeps weed growth in check and helps keep the bottom of plantings dry. Still – you should be irrigating the crop so that will be enough moisture to encourage the fly. And as the fruit ripens, the berries themselves will supply plenty of moisture.

June bearing strawberries that are being picked thoroughly with an effort to remove culls from the patch are at less of a risk. However, if you are growing a late variety

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like AC Valley Sunset or Malwena you might consider spraying these fruit if our adult monitoring reveals more flies. Brambles are a very favorite target for SWD. As these fruit ripen you should monitor for larvae and start a weekly spray.

All the <u>newly revised insecticide sheets</u> are posted on our website, but they are included here. I would encourage you to print them and save for a resource. There is also a new resource for organic growers that is listed in the FYI section in this newsletter.

#### —Elderberries—

Elderberry cane borers are round headed borers (Cerambycid) usually appearing in small numbers. This week a few were noted in fruiting and ornamental elderberries. Wilted plant tips are indicators. Prune below where the borer is – the earlier done the less cane you will need to remove. Break the stem and keep following it down until you no longer see the hollowed out pith. You might see sawdust which indicates the larvae is near. Destroy infected canes with larvae inside

#### —Currants—

 Currant aphids seen throughout the region on currants. These can also occasionally be found on gooseberries. Aphid feeding on leaves causes distortion, cupping and discoloration that can be quite severe to the extent that it will interfere with photosynthesis. Honeydew and the resulting sooty mold can also harm fruit. Best management choice



Damage
caused by
currant aphid.
Photo by W.
Cranshaw.
Source:
Bugwood

would be to use dormant oil in early spring, but insecticidal soap or Assail will also control these insects.

## -Blueberries-

Found adult blueberry maggot flies this week in Capital District. One adult fly indicates a spray.

Assail, Molt-X, Brigade, malathion – all can be used. For organic growers Surround will provide

- suppression but is really tough to use because of residue. Naturalyte or Grandevo may help with control.
- Keep looking for scale insects now they will be moving toward the fruit. We've had an increasing problem with these insects over the past few years – this may be due to the SWD sprays and the loss of beneficials – hard to tell but the timing of the scale problem is curious.
- Scout now for cranberry fruitworm eggs. Two sprays are generally required to control this pest one at petal fall and then 10 days later (about 2 weeks prior to harvest). Many chemicals will control this pest and also provide control for leafrollers, leafhoppers and even blueberry maggot although the timing isn't right for the 1st spray. Dipel is a good choice for organic growers but timing needs to be perfect.



Top: Blueberry plants killed by extensive tunneling from voles. Lower left: Vole trails in grass aisle of blueberry planting. Lower right: Vole hole in mulch under blueberry plants. Photos: L. McDermott

continued on next page

 The most significant pest so far is VOLES! 90% of the blueberry plantings have extensive vole damage – to the point of causing plant death.

# -Strawberries-

- Strawberry season for the most part is going well. Some growers report that size is below average, and that many cultivars of June berries did not send out many flowers. Some possible reasons for this include a very long winter especially for those plants that are underneath straw mulch. If you covered your plants in late November and then didn't take straw off until early April that's 4 months of darkness for plants that don't go fully dormant. This long dark period could actually hurt berries especially if they don't go into the winter with plenty of carbohydrates in the crown. Take stock of your planting and methods. Don't just do things because 'that's always how you do it'. Consider trying different approaches to winter protection this season.
- Sap beetles abound! Use Assail or Brigade apply
  with lots of water (100-300 gallons) to insure good
  spray coverage. These insects have become a very big
  problem in many eastern NY fields.
- Last newsletter I reported seeing very few tarnished plant bugs – and then I had a bunch of calls! This insect feeds on bloom and fruit and causes 'button berry' that is similar – but not identical, to the

- damage caused by poor pollination or cold damage.
- Cyclamen mites have been reported to be a huge problem for many growers in the northeast. I haven't actually seen much damage this year but if you think you have this pest give me a call. Beneficial mites have worked VERY well in many plantings. But if you have a persistent issue consider control after renovation with 2 sprays Portal and Agri-Mek are labeled. Portal right after mowing followed by Agri-Mek 7-10 days later. Spray early in the day before it gets too hot. Add oil to the tank and if it's very hot don't spray at all.

## —Brambles—

- Be on the lookout for Fireblight in brambles. Gien that there is so much inoculum in the environment, and this disease tends to like warm temperatures with the occasional light rain – we might actually see this pest. The cane tips becom e brownish black and curve downward in the characteristic shepherd's crook. Cane lesions can produce a lot of bacterial ooze.
- Scout for spider mites, orange rust and cane borers.
- Cane diseases may (hopefully!!) not be as prevalent due to the lack of moisture. That being said we had verticillium confirmed in raspberries this week.
- Early onset of **SWD** is the big concern for summer

raspberries. Consider stripping lower 12-18" of canes to help dry out planting, and improve insecticide penetration. Keep up with results of monitoring. We have traps in almost every county in the region.

Monitoring is one of the most important things you can do to control SWD – you need to know when they are there in order to control them! Trap placement will also help you trap the first insects: Place the trap in the shade of the





Strawberry on left has damage caused by Tarnished plant bug. Strawberry in the middle (left of right photo) has damage caused by poor pollination. The fruit on the right is misshapen because of winter damage.

All photos by H. Burrack. Source: NC State



This season, CCE ENYCHP will be offering text updates straight to your phoneOur texts will get you the information you need in the fastest and most concise way possible! Only the most important crop alerts will be sent ("Late Blight found in N.Columbia County", for example), and you can choose to receive updates on whichever commodities you wish- Vegetables, Berries, Grapes, or Ag. Business.

#### **CLICK HERE TO SIGN UP FOR OUR CCE ENYCHP TEXT ALERTS!**

Or text your name and cell phone carrier (Verizon, AT&T, etc.) to 518-450-3156

June 2018 - Labeled Insecticides for Control of Spotted Wing Drosophila in New York Berry Crops - Quick Guide Compiled by Greg Loeb, Laura McDermott, Peter Jentsch & Juliet Carroll, Cornell University. Updated regularly.

# **BLUEBERRIES**

PRODUCT	AI¹	IRAC group <sup>2</sup>	EPA#	Rate/A	REI3	DTH <sup>4</sup>	Max. Prod/A/yr (ai)	Total applic's	Spray Interval	Probable efficacy
^@Entrust Naturalyte (2ee) <sup>a</sup>	spinosad	5	62719-282	1.25-2 oz	4 hr	3 d	9 oz (0.45 lb)	3 per crop	> 6 d	Good to Excellent#
^@Entrust SC <sup>a</sup>	spinosad	5	62719-621	4-6 fl oz	4 hr	1 d	29 fl oz (0.45 lb)	3 per crop	> 6 d	Good to Excellent <sup>#</sup>
@Delegate WG	spinetoram	5	62719-541	3-6 oz	4 hr	3 d	19.5 oz (0.305 lb)	6	> 6 d	Excellent#
@Delegate WG (suppl. label)	spinetoram	5	62719-541	3-6 oz	4 hr	1 d	17.9 oz (0.281 lb)	3	6 d (1st-2nd) 12 d (3st-4th)	Excellent#
*Exirel	cyazypyr	28	352-859	13.5-20.5 fl oz	12 hr	3 d	61.5 fl oz (0.4 lb)	3	> 5 d	Excellent
*Brigade WSB (2ee)	bifenthrin	3A	279-3108	5.3-16 oz	12 hr	1 d	5 lb (0.5 lb)	ē	> 7 d	Excellent
*Danitol 2.4EC	fenpropathrin	3A	59639-35	16 fl oz	24 hr	3 d	32 fl oz (0.6 lb)	2	-	Excellent
*Mustang Maxx Insecticide	zeta-cypermethrin	3A	279-3426	4 fl oz	12 hr	1 d	24 fl oz (0.15 lb)	6	> 7 d	Excellent
^Pyganic EC 1.4	pyrethrin	3A	1021-1771	1 pt-2 qts	12 hr	0 d	-	-	-	Fair to Poor
^Pyganic EC 5.0	pyrethrin	3A	1021-1772	4.5-18 fl oz	12 hr	0 d	-			Fair to Poor
Assail 30SG (2ee)	acetamiprid	4A	8033-36- 70506	4.5-5.3 oz	12 hr	1 d	26.7 oz (0.5 lb)	5	> 7 d	Good#
*Lannate SP	methomyl	1A	352-342	0.5-1 lb	48 hr	3 d	4 lb (3.6 lb)	4	> 5-7 d	Excellent
*Lannate VP	methomyl	1A	352-384	1.5-3 pts	48 hr	3 d	12 pts (3.6 lb)	4	> 5-7 d	Excellent
*Imidan 70W	phosmet	1B	10163-169	1.33 lb	24 hr	3 d	7.125 lb (5.0 lb)	5		Excellent
Malathion 5EC (2ee)	malathion	1B	19713-217	2 pts	12 hr	1 d	6 pts (3.75 lb)	3	> 5 d	Good
Malathion 8 Aquamul (2ee)	malathion	1B	34704-474	2.5 pts	12 hr	1 d	3.75 pts (3.75 lb)	1	> 5 d	Good
Malathion 57 (2ee)	malathion	1B	67760-40- 53883	2 pts	12 hr	1 d	6 pts (3.75 lb)	3	> 5 d	Good
^AzaSol	azadirachtin	UN	81899-4	6 oz in 50 gal	4 hr	0 d	-	-	-	Fair to Poor
^Grandevo	Chromobacterium subtsugae strain PRAA4- 1 and spent fermentation media	UN	84059-27	2-3 lb	4 hr	0 d	-		≤ 7 d	Fair <sup>#</sup>
^Venerate XC	Burkholderia spp. strain A396 and spent fermentation media	UN	84059-14	2-4 qts	4 hr	0 d	-	-	≤ 7 d	Poor

<sup>&</sup>lt;sup>a</sup> In organic production, Entrust must be rotated with different IRAC insecticides, consider Grandevo or products containing the Al's azadirachtin or pyrethrin.

<sup>\*</sup>Refer to label for details and additional restrictions.

<sup>\*</sup>Adding sugar (sucrose) at 2 lb/100 gal water as a feeding stimulant will increase efficacy.

Approved for organic use in NY.

<sup>@</sup>After two consecutive applications must rotate to different mode of action.

<sup>&</sup>lt;sup>1</sup> Active Ingredient.

<sup>&</sup>lt;sup>2</sup> Mode of Action, based on IRAC group code (UN = unknown).

<sup>3</sup> Re-entry Interval (hr = hours).

<sup>4</sup> Days to Harvest (d = days).

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# RASPBERRIES & BLACKBERRIES

PRODUCT	AI¹	IRAC group <sup>2</sup>	EPA#	RATE/A	REI <sup>3</sup>	DTH <sup>4</sup>	Max. Prod/A/yr (ai)	Total applic's	Spray Interval	Probable efficacy
^@Entrust Naturalyte (2ee) <sup>a</sup>	spinosad	5	62719-282	1.25-2 oz	4 hr	1 d	9 oz (0.45 lb)	3 per crop	> 6 d	Good to Excellent <sup>#</sup>
<sup>^@</sup> Entrust SC (2ee) <sup>a</sup>	spinosad	5	62719-621	4-6 fl oz	4 hr	1 d	29 fl oz (0.45 lb)	3 per crop	> 6 d	Good to Excellent#
<sup>@</sup> Delegate WG	spinetoram	5	62719-541	3-6 oz	4 hr	1 d	19.5 oz (0.305 lb)	6	> 4 d	Excellent#
*Brigade WSB (2ee)	bifenthrin	3A	279-3108	8-16 oz	12 hr	3 d	2 lb (0.2 lb)	1 post bloom	64	Excellent
*Brigade EC (2ee)	bifenthrin	3A	279-3313	3.2-6.4 fl oz	12 hr	3 d	12.8 fl oz (0.2 lb)	1 post bloom	8.5	Excellent
*Danitol 2.4EC	fenpropathrin	3A	59639-35	16 fl oz	24 hr	3 d	32 fl oz (0.6 lb)	2	-	Excellent
*Mustang Maxx Insecticide	zeta-cypermethrin	3A	279-3426	4 fl oz	12 hr	1 d	24 fl oz (0.15 lb)	6	> 7 d	Excellent
^Pyganic EC 1.4	pyrethrin	3A	1021-1771	1 pt-2 qts	12 hr	0 d	-		-	Fair to Poor
^Pyganic EC 5.0	pyrethrin	3A	1021-1772	4.5-18 fl oz	12 hr	0 d	-	-	ı.	Fair to Poor
Assail 30SG (2ee)	acetamiprid	4A	8033-36- 70506	4.5-5.3 oz	12 hr	1 d	26.7 oz (0.5 lb)	5	> 7 d	Good#
Malathion 5EC (2ee)	malathion	1B	19713-217	3 pts	12 hr	1 d	9 pts (6.0 lb)	3	> 7 d	Good
Malathion 8 Aquamul (2ee)	malathion	1B	34704-474	2 pts	12 hr	1 d	6 pts (6.0 lb)	3	> 7 d	Good
Malathion 57 (2ee)	malathion	1B	67760-40- 53883	3 pts	12 hr	1 d	9 pts (6.0 lb)	3	> 7 d	Good
^AzaSol		UN	81899-4	6 oz in 50 gal	4 hr	0 d	-		-	Fair to Poor
Molt-X	azadirachtin	UN	68539-11	10 oz in 50 gal	4 hr	0 d	-	-	-	Fair to Poor
^Grandevo	Chromobacterium subtsugae strain PRAA4-1 and spent fermentation media	UN	84059-27	2-3 lb	4 hr	0 d		-	≤7 d	Fair to Poor#
^Venerate XC	Burkholderia spp. strain A396 and spent fermentation media	UN	84059-14	1-4 qts	4 hr	0 d	-	-	≤ 7 d	Poor

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<sup>\*</sup>Adding sugar (sucrose) at 2 lb/100 gal water as a feeding stimulant will increase efficacy.

<sup>^</sup>Approved for organic use in NY.

<sup>@</sup>After two consecutive applications must rotate to different mode of action.

<sup>&</sup>lt;sup>1</sup> Active Ingredient.

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STRAWBERRIES										
PRODUCT	AI <sup>1</sup>	IRAC group <sup>2</sup>	EPA#	RATE/A	REI <sup>3</sup>	DTH <sup>4</sup>	Max. Prod/A/yr (ai)	Total applic's	Spray Interval	Probable efficacy
^@Entrust Naturalyte (2ee) <sup>a</sup>	spinosad	5	62719-282	1.25-2 oz	4 hr	1 d	9 oz (0.45 lb)	5	> 5 d	Good to Excellent <sup>#</sup>
^@Entrust SC (2ee) <sup>a</sup>	spinosad	5	62719-621	4-6 fl oz	4 hr	1 d	29 fl oz (0.45 lb)	5	> 5 d	Good to Excellent#
@Radiant	spinetoram	5	62719-545	6-10 fl oz	4 hr	1 d	39 fl oz (0.305 lb)	5	> 3 d	Excellent#
*Exirel	cyazypyr	28	352-859	13.5-20.5 fl oz	12 hr	1 d	61.5 fl oz (0.4 lb)	3	> 7 d	Excellent
*Brigade WSB (2ee)	bifenthrin	3A	279-3108	8-16 oz	12 hr	0 d	5 lb (0.5 lb)	-	> 7 d	Excellent
*Danitol 2.4EC	fenpropathrin	3A	59639-35	16-21.3 fl oz	24 hr	2 d	42.7 fl oz (0.8 lb)	2	-	Excellent
^Pyganic EC 1.4	pyrethrin	3A	1021-1771	1 pt-2 qts	12 hr	0 <b>d</b>	-	-		Fair to Poor
^Pyganic EC 5.0	pyrethrin	3A	1021-1772	4.5-18 fl oz	12 hr	0 d	.=	5	-	Fair to Poor
Assail 30SG (2ee)	acetamiprid	4A	8033-36- 70506	4.0-6.9 oz	12 hr	1 d	13.8 oz (0.26 lb)	2	> 7 d	Good#
Malathion 5EC (2ee)	malathion	1B	19713-217	3.2 pts	12 hr	3 d	12.8 pts (8 lb)	4	> 7 d	Good
Malathion 8 Aquamul (2ee)	malathion	1B	34704-474	2 pts	12 hr	3 d	8 pts (8 lb)	4	> 7 d	Good
Malathion 57 (2ee)	malathion	1B	67760-40- 53883	3.2 pts	12 hr	3 d	12.8 pts (8 lb)	4	> 7 d	Good
^AzaSol	azadirachtin	UN	81899-4	6 oz in 50 gal	4 hr	0 d	-	-	-	Fair to Poor
^Grandevo	Chromobacterium subtsugae strain PRAA4-1 and spent fermentation media	UN	84059-27	2-3 lb	4 hr	0 d	-	-	≤7 d	Fair to Poor#
^Venerate XC	Burkholderia spp. strain A396 and spent fermentation media	UN	84059-14	2-4 qts	4 hr	0 d	-	-	≤7 d	Poor

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<sup>^</sup>Approved for organic use in NY.

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<sup>4</sup> Days to Harvest (d = days).

# —For Your Information—

 Looking for JEWEL strawberries for fruit characteristic study

Dr. Marvin Pritts at Cornell University – along with his grad student Anya Osatuke, are conducting a project looking at the sensory characteristics of strawberries. For an exchange of just 2 quarts of berries and answering a short questionnaire, you will receive an analysis of your strawberries sugar content, acidity and aromatic profile. This very specific information could be used in marketing and informing your customers of the benefits of eating local berries. Please help with this work! Contact Laura McDermott – 518-791-5038 if you are interested.

 New SWD Management Guideline for Organic Berry Crops

This guideline will help all growers regardless of their overall management system. It's a result of a multistate research project. Very timely for 2018! Be advised that some of the pesticide recommendations may not jive exactly with what NYS allows. So cross check with



the Pesticide tables included in this edition to make sure.

• <u>Visualize the US Blueberry industry using a series of</u> charts – Fascinating!

In this 'in charts' mini-series of articles, Colin Fain of data visualization tool Agronometrics illustrates how the U.S. market is evolving. In each series, he will look at a different fruit commodity, focusing on a different origin in each installment to see what factors are driving change.



New York State Berry Grower Association Members
 Sign up NOW for your FREE Social Media
 Consultation!!!



Robin Catalano is the NYSBGA communications manager that has been a digital marketing and social media professional for more than a dozen years. Your paid membership entitles you to an

hour consult with Robin. Get one of your digitally savvy employees to talk to her! You don't even have to know what Instagram is – but there are thousands of future and current customers that DO KNOW what it is – and that's how they communicate. Take advantage of this opportunity. Email Robin at nysbga@gmail.com.

• Spotted Lanternfly – a possible threat to berry crops

Penn State's Emelie Swackhamer is on the front lines of research, outreach and education re: the Spotted Lanternfly. This invasive pest is presently contained in southeast PA – and if you watch this 30 minute presentation you will understand why the imperative is on containment. Visit the NYS IPM programs

Invasives & Exotics
page, then scroll about 1/3 of the way down the page and look for the link that says



Spotted Lanternfly Video.

NEW FACT SHEET ON PACKSHED FLOORS

http://go.uvm.edu/floors is a blog post all about floors with produce safety in mind. Also available as PDF/print fact sheet at: http://blog.uvm.edu/cwcallah/files/2018/05/UVM-Ext-Floors-Fact-Sheet-v1.0-2018-06-05.pdf

# Calendar of Events

#### July 12, 2018 – FSMA Training

Cornell Cooperative Extension, Albany County – Voorheesville, NY. More information to follow. Questions? Call Laura McDermott, 518-746-2562



### July 18, 2018 - New York Soil Health Summit

Empire State Plaza, Downtown Albany, NY. For more information at this time, contact David Wolfe (dww5@cornell.edu) or Aaron Ristow (ajr229@cornell.edu).

# July 31, 2018 – Reduced Tillage in Organic Systems Field Day,

9:00am-3:00pm, 48 Sayward Lane, Willsboro, NY 12996



### August 14, 15, 2018 NASGA Summer Tour

Watsonville, California

www.nasga.org

This year's summer tour will take place in northern California. We plan to visit progressive growers and marketers in the Watsonville area as well touring low elevation nurseries near Manteca and Turlock. Along the way we will take in other agriculture ventures. In California the options are endless.

#### November 6-9, 2018 NASGA European Tour

Amsterdam, Netherlands

www.nasga.org

**November 6-9, 2018 - NASGA European Tour** Amsterdam, Netherlands www.nasga.org

December 4-6, 2018 - Great Lakes Expo, Grand Rapids, MI

January 9-11, 2019 - NARBA Annual Conference, Savannah, GA

**January 28-31, 2019 - Mid Atlantic Fruit and Vegetable Convention**: (Berry Tunnel workshop Jan. 28th)

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**20 Minute Ag Manager:** June 26—Using On-line Data and Maps to Assess a Property Remotely All webinars run from 12:00-12:30pm To register, go to <a href="https://tinyurl.com/y9gfqbmx">https://tinyurl.com/y9gfqbmx</a>.



<u>Previous 20 Minute Ag. Manager sessions area now available on our ENYCHP YouTube—</u> Learn the highlights in just 5 minutes!