



# FRUIT NOTES

## Lake Ontario Fruit Program



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### Be Aware of Child Labor Laws

A. De Marree

Please do not allow children to come to work with their parents! Everyone working on your farm must be an employee! Some brief reminders on child labor laws;

- 12 & 13 year olds restricted to hand harvest of fruits & vegetables 4 hours or less per day 7 am to 7pm 6/21 – Labor Day, 9am – 4pm day after Labor Day until 6/20
- Minors under the age of 16 need working papers. Keep a copy of all working papers in your file
- Date of birth of individuals employed at the youth rate; and, for minors under 17 years of age, the name and address of the minor's parent or guardian & Parent's signature needed on some forms
- 14–15 years old need tractor and equipment operating certificate if they are operating a 20 hp tractor, certification is also required for other equipment operation
- Be aware of "Hazardous jobs" those under 16 are NOT allowed to do – this includes spraying, handling pesticides (classified under the Federal Insecticide, Fungicide, and Rodenticide Act ( 7 U.S.C. 135 *et seq.*) as Category I of toxicity, identified by the word "poison" and the "skull and crossbones" on the label; or Category II of toxicity, identified by the word "warning" on the label), using a chainsaw, operating from a ladder at 20 ft of height, connecting equipment to a PTO, forklifts, post hole diggers, circular saws, riding on a tractor as a passenger or helper, Working inside: (1) a fruit, forage, or grain storage designed to retain an oxygen deficient or toxic atmosphere.
- Be aware of Workers Comp Law – your account could be paying for person's lifetime if injury causes percent loss of full use / range of motion

### FDA Steps Up Outreach on the Proposed Produce Safety Rule

Submitted by Craig Kahlke

July 15, 2013- FDA is expanding its outreach to small- and medium-size growers to address questions that have arisen since the proposed rule was issued in January 2013. According to Michael Taylor, Deputy Commissioner for Foods and Veterinary Medicine, FDA expects and welcomes questions that arise during the rulemaking process. In a [new interview](#), he emphasizes that FDA is committed to developing, with input, a final rule that prevents illnesses but that also is practical and adaptable to a wide diversity of growing conditions and practices. As part of the expanded outreach, FDA is issuing several new publications focusing on key issues such as agricultural water and alternatives and variances to certain provisions in the proposed rule. FDA will work through a network of key stakeholder organizations to publicize the materials. The materials will appear on a new "Resources for Farmers" section on the [FSMA Proposed Rule for Produce Safety page](#).



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Engagement with stakeholders has been, and will continue to be, a priority for FDA, and the Agency is planning additional outreach, including targeted outreach on specific areas such as agricultural water that continue to generate questions.

Comments on the proposed rule are **due by September 16** and can be submitted on [regulations.gov](http://www.regulations.gov).

Following are the new materials available:

- [Interview with Michael Taylor, Deputy Commissioner for Foods and Veterinary Medicine](#)
- [Fact sheet on Agricultural Water and Diagram: Subpart E](#)
- [Fact sheet on Alternatives and Variances](#)
- [Commodities Related to Outbreaks Change Frequently](#)

Additional materials are being developed, including materials regarding mixed-type facilities, and will be posted to the new “Resources for Farmers” section referenced above.

## **Spotted Wing Drosophila Update**

D. Breth

Julie Carroll reported last week, a single male spotted wing drosophila (SWD) was found in a trap in Sodus set in day neutral strawberries. One trap set on the edge of the sweet cherry block in Sodus close to the lake caught a single male SWD. The number of spotted wing Drosophila adults captured in traps in Ontario County being monitored by Greg Loeb's lab, as of July 16 have been increasing. All of these have been in small fruit. This is a likely trend toward more problems in August in Western NY. Debbie's traps in berries in Monroe, Orleans, and Niagara through last week have not detected any SWD in traps but she expects flight to follow the Sodus counts soon but they were just collected today and it takes a few days to sort through the traps. The New York State Department of Environmental Conservation recently approved the following 2(ee) recommendations for Lannate LV Insecticide (EPA Reg. No. 352-384) and Lannate SP

Insecticide (EPA Reg. No. 352-342) for control of spotted wing drosophila on blueberries. (Note that both products are restricted-use pesticides.) Note on some older insecticide tables, Delegate was listed with a 3 day PHI in raspberries but it is only 1 day PHI.

For your reference, a quick guide to the insecticides labeled and available for use against SWD in the following crops have been posted on the Cornell Fruit website:

### **Stone Fruits and Grapes**

<http://www.fruit.cornell.edu/spottedwing/pdfs/Tre eFruitGrapeSWDinsecticides2013.pdf>

### **Berry Crops**

<http://www.fruit.cornell.edu/spottedwing/pdfs/Up datedLabeled InsecticidesNY-SWD-Final.pdf>

## **Mite Management**

Peter Jentsch

The lack of rain and temperatures exceeding 90°F provides the European red mite (ERM) and two spotted spider mite populations' optimum conditions to build up in tree fruit orchards. Under these conditions, the time it takes for a mite egg to develop, and for immature mites to become adults can occur rapidly, in as little as 7 days. These

shortened intervals of development, relative to higher average temperature, typically leads to rapid mite development that may require management at this time.

The use of conventional fungicide and insecticide tools in pome fruit management all too often

contributes to mite flare-ups. We have observed the use of multiple post-bloom applications of manzate substantially reduce populations of phytoseiid mites (the predatory mites that can keep European red mite (ERM) and two spotted spider mite (TSSM) in check). The use of pyrethroids this season, especially in controlling the 17-year cicada and brown marmorated stink bug in the Hudson Valley, will certainly contribute to the reductions of mite predators, including the phytoseiids and *Zetzellia mali*, a yellow predatory mite. If ERM and TSSM economic thresholds are exceeded, foliar feeding will reduce leaf photosynthesis leading to reduced fruit size, color, return bloom and set. Early season mite injury (before July 1) is more severe on trees than late-season injury. Apple trees "increase in tolerance" as the season progresses, so to speak, and continue to create more leaf surface area for carbohydrate production, so progressively higher mite populations can be tolerated later into the season. So, now as we approach August, the European red mite threshold increases from 5 to 7.5 mites per leaf. Research conducted by Nyrop and Reissig found that cumulative mite day values of 750 to 1000, which accumulated after June 15, were observed to produce no measurable effect on yield or fruit quality during the year damage occurred or during the following year. (A mite day is the cumulative measure of mite density through time; one mite on a leaf for ten days yields ten mite days as does ten mites on a leaf for one day). Furthermore, no effect of mite injury was found when this level of mite feeding was sustained for two years on the same trees. A cumulative mite day measurement of 750 CMD through the season produced slight but noticeable leaf damage or bronzing. It also corresponds to a peak mite density of approximately 30 mites per leaf. In other words, trees can tolerate noticeable bronzing and relatively high populations, especially during in the later part of the season, with little to no impact on yield, return bloom, or fruit quality.

If management is required, then the choice of miticides becomes the issue as mites begin to build. We've had a few new miticide registrations in NYS over the past 10 years, such as Kanemite 15SC and Portal 0.4EC. Both of these materials target the mitochondrial electron transport system (METI) that

inhibits cellular respiration (as does Nexter). This new chemistry should be limited to one application/year to reduce the potential for the development of resistance to this group. These products have activity against all motile stages of mites (larvae, nymphs, and adults) but lack activity against the egg. In field observations, it has become apparent that the efficacy of these miticides relies heavily on contact exposure with building populations, a difficult task given the amount of foliage on the trees by late July.

We often see a shift in mite populations this time of year, from ERM to TSSM. Remember that TSSM causes higher levels of damage than ERM and the use of more conservative threshold levels should be employed. We presently have no less than 10 miticides plus a number of highly refined horticultural oils to work with on apple. However, Kanemite, Nexter, and Portal, only one of which should be used one time during a season, are METI based modes of action. Onager and Savey have the same active ingredient, and the same mode of action as Apollo, and are limited to one application per season. So realistically, we only have the option of 6 miticides for mite management if we adhere to resistance management guidelines.

In a study conducted on a running ERM population, we trialed 10 miticides 5-days after petal fall on 16-year old Red Delicious. Pre-treatment populations averaged 4.7 ERM adults/leaf on 19 May. Single application handgun treatments delivering approximately 400 GPA were applied to drip. Given the results of this study, Onager 1EC, Zeal 72WS, Savey 50DF and Agri-Mek + oil performed well, maintaining low CMDs up to mid-July. The lackluster performance of Nexter was attributed to high water pH, measured post-application to be 8.2, obviously critical to Nexter's efficacy. Envidor, followed by Acramite, Danitol and 1% Damoil reduced populations compared with the untreated controls. Carzol, not labeled post-petal fall, performed poorly.

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## **Fruit Worms?**

D. Breth

Codling moth second generation has begun to hatch; we have reached the 1260DD 50F since biofix as of Monday, Jul. 29. This is a critical timing for those who have an average population of CM and required 2 sprays for 2<sup>nd</sup> generation. Those of you who consistently have trap catches over 10 moths per week need to remain on a 2 week spray schedule. For those of you with low populations, be

sure to have an insecticide for codling moth and apple maggot on by the end of this week.

Oriental fruit moth numbers are generally low for this week.

Apple maggot are flying in low numbers, but in infested orchards with AM noted in fruit last seasonal, maintain insecticide protection through August 15.

## **Winter Meeting Planning Already!**

**Can you believe it?** It is already the season for planning winter educational programs including the Empire State Producers EXPO for 2014 and the CCE-Lake Ontario Winter Fruit Schools and any topics you might want for more In-Depth Workshops. We are interested in hearing your ideas for these

events. Please email [dib1@cornell.edu](mailto:dib1@cornell.edu) or feel free to call any of the fruit team with your ideas. We know it is early, but it all takes time to line up the right speakers. We will also be gathering ideas at the next LOF advisory meeting planned for Aug 13, 9:30 AM – 2:30 PM at Monroe Co CCE.

## **Save the Dates**

**August 6 – Cornell University Storage Workshop, Ithaca. Full program and registration in issue 15.  
DEC has approved 5.5 credits in each of the categories 1a; 1d; 10; 22**