

Dealing with COVID-19 for NYS Greenhouses

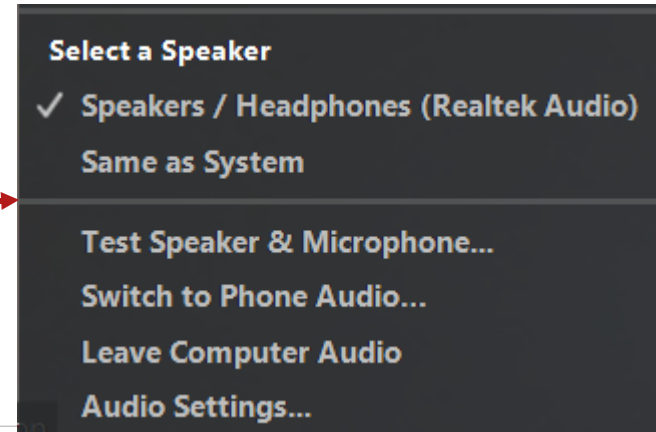
- Webinar begins at 2:00 pm EST
- Audio is through computer speakers/headset
 - You won't hear audio until we begin
- Use the audio settings (**up arrow next to the microphone icon**) to do a sound check
- During webinar if you do not hear audio make sure your sound is turned on, if needed use Chat to ask for help



How to ask questions

1. Click on the Q&A icon to submit a question to the presenters
2. Type your question in the box and click the send button

Sound
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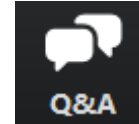
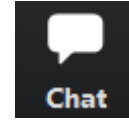


Agenda

- **NYS Essential & non-essential businesses**, Julie Suarez
- **Agricultural workforce management**, Richard Stup
- **Submitting questions to Cornell extension personnel and diagnostic labs**, Lindsey Christianson
- **Marketing greenhouse crops: results of recent industry survey**, Neil Mattson
- **Brief update on disease & pest issues in spring 2020**, Margery Daughtrey and John Sanderson

Housekeeping notes

- All attendees are muted
- Use chat to ask any technical questions (audio, etc.)
- Use Q & A to ask questions for speakers
- After each speaker we will take your questions
 - We will try to get through as many as possible, if we didn't get to your question we will answer it after webinar
- Slides and recorded webinar will be available at:
<http://blogs.cornell.edu/cornellcea/>



NYS Essential & non-essential businesses

*Julie Suarez, Associate Dean for Land-Grant Affairs,
Cornell University*

Essential vs Non-Essential Horticulture Businesses

- At this time, **horticulture** is designated as a non-essential business (with the exception of nurseries/greenhouses selling food producing plants). Please note that landscaping for maintenance and pest control purposes has been designated as essential. <https://agriculture.ny.gov/coronavirus>
- **ESDC Guidelines as Essential:** Food Processing, Food Producing Agriculture/Farms
- **ESDC Guidelines:** With respect to business or entities that operate or provide both essential and non-essential services, supplies or support, only those lines and/or business operations that are necessary to support the essential services, supplies, or support are exempt from the workforce reduction restrictions.
- **ESDC Guidelines as Essential Services:** (also includes animal care) maintenance for the infrastructure of the facility or to maintain or safeguard materials or products therein

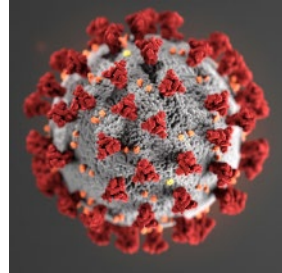
Questions?

NYS Essential & non-essential businesses

*Julie Suarez, Associate Dean for Land-Grant Affairs,
Cornell University*

Agricultural workforce management

Richard Stup, Cornell Agricultural Workforce Development



COVID-19 (Coronavirus) and Your Produce Farm

Richard Stup, Ph.D., Cornell Agricultural Workforce Development, rstup@cornell.edu,

Elizabeth Bihn, Ph.D., Produce Safety Alliance at Cornell University, eab38@cornell.edu

Anu Rangarajan, Ph.D., Cornell Small Farms Program, ar47@cornell.edu

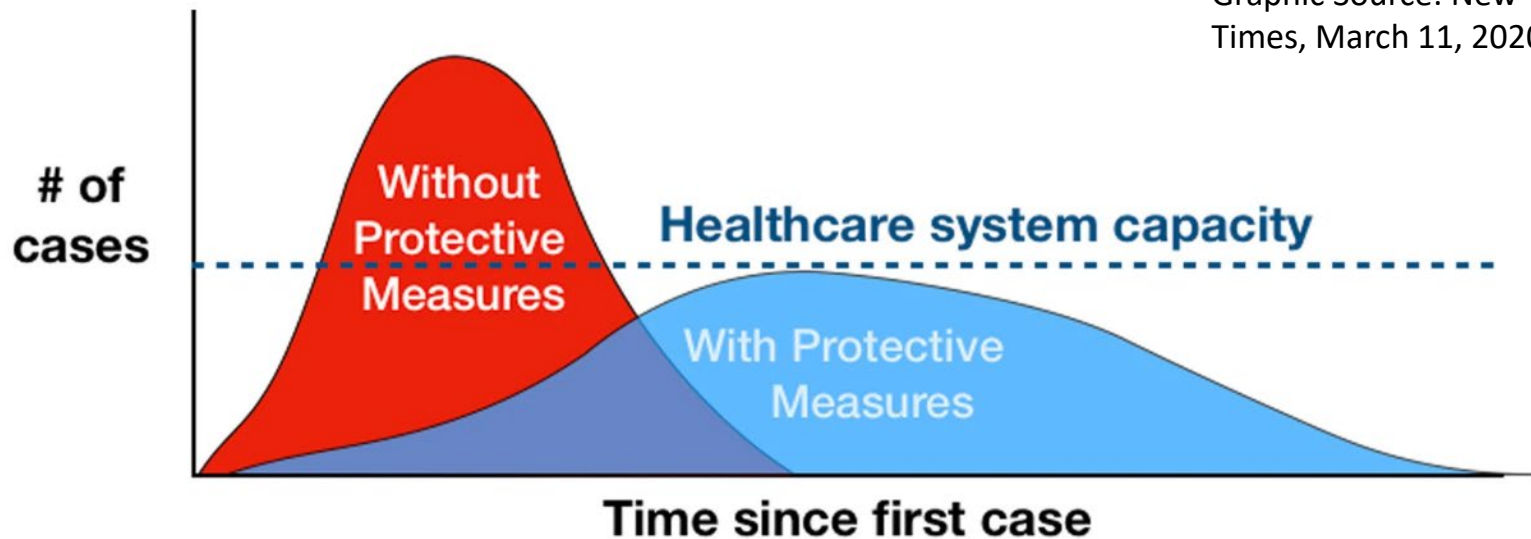


Leadership

- This is a very stressful time for everyone, people are looking to their leaders for help
- Farm owners and managers are experienced in dealing with stressful conditions and operating under sudden constraints
- Lead by example, actions speak louder than words
- Encourage questions
 - All questions are good questions
 - Just because something seems obvious to you, do not assume it is obvious to everyone else

Flattening the Curve

Graphic Source: New York Times, March 11, 2020



Adapted from CDC / The Economist



Cornell Cooperative Extension
**AGRICULTURAL
WORKFORCE
DEVELOPMENT**

Produce Safety
ALLIANCE



Prevention & Control Resources

- Talk with employees about coronavirus, how it spreads, and how to prevent infection.
- Post language-appropriate information in your workplace and employee housing.
- New York State Department of Health has a [Coronavirus Website](#) with posters in [English](#), [Spanish](#) and other languages for preventing coronavirus infection.
 - (<https://coronavirus.health.ny.gov/protect-yourself-and-your-family-coronavirus-covid-19>)
- U.S. Centers for Disease Control and prevention (CDC) provides clear guidance about preventing infection in [English](#), [Spanish](#) and many other languages.
 - CDC [printable factsheets and posters](#), download at:
<https://www.cdc.gov/coronavirus/2019-ncov/communication/factsheets.html>
 - CDC also provides: [Interim Guidance for Businesses and Employers to Plan and Respond to Coronavirus Disease 2019 \(COVID-19\)](#)

Use Visuals and Language-Appropriate Resources

STOP THE SPREAD OF GERMS

Help prevent the spread of respiratory diseases like COVID-19.

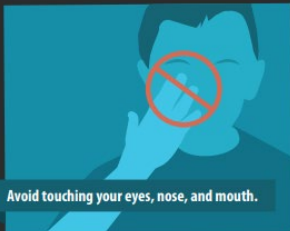
Avoid close contact with people who are sick.



Cover your cough or sneeze with a tissue, then throw the tissue in the trash.



Avoid touching your eyes, nose, and mouth.



Clean and disinfect frequently touched objects and surfaces.



Stay home when you are sick, except to get medical care.



Wash your hands often with soap and water for at least 20 seconds.



cdc.gov/COVID19

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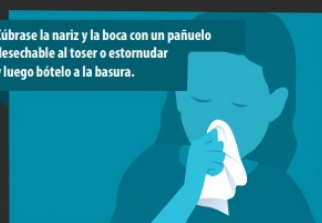
DETENGA LA PROPAGACIÓN DE LOS MICROBIOS

Ayude a prevenir la propagación de enfermedades respiratorias como el COVID-19

Evite el contacto cercano con las personas enfermas.



Cúbrase la nariz y la boca con un pañuelo desechable al toser o estornudar y luego bótelo a la basura.



Evite tocarse los ojos, la nariz y la boca.



Limpie y desinfecte los objetos y las superficies que se tocan frecuentemente.



Quédese en casa si está enfermo, excepto para buscar atención médica.



Lávese las manos frecuentemente con agua y jabón por al menos 20 segundos.



cdc.gov/COVID19-es

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Informational videos about
Coronavirus in Spanish and Mam
(spoken by many Guatemalans):

www.farmworkers.cornell.edu

www.trabajadores.cornell.edu

Provided by Cornell Farmworker
Program

Actively Manage Cleaning and Disinfection in the *Workplace* and *Employee Housing*

1. Set up regular weekly and daily schedules with assigned responsibility
 - CDC guidance for cleaning homes: <https://www.cdc.gov/coronavirus/2019-ncov/community/home/cleaning-disinfection.html>
 - OSHA COVID-19 resources, including [guidance on preparing workplaces](https://www.osha.gov/SLTC/covid-19/guidance-on-preparing-workplaces): <https://www.osha.gov/SLTC/covid-19/guidance-on-preparing-workplaces>
2. Provide cleaning supplies (cleaning solutions, buckets, mops, brushes, etc.)
 - CDC guidance: <https://www.cdc.gov/coronavirus/2019-ncov/prepare/disinfecting-building-facility.html>
3. Create standard operating procedures (SOPs) for using cleaning products according to label directions, to include: mixing directions, required contact times, and worker safety.
4. Provide and restock supplies for personal hygiene: handwashing stations, soap,
 - Cornell employee housing resources
 - [CAWD Worker Housing page](http://agworkforce.cals.cornell.edu) (agworkforce.cals.cornell.edu)
 - [Cornell Farmworker Program Housing Quality Checklist](#), includes household visuals to support good communications

Plan for Distancing or Quarantine in Employee Housing

- Spread out employees in existing housing to increase social distancing and reduce infection
 - Keep beds 6 feet apart, increase ventilation by opening windows or turning up fans
- Act now to secure additional housing, if possible
 - Federal and state authorities are being flexible with additional H-2A and other temporary housing
 - NYSDOL: keep informed but do what is right to protect employee health
- Make plans now for separating sick or quarantined workers
 - Facilities, management plans, food and water, cleaning, monitoring health
- Discourage visiting and social interaction:
 - Train about COVID-19 social distancing
 - Organize grocery/supply runs, discourage individual store trips/socializing.
 - Implement and reinforce the [governor's 10-point plan in NYS on PAUSE](#)
 - No gatherings of people, stay 6-foot part, limit contact
 - Point 5: "Businesses and entities that provide other essential services **must implement rules** that help facilitate social distancing of at least six feet."
- [Recommendations for Temporary Worker Housing](#) from Washington State Dept of Health



Sick Leave

- What is your sick leave policy?
 - All recommendations call for sick people to stay home! Toughing it out is a great way to turn an individual problem into a workforce disaster.
- Will employees feel financially or otherwise obligated to come to work even if they are sick?
- Hispanic employees often believe they will be fired if they call in sick.
- Instruct sick employees to stay home.
 - CDC's "[What to do if you are sick](#)," in [English](#), [Spanish](#) and other languages.
- CDC provides posters in [English](#) and [Spanish](#) covering symptoms of novel coronavirus.

Governor Cuomo Executive Order: New York State on PAUSE

- Requires non-essential businesses to reduce their workforce by a full 100% by the evening of March 22. [New York State on PAUSE](#).
- Farms are definitely exempt from workforce reductions as part of the food supply chain.
- [List of New York essential businesses](#).
- Per guidance from NYS Ag & Markets (4/1/20):
 - "At this time, horticulture is designated as a non-essential business (with the exception of nurseries/greenhouses selling food producing plants).
 - Guidance issued on March 24, 2020 is no longer applicable. Horticultural operations should continue to check back here for any updates." (<https://agriculture.ny.gov/coronavirus>)
- Just because food production is exempt, allied businesses are, and will continue, to work-from-home whenever possible and are taking additional precautions when farm visits are required.

New Federal Sick Leave & FMLA Policies

U.S. House and Senate passed and President signed [Families First Coronavirus Response Act](#). The Act:

- Effective April 1 to December 31, 2020
- Applies to businesses with <500 employees and all government employers. Businesses with <50 employees may get exemptions from FMLA provision if the Act will make the business nonviable.
- H-2A employees are included.
- Provides 80 hours of leave for employees unable to work (or telework) **due to COVID-19**:
 - 100% pay for employee who is experiencing COVID-19 symptoms and awaiting diagnosis or quarantined (by government of health care provider), up to \$511 daily and \$5,110 total
 - 2/3 pay if caring for another person who is sick or quarantined, up to \$200 daily and \$2,000 total
- Expands FMLA, up to 10 weeks of job-protected leave, at 2/3 pay, to care for the employee's child if the school or other child care provider is closed due to COVID-19. Employees must have worked at least 30 days to be eligible.
- Employers can offset the cost of these new benefits by retaining funds from employees payroll withholdings, including: federal income tax, and both employer and employee shares of Social Security and Medicare tax.
 - [IRS factsheet](#), [USDOL Frequently Asked Questions](#)
- U.S. Dept of Labor factsheets (some Spanish) and posters can be found here: <https://www.dol.gov/agencies/whd/pandemic>. Posters are required, in English, as of 4/1/2020.

New York State Emergency Leave Policies: *Employee's Own Quarantine or Isolation*

- New York passed a temporary law in effect during the COVID-19 crisis.
- "Guarantees job-protected paid leave to workers **who are subject to a mandatory or precautionary order of quarantine or isolation for COVID-19**, issued by the state of New York, the Department of Health, local board of health, or any government entity duly authorized to issue such order, or whose minor dependent child is under such an order."
- Covers most employees, including H-2A.
- PFL and DBL may be available after sick leave exhausted for those who are eligible. (These policies were required in the 2019 FLFLPA law.)
- For details see: <https://paidfamilyleave.ny.gov/covid-19-paid-leave-guidance-employers>

# Employees as of 1/1/2020	Requirements
Small businesses with 10 or fewer employees and net annual income <\$1Million	<ul style="list-style-type: none">• Job protection for the duration of the order of quarantine or isolation• Your employees can access benefits through your Paid Family Leave and disability benefits policy, for the duration of the order of quarantine or isolation
Medium businesses with 11 to 99 employees, and small businesses (10 or fewer) with net income >\$1Million	<ul style="list-style-type: none">• Job protection for the duration of the order of quarantine or isolation• At least 5 days of paid sick leave• Your employees can then access benefits through your Paid Family Leave and disability benefits policy
Large businesses with 100 or more employees	<ul style="list-style-type: none">• Job protection for the duration of the order of quarantine or isolation• At least 14 days of paid sick leave

New York State Emergency Leave Policies: ***Paid Family Leave (PFL) & Disability (DBL)***

- PFL and DBL may be available. This benefit is paid from the PFL and DBL insurance policies that all NY farm employers were required to put in place 1/1/2020.
 1. For quarantine or isolation of an employee's minor dependent child
 2. For employee's own quarantine or isolation after available sick leave is exhausted
- Employers have responsibilities to support employee applications for these benefits, including:
 - Informing employees about the benefit
 - Completing part of the application form to document employee pay and sick time already used
 - Retaining documents for your records
- See: <https://paidfamilyleave.ny.gov/covid-19-paid-leave-guidance-employers>
- Other protections:
 - Job protection
 - No discrimination
 - Continued health insurance

Unemployment

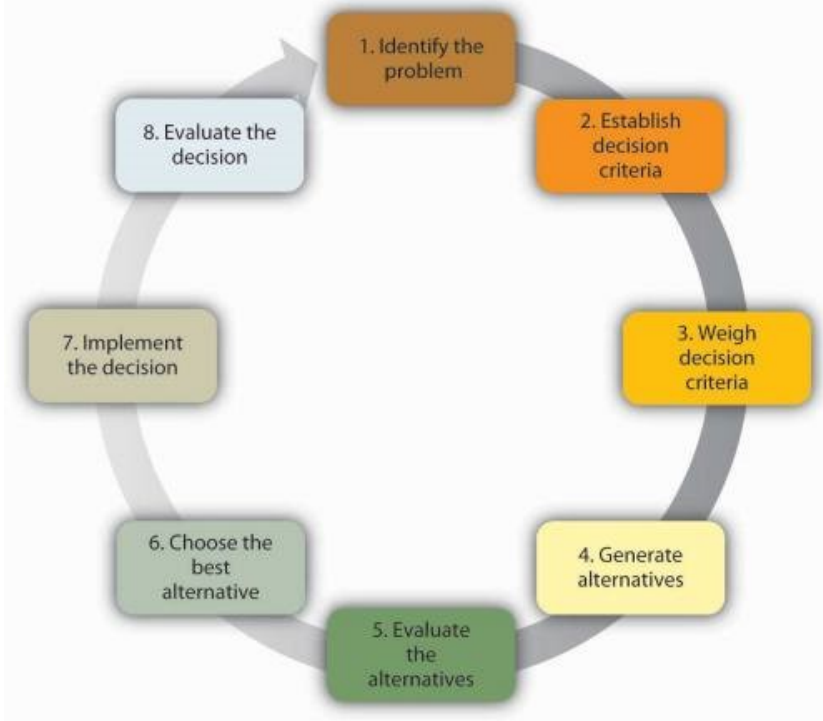
- For employees of businesses who lose their job through no fault of their own.
 - May include those who are quarantined or sick or directed not to work because of COVID-19
 - Are not being paid by their employer because the work can't be done remotely
 - If the employer temporarily or permanently closes due to no business
- [New York waived](#) the normal 7-day waiting period, out of work employees can now apply for benefits immediately
- Federal policy in the new CARES Act will include extensions of unemployment.

Preparing the farm for COVID-19 Impacts



Management tasks

- Identify vulnerabilities
- Plan for continuity of operations
 - Essential activities
 - Cross training
 - Communications
 - Crop planning
 - Supplies
- Prevent spread among employees
- Adapt for new market requirements



PREPARE: What if you or key managers become ill or need to self quarantine?

Before your team is affected

- Assign duties to vulnerable staff for remote work
- Clarify operations priorities
- Develop a plan for assigning tasks;
- Identify who could step in if you were too sick to work or even hospitalized
- Develop communication plan

If you get ill

- Follow [CDC guidelines](#)
- Rely 100% on remote communications
- Delegate responsibilities to next level employees
- Make sure these staff communicate often with employees

Contingency Planning

- Identify critical tasks and cross train
- Redesign tasks for physical distancing and hand washing
- Consider crop plan
- Document losses

Must continue on current schedule and/or capacity

- Soil prep and planting
- Harvest and pack lines
- Food safety programs

Continue but on a reduced schedule and/or capacity

- Scheduled maintenance*
- Crop care that cannot be done with social distancing

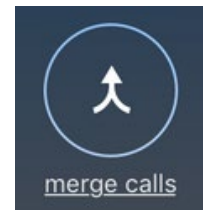
Discontinue until practical to start again or needs change

- In-person team meetings
- Farm tours
- Sales visits

*that will not lead to significant damage to equipment or facilities, or food safety concerns



On Farm Communications



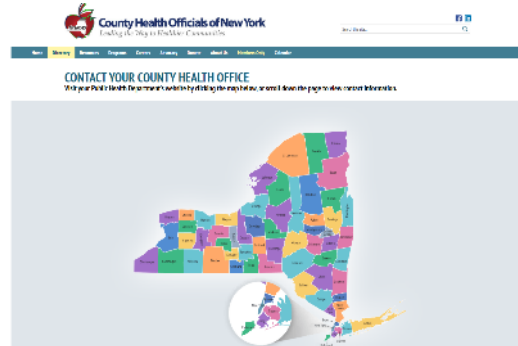
- Group text
- Free three-way calling (Apple & Android phones)
- Free conference call lines (ex. Go To Meeting)
- White boards and other written forms – remember to address sanitation concerns for shared markers/pens
- Cloud stored documents that can be updated in real time (Ex. Google Docs)
- Private Facebook Groups, WhatsApp, etc.



What To Do With Suspected or Confirmed COVID-19 Cases

If You Have Reason to Suspect COVID-19

- In NY, notify your [local health department](https://www.nyscho.org/directory/) they are your community contact for COVID-19 concerns. (<https://www.nyscho.org/directory/>)
- CDC: [What to Do If You Are Sick](https://www.cdc.gov/coronavirus/2019-ncov/prepare/disinfecting-building-facility.html)
 - Stay home, stay in touch with your doctor, stay away from others
- Remember to communicate health issues on the farm with anyone still coming to the farm.
- Implement a disinfection program for coronavirus. <https://www.cdc.gov/coronavirus/2019-ncov/prepare/disinfecting-building-facility.html>



Managing Sick Employees

- What if an employee arrives to work sick?
 - [CDC recommends](#) to separate sick employees and send home immediately.
 - The [EEOC advises](#) this is not a violation of the Americans with Disabilities Act during a pandemic.
- What if the employee lives in farm-provided housing?
 - Consider the possible impact on other employees in the housing.
 - What alternatives exist? How can the employee be isolated? How will the employee receive needed food and care?
- [CDC guidance](#) for caring for someone at home
 - Monitor for worsening symptoms
 - Prevent the spread of germs
 - Provide symptom treatment
 - When to end home isolation

Caring for Sick Employees

[SOP for Dealing with Suspected COVID-19 Infection in Employee](#), food manufacturing setting, from Cornell Institute for Food Safety. Includes: Actions to take when notified that a worker is being tested for COVID-19, such as notifications and cleaning, actions to take if the test is negative, and actions to take if the test is positive for COVID-19.

[Guidelines from Migrant Clinician's Network](#)

1. Contact your local health officials for guidance.
2. Have the worker stop working immediately and isolate the person from other workers. People with these symptoms should not be working.
3. If they have these symptoms, house them in the area designated for sick people and arrange for them to see a medical provider. Call the medical provider in advance so health care workers can take appropriate precautionary measures.
4. Workers should take a private vehicle to get to the medical provider. If they do not have their own vehicle, please assist with transportation [following CDC guidelines](#) to protect the worker in the vehicle and others, including the following:
 - Notify the transporter and the receiving health care facility that the person has signs and symptoms suggestive of COVID-19 so that appropriate infection control precautions may be taken.
 - Provide the sick person with a disposable facemask, if available, and keep them separated from others as much as possible.
 - Use ventilation in the vehicle by opening car windows or using the ventilation system on non-recirculated mode.
 - Do not use public transportation, ridesharing, or taxis to transport the ill person.
5. Make sure they have enough food and water as they will not be able to go to the store and may not have any funds to buy their own.
6. Monitor for worsening symptoms. About 20 percent of infected people will need hospitalization.



Additional Resources

- General Questions & Links: <https://eden.cce.cornell.edu/>
- Food Production, Processing & Safety
Questions: <https://instituteforfoodsafety.cornell.edu/coronavirus-covid-19/>
- Employment and Agricultural Workforce
Questions: <http://agworkforce.cals.cornell.edu/>
- Cornell Small Farms Resiliency
Resources: <https://smallfarms.cornell.edu/resources/farm-resilience/>
- Financial and Mental Health Resources for Farmers: <https://www.nyfarmnet.org/>
- Short Educational Videos on COVID-19 in Spanish and Mam (Guatemala):
 - www.farmworkers.cornell.edu
 - www.trabajadores.cornell.edu

Questions?

Agricultural workforce management

*Richard Stup, Cornell Agricultural Workforce
Development*

Submitting questions to Cornell extension personnel and diagnostic labs

*Lindsey Christianson, Senior resource educator, CCE
Capital Area Agriculture and Horticulture Program*

Submitting Photos for Greenhouse Pest & Disease ID

Equipment

- Smart Phone or Digital Camera
- Hand Lens



Beyond the Photo: Information to Include

- What are the affected plant species/varieties?
- Where are the plants located?
- How are the symptoms distributed?
- When did the symptoms appear?
- Pest management applications (if any)

Photo Tips

- Multiple photos are really helpful
- Show a range of symptomatic plants
 - Close ups + long shots
- Dorsal (back) photos of insects when possible



Showing the **variety of symptoms** in these begonias would allow someone with a trained eye to identify this problem as INSV or TSWV (Impatiens necrotic spot virus or Tomato spotted wilt virus.)

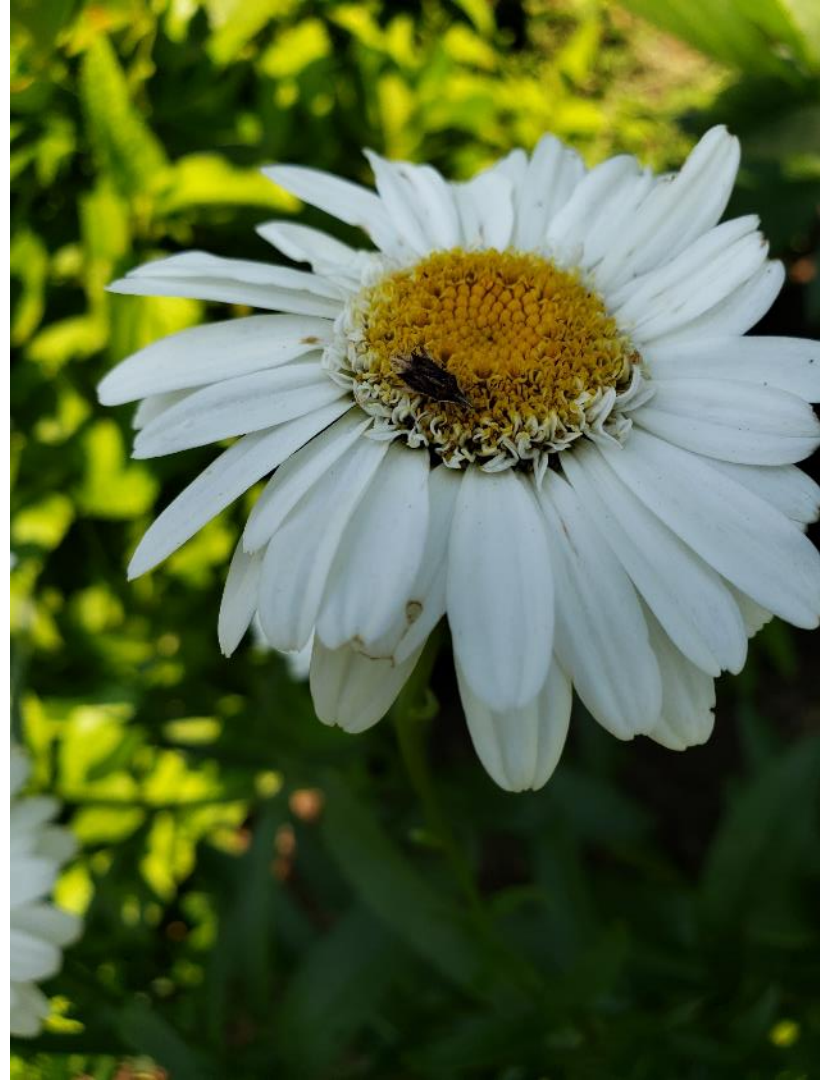


Showing the **distribution of symptoms** within this high tunnel accompanied with closer photos can help distinguish between a potential pathogen issue and what turned out to be a nutritional problem.





While close up photos of insects are great, they can be difficult without specialized equipment. But you may not need to worry about that for some IDs. Many smart phones allow us to zoom in surprisingly well on many photos without having to purchase special equipment.



Contacts – Plant diseases

- Margery Daughtrey: mld9@cornell.edu
- Brian Eshenaur: bce1@cornell.edu
- Sandra Jensen (Cornell Plant Disease Diagnostic Clinic):
slj2@cornell.edu

Contacts – Insects

- Betsy Lamb: eml38@cornell.edu
- John Sanderson: jps3@cornell.edu
- Dan Gilrein (Long Island): dog1@cornell.edu
- Lindsey Christianson (Capital District): ldc74@cornell.edu

These are just a few names. You may have a closer horticulture contact at your local county extension office.

Questions?

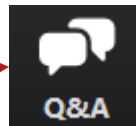
Submitting questions to Cornell
extension personnel and
diagnostic labs

*Lindsey Christianson, Senior resource educator, CCE
Capital Area Agriculture and Horticulture Program*

Marketing greenhouse crops: results of recent industry survey

Neil Mattson, Associate professor and greenhouse extension specialist, Cornell University

Ask or respond to
questions, give
suggestions, etc.



How have you been able to maintain appropriate social distancing with employees?

- Rearrange workspace
- Have breaks in different areas and at different times
- Keep people 6 feet apart
- Stagger schedules
- Frequent hand washing enforced
- Laid off or furloughed staff to reduce potential contact

What ways have you to been able sell or plan to sell your plants while keeping good social distancing?

- Delivery
- On-line phone order with pickup
- Limiting number of customers in store at any one time
- Individual appointments
- Retail store closed – can pay at front door

Which on-line pay systems have you had luck with

- Traditional credit card processing
- Square
- Paypal
- Stripe
- Beyond
- Venmo
- Mobile wallets (Google Pay, Apple Pay)

Anything else to share regarding what's been working (or not) in this current situation?

- Doing our best to comply and still take care of the plants while hoping we will be able to function (meet payroll) and keep our heads above water (cash flow) until May when the real shopping begins.
- Worried about complying with regulations with (hopefully) so many people shopping. Maybe 'bouncers' at the entrance and exit.
- Fantastic staff. Dedicated. Want to come to work. Willing to comply with all safety directives.
- We are still trying to figure it out. Management and staff are meeting frequently and making adjustments as we go. It is a very difficult situation for all.
- Giving up sales where I feel I am compromising the safety of my customers and staff

Anything else to share regarding what's been working (or not) in this current situation?

- There will be no way to move the volume necessary via online/phone/delivery if situation persists into May.
- The guidelines from government are one thing, **more important to retail business is the way the businesses are framed on social media. It is very important to do the right thing by the community**...focusing just on selling products is maybe ok in short run but will probably hurt in long run if the community thinks you were not part of the solution. Also, we really do not want to see this virus re-emerge in a month or so again because we did not do what is necessary now.
- We are putting up plexiglass at our checkouts, leaving doors open or only using automatic doors, sanitizing carts, door knobs on an hourly basis.
- Just keep going

What questions do you have for other growers or for Cornell/NYS IPM?

- Is everyone planning to open with all precautions in place? Gloves, face masks, disinfecting & 6' distance?
- Any practical, creative ideas on how to get this Spring's crop sold under current circumstances?
- Really most importantly is the interpretation of the disaster relief package and how would directly apply to businesses in our industry...i.e. Does the SBA loan forgiveness apply for payroll paid during this time for workers/family actually doing work on site and not just for workers being paid to stay home?
- Are there programs to cover lost crops- i.e. massive church cancellations of Easter blooming crop orders.
- What are the thoughts for May and June with the current atmosphere
- What other precautions garden centers are doing to lessen the risk to employees.

Questions?

Marketing greenhouse crops: results of recent industry survey

Neil Mattson, Associate professor and greenhouse extension specialist, Cornell University

Brief update on disease issues in spring 2020

Margery Daughtrey, Senior extension associate, Cornell University



Some Diseases to Beware of This Season

Botrytis blight

Sclerotinia white mold

Xanthomonas leaf spot on begonia

Thielaviopsis root rot (black root rot)

Coleus downy mildew

Impatiens downy mildew



Botrytis blight

Crowding predisposes plants to Botrytis blight

Sclerotinia blight

Tan cankers with white mold





Watch for wedges
with freckled margins

Xanthomonas leaf blight of begonia

Thielaviopsis root rot = black root rot



An uneven stand is a clue
Avoid pHs above pH 6.0
Control fungus gnats
Have well-drained mix



Coleus Downy Mildew

Spots, leaf drop, gray sporulation
on leaf undersurface

Keep humidity down

Notify me at mld9@cornell.edu
if you see this disease!





Imara and Beacon series
have high resistance



Impatiens downy mildew

Use the best genetics AND treat with fungicides.

Questions?

Brief update on disease issues in spring 2020

*Margery Daughtrey, Senior extension associate, Cornell
University*

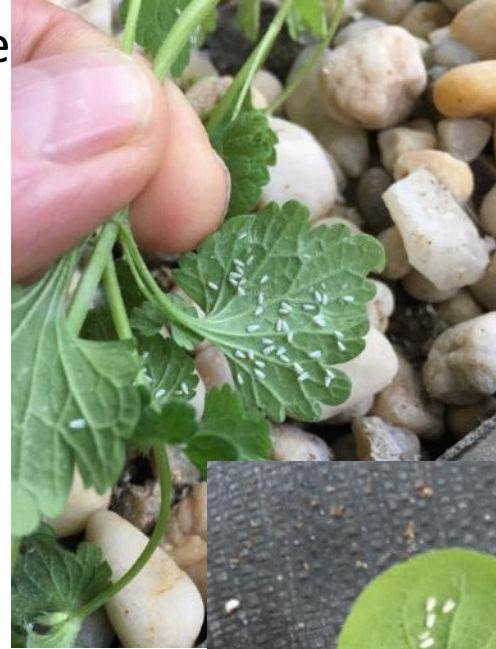
Brief update on pest issues in spring 2020

*John Sanderson, Associate professor and extension specialist,
Cornell University*

Some early-season insect and mite pests in NYS in 2020

- Overwintering pests on weeds
- Broad mites
- Foxglove aphids
- Chilli thrips

Pests found on weeds in newly-opened greenhouse



Thrips
Whiteflies
Spider Mites
Aphids

Broad mite damage



Photos: M. Daughtrey

Broad Mites



Broad mites on flower bud



Male & female nymph
Note relative size of aphid!



Eggs and nymph

Photos: L. Osborne

Foxglove aphid damage





Green peach aphid



Foxglove aphid

- Dark green patches at base of cornicles
- Dark joints on antennae and legs

Chilli thrips and damage
to hydrangea



D. Gilreyn

Possible plants this year:

Lantana

Vinca vine

Ivy geraniums



A close-up photograph of two thrips on a green leaf. The larger thrips, Western Flower Thrips, is positioned vertically in the center-right. It has a yellowish body with prominent longitudinal veins on its wings. The smaller thrips, Chilli Thrips, is positioned diagonally below and to the left of the larger one. It has a similar yellowish body but with more distinct dark longitudinal stripes on its wings. The background is a textured green leaf surface.

Western Flower Thrips

Chilli Thrips



Photo: L. Osborne

Chilli thrips, *Scirtothrips dorsalis*

- Half the size as Western flower thrips
- Foliage feeder
Mainly feeds on foliage, new buds and terminals, not flowers.
Very broad host range
- Pay special attention to tropicals and roses from Florida
- Easy to kill with thrips insecticides

Questions?

Brief update on pest issues in spring 2020

*John Sanderson, Associate professor and extension specialist,
Cornell University*

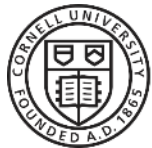
Thank you!

- Slides and recorded webinar will be available at:

<http://blogs.cornell.edu/cornellcea/>

- Cornell Greenhouse Horticulture Program Work Team





Additional Information on Farm Management and COVID-19



Cornell Cooperative Extension

**AGRICULTURAL
WORKFORCE
DEVELOPMENT**

Produce Safety
ALLIANCE



Disclaimer

- We are not health care professionals, all recommendations regarding health should come from health care professionals
- We are not regulatory personnel or attorneys, all information is for educational purposes only
- This information is intended to help farm management think about and organize daily farm operations through the lens of COVID-19 guidance, we do not have all the answers
- Information and recommendations are changing daily, so let's keep the communication going throughout this emergency
- Specific company mentions are not intended as endorsements, they are examples highlighting the level of engagement exhibited across our industry
- Remember, your farm may already have very effective policies in place!



Some quick reminders

- COVID-19 is a virus transmitted through respiratory droplets (air & surfaces)
- Currently there is no evidence that suggests that COVID-19 is transmitted through food consumption, according to the FDA, CDC, and European Food Safety Agency
 - IFS@CU : <https://instituteforfoodsafety.cornell.edu/coronavirus-covid-19/>
- Livestock cannot catch COVID-19; people will not give it to or get it from livestock.
 - The coronaviruses managed in livestock are different than COVID-19
 - No evidence that companion animals, including pets, can spread COVID-19
- Even if you think you will not get "that sick" if you catch the virus, remember the goal is to prevent the virus from spreading throughout the community which has vulnerable people in it.



Protect Your Employees



Farm Supplies and Deliveries

- Order essential supplies for production and packing
 - Supply companies and delivery services are instituting precautions for their employees
 - Plan for longer delivery times
- Minimize delivery personnel access to farm facilities
 - Dedicate a drop-off location; Consider allowing things to be left outside
 - Temporary drop-off site protected from the weather
 - Protection for items that should not freeze and cooling for items that need to be kept cold
 - Waive requirements for signature upon delivery
- Low likelihood of catching the COVID-19 virus by touching cardboard or other shipping containers (CDC and [WHO COVID-19 FAQ](#))
 - Develop an SOP for sanitation after handling deliveries including washing hands and cleaning areas that may have been exposed



Preventing spread among employees

- Communicate often and provide information in appropriate language (e.g., Spanish, Mam, Haitian Creole, etc.) about the seriousness of this disease
- Minimize face-to-face meetings to only what is business critical
 - Adopt remote staff meetings, using telephone and web conferencing (zoom)
 - Identify critical activities; Minimize work shift overlaps
 - Develop SOPs to ensure social distancing whenever possible
 - Use remote communication options including texting platforms; explore options
- Advisors, consultants, suppliers, and extension personnel are all instituting additional precautions and travel restrictions
- Institute a Farm Visit Log
 - Record names and contact info
 - Indicate if they entered the facility and/or interacted with farm employees



Redesign work space to support social distancing and sanitation

- Change field operations to ensure 6' distancing
 - Travel to fields; during field work; during breaks.
- Minimize employee contact with off-farm visitors, consultants or advisors; Encourage social distancing outside of work
- Provide hand sanitizer and encourage frequent use
- Conserve gloves for required PPE
- Provide additional opportunities in work spaces and field for handwashing and sanitation practices



Managing sanitation of shared work tools and spaces

1. Provide cleaning supplies
 - e.g., detergents, sanitizers, buckets, brushes,
2. Create standard operating procedures (SOPs) for using cleaning products according to label directions including mixing directions, required contact times, and worker PPE for safety.
3. Prioritize cleaning and sanitizing high traffic areas, commonly touched surfaces, and shared tools.
 - When possible have dedicated tools and equipment



Build on Policies and Practices Already in Place

- Good Agricultural Practices protect produce, workers & farm
 - Handwashing, washing work clothes separately, not coming to work when ill, established cleaning and sanitation programs
 - Provide a foundation when you need to make updates
- Maintain food safety practices already in place
 - Food safety is still important and critical
 - Foodborne risks still exist
 - Regulatory requirements still in effect
 - Important to maintain market access, meet buyer requirements



Planning for Market Changes

- Agritourism and U-pick operations may be negatively affected
 - Provide hand sanitizers for use before and after customers are in the field
 - Control picking to emphasize social distancing
 - Pay attention to state guidance
- New Guidance for Farmers Markets and Farm Stands
 - NYSDAM Issues [Interim Guidance on Operations of Farmers Markets](#)
 - Staffing to separate pick/packing from payment duties
 - Minimize customers entering markets
 - Distances increased between customers and booths
 - Consider online pre-order to facilitate sales
 - Pre-bag where possible
- Consider online sales and direct delivery strategies
 - Several platforms available
- Produce auctions shifting to call-in bid systems



New York State's Migrant Health Centers

- Hudson River Healthcare
 - Migrant Health Centers in New Paltz, Goshen, Monticello, Hudson, Amenia, Poughkeepsie, Riverhead, Greenport, Shirley, and Southampton
 - hrhcare.org
 - For more information call (844) HRH-CARE
- Finger Lakes Community Health
 - Migrant Health Centers in Bath, Dundee, Geneva, Newark, Ovid, Penn Yan, Port Byron, and Sodus
 - localcommunityhealth.com
 - For more information call (315) 781-8448
- Oak Orchard Community Health
 - Migrant Health Centers in Brockport, Albion, Warsaw, Lyndonville, and Hornell
 - oakorchardhealth.org
 - For more information call (585) 637-3905



Coping with COVID-19 Stress

- Take breaks from watching, reading, or listening to news stories, including social media. Hearing about the pandemic repeatedly can be upsetting.
- Take care of your body. Take deep breaths, stretch, or meditate. Try to eat healthy, well-balanced meals, exercise regularly, get plenty of sleep, and avoid alcohol and drugs.
- Make time to unwind. Try to do some other activities you enjoy.
- Connect with others. Talk with people you trust about your concerns and how you are feeling.
- **Call your healthcare provider if stress gets in the way of your daily activities for several days in a row.**



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