

76rd Annual New England, New York, Canadian Fruit Pest Management Workshop

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2014 REPORT - QUEBEC APPLE ORCHARDS

PEST TYPES: DISEASES

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Fireblight

Following the worst recorded epidemic in 2012, we found very little fireblight in 2013. However, consultants report that the 2014 epidemic in the Oka region was similar in magnitude to 2012. In other regions fire blight was present at moderate levels but spread is increasing. In contrast to 2012, the epidemic hit almost all varieties including McIntosh. Regional and local differences were striking. This underlines that local inoculum availability is a determining factor of epidemics.

In the worst hit area, flowers in McIntosh started to open on May 21st (late pink) and petal fall (>90%) was observed on May 31st. It's difficult to determine when the last flowers opened, but some flowers were still opening on May 24th (full bloom) and all flowers were open before May 30th on Cortland. Maryblyt recorded no infection period between May 21st and June 1st. Conditions suitable for infection were recorded by this model starting only on June 2nd. Infection events were recorded by the RIMpro fire blight simulator on May 27th and May 30th and by Cougarblight on May 26th. It's difficult to determine with certainty when the actual infection events occurred, but flower age and disease occurrence on McIntosh suggest infection prior to June. For later blooming cultivars, the early June infection events were critical.

Our hypothesis that a long period between budbreak and bloom may favour spread of inoculum from cankers on wild hosts and should be included as an important factor in fire blight prognosis was not confirmed in 2014 since budbreak (May 5th) was only 14 days ahead of first bloom. Nonetheless, it's possible this hypothesis remains valid in areas with no history of fire blight as was the case in 2012. In 2014, the inoculum was already present within most orchards that suffered outbreaks.

Bitter rot/lenticel rot

Some "Colletotrichum" reported especially on Paulared, Lobo, Cortland and also HoneyCrisp (also called gloéosporioses). Link with past cases of Fire blight suspected.

Phytoplasma (APP)

The Canadian food inspection agency (CFIA) wrongly reported Apple Proliferation Phytoplasma (APP) in early 2013 and has since revised their protocols.

Phytoplasma (Yellow aster in apples)

The industry is closely monitoring a yellow aster phytoplasma outbreak that originated in 2011. In 2014, a large scale scouting initiative was initiated to determine the extent of the problem. Last year a large orchard (3000 mature trees on M26) was uprooted because it suddenly stopped producing a viable crop. Sequencing of positive cases is underway.

Moldy core / core rot

This disease is observed yearly in Cortland and Spartan and losses can be significant in certain years. In 2014, up to 10% of fruits showed decay in Oka whereas disease incidence was reported lower in Montérégie Est.

Apple scab

Low to Moderate issue overall in 2014 but as usual was important for some orchards. In well maintained commercial orchards measured scab incidence in mid July ranged from 2 to 30 scabbed leaves per 100 shoots. In very clean orchards mid summer scab levels can be below 0,5 scabbed leaves per 100 shoots.

Powdery mildew

Reports of powdery mildew are now frequent, but problems in 2014 were generally limited. Specific sprays for powdery mildew are not generalized. Some cases of extreme powdery mildew are reported in specific blocks of Gala, Honeycrisp, Gingergold and Cortland whereas many report no disease whatsoever.

Sooty blotch/flyspeck

This is not a major issue for us. Reported locally.