Berry Bulletin 2016

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June-bearing strawberries: Harvest is winding down across most of Ontario (except northern Ontario), and growers have begun the renovation process. Small berries and low yields have been a problem in some areas. Dr. Adam Dale tells us that hot weather before bloom, or shortly after, when cells are dividing, can reduce fruit size. Even growers with good irrigation programs were disappointed in berry size in some areas. Valley Sunset saved the day for some, this late large fruited berry is a bit soft but great for on-farm markets and pick-your-own. I am interested in your comments on the super-late variety Mawina.

In new non-bearing plantings make sure that you control aphids. There is no point in going in later to control aphids that have already spread virus to your new plants. There is a very low tolerance for aphids in new fields – check at least 50 leaves per week – look at the newest growth. Apply an aphicide every 2 weeks or so, or sooner if populations are around 15 aphids on 60 leaves (1 in 4). My observation is that aphids are increasing this week in vigorously growing plantings. Make sure you are getting good spray coverage. Aphid counts should drop to ZERO after a spray.

Potato leafhopper is also present in many fields and causing yellowing and leaf curl. Choose a product that will control both aphids and leafhoppers in new plantings, such as Sivanto Prime, Assail, Admire (foliar rate) Cygon or Lagon. Do not use Group 4 insecticides such as Assail or Admire if you already used Admire at the high rate.

Renovation tips for dry weather- Map areas where cyclamen mite was a problem so you can come back to these after mowing. Mow plants fairly high above the crown – this helps them recover more quickly and is especially important for the variety Jewel. Use tough herbicides like Lontrel for problem weeds like vetch, sheep sorrel, thistles, and other weeds in the daisy or smartweed families. Spot treatment of the problem area, rather than broadcast application, will reduce plant stress overall.

Herbicides can have variable effects in hot dry weather. To reduce risk of plant injury, avoid application to strawberries when temperatures are over 25 C. Sinbar should not be applied in close sequence with grass herbicides (such as Venture, Poast) or Lontrel or 2-4,D. Wait 10-14 days between applications of these products. Herbicides such as Sinbar or Devrinol, used for pre-emergent weed control, require 1-2 cm rain or irrigation following application.

Day-neutral strawberries: Harvest of new plantings is beginning. High temperatures are expected to have a negative n effect on return bloom in day neutrals. Evaporative cooling- which is overhead irrigation for short periods of time- could



help keep plants cooler, and at optimum temperature or flower bud initiation. Evaporative cooling however, brings an added risk of disease.

With recent rains I expect to see anthracnose showing up on ripe fruit. This disease is easily spread by splashing rain. Powdery mildew pressure has been low due to extreme dry weather, but pressure will increase with rain or high humidity. Use a variety of fungicides to combat these diseases, choosing products from different families and always including something for anthracnose. Captan, Maestro, Thiram, Switch, when used for Botrytis, will help to control anthracnose as well.

Also on day neutrals, scout weekly for tarnished plant bug, spider mites and thrips. Pressure from tarnished plant bug has been low but this pest can cause a lot of damage quickly. Spider mites are becoming a problem in some areas. Try to keep ripe fruit picked clean and often and delay SWD sprays for a week or so in day neutrals.

Summer red raspberry: Harvest is in full swing and fruit is maturing quickly. Spotted wing drosophila could be a problem in raspberries, especially in southern Ontario, so if you can't harvest cleanly every 1-2 days, take time to apply an insecticide with a short preharvest interval. Canes are collapsing in some fields, especially where dry soils, nematodes, crown borer or winter damage have caused stress to plants. If you can tug affected canes out from the ground with little effort, you might have crown borer. Postharvest summer sprays are required for this pest.

Fall-bearing raspberries: Spotted wing drosophila has been detected in the early fruit at the base of the cane. If you are not harvesting fall-bearing varieties because volumes are too small, try to strip off the lower fruit that comes before the main crop. Watch for two spotted spider mite and potato leafhopper damage in fall raspberries. Kanemite, and Acramite, are fast-acting miticides registered on raspberries.



Yellowing and leaf curl from potato leafhopper on raspberries



Leafhoppers on lower leaf surface Photo credits: Denise Beaton, OMAFRA

Blueberries: Growers are harvesting early varieties, or will be soon. In southern Ontario it is time to start controlling spotted wing drosophila. Managing preharvest intervals can be difficult in blueberries, spraying blocks of varieties at different times can help, so get a pre-pick spray on later varieties while you are harvesting Duke. Japanese beetles are increasing in number. Exirel insecticide should control both SWD and Japanese beetle.

Irrigation (by Rebecca Shortt): With the on-going hot and dry weather irrigators should make or review their contingency plan for water supplies. Make sure all irrigation water sources have a Permit to Take Water from the MOECC. Some creative options might include sharing water from a neighbouring pond. This can be done under the neighbour's Permit to Take Water as long as the neighbour gives permission and all takings combined respect the maximum volumes/rates of the Permit.

- Irrigation update-June 24
- How long should I run my drip lines

Dry weather (by OMAFRA): Farmers experiencing dry weather challenges can find feed, production and management information at OMAFRA. Visit <u>ontario.ca/agweatherissues</u>, or contact the Agricultural Information Contact Centre at 1-877-424-1300 or ag.info.omafra@ontario.ca

Spotted Wing Drosophila (SWD) update July 15, 2016

SWD numbers continue to increase. More sites are positive and more SWD are being trapped. This past week we have seen a big jump in SWD numbers in Essex County. So far our trap captures have been mostly in southern Ontario, but this past week we found the first trap capture in Durham region. Also, more SWD are being trapped in crops, not just the wild hosts around the farm.

We have trapped SWD in the following counties and regions: Essex, Kent, Middlesex, Oxford, Norfolk, Waterloo, Brant, Elgin, Haldimand, and Niagara and Durham regions.

Fruit which is ripening in these areas, and anywhere else in southern Ontario, is at risk for SWD damage. SWD should be managed by picking fruit early, thoroughly and often. Sweet cherries, sour cherries, raspberries and blueberries will be attractive to SWD at this time, as well as strawberries. A list of registered insecticides for SWD can be found here:

Ontario.ca\spotted wing - products registered for SWD. Weekly sprays will help keep SWD under control, and will be required blackberries, fall-bearing raspberries and day neutral strawberries later in the season.

During this early stage, as SWD populations begin to ramp up, there are still many questions about when to start spraying. Salt water assessments of harvested fruit should be done routinely as an early warning of SWD problems.

In summer fruiting raspberries, growers have typically managed SWD with few problems by harvesting thoroughly every day or two. However, a pre-pick spray in late varieties may be required. A postharvest spray on raspberries is a good idea if fruit is left behind as you move from one variety (i.e. Prelude) to the next.

In fall bearing raspberries, SWD can build up on the early fruit at the base of the cane. If you are not harvesting this fruit, consider removing it or at least direct a nozzle to the base of the canes and start an insecticide program now on fall bearing varieties.

Blueberries are ripening. Apply a pre-harvest insecticide for SWD to later varieties now as you harvest Duke and early varieties. Exirel will control both SWD and Japanese beetle.

Strawberries should be mowed and renovated as soon as possible after harvest. Mowing strawberries will help fruit to dry up and make it less attractive to SWD. Growers who are renovating strawberries do not need to spray for SWD unless they have raspberries or blueberries or other susceptible fruit close by. Cygon or Lagon, when sprayed to control aphids in strawberries, is also toxic to SWD flies, and would be a good choice at renovation.

Table #1: Summary of Spotted Wing Drosophila (SWD) Trap Captures

Week traps collected	# Sites checked	# sites with SWD	# SWD trapped	Ave # SWD/trap	Counties where SWD was found	Crops where SWD was trapped
May 29 - June 4	7	0	0	0	_	_
June 5 - June 11	16	2	2	1.0	Essex, Niagara	wild hosts
June 12 - June 18	24	3	3	1.0	Kent, Elgin, Niagara	wild hosts, strawberries
June 19 - June 25	25	3	3	1.0	Essex, <mark>Middlesex</mark>	wild hosts, raspberries
June 26 - July 2	30	4	11	1.6	Essex, Kent, Brant, Elgin	wild hosts, strawberries, raspberries
July 3 - July 9*	29	9	27	1.8	Essex, Kent, Elgin, Middlesex, Norfolk, Oxford, Waterloo, Niagara	wild hosts, raspberries, peaches, cherries
Jul 10 – Jul 15 * (Data incomplete at this time)	24	15	88	3.7	Essex, Elgin, Middlesex, Norfolk, Brant, Oxford, Haldimand, Niagara, Durham	Wild hosts, blueberries, blackberries, raspberries, strawberries, peaches, cherries

- 2016 Registrations http://www.omafra.gov.on.ca/english/crops/facts/swd-registrations.htm
- Printable version: https://onfruit.files.wordpress.com/2016/06/registration-for-swd-june-2016.pdf

See www.Ontario.ca/spottedwing.

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