

## 2015 Fruit Report for New Hampshire

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### Weather and crop situation:

Winter had deep snow and relatively cold temperatures. The snow melted very late in many areas. Spring was quite dry. Summer was relatively warm, and pretty dry in many places. Apple bloom was pretty good, though the weather provided challenges for thinning decisions. The apple crop looks pretty good, with relatively good fruit size & set. Color was not too good early in the season, due to lack of cool weather. But with cooler weather it was great. Bill Lord said color on Honeycrisp and other Golden Delicious derivatives was the best he had ever seen. He also points out that Delicious fruit were differently shaped this year: Red Delicious in the East tends to be round but this year the length to diameter ratio is more in tune with what is expected from the Pacific Northwest with a distinct "nose" sporting 5 points and uniform, full red color. Total crop size is up (perhaps 15%) but figures are not yet in. The peach crop was restricted to the milder, better sites, with few fruit north of Durham. Strawberries: the season went well, with a good crop and good consumer demand. Cherries: good crop, and relatively few problems with fruit splitting. Blueberries: good crop. Mummyberry problems were somewhat common. Hail injury to apples was 4.38% this year, above the 25 year average of 3.23%. In 2015 we had hail events on July 19, Aug 4 and multiple dates in late August and early September. In 2013 we saw a lot of fruit russet and frost patch on apples and pears, but there was little this year, with the exception of frost patch in some northern orchards. In the northern half of New Hampshire there was quite a lot of winter kill on blueberry and raspberry plantings.

### Fruit Pest Situation this Year

The incidence of pest injury on apples at harvest time was 4.33% in 2015. That's below the 25 year average of 5.29%, and well below the pre-IPM incidence of 10 to 12%. The incidence of apple scab [caused by *Venturia inaequalis*] on fruit was 0.89% this year, with most coming from sites with spray application problems. This figure is slightly below the 25 year average. Many of the affected fruit had small, secondary lesions. Bitter rot was very scarce this year. The incidence of flyspeck and sooty blotch was also well below the 25-year average. Spring was so dry that we were concerned about the accuracy (dry switch idea) of the degree day model to predict ascospore maturation. Despite the dry conditions, bitter pit (a physiological disorder, not infectious disease) was not common. Bill Lord credits calcium chloride sprays and attention to boron levels.

Fireblight [caused by *Erwinia amylovora*] hit heavily in Rockingham & Hillsborough counties, somewhat heavily in Merrimack & Strafford counties. We had severely hit trees as far north as Alexandria (southern Grafton County). Strikes were seen as far north as Lisbon (northern Grafton Co).

For the most part, insect injury on apples was below or well below 25-year average levels. There were two exceptions. One was codling moth [*Cydia pomonella*]. The incidence of CM injury continues to creep upwards, but is still low. In one orchard, it reached 3.6%!

The incidence of San Jose scales [*Quadraspidiotus perniciosus* (Comstock)] on apples at harvest was the highest in Alan's 36 years of records. The species was found on 1.33% of fruit, which is 17 times higher than the 25 year average. Out of 23 orchards evaluated this year, two had serious SJS infestations; two had moderately low levels, and infected fruit were detected at five other sites. Usually

we find none, or very light infestation at up to 3 sites. Possible causes: decrease in number of growers using oil sprays? Cold winter killing parasites? Pesticide use shift? Shift to lower gallonage?

**Spotted wing drosophila** (*Drosophila suzukii*) populations were roughly the same as last year, but we switched to new Trece lures and traps this year, so it is difficult to tell. The first adult trapped was June 23<sup>rd</sup>... much earlier than we expected. But the second fly was trapped the second week of July, about when we did expect. We switched to the Trece lures & traps, but stayed with the previous drowning solution (vinegar/grape juice/ethanol). As usual, the cooler regions (lakes region, Sullivan county, and North country) had much lower SWD populations than the southeast (Hillsborough, Rockingham and Strafford Counties).

**Japanese Beetle** [*Popillia japonica*]: adults appeared later than usual, and in lower numbers this year.

#### **New/Unusual:**

During apple pruning time, several egg masses unfamiliar to us were turned in from orchards in Keene (southwestern NH) and Stark (north of White Mountains). All turned out to be from an insect that is familiar, but not usually a problem here: **white marked tussock moth** *Orgyia leucostigma* (J.E.Smith) [chenille à houppes blanches].

The grove snail [also known as **banded garden snail**, *Cepaea nemoralis* (Linn.)] appeared in at least two NH nurseries. One shipment of stock from New York was refused & sent back. The other infestation was detected through routine nursery inspection, and treatment was ordered. When it failed to significantly reduce the snail numbers, the stock was ordered destroyed. We are watching to see if this appears in other nurseries, or in orchards, vineyards.

Where are the **black vine weevils** [*Otiorhynchus sulcatus* (Fab.)]? Rich Cowles reported extreme difficulty finding BVW's in (Connecticut) strawberry fields that formerly were heavily infested. Alan found very little suspect leaf notching in NH strawberries, and only 2 adults (both on buildings).

**Personnel:** Bill Lord [*Pomologus specialus*] has re-retired, and plant pathologist Kirk Broders [*Fungus studios*] has departed for a job at Colorado State University.

#### **Fruit IPM publications finished this year:**

Eaton, A. T. **Raspberry Crown Borer**. 3pp. Posted Feb 19, 2015.  
[http://extension.unh.edu/resources/files/Resource004614\\_Rep6595.pdf](http://extension.unh.edu/resources/files/Resource004614_Rep6595.pdf)

Eaton, A. T., Wm. G. Lord, Wm. E. MacHardy, and Cheryl A. Smith. **Home Fruit Spray Guide**. This is a revision of an earlier publication, re-posted June 8, 2015.  
[http://extension.unh.edu/resources/files/Resource005256\\_Rep7402.pdf](http://extension.unh.edu/resources/files/Resource005256_Rep7402.pdf)

The **sprayer calibration videos** [George Hamilton and colleagues] are done, but not posted on the websites yet.