# Horticultural News

Volume 103, Number 3
Summer 2023

# Horticultural News

Editors: Winfred P. Cowgill, Jr. & Jaime C. Piñero

The New Jersey State Horticultural Society was organized on August 17, 1875 at Geological Hall, Rutgers College, New Brunswick, NJ. It remains the oldest Horticultural organization in New Jersey.

Horticultural News began as the *The New Jersey State Horticultural Society News*, in October of 1920. The Society began "collecting paid membership in order to obtain funds to promote new features of the society and extend the usefulness of the society. The Horticultural Society News was started to be the official society publication." Published M. A. Blake, Professor at Rutgers College was the first president and chair of the publication committee.

Editors served as follows:

| | |
|---|---|
| MA Blake | 1920 - 1947 |
| Norman F Childers | 1948 - 1980 |
| Win Cowgill | 1981 - 1988 |
| Emily Brown Rosen | 1988 - 1990 |
| Linda Butenis Vorsa | 1991 - 1995 |
| Jerry Frecon | 1995 - 2010 |
| Win Cowgill & Wes Autio | 2010 - 2021 |
| Win Cowgill & Jaime Piñero | 2021- |

June 2010: Horticultural News has moved to an online web-based format. The New Jersey State Horticultural Society has partnered with the University of Massachusetts Fruit Notes.

October 2021: Jaime Piñero became the editor from UMass upon the reitrement of Wes Autio. Cowgill and Piñero are the new editors of Horticultural News and Fruit Notes.

Horticultural News is distributed to growers, extension personnel and researchers and libraries across North America. Horticultural News focuses primarily on tree-fruit culture, but addresses small-fruit cultural issues as well. Most reports are from current research at Rutgers University, University of Massachusetts, and other universities.

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For advertising opportunities, contact: Win Cowgill: Telephone (908) 489-1476, wincowgill@mac.com.

Correspondence should be sent to: New Jersey State Horticultural Society, Business Manager, Win Cowgill, P. O. Box 111, Baptistown, NJ 08803-0111. Telephone (908) 489-1476, wincowgill@mac.com.

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Cover: Premier Honeycrisp/ G.935 at Adams County Nursery- Branching experiment for Fine Americas, Inc. treated with Plant Growth Regulators to increase branching in the nursery and eliminate flower buds for the following season using Exilis and Arrange treatments.
Photo Credit: Taken July 6, 2023: Win Cowgill

# Apple blossom Density Mapping Using a UAV (aka Drone)

**Jon Clements**
***University of Massachusetts Extension***

Precision Apple Cropload MANagement (PACMAN) -- in whatever form it takes -- is "the topic of our time." Unmanned Aerial Vehicles -- UAV's, more commonly known as drones -- likely have a role. In fact, at least one company, Outfield already provides a low cost, turn-key (more or less) solution using drones to map apple blossom and crop density. To that end I acquired a sub-$1,000 «consumer» drone in the spring of 2023 and worked with U.K. based Outfield to get a feel for what this technology could provide?

After getting my FAA Part 107 Remote Pilot Certificate allowing me to legally fly «my» drone -- a DJI Air 2S -- while on the job at UMass, the helpful folks at Outfield (Oli and Andrew) provided me with a cloud based «dashboard» wherein I initially mapped my apple orchard blocks of interest -- five at the UMass Orchard in Belchertown, MA and three at Tougas Family Farm in Northboro, MA. The blocks totaled 3.5 hectares (8.6 acres). Outfield returned to me "flight plan" files that were imported into Litchi. Once the orchard blocks were in full bloom in early May, 2023, and I was ready to fly following all the standard flight safety planning practices, using the Litchi app the drone took off, flew the zig-zag-across the row flight plan while taking (many) high resolution pictures of the trees from about 10 meters (30 feet) above the canopy (Fig. 1). All done automatically, including landing in the exact spot the drone took off. No crashes or wayward drone (yet)! Now, it sounds easy, and it was, but not without some nail biting and making sure everything was in order prior to flying. After flying the block, the images are uploaded into the Outfield dashboard and were processed withing 24 hours resulting in a colored blossom density "heat" map (Figs. 2 and 3).

**Figure 1.** Litchi zig-zag block flight plan with picture locations.

**Figure 2.** Honeycrisp block blossom density map in Outfield dashboard

OK, so what? Is it an "actionable, holy grail" component of PACMAN? Well, I did do a bit of visual ground truthing, but found it kind of difficult to figure out exactly where I was in the block in relation to the "heat' map. (I have put in a feature request to Outfield to make the overlay more "transparent" so the individual rows can be seen.) It seems to me, and I think Outfield is headed in this direction, is the map needs to be synced with a variable rate sprayer so that, for example, bloom thinning sprays could be adjusted accordingly to where bloom density is higher (or lesser)?

Once the apples reach golf-ball size Outfield tells me I can repeat the flyovers and they will give me a yield estimate for the block (and fruit sizes on the horizon). I have not seen that yet. Drone use in agriculture is evolutionary, I suspect some aspect of this tool to better manage crop load -- or do pest scouting? -- is in my and your future. Stay tuned...

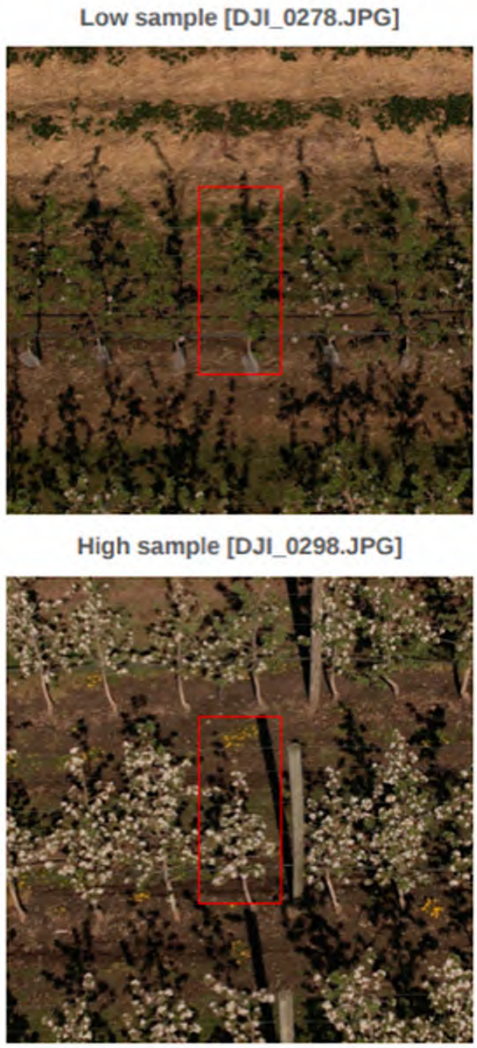


**Figure 3.** Low-high Honeycrisp blossom density example.

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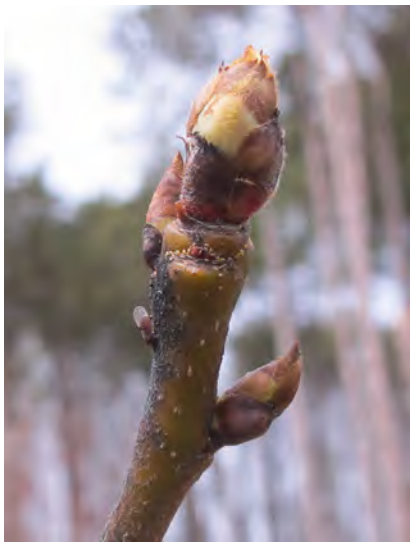
# Can Watersprout Pruning Reduce Pear Psylla Abundance?

**Maxwell Francke[1], Mateo Rull-Garza[1], Elizabeth Garofalo[2], Jaime C. Piñero[1]**
***[1]Stockbridge School of Agriculture, UMass Amherst***
***[2]Red Tomato Inc.***

First found in Connecticut in 1882, pear psylla is an invasive pest insect that primarily affects European pear trees throughout the United States. The damage caused by pear psylla is due to the sticky honeydew left behind after feeding. Honeydew-related damage promotes diseases like sooty mold and causes russeting, reducing the fruit aesthetics and sale price. Additionally, toxins in pear psylla saliva injected during feeding can cause psylla shock, resulting in tree wilt.



Watersprout removal can represent an IPM strategy for pear psylla. These vigorous upright shoots that develop on pear in late spring and early summer provide ideal feeding and breeding sites for psylla. While stripping these shoots is said to reduce damage by removing this in-host pest reservoir potential, growers are hesitant to implement this strategy stating they do not have time to accomplish the practice. With little research-based evidence to be found to the contrary, growers often believe it is more economical and effective to make material insecticidal applications for psylla management than it would be to remove watersprouts.

In this study, we assessed the efficacy and practicality of watersprout removal as a cost effective IPM strategy to reduce pear psylla population levels at two Massachusetts orchards.

## Materials & Methods

The studies were conducted at the University of Massachusetts Cold Spring Orchard (CSO, and at Bashista Orchards in Southampton MA. Data were collected from mid-May until late August. To assess the removal of watersprouts as viable means to control pear psylla populations, one of four treatments including a control were assigned to each tree. The tree treatments were one fourth, one third, three fourths, and no watersprouts removed (control). Treatments were assigned in a random order. At CSO, the study was conducted on four rows of pear trees, with each row containing fourteen trees. Trees at CSO were Bosc and Bartlett varieties. At Bashista's there were four rows of treatment trees, one with seven trees, one with ten trees and two with twelve trees. Trees at Bashista's were Bosc, Bartlett, Clapp Favorite, and D'anjou varieties.

Watersprout removal treatments involved counting the total number of large branches for each tree and multiplying them by the fraction of the assigned treatment, then rounding to the nearest

whole number (e.g. a tree with 13 branches and ¼ treatment had 3 branches stripped of all watersprouts). Branches were then marked, selecting branches that were evenly distributed throughout the tree, and then stripped of all watersprouts. Watersprout removal took place in late May and early June. Attention was made to only prune in weather below 80 F and below 70% humidity on a sunny day to prevent the spread of fireblight. To assess the viability of pruning considering labor costs, additional data was collected; namely the number of workers pruning, the number of hours it took to prune during each session, and the relative size of the tree.

Immediately after pruning was completed, a single, clear, unbaited sticky trap (30cm x 30cm) was hung at head height from each treatment tree in order to monitor adult pear psylla. Starting on June 10th for CSO and June 24th for Bashista, sticky cards were inspected in the field to count adult pear psylla numbers. During the same visits, five shoots and five spurs from each treatment tree were inspected to monitor pear psylla egg, nymph, and adult numbers. This survey was repeated every two weeks, alternating between the two data collection sites, for a total of four sampling dates at each orchard. Including the control trees, we surveyed a total of 52 trees across all blocks of both orchards.

## Results

**Cold Spring Orchard (CSO).** Figure 1 shows the overall results for all data categories for each of the two sampling dates. For the first sampling date, the instances with significant results in favor of pruning as a way to reduce pear psylla were "Eggs on Shoots", "Nymphs on Spurs", and "Nymphs on Shoots".

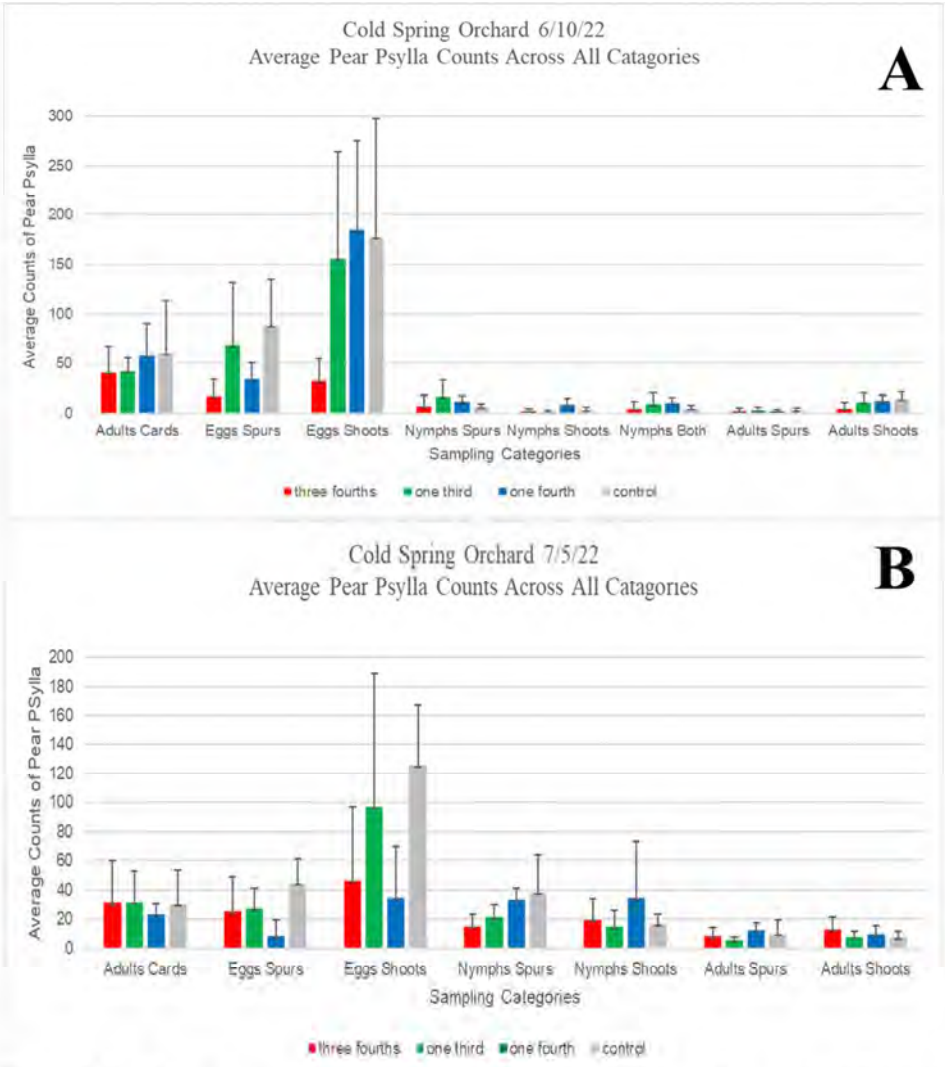



**Figure 1**. For the various sampling categories, mean pear psylla population counts from two sampling dates (A) June 10th, (B) July 5th at the UMass Amherst Cold Spring Orchard.

Figure 2 shows that the mean number of eggs laid by pear psylla females on shoots was significantly lower in branches that had three-fourths of the watersprouts removed compared to any other treatment.

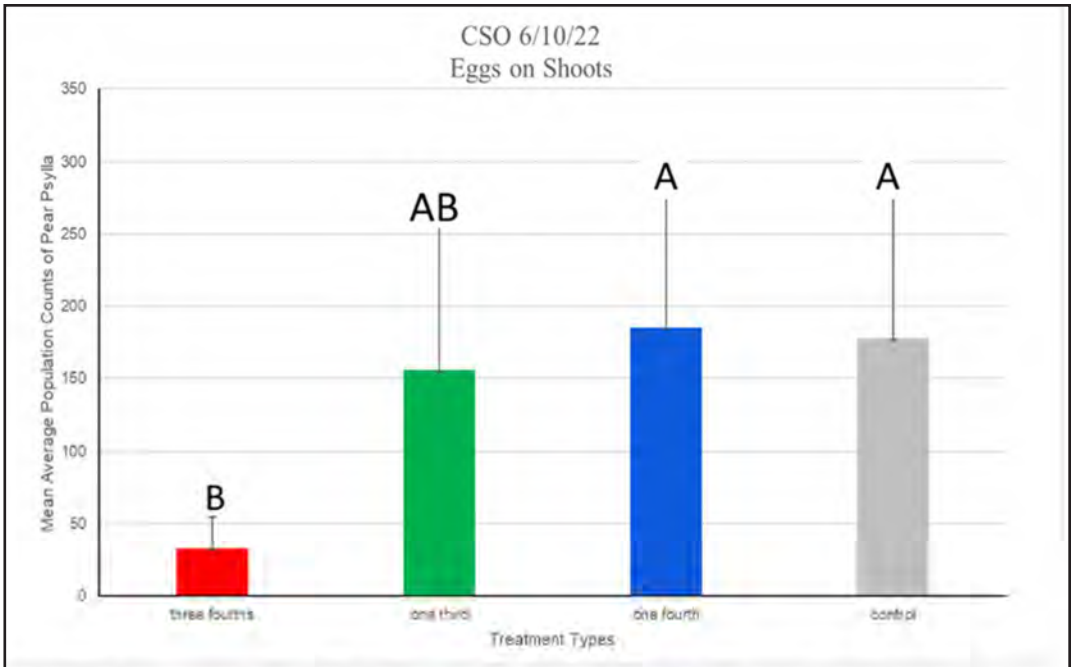



**Figure 2.** Average number of pear psylla eggs recorded from pear shoots at the UMass Cold Spring Orchard on June 10th. Bars superscribed by the same letter are not significantly different at odds 19:1.

For the second sampling date, egg-laying on spurs was significantly lower on branches with one-fourth of the watersprouts removed when compared to the control (no removal). The other two treatments showed intermediate effects due to high variability among the samples (Fig. 3).

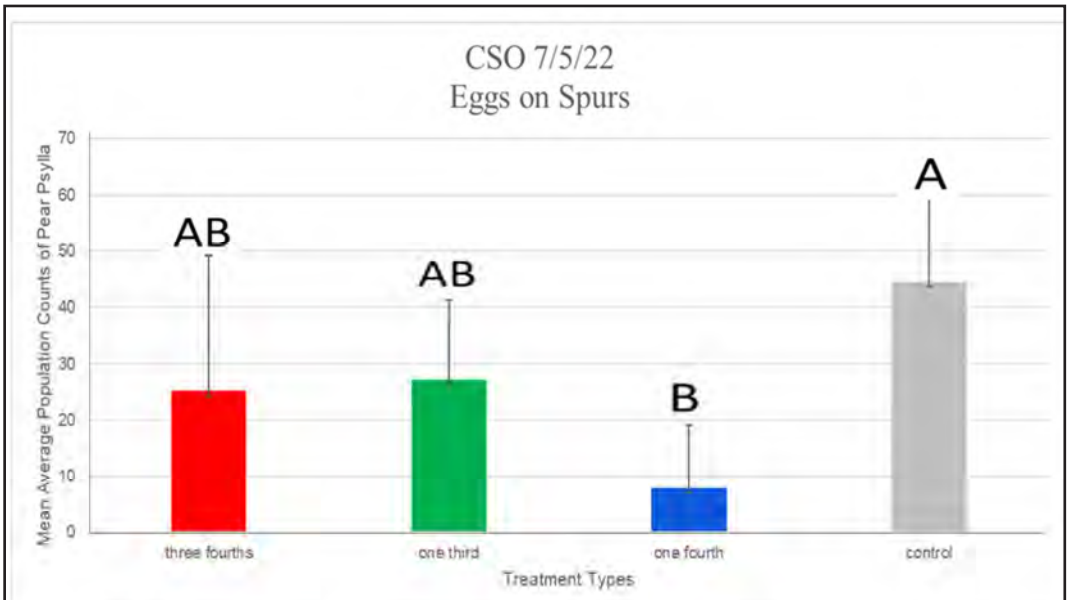



**Figure 3.** Average number of pear psylla eggs recorded from spurs at the UMass CSO on July 5th. Bars superscribed by the same letter are not significantly different at odds 19:1.

**Bashista Orchards.** At Bashista's, pear psylla populations were lower than those recorded at CSO. The overall results for all data categories for each of the two sampling dates are shown in Figure 4.

The only category to show significant differences between treatments was adults found on sticky cards during the second sampling date. The mean number of pear psylla adults trapped was

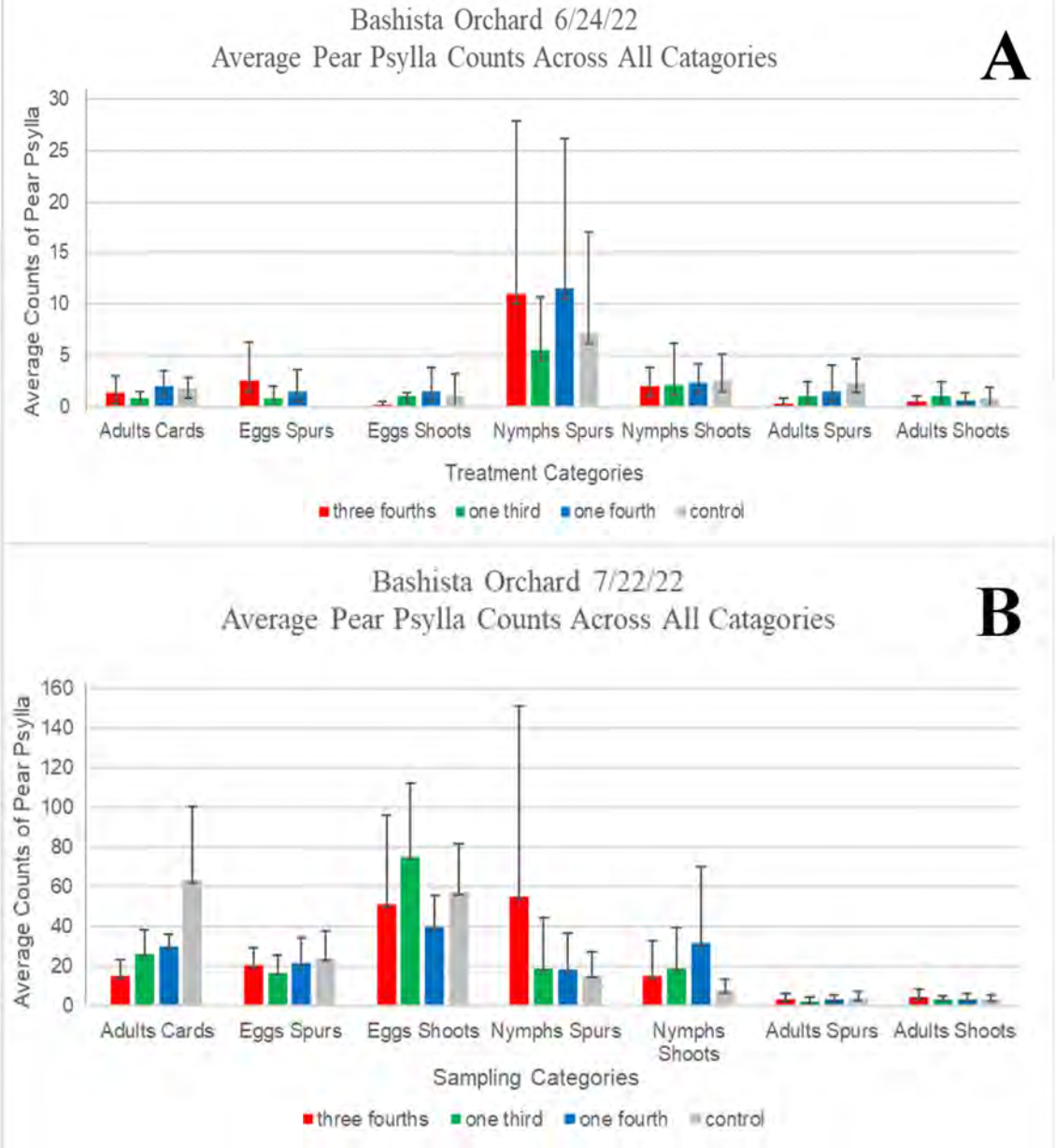



**Figure 4**. For the various sampling categories, mean pear psylla population counts from two sampling dates (A) June 24th, (B) July 22th at Bashista Orchards.

significantly reduced on branches with the highest amount of watersprout removed (3/4) compared to the no removal treatment. The other two removal treatments showed intermediate results (Fig. 5).

**Fireblight incidence.** This project also sought to monitor potential fireblight development associated with the practice of pear watersprout removal. Under the conditions of this study, no incidence of fireblight was recorded in both orchards.

**Labor Costs.** We found that for three workers, the average time to prune one medium standard tree of its watersprouts is 9 minutes. The median number of trees per row in this study was 12, so to complete one row of pruning on standard trees it would take 1.8 hours. Minimum wage in Massachusetts is $14.25, therefore, the minimum cost of pruning

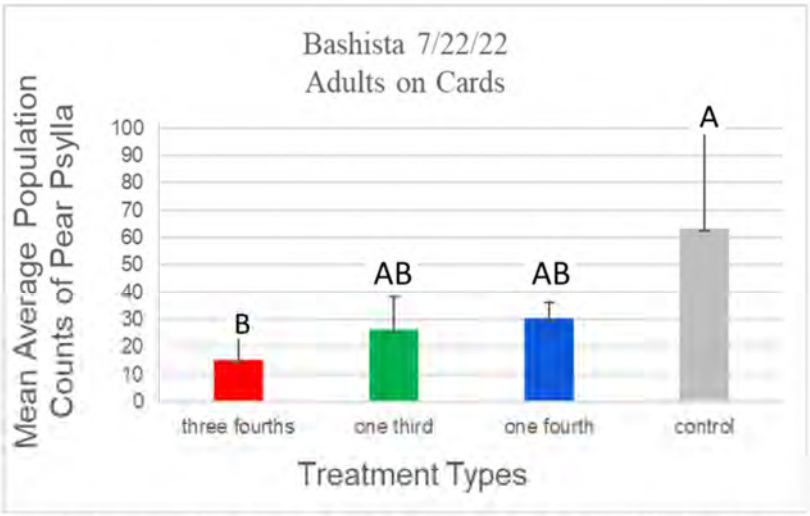



**Figure 5.** Average number of pear psylla adults recorded from sticky cards Bashista Orchard on July 22th. Bars superscribed by the same letter are not significantly different at odds 19:1.

one row of trees (rounded to two hours) would be $85.50, for three workers. This information applies to the large trees that were present at the CSO orchard and it does not reflect time involved with smaller-sized trees.

## Conclusions

Collectively, we found evidence in support of our the hypothesis that removing watersprouts from pear trees reduces pear psylla populations. Watersprout removal may prove more beneficial in organic systems pesticide options are limited and those production systems where dealing with pests with which resistance development is of special concern.

## Acknowledgments

We thank Tom Bashista and Shawn McIntire (CSO) for allowing us to work on their orchards. Maxwell Franke received his BS degree from UMass Amherst recently. Max graduated recently from UMass Amherst with a double major in Natural Resources Conservation and Sustainable Food and Farming.

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# Freeze Injury to Apples in Northern New Jersey, New York, and New England

Win Cowgill
Professor Emeritus Rutgers
Win Enterprises International, LLC

Jon Clements
University of Massachusetts Extension

This article is a review of the freeze injury of May 18, 2023 and the long term effects on apple and blueberry crops in NJ and New England this season. Note: this follows the February freeze in NY and New England that effectively took out the entire peach crop in February with temperatures ranging from minus 15 to minus 20 degrees F. NJ was spared these low extremes and overall NJ has had a great fruit crop. The exception was western New York in peach orchards along lake Ontario, they have a peach crop in 2023.

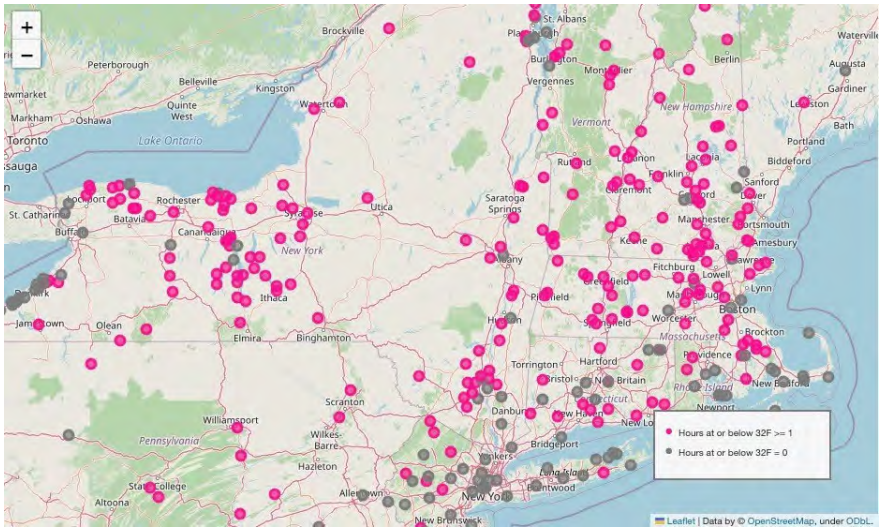


**Photo 1.** Frost Freeze Map -Dan Olmstead- NEWA.

There was extensive freeze Injury in NY and New England and some injury in northern NJ counties including Warren, Sussex, Morris, Hunterdon. Several orchards in these NJ counties sustained temperatures of 25F to 33 F with injury ranging from 10-90% overall depending on location and cultivar. See photos 2-5 for examples of the visual freeze damage.

There was no injury to blueberries in north Jersey based on my observations and telephone surveys.

Note this was an unprecedented cold event for this late date with apple fruitlets ranging in NJ from 8-15MM. Apple fruitlets (meaning post bloom) are actually more sensitive to cold temperatures than flowers in bloom- apples will take 28F in bloom- see Critical Spring Temperatures for Tree Fruit Bud Development Stages In general damage in Northern NJ is spotty and not extensive depending on location, site, variety. In the Hudson Valley, NY there was significantly more apple fruitlet damage, less in the southern valley and more in the Northern Valley. Western NY and the Champlain Valley NY fared better. Massachusetts, Connecticut, New Hampshire had significant apple damage up to

**Photos 2-5**. Apple injury. Photo credits: Trevor Hardy (2), Peter Jentsch (3-5)

80-90% depending on site, topography and cultivar and tree size. Maine had some damage depending on location, fruit development were further behind.

In New England high bush blueberries were injured with the same cold event on May 18. Injury ranged from 40 to 60 % crop loss.

Low temperatures observed across MA (and a few other New England locations) from NEWA weather stations the morning of May 18. Amherst and Northbridge get the prize in Massachusetts at 26 degrees F with many MA locations at 28F.
Some general common-sense guidance. Plant only on the best sites, clearly orchards located at lower elevations or in cold pockets had the most freeze damage. At the UMass Orchard in Belchertown, if ALL our apples were on the hill east of Sabin Street we would have a full crop. To the west, below Sabin Street in the "flats," exceeds 50%. I (Jon Clements) have 9 weather stations (well actually there are 12, but not including those here) the low temperature up on the hill was 31F, but at the lowest elevation down the hill it was 28F. A difference of 3 degrees F. a critical difference.

**Observations**

- Dwarf trees hi-density/tall spindle in shorter, narrow canopy orchards had more freeze damage that large full size trees across the Northeast.

- There were major differences by location and cultivar, but across the board Gala strains had the least amount of injury.

- As the fruit matured this summer, significant external injury continues to show on the remaining apple fruit

even as it sizes See Photos 6-8 throughout northern NJ, NY and New England.

•Peter Jenstch from Poma Tech Fruit Consulting in NY said that he is seeing significantly more internal injury from moldy core, from potential injury to the calyx from the freeze- see photos 9-10.

**Photo 6**. Gala freeze cracking: Picture: Peter Jentsch

**Photos 7 and 8**. External injury. Pictures: Peter Jentsch

• Dan Donahue reports more callus core on Fuji see photo 11

**Potential Solutions:**

This weather event was a freeze not a frost. Tradition frost control practices such as wind machines, fans, helicopters, open burning/smudge pots (NJ via statewide permit form NJDEP/ND Department of Agriculture ONLY work if there is a cloud layer inversion that traps warm air from open burning or can be mixed with the cold air close to ground level.

Covered production: Becoming more widespread worldwide. While visiting a cherry orchard in Michigan last February (Clements) covers (Anti-Frost Voen) were being used to prevent both rain cracking and frost protection. https://www.voen-coveringsystems.com/solutions In fact, they had little self-feeding pellet heaters under the covers. Interesting, and for high value apple crops (like ours) needs further consideration. Also presumably used for hail protection. Valente makes cement post trellis and covering systems for anti hail, bird protection, rain cracking and could be used for warming if heat installed (see Valente Systems at https://www.brookdalefruitfarm.com/Irrigation/BFS_2023_catalog.pd)

**Photo 9**. Honeycrisp Internal Injury from freeze. Picture: Peter Jentsch.

**Photo 10**. Cortland internal injury from freeze- calyx injured more moldy core. Picture: Peter Jentsch.

**Photo 11.** Callus core internal. Picture: Dan Donahue.

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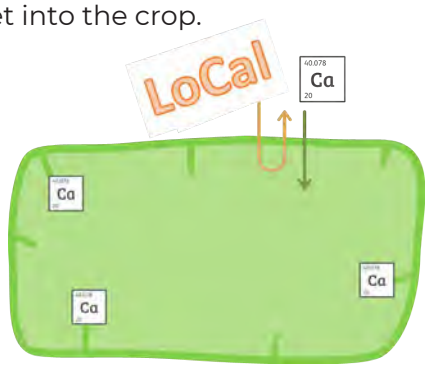


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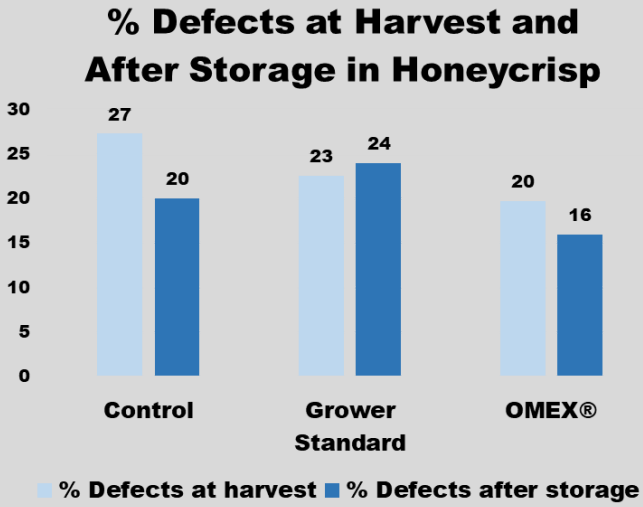


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Note: Whenever tank mixes of pesticides and/or fertilizers are used, be sure to test compatibility prior to use with a jar test.

*Spring 2023*

# Response of Adult Pear Psylla to Plant-Derived Volatiles

**Jaelyn Kassoy, Hayat Junejo, Heriberto Godoy-Hernandez, and Jaime C. Piñero**
***Stockbridge School of Agriculture, UMass Amherst***

Pear psylla is a major pest of pear trees. They secrete large amounts of honeydew which grows a black fungus, making the fruit unmarketable. When this pest is present in high enough densities it can lead to additional types of damage such as tree stunting or reduced fruit size. Due to the fact that they are widely distributed and have overlapping generations, pear psylla can be hard to control. Typically this pest has typically been controlled with oil sprays and conventional insecticides (like pyrethroids). While pesticides can provide good control, pear psylla has developed resistance to some key chemistries and the potential future loss of some chemistries due to insecticide resistance is always a concern.

One of the cornerstones of IPM is pest monitoring. Current pear psylla monitoring recommendations include the use of an 18-inch-square tray with a white cloth cover one foot below a 0.75 to 1.5-inch diameter limb (Washington State University). Growers need to tap the limb firmly three times with a stiff rubber hose. Then, the adults jarred from the limb onto the tray are counted. Thirty trays at random through the sampling area is standard for a pear block of ten to twenty acres. Monitoring options for pear psylla that make use of attractants are not available.

Here, we sought to investigate the attractiveness of benzaldehyde and methyl salicylate (common name: wintergreen oil) to overwintered and summer-generation pear psylla adults. These two plant-derived volatiles have previously been evaluated by UMass researchers over multiple years as attractants for plum curculio.

## Materials and Methods

The field studies were conducted in 2023 at two commercial fruit farms that have pear blocks, Bashista Orchards (Southampton, MA), and Park Hill Orchard (Easthampton, MA). The trees at Park Hill Orchard were about 8-10 feet tall, with relatively more dense branches whereas Bashista has a mix of trees ranging from 5 feet to 9 feet tall.

For the evaluations, we used experimental formulations of benzaldehyde and wintergreen oil, both manufactured by Trécé Inc. (Adair, OK). The lures were attached to white sticky cards using binder clips. Unbaited sticky cards were used as a control. All white sticky cards were stapled horizontally to branches located from knee to chest height, along the perimeter of the blocks. Each treatment was replicated 5 times at Bashista and 6 times at Park Hill.

At Bashista, traps were deployed on 5 April whereas at Park Hill traps were installed on 10 May. All traps were inspected once a week, and the pear psylla (adults and nymphs) captured were counted and removed from the traps. The results are being presented according to month: April-June for Bashista, and May-June for Park Hill.

## Results

As shown in figure 1, during the month of April at Bashista (the only location evaluated during April), white traps with methyl salicylate captured nearly twice as many overwintered pear psylla adults as did benzaldehyde-baited traps, and nearly three times the number of pear psylla adults recorded in unbaited traps. While the samples were not statistically different due to high variability among samples, the trend was toward increased pear psylla captures in methyl salicylate-baited traps.

During the month of May, a period in which pear psylla captures decreased substantially due to gradual

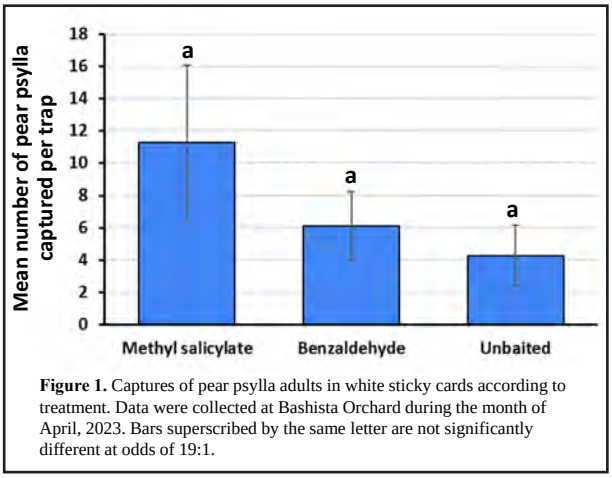


**Figure 1.** Captures of pear psylla adults in white sticky cards according to treatment. Data were collected at Bashista Orchard during the month of April, 2023. Bars superscribed by the same letter are not significantly different at odds of 19:1.

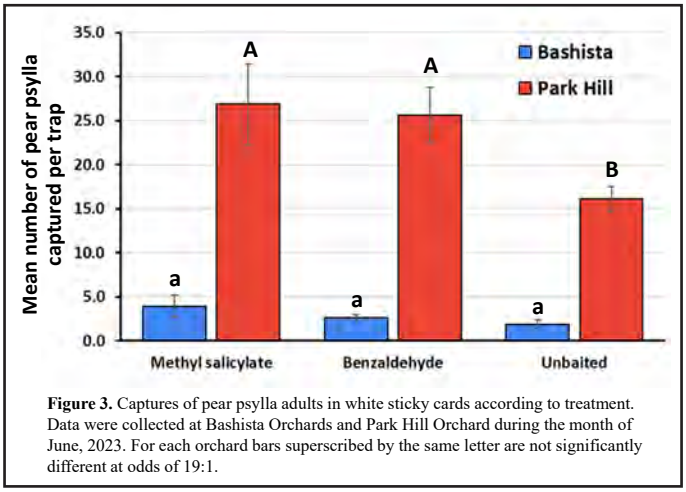


**Figure 3.** Captures of pear psylla adults in white sticky cards according to treatment. Data were collected at Bashista Orchards and Park Hill Orchard during the month of June, 2023. For each orchard bars superscribed by the same letter are not significantly different at odds of 19:1.

elimination of the overwintered adults, methyl salicylate clearly showed to be attractive to pear psylla when compared to unbaited traps at Bashista (Fig. 2). Benzaldehyde showed to be as attractive to pear psylla adults as methyl salicylate at Park Hill but not at Bashista.

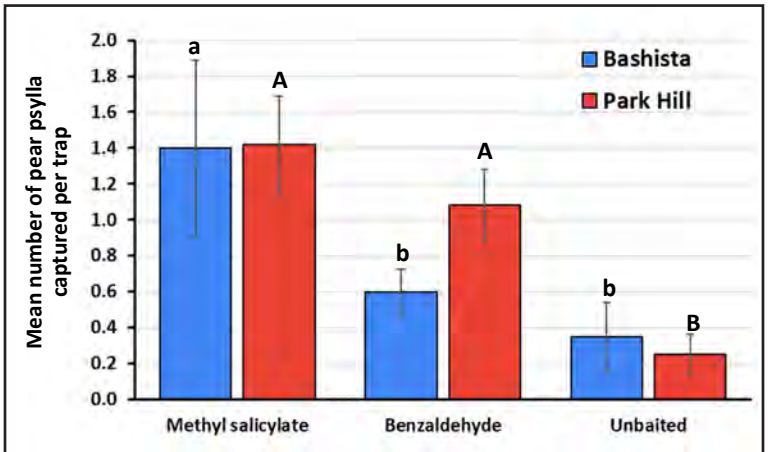


**Figure 2.** Captures of pear psylla adults in white sticky cards according to treatment. Data were collected at Bashista Orchards and Park Hill Orchard during the month of May, 2023. For each orchard bars superscribed by the same letter are not significantly different at odds of 19:1.

Figure 3 shows trap captures during the month of June, when the summer-generation adults were developing. At Park Hill, both benzaldehyde and methyl salicylate were attractive to pear psylla when compared to unbaited traps. At Bashista, no statistically significant differences were noted between baited and unbaited traps (Fig. 3).

## Conclusions

Overall, methyl salicylate seemed to perform better than benzaldehyde in attracting pear psylla to white sticky cards. Further field research ought to be conducted at multiple orchards to validate our findings, before firm recommendations could be made to growers.


## Acknowledgments

We thank Tom Bashista and Russell Braen for allowing us to work at their orchards. Jaelyn Kassoy and Hayat Junejo received their BS degree from UMass Amherst. Heriberto is a Ph.D. student at the Stockbridge School of Agriculture. Funding for this project was provided by the Northeastern IPM Center and the UMass Center for Agriculture, Food, and the Environment.

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# Frank Carlson Passes Away at Age of 79

**Jon Clements**
***University of Massachusetts Extension***

As many of you know, Frank was a stalwart of the Massachusetts apple industry and beyond. I won't go on to say how many leadership and advocacy roles he played for the local apple industry other than to say he was an advocate for UMass Extension and Research, including serving on the Trustees of the UMass Cold Spring Orchard where he and the others solicited many dollars for research and infrastructure improvement (tractors!) there. I encourage everyone to read Russell Powell's Memoriam to Frank (https://newenglandapples.org/2023/04/11/in-memoriam-frank-carlson/). Unfortunately, you need an account now to login to the Harvard Press to view Frank's Obituary (https://www.harvardpress.com/News/Obituaries/franklyn-walfrid-carlson) and a couple other articles (https://harvardpress.com/Features/Feature-Articles/town-and-farming-community-mourn-the-loss-of-frank-carlson-owner-of160carlson-orchards, https://harvardpress.com/Opinion/Editorial-Press-Opinion/franklyn-carlson) about his life and contributions to the Town of Harvard. (But it may be worth it if you have not seen them.).

I will remember Frank for my many visits to Carlson Orchards. Undoubtedly Frank would find Bruce and the three of us would pile in the truck (or 4-wheeler) and tour the current state of the Carlson Orchards. The norm was for Frank and brother Bruce to disagree (argue?)

Frank and Bruce Carlson with Jim Wargo and Mo Tougas figuring out some details of Accede application on May 25, 2021 at Carlson Orchards. (And enjoying some Carlson Orchards Cider!) Frank was always 100% engaged with every aspect of Carlson Orchards operation and success.

on how something should be done, and I always got a chuckle out of that. But I knew they could not live without each other either! And then there was Frank's ranting about the ongoing saga of the Cider Barn! LOL.

The last time I was at Carlson Orchards was a week after the February 2023 freeze which wiped out their (and everyone else's) peach crop. Shortly after that I was in Albany, New York for the Cornell fruit meeting, and met up with Bruce where he told me Frank was in the hospital and it "did not look good." I know Frank came home for the remainder of his days where he passed away peacefully on March 31. I also knew he had been ill for a while, but the news of his death was still a blow. One must wonder if Frank had just seen enough after the peach crop loss and foresaw the upcoming freeze of the apples on May 18 to call it quits?

A celebration of Frank's Life was held at Carlson Orchard on May 5 where a large crowd showed up expressing condolences to the family and appreciating his life. Many pictures of his family life, something I had never seen. We wish Bruce and Katie the best of luck going forward with Carlson Orchards and are always here to help.

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# Gil Barden Dies Unexpectedly at Age 64

**Jon Clements**
***University of Massachusetts Extension***

Rhode Island grower and friend Gil Barden died as the result of a terrible accident on May 25, 2023. Gil was working on cutting down a tree when a wayward limb fell onto him on a windy day resulting in his untimely death. It came as a gut punch to me when I found out what happened. I learned later one of Gil's skills was using the milled wood he harvested from his land for building lumber. Read Gil's obituary in the Providence Journal here. (https://www.providencejournal.com/obituaries/ppvp0497663)

Although I have known Gil and Sandra (Sandie) for many years, I got to know them better while traveling to New Zealand with the International Fruit Tree Association in 2018. We met up first in Atlanta, after leg one of four legs of flights to our destination in Hawkes Bay, NZ. Then in Houston after leg two where we had dinner and beers together. After getting off a very long flight from Houston to Auckland, we got off the plane together craving coffee and what did we see first right outside the arrival gate? A Dunkin Donuts! We said no way! and were informed of a local coffee truck outside the terminal where we truly enjoyed a good cup of Joe! I will never forget it!

I have to say Gil was a challenging guy, but a real good study, and worked tremendously hard with Sandie at Barden Family Orchard in N. Scituate, RI. They were both regulars (and hosts) at our cooperative MA/RI fruit twilight meetings, and had more recently often ventured north to our MA-only twilight meetings. I always appreciated seeing them there. The past couple years, Heather Faubert and I (with Heather's prompting) have nominated Gil and Sandie Barden for American Fruit Grower 'Apple Grower of the Year.' In the sidebar, read what I wrote in my nomination.

Our thoughts are with Sandie and the Barden family as they enter a challenging period at Barden Family Orchard sans Gil. I hope they feel free to reach out for help as necessary.

Sandra and Gil Barden enjoying a good cup of Joe at Auckland, NZ airport, February 25, 2018.

SIDEBAR – Jon Clements nominates Gil and Sandra Barden for American Fruit Grower of the Year

*Gil Barden exemplifies the smaller family orchard while maintaining a very high level of orchard management expertise. Gil and his wife Sandie -- they should be nominated as apple growers of the year -- operate a farm stand, go to farmers markets, and of course do pick-your-own, a New England fall tradition. Among orchards in Rhode Island, Gil has been a real study and reaches out for information across state lines and is the most proficient grower of hi-density apples in Rhode Island, including Honeycrisp. Gil and Sandie are*

*extremely hard workers, every time I visit them -- which is not too often, because they are out of state for me, but several times -- I am astonished by what they are up to, particularly during the growing, harvesting, and marketing seasons. I remember they attended the IFTA New Zealand tour recently, and it was a pleasure being with them there. Gil is somewhat shy, Sandie far less so -- she will let you know what she thinks for sure! (But in a rather nice way.) Barden's have hosted several Rhode Island-Massachusetts fruit growers meeting sponsored by Extension, and are supporters of Extension. Gil's Uncle John was an Extension Professor at Virginia Tech specializing in orchard research and teaching. I have no reservations nominating Gil (and Sandie!), they would make an excellent story, and are as worthy of apple grower(s) of the year as any I have seen, particularly if it is time to highlight some of the smaller -- yet essential for our quality of life and agricultural economy here in New England -- orchards.*

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# New Jersey News

Win Cowgill is conducting a plant growth regulator trial with Fine Americas, Inc. and Shawn Calahan, director of research at Adams County Nursery- Delaware location.

This continued research is looking at the plant growth regulator ARRANGE, which is primarily GA7, on apple trees in the nursery, combined with Exilis 9.5 SC PGR. A spray program of Exilis and Arrange produces a high quality apple tree with 12 -15 feathers. From our past research we know we also eliminate most of the flower buds on the one year tree greatly reducing bloom the year of planting. This is a tremendous cost saving benefit to the grower and significantly reducing the risk of the blossom blight phase of fireblight.

The photos below show photos of both Honeycrisp and EverCrisp (MAIA1) which are hard to feather in the nursery. After two applications you can see the young feathers forming.

Win Cowgill with Shawn Calahan, Ryan Calahan, Greg Sellers, Tom Calahan in a large apple nursery block at Adams County Nursery-Delaware. ADAMS County Nursery- https://acnursery.com. Fine Americas- https://www.fine-americas.com

July 6, Evercrisp (MAIA1) apple on G.935 rootstock at ACN. Feathers starting to form.

July 6, Premier Honeycrisp apple on G.935 rootstock at ACN. Feathers starting to form.

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