

Berry Bulletin 2019

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Strawberries: Day neutral harvest is just beginning in early areas. In new day-neutral plantings remove flower buds and bloom until there are 4-6 leaves present to help the young plants establish. Row-covered June bearing strawberries are in bloom and early green fruit can be found. Non-covered strawberries are beginning to bloom. Although it is a late season the crop is looking promising.

Insect activity has been fairly low until this point but seems to be increasing quickly this past week.

Tarnished plant bugs (TPB): nymph numbers are increasing in day neutrals and row-covered June bearing fields where there is a lot of bloom.

The threshold for control is approximately 1 nymph in 4 flower clusters. Options for control are group 3 insecticides (Mako, Matador, Decis), Rimon, or Beleaf for suppression only. If there is a high population of TPB suppression products will not provide adequate control. Some group 3 insecticides provide control of TPB and clipper weevil, but can be toxic to beneficial insects. Do not spray when bees are active.



Figure 1. Tarnished plant bug nymphs

Strawberry Aphids: Aphid numbers have increased this week.

If your strawberries are in bloom you can apply Beleaf. It is important to control aphids before the population increases and they begin to fly. Do not spray when bees are active. Apply a soil drench of Admire on new plantings after planting to control aphids and protect your fields from virus.

Mites: cyclamen mites have been found in fields where row covers were used.

Monitor your entire field for damage- work in new fields first before moving to older, potentially infested fields to reduce the risk of spreading mites. When spraying use a high-volume spray to get thorough coverage of the plant. If applying Agrimek include a non-ionic surfactant and do not apply in close succession with captan, maestro or bravo. Do not spray during bloom. See previous Bulletins for more information on managing cyclamen mites.

Disease: These wet conditions can lead to higher disease pressure, including botrytis, angular leaf spot, and leather rot.

Expect leather rot where there is not a thick layer of straw and blossoms and fruit are exposed to the soil. Cool spring conditions with frequent rainy periods are ideal for angular leaf spot. Check older leaves for angular leaf spot.



Figure 2. Angular leaf spot on lower leaf surface.

Quadris Top has been registered for control of powdery mildew and anthracnose. Check [ONfruit](#) for more information. **Pristine (7+11), Cabrio (11), Quadris Top (11+3), Diplomat (19) and Switch (9+12)** are also registered for control of anthracnose. Anthracnose resistance to group 11s has been identified in Ontario. Rotate the use of group 11s with different groups. Include broad-spectrum group M fungicides in your fungicide program for botrytis and anthracnose control and to contribute to resistance management. If bloom is present it is too late to apply **Chlorothalonil**, with a 30 day PHI (correction from Pub 360).

Blueberries: are in bloom in southern Ontario and in early bloom in other area.

Disease: Fungicides will be important for anthracnose and botrytis if there are rainy conditions during bloom. Use fungicides that control both botrytis and anthracnose- check page 96 in [Pub 360](#).

Insects: plan to spray for cranberry and cherry fruitworm at petal fall.

Nematodes: If any growers suspect they have nematode damage in their blueberries please let me know. I am working with AAFC nematologist Tahera Sultana to conduct a nematode survey across the province. Blueberries infected with plant-parasitic nematodes will be stunted and slow-growing. Nematodes can also spread virus to blueberries, including tobacco ringspot virus and tomato ringspot virus. If these symptoms seem familiar let me know.

Raspberries: flower clusters are present in fields across the province. Fall-bearing raspberry primocanes are 2 feet tall in early areas.

Disease: Apply Ferbam and Tanos when there is 25-30 cm of new growth, before first bloom. Good coverage is important.

Insects: watch for raspberry fruitworm and strawberry clipper weevil as flower buds develop. If there are no signs of beetles or leaf shredding an insecticide isn't needed until after bloom. Check the [CropIPM site](#) for more information on these pests.

Spotted Wing Drosophila: Malathion and Mako are now fully registered for suppression and control of SWD. These products were previously emergency use registrations. Check out the updated pre-harvest intervals and maximum number of applications:

Product	Crop	Max # of applications	Pre-harvest Interval
Malathion 85E Reg #: 8372 For suppression only	Blueberries	3	1 day <i>*Restricted entry interval is 2 days</i>
	Raspberries	2	1 day
	Strawberries	2	3 days
Mako Reg # 30316	Blueberries	2	2 days
	Raspberries	3	2 days
	Strawberries	3	2 days

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