

# 76<sup>th</sup> Annual New England, New York, Canadian Fruit Pest Management Workshop

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2014 IPM Report: Connecticut, Massachusetts, New Hampshire, New York (HV) and Vermont

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**General observations:** The 2014 growing began with many growers concerned about winter cold damage. Several locations reported minimum lows around -15° F. Damage was not as extensive as expected, but some dead and/or weakened fruit buds were noted as tissues developed and the quality bloom was less than optimal in some blocks. Overall, the New England apple crop is down about 10 % - 20% from the five-year average. Stone fruits were more significantly affected, with damage specific to location and cultivar. Phenological development of apple in 2014 was similar to 2013 (perhaps 2-4 days later).

Other than concerns with BMSB in southern areas, insect pressure was more or less average and developed as expected. Few growers experienced challenges controlling typical primary insect pests such as PC and AMF. However, a few secondary/reemerging pests such as STLM and WAA had low to moderate impact in several locations.

## **Disease observations:**

**Apple scab** season began slowly in 2014. Rain events in mid to late April were borderline infection periods in all but the earliest areas due to a lack of tissue development. The extended wetting of April 30, was the first significant scab infection period of the season for much of the region. Scab was generally well-controlled in most sites. Growers continue to rely heavily on protectant fungicides, reserving the DMI and QoI fungicides for post-infection situations when necessary or to target specific diseases such as powdery mildew. Resistance management remains a priority for most growers.

**Powdery Mildew** has increased significantly in recent years, but was not a major concern in 2014. Growers with a recent history of PM did a better job managing the spread of inoculum in known problem areas. The cold winter may have helped reduce overwintering inoculum thereby decreasing the pressure for secondary infections during the early to mid-growing season.

**Fire blight** pressure was substantial in 2014. There were several distinct IPs which occurred during bloom that varied by location. Relatively warm temperatures in the high 70s and low 80s advanced trees into bloom the weekend of 5/10. Temperatures dropped significantly in eastern areas due to a “backdoor” coldfront that produced a minor rain event on 5/13. Many growers did not spray in response to the cooler conditions. Blossom infections were extensive in these sites. Of particular interest, was the prevalence of significant FB blossom infections in blocks that were previously not considered at high risk. These blocks were **not** on the schedule to receive either dormant copper applications or antibiotic treatments during bloom.

**Sooty blotch and flyspeck** were non-issues on fruit at harvest again this year, presumably due to dry conditions during August and September, despite adequate hours of wetting for the establishment of primary infections earlier in the summer.

## **Arthropod observations:**

**San Jose scale** presented minimal problems in 2014 after having increased significantly in recent years. Growers with known problems responded appropriately based on fruit injury levels at harvest in 2013. A single, dormant application of chlorpyrifos remains the most effective and economical option, often suppressing populations to non-detectable levels.

**Apple maggot** remains the key pest in late season apple orchards. AMF pressure was moderate this year and most sites controlled this pest well.

**Lepidopteran** pests continue to present challenges as populations of both OBLR and CM spread to additional blocks within farms or where they became established in new locations. Control measures were implemented for growers in all states where NEFCON has a presence. Approximately 35% of our grower-clients have populations requiring monitoring and intervention. However, very little damage was reported as management programs worked well in most cases. Oriental fruit moth captures were up this year in several locations and extensive damage was observed in one block.

**Brown marmorated stink bug** has been moving farther north each year. While no damage was reported by any of our clients in 2013, there was a sharp increase in trap captures in southern New England and HV New York in late August this year and control measures were applied. Populations have only begun to decline in recent weeks. BMSB damage was not observed during harvest in any of these locations but we may see some fruit injury from this overwintering migration when fruit are removed from storage. Most locations with high pest pressure responded aggressively and may have mitigated substantial crop damage.

**European red mite** provided a few surprises in 2014. In general, growers who implemented prophylactic programs were not significantly affected by ERM. However, a few growers who had not experienced recent problems with this pest, took a “wait and see” approach. These growers were forced to use aggressive strategies to manage problematic mid-summer populations which developed. Despite cooler summer temperatures, much of the region experienced little late-summer rainfall which favored a build-up of ERM populations.

## **Unusual events:**

**Spotted tentiform leafminer**, which has not been a problem in many years, made a couple cameo appearances in 2014 in two widely separated locations. Substantial STLM populations were noted in several blocks despite the use of a prebloom lambda-cyhalothrin application, which has typically controlled this pest in the past. Problem blocks experienced mid-summer populations exceeding 5 mines per leaf. A single well-timed imidacloprid application targeting the sap-feeding stage provided effective control.

**Glomerella leaf spot** made its first appearance this season in an orchard block monitored by NEFCON (at least that we are aware of!) . A 30+ year-old block of Golden Delicious trees began showing symptoms of dramatic leaf yellowing in early August. These trees appeared asymptomatic on a farm visit 14 days prior but within a short period, approximately 25 – 30% of the tree canopy exhibited signs of the disease and subsequently dropped. Pristine alone or Flint plus Captan were applied in cover sprays on approximately 14-day interval to finish out the growing season. Spread to initially unaffected foliage was minimal. Dry conditions prevailed for much of the month of August which likely helped in limiting the spread of this disease.