

2018 Twilight Meeting Round-up

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This year OMAFRA held its two seasonal hop twilight meetings during the month of July. The eastern hop meeting was hosted by Valley Hops in Port Hope and the western hop meeting was hosted by Carolinian Hop Yard in Walsh. There was a good turnout with approximately 35 people attending the two meetings.

Melanie Filotas, OMAFRA Horticulture IPM Specialist and Evan Elford, OMAFRA New Crop Development specialist provided an overview on some of the season's main pest management and agronomic topics followed by an in-field look at seasonal pest issues. They also discussed a new on-farm demonstration project situated at Carolinian Hop Yard with fertility, irrigation, and cultural downy mildew mitigation strategies for organic hop producers. The demonstration project is funded by Horticulture Crops Ontario and will hopefully be in place for a minimum of three years.

Melanie summarized the main pests affecting hops this season. Dry conditions in many areas of the province meant that downy mildew was less of an issue than in 2017, and many growers were wondering if a lack of symptoms meant they could stop spraying for this disease. However because hop downy mildew fungicides are preventative rather than curative, growers should continue with their downy mildew spray regimen as long as pre-harvest intervals on these products permit, to protect burs and cones, which can be significantly affected by downy mildew. Growers were also advised to be on the lookout for powdery mildew. This fungal disease has traditionally been more of an issue in the western US than here, however it has been increasing in incidence in eastern North America. Last year, powdery mildew caused significant damage to some hop yards in Michigan. Although it was less of an issue in Ontario, powdery mildew was observed in several hop yards in 2017. Growers should be considering adding powdery mildew fungicides to their hop spray rotation, as downy mildew fungicides do not provide protection from powdery mildew.

Because of the dry conditions, mites were increasing in number in hop yards by early July. Mites also require protective sprays once they exceed threshold levels, because, like downy mildew, they can directly damage the harvestable portion of the plant. Most mite products have long pre-harvest intervals on hops in Ontario, so miticides generally need to be applied earlier in the season. Other issues reported for the 2018 growing season include potato leafhopper and Japanese beetles. The group also discussed the appearance of a tent-forming insect observed in many hop yards in July. This is the fall webworm, a caterpillar with a very broad host range which seems to have appeared earlier than normal and in higher numbers this year than in other seasons. Fall webworm is not known to be a major pest of hops, and although one tent can defoliate a lot of a single plant, it generally does not spread significantly throughout a hop yard. In many cases this insect can be managed simply by removing the tents and placing caterpillars in soapy water, however if populations seem to be causing significant defoliation across a yard, pest control products being applied for hop looper should also reduce populations of this insect.

Evan gave an update on rainfall amounts received in the respective regions and then focused on discussion of spring cultural management practices for hops. He provided an overview of the 'What and Why of Crowning, Scratching, and Pruning' in order to define the three terms which are sometimes used interchangeably, leading to confusion of the various practices. These three practices are used for various reasons including:

- Reducing the number of shoots infected with systemic downy mildew

- Increasing uniformity of shoots for training
- Increasing yield

One of the take home points from the discussion was that the benefits of downy mildew reduction from the two more aggressive management strategies (crowning and scratching) may only be realized in growing regions which have longer growing seasons (i.e. when pruning can be delayed by an additional 10-14 days). Therefore crowning and scratching may not be valid cultural practices in our growing region, especially in a season with a late spring such as 2018.

Discussions among the attendees on these spring cultural practices were very informative. Many growers shared their experiences using different practices and types of equipment depending on time of season, environmental conditions, cultivars, and severity of downy mildew pressure in their yards.

Additionally, Evan circulated a handout he created in 2015 outlining target dates for pruning and training hops in Ontario. He has asked for feedback on the timelines in the handout to make sure it lines up with Ontario growers production experiences across the different cultivars.

Overall the 2018 hop twilight meetings were a success. Evan and Melanie welcome feedback on the topics discussed this year as well as suggestions for topics at future meetings. They can be reached by email at: evan.elford@ontario.ca and melanie.filotas@ontario.ca