

# Tree Fruit News

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## Important Updates to Our Gala Storage and Harvest PGR Recommendations

*Daniel J. Donahue and Michael Basedow, CCE ENYCHP*

- Hudson Valley Gala producers are approaching a decision on ReTain application dates for 2022, and Champlain Valley growers won't be far behind. We've experienced a hot, dry summer to date in the Hudson Valley but it appears that at our predicted temperatures for August will moderate. The Champlain Valley has had a relatively seasonal June, a hot second half of July, and the forecast is calling for an average August.
- Temperatures expected in August are an important consideration when choosing an application timing.
- For 2022, Professors Watkins and Robinson have now settled on a ReTain application recommendation of **½ pouch per acre timed for 21 days pre-harvest when temperatures for August are expected to be "average"**. Research has shown that **when August temperatures are above average, the application date should be moved 7 days earlier, to 28 days pre-harvest**.
- Research has demonstrated that Gala treated as recommended above, and harvested above 17 lbs., and at or below a starch pattern index of 4.0 or less, then stored at 38F, will be substantially less susceptible to developing stem-end browning in storage.
- **Bottom line, pick Gala for long-term storage in a timely fashion.**

### What to Expect for this Season's Gala Harvest?

- The current **forecast for August** is that **temperatures will moderate and be essentially average** in both the Hudson Valley and Champlain Valley.
- A **survey of soil moisture status** at 8" (20 cm) in 19 of our Hudson Valley 'Honeycrisp' sites taken late last week shows our conditions to be quite dry, with an average reading of 78 centibars. There is still some soil moisture deeper in the profile and the trees were not obviously suffering from water stress. Overall fruit sizing was smaller than observed in previous years and the 78 centibar average was the highest observed since our measurements began in 2016.

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- Although our bloom dates were later in 2022 in the Hudson Valley, our heat unit accumulation has been greater and soil moisture conditions dryer than 2021 with **less rainfall and small fruit size**. Bloom was early in the Champlain Valley, and we are still running about two days ahead of our 5 year average DD accumulations. We've had more regular rain in the Champlain Valley than the other fruit regions of New York this summer, slightly above average in June and July, so we expect Gala fruit size will be average in the Champlain, all else being held constant.
- **Peach harvest** dates so far this season have been similar or a day earlier than 2021 in the Hudson Valley.
- **Reviewing our 2021** data for harvest maturity of a standard-strain Gala block in an Ulster County orchard that was not treated with PGR's, we see that on September 1 sampled fruits were at 18.1 lbs. with a 3.7 starch pattern index and a brix reading of 10.5% SS. In Peru last season, our harvest maturity block of Gala had received a ½ rate of ReTain a week ahead of harvest, and on September 7<sup>th</sup> spot picked fruit were measuring 16.6 lbs., a 4.8 starch pattern index, and a brix reading of 11.2% SS. You'll recall that 2021 was a low-brix year, often running 1% less than we usually expect.
- Factoring in all of the above, we expect the **1<sup>st</sup> pick date for Gala in mid-Ulster County to be similar to 2021**. Gala maturity from block to block varies by geographical position, microclimate, strain and crop load. Figure on the last few days of August for Orange and Ulster Counties, September 1<sup>st</sup> or 2<sup>nd</sup> for Columbia County. **We expect harvest dates in Clinton County to be a day or two later than last year.**
- **In conclusion, our recommendation for ReTain rate and timing on Hudson Valley Gala in 2022** will be a ½ pouch per acre

applied during the week of August 8<sup>th</sup> with the specific date depending on the factors described above along with weather conditions at the time of application. **In the Champlain Valley**, this application should likely be applied near the end of the week of August 15<sup>th</sup>, around the 18<sup>th</sup>/19<sup>th</sup>, with the specific date depending on the factors described above along with weather conditions at the time of application.

- **Waiting too long** for color development can result in the harvesting of Gala which is over-mature for long-term CA storage even if the fruit appears ok at harvest. Consider targeting your blocks with hi-color strains that color well and have been treated with harvest PGR's for **long-term storage**, getting the fruit off the tree and into storage by the first few days of September at the latest in the Hudson Valley, and mid-September in the Champlain. Place later-picked Gala into shorter-term storage for more timely marketing before SEFB can develop.

#### From the Post-Harvest Webinar presented by Dr. Chris Watkins last Thursday:

- PGR use is recommended with appropriate timing.
- Harvest indices based on SPI (<4.0) and IAD values (<40).
- 1-MCP treatment is recommended.
- Early harvest for long-term storage (even though size is sacrificed).
- 1-2% oxygen and 1% carbon dioxide for standard CA.
- 0.5% oxygen and 1% carbon dioxide if facilities allow.
- 38F storage temperature reduces SEFB while maintaining acceptable quality.

## Late Season Apple Insect Pests

*Art Agnello, Cornell University; edits by Michael Basedow, CCE ENYCHP and Monique J. Rivera, Cornell University*

As harvest preparations are being made, it is worth keeping in mind the late season arthropod pests that can still pop up and complicate life during the dog days of August. Take some time to ensure that your pest management program is not overlooking the following potential problems during this period:

### Apple Maggot



*Apple maggot stings without tunneling larvae. Photo: Harvey Reissig*

We typically get the highest trap captures during the first week of August. This year our Eastern NY traps began capturing the apple maggot in early July, and treatment thresholds were reached in some blocks starting about mid-July. Continue to monitor your traps carefully, and be ready to apply a preventive

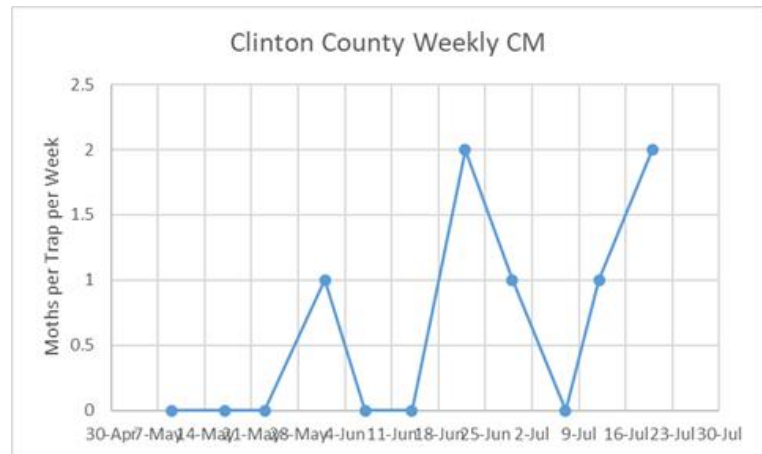
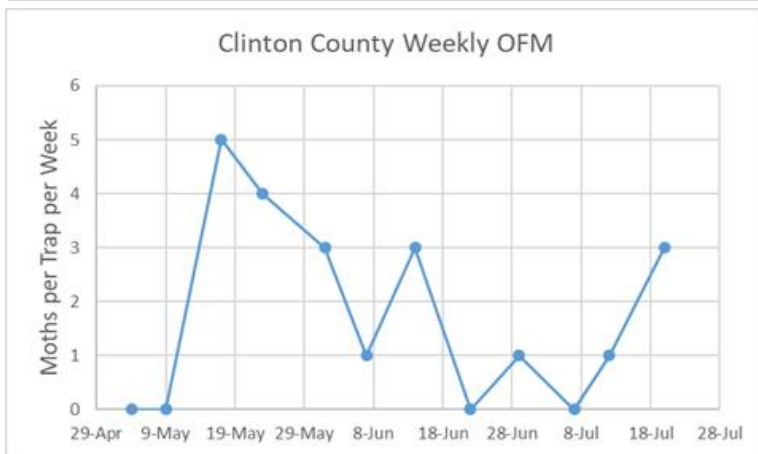
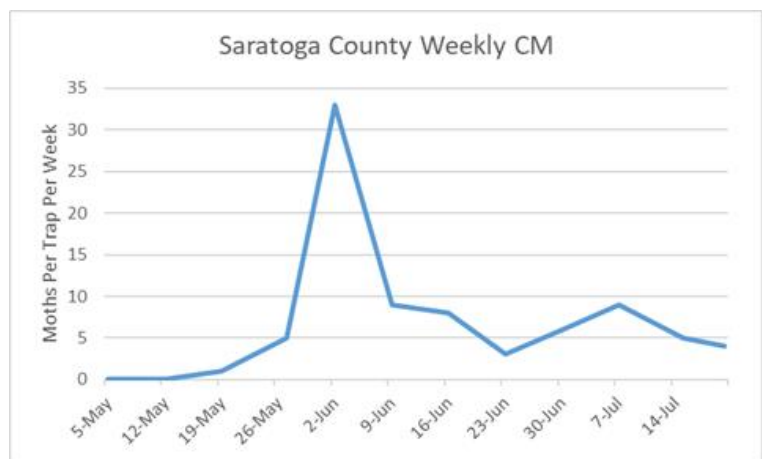
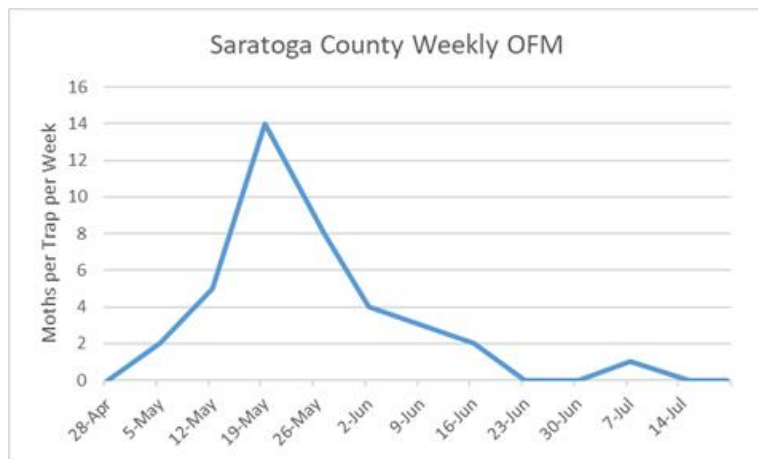
spray if necessary. Options include: Imidan, Assail, Avaunt, Delegate, Exirel, certain premixes such as Endigo, Leverage, Besiege, and the pyrethroids.

### Internal Lepidoptera

Currently, the codling moth is in its second generation across NYS. Recommended management options include Altacor, Assail, Delegate, Verdepryn, Exirel, Besiege, and Minecto Pro. Pyrethroids and OPs may be less suitable because of locally resistant populations. This is also a suitable time for Cyd-X granulosis virus applications against codling moth, or Madex HP or ViroSoft CP4 against both OFM and codling moth.

### European Corn Borer

This late season moth can be active until the middle of September, so larvae can be a threat, particularly to later varieties. Delegate is a good option for control, and 1-2 sprays of a B.t. product can also be a useful alternative.



## Mites

Our warm temperatures are still capable of promoting flare-ups of mites. The 7.5 mites/leaf threshold (sampling chart on p. 77 in the Cornell Guidelines) would apply now that we have reached August. There are several good rescue materials available, if needed. Check the acaricide efficacy table on p. 66 of the Guidelines for ratings against TSSM vs ERM.

## Woolly Apple Aphids

Colonies in the canopy are present and can always increase. It is probably too late for a Movento application to be effective, but Assail (plus a non-ionic surfactant), Admire Pro, Sivanto Prime, or Beleaf could be of use. For fruit not intended for European markets, baby food, or any of the eco/sustainable fruit program buyers, Diazinon remains the best option on the market. Let us know if you have any WAA in your orchards, as Dr. Gennaro Fazio is looking for samples!



Woolly apple aphid colony.  
Photo: Art Agnello

## San Jose Scale

This old-timer refuses to fade away, and together with white prunicola scale, represents an increasing challenge to fruit quality during the late summer. We began catching adults of the 2nd generation SJS around July 20th in the Champlain Valley, the next

batch of crawlers is expected 400 DD (base 50°F) from this adult emergence, which should be close to about August 5 following the degree day model. Alternatively, monitor for fresh crawler emergence using black electrical tape tied around the limb of a tree with a known infestation. Esteem, Centaur, and Sivanto Prime are the go-to choices for problem blocks; for more moderate pressure situations, Assail, Admire Pro (as noted for WAA above), or Venerate are appropriate; the first two options will serve double duty if they're already being used for apple maggot and/or leafhoppers.

## Japanese Beetle

This once invasive but now entrenched foliar feeder is having another abundant occurrence in portions of ENY this season, and continues to cause noticeable damage to apples and stone fruits; heavy infestations can also result in damaged fruit. Check your trees again and keep open the possibility of a (nother) application of an effective preventive/rescue spray. Options include Assail, Sevin, Endigo, or Besiege (in apples) or Admire Pro, Assail, Sevin, Imidan, Endigo, Exirel, Leverage, Minecto Pro, or Besiege (in cherries or peaches).



Japanese beetles on apple leaves.. Photo: Art Agnello

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### Brown Marmorated Stink Bug

At this point in the season, BMSB populations are an increasing threat. Trap captures are increasing significantly in the Hudson Valley region and we are also finding them in WNY. We expect their numbers to increase, as they usually start entering the orchard in earnest in late July/early August, if they have not already.

Black pyramid or clear panel sticky traps baited with a commercial lure can be excellent monitoring tools and are effective at capturing BMSB adults and nymphs season-long, even when populations are low. In apples, research in New York, West Virginia, and Maryland has demonstrated that captures in black pyramid traps can be used to trigger a management action. When cumulative captures of adult BMSB in pyramid traps within the orchard or at the orchard border reaches a threshold of 10, an effective insecticide is applied as two alternate-row-middle sprays with 7 days between. This strategy has been demonstrated to reduce the number of BMSB-targeted sprays while maintaining good control of injury. The threshold for clear panel sticky traps has not been determined, but is considerably lower than for the black pyramid traps. Research has demonstrated that BMSB injury to apples at harvest tends to be greatest in fruit from the upper canopy of trees in border rows next to woods, aiding injury scouting efforts during the season. It is recommended that scouting for BMSB injury to peaches and nectarines should include periodically inspecting sampled fruit for internal injury, since it may not be associated with injury on the fruit surface. We are initiating a study this season to investigate damage by BMSB on late season apples and hope to be able to clearly show differences in damage from bitter pit.

One of the most effective tools for use in managing BMSB is the active ingredient bifenthrin, which is available in a number of formulations. Bifenthrin has a 12-hr re-entry interval, a 14-day pre-harvest interval, and a 30-day re-application interval. Brigade 2EC and Brigade WSB are now registered by the EPA and the DEC. Both have approved primary and supplemental labeling covering use on apples against stink bugs (plus several other insect species). Labels were approved by the DEC on April 5, 2022 and June 17, 2022, respectively. Other management tools for BMSB can be found in the Cornell Guidelines.

### Looking for More Tree Fruit IPM Resources?

For additional **apple IPM** information, we highly recommend reviewing the videos available at <https://www.youtube.com/playlist?list=PLoNb8lODb49vifrm9Tla4GmAVhIL0527>

For **stone fruit IPM** information, visit our video playlist on Youtube at [https://www.youtube.com/playlist?list=PLk2Q-bw9Aiu5NUJa7Iwl\\_Obs1V5-RSUGb](https://www.youtube.com/playlist?list=PLk2Q-bw9Aiu5NUJa7Iwl_Obs1V5-RSUGb)



Clear panel trap used for catching stink bugs. Photo: Steve Schoof, NCSU



Above: Late season external stink bug feeding damage at harvest. Photo: Jim Engelsma

Right: A black pyramid trap for catching BMSB and other stink bugs".

Photo: MSU Extension





## Perennial Broadleaf Issues? Consider Applying 2, 4-D and Clopyralid (Stinger) this Fall

Michael Basedow, CCE ENYCHP and David Bittner, Bittner-Singer Orchards

While it is probably difficult to think about the post-harvest season at this time of year, I want to share a perennial weed management strategy now so you have time to plan accordingly in case you would like to implement it on some of your blocks this fall.

This strategy was explained to me by David Bittner of Bittner-Singer Orchards, and entails a post-harvest 2,4-D and clopyralid (Stinger) application, applied across the entire orchard floor “from tree to tree”. The idea here is to hit both the herbicide strip and the row middle in a single pass, removing as many broadleaves from the strip and row middle as you can, while leaving your orchard sod intact. He has found from personal experience that treating against these weeds in the herbicide strip alone doesn’t do the job, as they’ll still persist in the row middle, and simply creep back into the strip.

This strategy is most helpful in orchards with heavy perennial broadleaf pressure. In particular, heavy pressure from Canada thistle, field or hedge bindweed, or curly dock would likely warrant this application. While high densities of these species should be the main justification for this application, additional benefits of this application would include cleaning up some of your less troublesome broadleaves as well, including your dandelions and any annual broadleaves that are still actively growing late in the season.

David explained that some additional big-picture benefits of this application include:

- These perennials are difficult to control with applications made at other times of the year. Many perennial weeds are most susceptible to systemic herbicides in the fall, prior to frost events while they are still actively growing. Glyphosate **should NOT** be used after early-July, as it can have sub-lethal effects on the trees, and make the trees more susceptible to winter injury.
- This application reduces dandelions (and other broadleaves) in the row middle. This reduces the chance of your tractor overheating from a radiator plugged with dandelion seed in the spring (Figure 1).
- Removing flowering broadleaves from the row middles may keep pollinators out of your treatment areas, potentially making insecticide applications less harmful to pollinators.
- Many insects, such as the tarnished plant bug, can be found in broadleaf weeds. Removing them from the orchard floor can help reduce your crop insect damage when the orchard floor is mowed. David found his tarnished plant bug damage substantially decreased once he started implementing this program.
- Broadleaves can harbor viruses that can infect apple; removing them from the orchard floor may further decrease the chance for virus spread.

David finds this fall application greatly suppresses these problem perennials for three years. He said you could also apply these materials in the spring pre-bloom before dandelion goes to seed,



Figure 1. This row was sprayed “tree to tree” in the fall of 2020. The photo was taken this season, and is still mostly broadleaf-free.

but has found the spring timing only provides about two years of suppression.

While this application will help clean up your perennial broadleaves, it should complement your already existing weed management program to keep the rest of your weeds under control the rest of the year. You will still want to keep on top of your residual applications in the late fall/spring, and will likely want to use a follow up contact application or two in the late spring and summer.

### Some tips to implement this program successfully:

- David was able to use the herbicide boom sprayer he already had, but his team attached an additional boom to the front of the tractor so that they could spray the entire tree-to-tree orchard floor in one pass. (Figures 2-4)
- Timing of this application (like most herbicides) is important. The application should go on post-harvest, but prior to frost so that weeds are still actively growing at the time of the application. Frost damaged plants will not translocate the herbicide down into the roots as well, so control would be limited.
- Herbicide strips should already be fairly well-managed ahead of this application. Weeds that are taller than your boom will likely not be controlled, and raising the boom too high greatly increases the risk for tree injury.
- On the flipside, applying to a bare herbicide strip will also limit

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efficacy. Weeds need to be present and actively growing in order to take up and translocate the herbicides.

- Do not tank mix this application with a burndown product. Burndown products, like paraquat or glufosinate, will also quickly stress out the weeds and limit the amount of systemic herbicide translocation into the roots.
- If you want to make a fall pre-emergent application, I would do the 2,4-D + clopyralid first, and then follow up with the pre-emergent application later after the herbicide strip has cleared up. Remember that most pre-emergent herbicides need to be applied to bare ground for good soil contact.
- Both of these products can only be applied to trees that are one



Figure 2. David's sprayer setup. An additional boom is attached to the front of his tractor so he can spray the entire row from tree to tree.

year old and older, and should be well established, exhibiting good plant growth. Follow both labels closely to make sure you are maximizing your weed control while also keeping your trees in good health.

If you have tough perennial broadleaves, and are interested in implementing this strategy, feel free to get in touch with me at [mr254@cornell.edu](mailto:mr254@cornell.edu) or 518-410-6823. I'd be interested in collecting some data off of your site! You can also get in touch with David for additional details on this strategy and how he put together his sprayer. He can be reached at [david@bittnersingerorchards.com](mailto:david@bittnersingerorchards.com), or at 716-778-7330.



Figure 3 (left). A close-up of the extra boom. Figure 4 (right). The base of the sprayer includes two pins and one quick coupler to attach the front boom to spray the entire orchard floor.

## Keep an Eye Out for Brown Marmorated Stink Bug

**Janet van Zoeren, Cornell LOFP; Daniel J. Donahue, Michael Basedow, CCE ENYCHP; and Monique Rivera, Cornell AgriTech**



External stink bug feeding damage at harvest. Photo: Jim Engelsma

The brown marmorated stink bug (BMSB), an invasive insect pest of apples, peaches, grapes, nuts, vegetable crops and more, has been on our minds and in our crops and homes for years now. Many growers we've spoken with in NY are most familiar with this pest because of their habit of overwintering in homes and barns, often aggregated in large numbers. However, increasingly often, we're

speaking with growers who also see them or their damage in orchard blocks. While we expect there to be low BSMB pressure in Northern NY, they are established in the Hudson Valley, and are believed to now be a nuisance to growers as far north as the Mohawk Valley and Saratoga County.

The management threshold is generally considered to be a cumulative 10 BMSB adults per trap since the last spray (so if you

trap 6 in a week, and then trap 5 the next week, it would be considered time to spray again). BMSB damage can be difficult to identify, even minor stink bug symptoms at harvest can be much worse coming out of storage, and basically no visible symptoms show up for at least a week after feeding. We also have many native stink bugs across New York, which can also cause similar damage to fruit late in the season. Because of those factors, it is not well understood at this time how economically important BMSB feeding is in NY apples, and how damage correlates to trap catch numbers.

It is important to consider variety when prioritizing scouting time for BMSB. Previous work has shown BMSB are more attracted to, and thus tend to damage more, Honeycrisp apples or varieties with Honeycrisp parentage. This is thought to be due to the different volatile profile or scent of Honeycrisp as well as timing in the season (apples harvested later are more likely to coincide with times when



Internal damage, probably caused by stink bug in Empire apples. Photo: Phil Schwallier



BMSB is prevalent in the orchard). Another aspect of BMSB ecology to consider is if you have Tree of Heaven (*Ailanthus altissima*) on your property. Similar to BMSB itself, Tree of Heaven is an invasive to the United States from China and it is the preferred host of BMSB, which can increase pressure on your property. If you haven't already located and removed this host from your property, now is as good a time as any as it has recently been discovered that another invasive from China, the Spotted Lanternfly, also uses Tree of Heaven as its preferred host.

This summer, in an ARDP funded research project, we are going to assess late season damage by BMSB in apples throughout the state of New York. There are two parts to our research. First, we will be forcing damage from colony-reared BSMB of varying ages, by caging the stink bugs onto fruit with Honeycrisp parentage and documenting damage symptoms over time and after storage. Second, we are monitoring BMSB at eight orchards across the state,

and then will conduct a damage assessment at harvest, to begin to address how trap catch numbers correlate to damage. Please help us out by letting us know if you see stink bugs in your orchards, and if you see any BMSB feeding damage as the season progresses!



*Tree of heaven is another invasive, and is the preferred host of BMSB. Photo: nature.org*

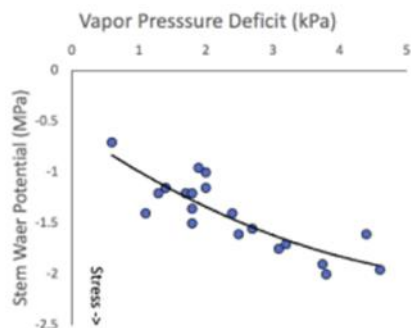
## Practical Implications of Early– and Mid-Summer Water Stress on Tree Growth, Cropping, and Physiology

**Alan N. Lakso, Terence L. Robinson, Luis Gonzalez, and Mario Miranda Sazo, Cornell University**

The sunnier weather we experienced in June 2022 should have been good for photosynthesis and resulted in greater production of carbohydrates to support fruit growth compared to other years, unless the hotter temperatures and lack of rainfall in late June/early July 2022 in portions of Eastern New York have induced water stress in the plant. This is the kind of situation where even with irrigation apples don't always size that well. We think it is because the high temps and high evaporative demands with the rather high hydraulic resistance of apple roots, we get some significant stresses even with wet soil. The following Figure 1, modified from Mark O'Connell and Ian Goodwin in Australia, shows that increased afternoon vapor pressure deficit (VPD) creates greater stress in the plant. In a study we did with fruit growth monitors we found the fruit started to expand about 2 pm each day but with afternoon VPD's of 3 kPa even with irrigation the trees still experience stress and fruit growth is reduced.

This is the type of situation that we think overhead misting or overhead nets could help. Misting cools the tree to reduce transpiration, while nets reduce radiation and transpiration. We have not conducted this kind of physiology research in NY, but with the types of droughts and heat like 2016, early 2018, early 2020, and this year, it might be well worth trying in the future. We are currently

conducting a project with the support of USDA-Specialty



*Figure 1: Relationship of increasing Vapor Pressure Deficit (increasingly drier and hotter air) on plant stem water potential (more negative values indicated more stress) in irrigated trees on sunny days. Modified from O'Connell and Goodwin, 2007.*

Crop Research Initiative (SCRI), and New York Farm Viability Institute (NYFVI) to use new apple micro-tensiometers and fruit growth gauges to monitor plant stress (stem water potential) and their relations to real-time fruit expansion to see if we can avoid reductions in fruit growth during stress periods. One practical approach to managing water stress is to use summer pruning or hedging to reduce tree leaf area during droughts. One of our former students (Kuo-Tan) found that fairly heavy summer pruning reduced tree transpiration and caused less water stress. We were surprised, thinking that the interior leaves would just increase their transpiration, but if they were in the shade for very long, they lose some gas exchange capacity, so they don't use as much water as the young exposed leaves we removed. This does also reduce photosynthesis, but if water stress is a greater problem it may be worth it, assuming there is no loss by sunburn.

### How Water Stress Affects Apple Trees

Whenever the water-use demands of a tree cannot be met due to dry soil or sunny, hot dry conditions, stress will develop.

### Timing of Water Stress

Growth processes by cell division are more sensitive to water stress than processes such as cell expansion, storage and photosynthesis or transpiration. Consequently, water stress that develops in the spring and early summer can have dramatic effects on vegetative growth, fruit growth and fruit set because early-season shoot growth and early development of fruits are primarily by cell division processes. If the drought develops early in the season, there will be a reduction in vegetative growth, which will reduce leaf area and possibly canopy light interception. Crop load may also be reduced by early stress that may affect fruit size potential and final set, leading to lighter

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crop load. These responses can change future water requirements later in the season.

Water stress that develops more typically in midsummer will have less effect on vegetative growth and less effect on fruit yield, as canopy development and fruit set are complete or nearly so by summer.

### Effects of Water Stress on Vegetative Growth

Since adequate water is needed for cell turgor to drive expansion growth of apple leaves and stems, shoot growth is sensitive to water deficits. Detailed measurements of shoot growth rate in relation to plant water stress indicate that shoot expansion is almost linearly reduced by declining midday stem water potentials showing increasing stress (Figure 2). Although mature leaves can osmotically adjust to maintain turgor, apple shoot tips do not. Therefore, shoot-tip turgor and growth will decline directly with declining water potentials. Fruit and roots have been shown to adjust osmotically for turgor maintenance.

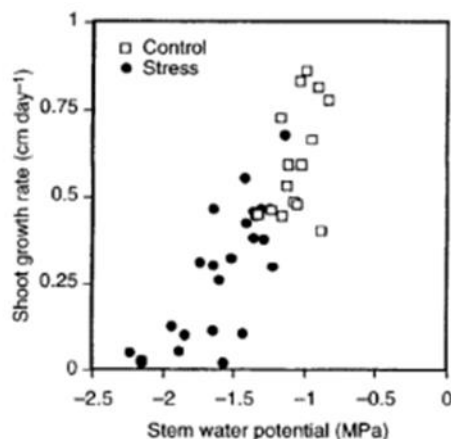


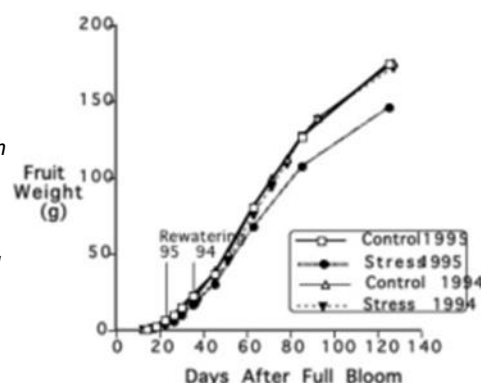
Figure 2: Relationship of extension-shoot growth rate to variations in midday stem water in apple trees as affected by drought stress (M. Al-Hazmi and A. Lakso, unpublished data). The more negative the potential, the greater the stress.

### Effects of Water Stress on Fruit Growth and Development

Water stress reduces several aspects of fruit growth. Fruit set in the first weeks after bloom appears to depend on maintenance of an adequate rate of fruit growth. Therefore, reductions in fruit growth during the early cell-division period can reduce both fruit set and the potential for good fruit size at harvest, although these early-season processes are often complete before severe stress develops. The effects of water stress on fruit development appear to be more severe if the stress occurs during the cell-division period (3-4 weeks after full bloom). Reductions in growth during cell division are manifested over the remainder of the season, even if water is abundant later (Figure 3). Some years ago, we conducted a study of early water stress on fruit growth of potted Empires. We stopped watering the trees in the cell division period for 10-12 days then re-watered all season. In 1994 the stress did not develop until after cell division, and we saw some initial size reduction, but it recovered by harvest. In 1995 the stress was earlier, and so it presumably reduced cell numbers and even with good water for the rest of the season

the final size was reduced. We believe that this year we might see a range of situations like this with varying times of stress starting depending on soil reserves and rainfall.

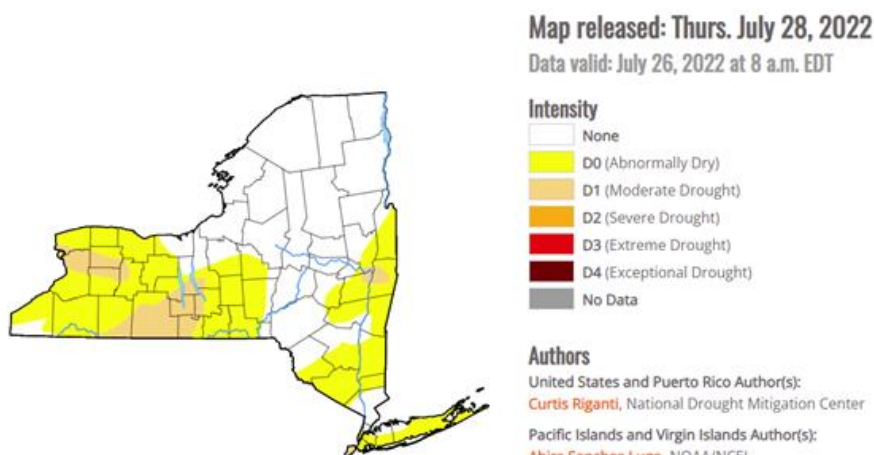
Figure 3: Apple fruit growth as affected by short-term water stress during cell division (1995) or after cell division (1994) on seasonal fruit development (M. Al-Hazmi and A. Lakso, unpublished data).



### Summary

Generally, sunlight affects carbohydrate supply while temperature affects more the demand for that carbohydrate. The balance of carbohydrate supply to demand is important to fruit development and thinning as we have learned. The tree can be in balance with less sunlight if it is cool as both supply and demand are reduced. Conversely, the tree can also be in balance in sunny warm conditions as both supply and demand are increased assuming there is no drought. The worst situations are cloudy and hot weather and warm nights, as demands increase but the supply is not only reduced by lower light but also the heat can reduce photosynthesis even further. Hot, dry conditions where VPD is high can lead to significant water stress as discussed above. The drought complicates things. If the stresses that developed in the trees in the last 4-6 weeks were enough to reduce photosynthesis, then fruit growth rate was reduced. Monitoring fruit growth during droughts is a very useful tool in any case as it integrates a lot of such competing factors. Finally, it is essential to have irrigation for tall spindle plantings to ensure tree establishment and maximize fruit size at any given crop load. Water stress at any time of the season reduces fruit growth rate with permanent loss in fruit size, which is difficult to recover later. Also, very dry soil conditions can reduce the availability of nitrogen, phosphorous, potassium, calcium, and boron to tree roots.

We hope some of the rains we are now getting will help to mitigate the negative effects of the 2022 drought on fruit size and yield. Good luck the rest of the 2022 season!





# USDA Announces Assistance for On-Farm Food Safety Expenses for Specialty Crop Growers: New Program Part of Broader Effort to Transform Food System, Create Jobs

*Elisabeth Hodgdon, CCE ENYCHP*

Agriculture Secretary Tom Vilsack announced that the U.S. Department of Agriculture (USDA) plans to provide up to \$200 million in assistance for specialty crop producers who incur eligible on-farm food safety program expenses to obtain or renew a food safety certification in calendar years 2022 or 2023.

USDA's new Food Safety Certification for Specialty Crops (FSCSC) program will help to offset costs for specialty crop producers to comply with regulatory requirements and market-driven food safety certification requirements, which is part of USDA's broader effort to transform the food system to create a more level playing field for small and medium producers and a more balanced, equitable economy for everyone working in food and agriculture.

Specialty crop operations can apply for assistance for eligible expenses related to a 2022 food safety certificate issued on or after June 21, 2022, beginning June 27, 2022. USDA is delivering FSCSC to provide critical assistance for specialty crop operations, with an emphasis on equity in program delivery while building on lessons learned from the COVID-19 pandemic and supply chain disruptions. Vilsack made the announcement from Hollis, N.H., where he toured a local, family-owned farm and highlighted USDA's efforts to help reduce costs for farmers and support local economies by providing significant funding to cut regulatory costs and increase market opportunities for farmers in New Hampshire and across the nation.

## Program Details

FSCSC will assist specialty crop operations that incurred eligible on-farm food safety certification and related expenses related to obtaining or renewing a food safety certification in calendar years 2022 and 2023. For each year, FSCSC covers a percentage of the specialty crop operation's cost of obtaining or renewing their certification, as well as a portion of their related expenses.

To be eligible for FSCSC, the applicant must be a specialty crop operation; meet the definition of a small business or very small business; and have paid eligible expenses related to the 2022 (issued on or after June 21, 2022) or 2023 certification.

Specialty crop operations may receive assistance for the following costs:

- Developing a food safety plan for first-time food safety certification.
- Maintaining or updating an existing food safety plan.
- Food safety certification.
- Certification upload fees.

- Microbiological testing for products, soil amendments, and water.
- Training.

FSCSC payments are calculated separately for each category of eligible costs. A higher payment rate has been set for socially disadvantaged, limited resource, beginning, and veteran farmers and ranchers. Details about the payment rates and limitations can be found at [farmers.gov/food-safety](https://farmers.gov/food-safety).

## Applying for Assistance

The FSCSC application period for 2022 is June 27, 2022, through January 31, 2023, and the application period for 2023 will be announced at a later date. FSA will issue payments at the time of application approval for 2022 and after the application period ends for 2023. If calculated payments exceed the amount of available funding, payments will be prorated.

Interested specialty crop producers can apply by completing the FSA-888, Food Safety Certification for Specialty Crops Program (FSCSC) application. The application, along with other required documents, can be submitted to the FSA office at any USDA Service Center nationwide by mail, fax, hand delivery or via electronic means. Producers can visit [farmers.gov/service-locator](https://farmers.gov/service-locator) to find their local FSA office. Specialty crop producers can also call 877-508-8364 to speak directly with a USDA employee ready to assist.

Producers can visit [farmers.gov/food-safety](https://farmers.gov/food-safety) for additional program details, eligibility information, and forms needed to apply.



*An apple packing line. Photo: ewatersystems.com*

## ENY Late Summer Orchard Field Meeting

August 16, 2pm—4:30pm  
Hicks Orchard  
18 Hicks Rd. Granville, NY 12832

Join us for a late-summer field meeting. Cornell researchers and extension specialists will give talks on management tasks to be mindful of late in the season as we head into harvest. We will then walk through the orchard to look for some of the issues discussed, and further discuss their management strategies in the field. We will then discuss how the crop is shaping up around the greater ENY region, and will allow ample time for you to share your thoughts on this year's crop, and to answer any other questions you may have.

**1.25 DEC credits are available for this meeting. Please register ahead.**

**Register Here:** [https://enych.cce.cornell.edu/event\\_preregistration\\_new.php?id=1691](https://enych.cce.cornell.edu/event_preregistration_new.php?id=1691)

**Contact Mike at 518 410 6823 or [mrb254@cornell.edu](mailto:mrb254@cornell.edu) with any questions.**

### Agenda

- 2 - 2:10 pm - DEC Sign in, Welcome, and Introductions - Mike Basedow
- 2:10 - 2:30 pm - Late Summer Disease Management - Dr. Kerik Cox
- 2:30 - 2:50 pm - Late Season Insect Management - Dr. Monique Rivera
- 2:50 - 3:05 pm - Late Season Orchard Physiology - Dr. Jason Londo
- 3:05 - 3:15 pm - Bitter Pit Updates - Dan Donahue
- 3:15 - 3:25 pm - Late Season Weed Management - Mike Basedow
- 3:25 - 4:00pm - Orchard IPM Walk and Talk
- 4:00 - 4:30pm - 2022 Preharvest Crop Status Updates
- 4:30pm - Meeting adjourn



## Tree Fruit Specialists

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## Business Specialist

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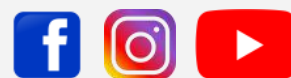
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The Eastern New York Commercial Horticulture Program is a Cornell Cooperative Extension partnership between Cornell University and the CCE Associations in these seventeen counties: Albany, Clinton, Columbia, Dutchess, Essex, Fulton, Greene, Orange, Montgomery, Putnam, Rensselaer, Saratoga, Schenectady, Schoharie, Ulster, Warren & Washington.