



“Fruit Facts” – Friday, September 3, 2021

Fruit Facts winding down for the season.

We will continue to provide information in Fruit Facts issues as applicable. However, as we move into the harvest season, IPM and horticulture notes may be more sporadic. Have a good harvest season!

IPM Notes...Janet van Zoeren

Brown marmorated stink bug is in our orchards. Based on our trap counts, some locations are well over the threshold of 10 adults cumulative per trap already. At one location, 17 adult stink bugs have been trapped so far this year. At other locations we have not yet trapped any. This underlines the need to monitor in your own orchard blocks! I recommend using the commercially-available “dual” BMSB lure, and either the clear sticky panel trap or the black pyramid trap.

As mentioned earlier, the recommended application threshold is when 10 adults cumulative have been trapped (using either trap method). Later in the season, as fruit comes off the trees, it will be less necessary to control BMSB; this early on they will still cause significant damage if allowed to feed on your fruit, especially if your fruit is going into storage for any period of time.

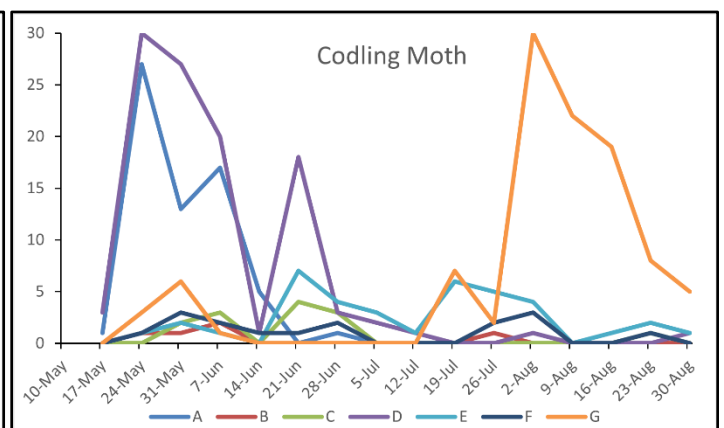
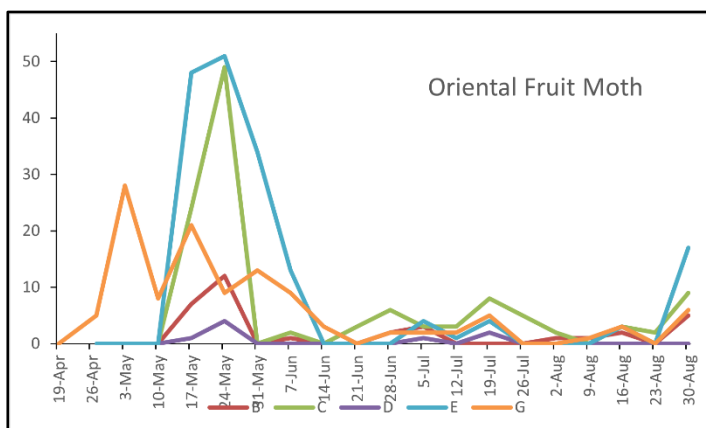
Three **Bifenthrin** products have now been approved by the EPA under the Section 18 Emergency Exemption for use to control **brown marmorated stink bug**. These products are **Bifenture 10DF** (EPA Reg. No. 70506-227), **Bifenture EC** (EPA Reg. No. 70506-57), and **Brigade WSB** (EPA Reg. No. 279-3108). Specifically, these Bifenthrin products can be used to manage BMSB, from now through October 15th 2021, in apple, peach and nectarine crops. You must have a copy of the appropriate Section 18 exemption in your possession at the time of use. **Note that these have a 14 day PHI.**

In our region, it is permitted in Niagara, Monroe, Orleans and Wayne counties. In Oswego county, you will have to continue to rely on the moderately effective pyrethrins and neonicotinoids.

Oriental fruit moth third generation flight has begun, while codling moth third generation is finishing up. These may be worth controlling in orchards seeing high adult flight counts and/or beginning to see damage to fruit. As with previous generations, wait ~a week after moths begin to fly, to best target larval emergence.

Options for pome fruits include: Altacor (5 day PHI), Assail (7 day PHI), a B.t. (0 days), Delegate (7 day PHI), Exirel (3 day PHI), Besiege (21 day PHI), Minecto Pro (28 day PHI).

Options for stone fruits include: Altacor (10 day PHI), Assail (7 day PHI), a B.t. (0 days), Delegate (1 day for peaches; 7 days for plums), Exirel (3 day PHI), Besiege (14 day PHI), Minecto Pro (21 day PHI).



Lorsban (chlorpyrifos) Ban and Disposal. The DEC will allow possession, transport, storage or handling of open or closed containers of these products *for purposes of shipment out of state or for proper disposal* until February 1, 2022. The DEC is also working on providing CleanSweepNY disposal options – you can check the CleanSweepNY website, email info@cleansweepny.org or call 518-225-8146 for details. In addition, **please let me know if you do have large quantities of Lorsban to dispose of, as I can contact CleanSweepNY to request a local pickup if there will be need for it.**

Horticultural Notes...Mario Miranda Sazo

Recent Technologies to Improve Fruit Color: In addition to the adoption of fabric materials in our region, some innovative WNY apple growers have also conducted leaf pruning (manual) and applied plant growth regulators. A more recent development has been the purchase of pneumatic defoliation machines (prices around US\$40- 45k/machine) for improved fruit coloring by a few WNY fruit growers last season.

Leaf pruning (leaf stripping): Leaf pruning can precisely expose shaded fruit to sunlight for better fruit color before harvest. It is an effective but more expensive technique (US \$700-800/acre, or in some cases as much as US\$1,000/acre). It should be conducted from the base of the tree up to about 6-7ft above the ground (the tops of the trees should not be leaf pruned). We also recommend you stop leaf pruning at least 48 hours before the beginning of a period of hot temperatures. If you cannot wait, and you have the time and labor available for any type of leaf pruning, please consider conducting the pruning only on the east side of the canopy (assuming your rows are oriented North-South), to minimize any potential sunburn issues at the hottest time of the day. A more aggressive leaf pruning would be less detrimental if (1) it is coupled with an effective sunburn spray program, (2) it has at least targeted the east side of the tree rows, (3) it has been applied every 15-20 days, and (4) it was started in the middle or end of June.

A few growers have conducted leaf pruning on both sides of a single row. For this more intensive approach, growers leaf prune both sides of the rows at different timings, pruning first the east side and then the west side, 3-7 days apart. The time interval between leaf pruning for both sides of a single row depends on cultivar, canopy width, crop load distribution, and weather conditions.

Leaf removal machines: In 2019 WA growers were introduced for the first time to leaf removal machines that used air pressure to blow leaves for improved fruit coloring. Two machines were used at the orchard demos: one developed by German company Fruit Tec and the other developed by Italian company Olmi. Wine grape growers have used pneumatic defoliation for canopy control for years, but the bursts of air generated by those



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machines were not powerful enough to be effective in apple orchards, where the leaves have a stronger attachment. In 2019 and this season, a few WNY growers decided to invest in modern leaf removal machines to guarantee fruit coloring on high value apple cultivars. Removing leaves a few days before anticipated harvest can help to speed up the coloring process. Preliminary work done in WA orchards in 2019 showed promising results by removing leaves in the season at pre-harvest. The machines can be used up to 3 weeks before harvest, depending on variety and conditions, but more often it should be used closer to harvest, 5-10 days out. Leaf removal for Minnieska™ and Gala should be done around 5-8 days before harvest. Pneumatic machines for leaf removal are a lot faster than humans with hand pruners and can cover an orchard in

just 2-3 hours or less. There will be a lot more investigation and learning about the specific timings for pneumatic defoliation for important NY apple cultivars under our weather conditions.



Pneumatic leaf removal machine in action in a young Honeycrisp tree.

General considerations for summer pruning: Do as little cutting as possible when summer pruning. Always keep the objective in mind when pruning. If your objective is to improve light interception and fruit color, limit pruning to the removal of limbs and foliage that prevents light from reaching the fruit. Excess removal of foliage will weaken the tree and may harm the fruit's ability to mature. If your objective is to contain tree size, cut back to weak side limbs or fruiting spurs just as you would in the winter on those same branches. Don't be afraid to remove some apples. Remember that if you are making the proper cut for color there will be better apples underneath.

Dry mid-summer period immediately after harvest is a great time to summer prune sweet cherries: Pruning should be done during dry periods which allow cuts to dry out or heal before rain. The key to pruning is to leave a 6-12 inches heading stub (no flush cuts!) to reduce the movement of bacteria into the trunk or main limbs and to leave vegetative buds for regrowth of a new branch. Research done at Geneva showed that pruning cherries after harvest during dry, summer weather significantly reduced the likelihood of bacterial canker infections. It found that copper applied immediately before and after pruning did not reduce bacterial canker infections, (2) Cherry trees generally are so vigorous that removal of some wood does not affect carbohydrate accumulation for the winter and following season, (3) judicious summer pruning can improve the light environment within the tree strengthening fruit buds and possibly improving next year's bloom and fruit set. Research done in the west has shown that summer pruning reduced the overall vigor of the tree but did not affect subsequent yield or fruit size. This means that summer pruning is especially beneficial for **overly vigorous trees**. At this time it is easy to see bacterial canker infections that can be easily removed potentially reducing the potential for infections next spring. Immediately post-harvest is also the very best time to **reduce tree height**. Large cuts made in the tree top result in very little regrowth and any resulting winter injury has very little impact on the health of the tree. A single large cut at the desired tree height can contain tree height for up to 3 years.

The style of summer pruning used depends on sweet cherry tree architecture: Dormant cuts made into 1 year old wood generally result in the production of 3 new shoots. Usually 2 are laterally placed (flat) while the third is upright. Simply removing the upright will sufficiently open the tree and allow much improved light penetration to the interior fruiting wood. Allowing a small stub to remain can increase the number of cherries since fruit buds generally form at the base of one year old wood. Leaving stubs might be an excellent practice for shy bearing varieties such as Regina, Ulster, and Attika. Shoots should be completely removed on cherries that bear excessively such as Whitegold, Rainier, and Sweetheart. Another reason to leave stubs is to limit the potential spread of bacterial canker on extremely susceptible varieties.

Every effort has been made to provide correct, complete, and up-to-date pesticide recommendations. Nevertheless, changes in pesticide regulations occur constantly, and human errors are still possible. These recommendations are not a substitute for pesticide labeling. Please read the label before applying any pesticide. Copyright 2021. All rights reserved. No part of this material may be reproduced or redistributed by any means without permission. Cornell Cooperative Extension provides equal program and employment opportunities.

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