2024 NY Apple Season Highlights

Western NY

Persons reporting: Craig Kahlke, Vaughn Gingerich, Janet van Zoeren

Weather:

- **Green Tip.** Depending on specific location, McIntosh green tip date was around mid-March across the region (March 12th or 13th at most locations; March 16th in Waterport/Appleton area).
- **Spring temperature trends:** Early, cool and rainy. Many growers had the sprayers out already in February. Temps mostly stayed below ~60F, making for a slow spring phenology. Rain was continual.
- **General:** The summer continued to be on the whole fairly rainy and windy, on the whole making spray windows tricky. The prebloom period was nearly solid rain, with (generally) weekly breaks of only about 1 day. Rains tailed off some post -bloom, but we continued to get weekly heavy rains most of the summer - with many rainfall events dropping 2 - 6"+ inches within a 24 hour period in some locations.
- **Hail:** Hail on August 11th. I haven't heard an estimated % crop loss yet, but it was up to 100% on some farms. Rot prevented hail-damaged fruits from being marketable. Crop insurance covered some costs, but at least some of the affected farms do not have crop insurance.
- **Frost:** Back-to-back nights of hard frost hit at early apple tight cluster - but didn't have the effects that many feared.
- **2024 WNY crop set:** Quite frankly, it's a miracle that we had a crop at all considering the spring frosts - let alone a good sized one. Had the frost been a few days later, it may have been a VERY different story - as shown by earlier stone blocks that were wiped out while slightly later varieties still had (some) crop.
- **Chemical thinners** worked OK in 2024 due to slightly better thinning conditions - within a very narrow time window. Petal fall also brought a strong natural thinning event with very strong carbohydrate deficits. Any chemical thinning done in that petal fall window worked very well, to sometimes too well in some blocks. Once again, many growers under thinned due to fears about the level of frost damage and missing the short window where the chemicals were effective.
- **Harvest:** Started early (7-10 days ahead of last year) and it continued right into the late-season varieties. With the high heat, internal ethylene was up on fruit especially early in mid season.

Insect pressure was all over the board:

- First catch of **OFM** occurred April 20, with the first generation peak around mid-May. First catch of **CM** occurred on May 20, last catch was September 18, and the generations of CM did not seem to separate out very well this year. CM numbers were only slightly lower than OFM numbers on average across locations (compared to usual when OFM is generally much higher). As usual, the majority of larvae found in fruit belongs to CM (89%) rather than OFM/LAW (11%)
- **OBLR** first trap catch was May 30, which is normal for this region.

- **Apple maggot** numbers were much higher than I have seen in previous years.
- **Woolly apple aphid** aerial colonies appeared early, but overall the population did not turn out to be as bad as we had worried.
- Overall, **plum curculio** pressure seemed low this year, with even some of the normal hotspots taking little to no damage.
- **San Jose Scale (SJS)** was a significant player in 2024, with an unusually late population surge in September that caused a lot of damage on many farms. Look out for this one next year…
- **Mites** continue to be on a steady rise, with 2024 seeing some significant flare-ups. Abamectin (Agri-Mek, etc…) is definitely getting weaker…
- **Black stem borer** numbers were slightly lower compared to previous years. A handful of declining blocks were seen, some with and some without borer holes.

Apple disease pressure was high in WNY:

- **Overview:** Fungal diseases were off the charts this year in all fruit crops – strawberries (root diseases), apples (apple scab, powdery mildew, summer rots), and stone fruits (cherry leaf spot, black rot, bot cankers). In addition, bacterial blast / bacterial canker was seen in peaches and cherries this spring.
- **Apple Scab:** Infections 3/14, 4/2, and then continuing every week (occasionally every two weeks) throughout the summer. High scab pressure showing up on foliage and fruits in many blocks across the region.
- **Powdery Mildew:** A high pressure year for PM, with nearly every block showing some foliar symptoms, and some blocks also showing fruit PM.
- **Fire Blight:** Fire blight pressure was very low, because temperatures remained so low during the spring to prevent infection events.
- **Summer rots and leaf diseases:** Including Glomerella and Apple Blotch have been on a slow rise in WNY in recent years, and were especially difficult this year since it was hard to find a good spray window during the rainer parts of the summer.

Hudson Valley

Persons reporting: Anna Wallis, Scott Cosseboom, Andres Antolinez

McIntosh Phenology

Year	GT	½"	TC	Pink	King Bloom	Full Bloom	PF
2024	Mar 25	Apr 8	Apr 15	Apr 22	Apr 29	May 1	May 6

Weather & Horticulture:

- It was a somewhat mild winter, with significant snow in early February but melted quickly.
- A warm up around March 11 led to early budbreak and overall season throughout the state, most evident in WNY. In the Hudson Valley, green tip was ~1 week early, harvest was 1-2 weeks earlier than 'normal.' Other phenology was near 'normal' dates. (Jentsch)
- Degree Day accumulation throughout the spring was similar for WNY and HV most of the season; where there is usually 1-2 weeks in between.
- Frost on April 24 and 25: lows in mid-20's in both ENY and WNY at approximately Pink. Some damage noted in both ENY and WNY. **NEWA Maps of Regional Weather Events Here: https://newa.cornell.edu/regional-weather-events/**
- Rainfall sufficient and consistent throughout the season with some severe rain events July, very dry in many locations during the month approaching harvest.
- There was a large crop and excellent fruit size for apples, stone fruits, and even apricots in most places in the Hudson Valley, due to the light crop in 2023 and excellent conditions in 2024.

Arthropods

- **Plum Curculio** emerged slightly early in the lower HV, just after bloom; but cool weather suppressed emergence afterward across the valley. Overall low pressure.
- **Spongy moth** pressure was immense this season, affecting many orchards with significant defoliation.
- **Oriental fruit moth and codling moth** timing was not very different from seasonal averages. Pressure/damage was not reported to be much higher than typical.
- **Apple maggot** was also similar to normal timing of emergence, in some locations pressure was high but others thresholds weren't met for management
- **Mites:** a few outbreaks were noted
- **Wooly apple aphid:** present in many locations, but not as heavy as expected based on previous years. with the exception of a few isolated locations with known pressure

Biofixes HVRL

Event	2024	Average
OFM 1st gen biofix	Apr 29	Apr 21
CM 1st gen biofix	May 6	May 11
OBLR 1st gen biofix	May 20	Jun 4
AM first capture	July 1	Jun 29

Diseases

- **Apple scab. Infection events: 4/10, 4/14, 4/17, 4/30, 5/4, 5/9, 5/14, 6/6.** Scab was more problematic than usual across the valley. Many prolonged wetting events created many infection periods in the early spring and made coverage difficult. Leaf lesions in many locations were observed throughout the spring and summer, requiring protection for secondary infections.
- **Fire blight** overall low pressure aside from sites with significant known history. **Infection events:**
- **Powdery mildew:** significant pressure early in the season due to the warm spring and extremely humid weather, but reduced pressure mid-summer as a result of rainfall
- **Summer fruit rots and leaf spots** reports are becoming more frequent, including bitter rot, white and black rots, marssonina leaf spot, glomerella leaf spot, necrotic leaf spots (a physiological disorder
- **Southern blight** was reported for the first time in the Hudson Valley in new plantings at two different farms

Northeast NY

Persons Reporting: Michael Basedow, Cornell ENYCHP

McIntosh Phenology in Peru NY

Year	Silver Tip	Green Tip	Half Inch Green	Tight Cluster	Pink	First Bloom	Full Bloom	95% Petal Fall
2024	4/7	4/11	4/15	4/26	5/2	5/8	5/15	5/20

General Weather Conditions - *Weather data collected from RainWise weather station in Peru NY.*

Conditions were reasonably good for acclimation to winter cold when transitioning from fall to winter. 2023 cropload was all over the place, as there were light blocks from the freeze, and heavy blocks where a freeze was expected and fruit were not thinned. We tended to have a relatively mild winter in 2023-2024, with the lowest temperature reaching only 0.2°F on January 19th.

We saw some early warming in March, but not to the extent seen in Western NY. While Green tip was about average for our region, bloom ended being about a week early as things started to heat up after tight cluster, making for another quick pink. Harvest ran about a few days to a week early, depending on variety.

Adequate rainfall throughout the summer, though it usually tended to fall in big bursts each week. Definitely a hot and sticky summer, less smoke than last year.

Horticulture Overview

Crop load was all over the place in 2023 because of the freeze. Crop was somewhat variable in 2024. Most blocks were average to slightly heavy. We had a few cold nights in late April, so people were a little hesitant to thin a few blocks as heavily as they might normally. We expected the most damage in mac type blocks, Macs, Cortlands, and Macouns. Most of these ended up setting fairly well though. Light blocks generally had poor return bloom from being overcropped last year, mostly Honeycrisp, Fuji, NY-1, and Gala. Pollination weather wasn't ideal, but we had a few good days of bee flight to set the crop. Thinning weather was a challenge. We had a slight deficit and high temps during the petal fall period, and a carbohydrate surplus during the 12mm period. Growers that thinned at petal fall on hot days were generally happy with the amount they removed. Hand thinning was needed in a number of blocks this year, though some growers struggled to find the labor to do it. The adequate rain allowed for relatively good fruit sizing, even in heavier cropped blocks. Some Honeycrisp were too big, some Gala and Snaps too small. Cool nights in early September led to good fruit color in the first few picks of Honeycrisp, Macs, Gala, and Snaps this season. Bitter pit is an average problem this year, worse on M.26 and MM.111.

Pest Management Overview

Primary Apple Scab Infection Periods:
4/11, 4/13, 4/18, 4/28, 4/30, 5/4, 5/8, 5/12, 5/13, 5/18, 5/21, 5/27, 6/6

*McIntosh Green Tip Date: 4/11

Estimated date of 100% Ascospore Maturity (NEWA): 5/23

According to the NEWA apple scab model, primary apple scab season lasted for approximately 7 weeks in 2024. Overall, scab was difficult to control this season due to prolonged periods of heavy rain during key infection timings. Powdery mildew remained headache in many orchard blocks, severely blighted shoots of Honeycrisp in many regions of the valley. Fire blight strikes were present, and growers were pruning out strikes during the summer. Rots were present in a few spots, particularly in overcropped Honeycrisp blocks where spray was likely not reaching the fruit, and in a hail damaged block that was being treated only with sulfur. Post storage blue mold is also an occasional issue.

Fire Blight Blossom Blight Infection Periods:

Fire blight was once again a challenge in northern NY. Infections were predicted by NEWA on May 17, 18, 21-23, and 27 wherever open bloom was present.

Arthropod Pests

Lepidopteran moths and black stem borers were present early this season, and at elevated numbers by Champlain valley standards. We had another cycle of extremely high AM numbers this season, with multiple weeks of traps catching well over 50 per trap. DWB flight was heavy and long this season, though I don't see a lot of damage from them. WAA is an ongoing problem in some blocks, but management is improving as growers have it on their radar for proper timings of systemic and contact materials. Apple leaf curling midge continues to be found all over the Champlain Valley in two generations. Timing of sprays for this pest can likely be improved, but we are usually treating them at petal fall with systemic materials in conjunction with WAA. PC and TPB stings are some of the more common fruit finish issues I see, particularly for growers that forgo a pink application. OBLR damage is sometimes seen, and stink bug can be a problem for some growers with late varieties.

Some farms struggled with weed management this season. More successful farms took advantage of the good days we had pre-bloom to get their materials on in a timely fashion. Some growers did not get out until after bloom, and were then playing catchup the rest of the growing season. Grasses tend to be a big problem for growers. Thistle, bindweeds, vetch, campion, and lambsquarters, and shepherds purse are all troublesome.