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New Jersey Agricultural Experiment Station

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Cultivating Cumberland

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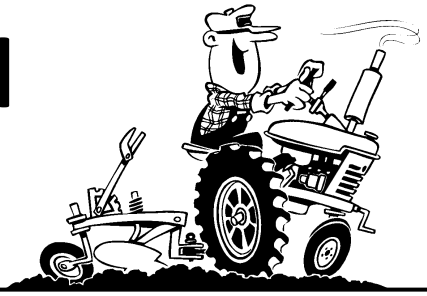

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COVID-19 Closure Information

Please be aware that while the Rutgers Cooperative Extension Office of Cumberland County may be closed to the public, you can still reach your County Agents! Call (856) 451-2800
Updates about our office can be found on https://cumberland.njaes.rutgers.edu/ and www.co.cumberland.nj.us

Department	Contact	Email
Commercial Agriculture	Wesley Kline	wkline@njaes.rutgers.edu
Environmental	Sal Mangiafico	mangiafico@njaes.rutgers.edu
Nursery Production	Tim Waller	twaller@njaes.rutgers.edu

- Follow our Facebook page to stay up to date on Food Safety Issues. https://www.facebook.com/RutgersOnFarmFoodSafety/
- New Covid-19 information is added to our website at least weekly: onfarmfoodsafety.rutgers.edu
- To stay current on commercial agriculture information, including updates on Covid-19, join the Rutgers Plant and Pest Advisory at https://plant-pest-advisory.rutgers.edu/, click on the subscribe link at the top of the page then click EMAIL on the edition you are interested in subscribing to. If you are interested in more than one edition you need to subscribe to each one individually. Current editions are vegetable, fruit, and landscape/nursery/turf.

Cooperating Agencies: Rutgers, The State University of New Jersey, U.S. Department of Agriculture, and County Boards of Chosen Freeholders. Rutgers Cooperative Extension, a unit of the Rutgers New Jersey Agricultural Experiment Station, is an equal opportunity program provider and employer.

Energy Answers for New Farmers

Energy is not always the first thing new farmers think about when getting started, but it is a critical component of any successful farm. To help get folks off on the right foot, USDA has sponsored the development of a new series of extension materials designed specifically with new farmers in mind. Called "Energy Answers for the Beginning Farmer & Rancher", it utilizes farm energy experts from university Cooperative Extension programs across the country to answer hot-topic energy questions. The main product of the project is a series of short, engaging videos and resources that provide useful tips and information on farm energy.

"Energy is typically one of the highest ongoing costs of any farm operation" says project manager Siobhan Fathel of Penn State. "These resources act as a first step to better managing your energy costs and needs." In addition to the short, engaging videos there are also links to complementary materials designed to aid beginning farmers and ranchers in making informed decisions about on-farm energy. For example, the *Online Energy Selector* developed by the project team helps farmers compare and select the heating fuel that will give them the best value for their dollar.

Featured videos include:
Can I use biodiesel in farm diesel engines?
How can I save on the cost of grain drying?
Where can I find money to implement energy efficiency measures?
How to select LED lights for agriculture?
How to determine pellet durability
Why do an energy audit on your farm?
Is wood heat right for you?
How can proper livestock ventilation save energy & feed?
What is it like to apply for farm energy incentive programs like REAP?
How to choose a heating fuel?
How to save money by understanding your electric bill?
How to choose proper livestock ventilation fans?
How do I size a cooler for on-farm produce storage?
How to design an energy efficient hydroponic system?
Solar On A Farm Series

These and future videos are posted on the project team's YouTube channel, Energy Answers for the Beginning Farmer & Rancher, and can also be found with other resources on the eXtension.org website, https://farm-energy.extension.org/energy-answers-for-the-beginning-farmer-and-rancher/. Contributing Cooperative Extension programs are associated with the University of Illinois, Michigan State University, University of Nebraska, Penn State University, Rutgers University, Virginia Tech, and the University of Wisconsin.

New Jersey NJPMA PEST-O-GRAM EXTRA!
Newsletter of the New Jersey Pest Management Association

WE'RE BACK

Classroom Training Returns September 15th!

All of our classes return to the classroom with NJDEP Re-Certification Credits this Fall. Just like NBA, The NJPMA has decided to hold everything in a single location. This allows us to better control our environment, while adhering to the Governor's rules on Social Distancing and Limited Indoor Capacity. Please note: Payment will be required in advance, Masks MUST be worn, No food will be served.

All Classes will be held at the Radisson Hotel Piscataway - Somerset
21 Kingsbridge Road
Piscataway, New Jersey 08854

- Basic Pesticide Training
- Pesticide Operator Training
- General & Household Pest Control - 7A
- Mosquito & Tick Pesticide Training - 8B
- Termites & Other WDI Pesticide Training - 7B
- General Public Health - 8A
- Landscape Pesticide Training 3A & 3B

Visit https://njpma.com/classes/ for Details on All of Our Upcoming Classes

The following bulletin is now available on NJAES Publications:

E363	Active Frost Protection Methods for Your Orchard. Gohil, H., Crassweller, R., Muehlbauer, M., and Polanin, N. https://njaes.rutgers.edu/e363
E364	Soil Fertility Recommendations for Pastures. Heckman, J. https://njaes.rutgers.edu/e364

Prevailing Landscape Disease; Entomosporium Leaf Spot on Woody Ornamentals

Tim Waller
Email: twaller@njaes.rutgers.edu

It was brought to my attention this morning that many landscapers and plant professionals are concerned by a reddening and spotting discoloration condition on **Photinia foliage**. Most often this is caused by the **fungal pathogen** *Entomosporium maculatum*, a widespread and destructive foliar disease of woody ornamentals in the rose family (including **Photinia**, Indian Hawthorn, Loquat, flowering and fruiting Pear, Firethorn, Hawthorn, Juneberry, and Quince). This pathogen discolors foliage to an unsightly red, orange, and black spotting that ultimately leads to premature defoliation. The spots will eventually turn necrotic and fungal structures will be visible within those areas (little black dots).

The pathogen can be active from late winter to late fall, favoring conditions that promote humidity and reduced airflow. The pathogen survives on infected leaves (attached or dropped). Typically it takes approximately 2 weeks for symptom development to occur post infection. Therefore the heavy discoloration we are seeing right now is the culmination of multiple infection events, where protectant fungicides were not used or were used correctly.

This means that another round of infections will occur again soon in severely infected locations as the spots will give rise to a new generation of spores.

Disease management (fungicides): Ideally, **protectant fungicide applications** would have been initiated every 7-14 days post bud break until all leaves had matured. *However, in the current situation many people will be playing catch up.* Fungicide applications initiated now will not make the symptoms go away or 'cure' the plant, **but they are required now to protect foliage from the next wave of fungal infections and reduce the overall population.** In severely infected plantings, fungicide applications should be continued every 10-14 (*depending on fungicide label*) days throughout the remainder of the season, especially in high value plantings or in specimen blocks. If winter conditions are unseasonably warm and humid, then applications should continue accordingly. **Systemic fungicides** should also be considered in addition to protective and cultural control mechanisms in severe cases.

Continued on next page.

Fungicides:

ROTATE between **F**ungicide **R**esistance **A**ction **C**ommittee (FRAC codes)

Format: [FRAC code]: Chemical name (Trade names)

- [M05]: Chlorothalonil (Daconil WS)
- [M05 + 1] Chlorothalonil + Thiophanate methyl (Spectro 90WDG)
- [1] Thiophanate methyl (Clearys 3336)
- [11] Azxystrobin (Heritage 50W)
- [3] Myclobutanil (Eagle 40W)
- [3] Propiconazole (Banner Maxx)
- [3] Triadimefon (Bayleton 50, Strike 50WDG)
- [1 + M03] Thiophanate methyl + Mancozeb (Duosan 79W)
- [M03] Mancozeb
- [M01] Copper Oxychloride + Copper Hydroxide (Badge SC, many)

IT IS CRITICAL TO ROTATE BETWEEN FRAC CODES DUE TO THE NUMBER OF POTENTIAL APPLICATIONS

Always refer to the label for allowable host crops, use-restrictions, application rates, reapplication intervals, re-entry intervals (REI), and mix compatibility information.

*DISCLAIMER: Production and pesticide information on this site are for commercial operators and landscape professionals only and are **NOT for home gardener use.** Provided materials represent examples and do not cover all possible control scenarios. Please contact your local agent or chemical sales representative for more information.*

Cultural prevention and mitigation:

- **Remove leaf-litter prior to bud break.** During the season remove leaf litter only when dry. Infected leaves serve as inoculum for the next season. In severely infected plantings remove and replace mulch as fungal material can be deposited within the litter. Do not use leaf blowers to remove leaf-litter (*all that does is spread around the spores).*
- **Avoid overhead irrigation.** Water moving through the canopy represents at least two dangerous plant pathogen situations; increased leaf wetness that lets pathogens infect successfully, and movement of spores (from sporulating leaves and young growth).
- **Increase airflow.** Like all plant diseases, any situation that increases airflow, will decrease leaf wetness. This could include pruning, decreasing the density of plants, greater spacing, and planting/rearing site selection.
- **Pruning in heavily infected plants.** In addition to promoting increased air flow, heavy pruning may be required to remove overwintering inoculum from the plants. **This should only be done during dry conditions**, preferably during plant dormancy periods.

For sample identification please contact the Plant Diagnostic Lab here at Rutgers by visiting https://njaes.rutgers.edu/plant-diagnostic-lab/

NJDEP LICENSING & REGISTRATIONS

2020 PESTICIDE LICENSE RENEWAL INFORMATION

August 18, 2020

PESTICIDE LICENSE RENEWALS

-Annual renewal invoices ran on Monday August 3, 2020

-Invoice numbers are available online NOW!

-Paper invoices will be mailed in late August

-The most efficient way to process your renewal invoice is to pay online

PESTICIDE CERTIFICATION EXAMS

All exams were cancelled as a result of the Covid-19 pandemic. The Department recognizes the adverse impact this has had on our customers and continues to work with Rutgers University to establish remotely proctored and computer-based exam alternatives. Please visit our website at www.pcpnj.org for the most up-to-date exam information.

PESTICIDE RENEWAL - GENERAL INFORMATION

Department staff are currently working remotely with limited access to office buildings. Therefore, expect significant delays with the processing of paper checks and purchase orders. However, all pesticide license renewal invoice numbers are available online and the most efficient processing of licenses is through online payment (see details below). Also note that after paying online, please discard the paper invoice being mailed between the end of August and mid- September.

Q: How to find your invoice number:

1. Click on this link http://www.state.nj.us/dep/enforcement/pcp/bpo-pesticide-links.htm
2. Next, click on the link labeled "Look Up Your License Invoice Number-Individuals" or "Look up Your Invoice Number - Businesses"
3. Enter License number (capitalize any letters at the end of your license number)
4. Click OK

Q: How to make a payment online:

1. Click on this link http://www.state.nj.us/dep/enforcement/pcp/bpo-pesticide-links.htm
2. Next, click on the link labeled "Pay for Your License Online"
3. Enter Invoice number (from paper invoice or our website)
4. Enter License number (capitalize any letters at the end of your license number)
5. Click continue and follow subsequent prompts

Q: I cannot locate my invoice for the license that expires 10/31/2021 online?

It is likely that your license is not currently eligible for renewal due to insufficient recertification credits or failure to pay for a renewal for two or more licensing years.

- If you have not paid for the previous two years licenses that expire on 10/31/2019 and 10/31/2020, you can still be eligible to renew by paying both old invoices on or before 10/31/2020. Otherwise your license becomes inactive and you can only recertify via examination.

- To determine if you have not earned the required amount of recertification credits, review your Course History information by following the directions in the section below.

PESTICIDE RECERTIFICATION CREDITS

Recertification amounts that appear on the paper renewal invoices were recorded as of July 1, 2020 so there may be a discrepancy between paper invoice and your online credit history. Course rosters are uploaded daily and the online credit values for are live linked to our webpage.

Q: How do I locate my credit history online?

1. Click on this link http://www.state.nj.us/dep/enforcement/pcp/bpo-pesticide-links.htm
2. Scroll down to "Credits and Courses"
3. Click on link labeled "Check Your Credit & Course History-Commercial Applicator" or "Check Your Credit and Course History-Private Applicator"
4. Enter Requested information (license number, birthdate, and last four of Social Security number)
5. Click OK

Q: What if there are credits or courses missing from my credit history online?

If the course was completed within the past 30 days, the roster likely has not yet been uploaded. Course attendance rosters are uploaded within four weeks from the date of the course. If the course was completed more than four weeks prior, contact the course provider to ensure that the attendance roster was submitted timely. If the course was not completed in the current licensing year, please email pestcertcourses@dep.nj.gov and include your license number, the course number and course date for review.

ONLINE COURSES FOR PESTICIDE RECERTIFICATION CREDITS

The Department recognizes that COVID-related restrictions and limitations have made it difficult for licensed Commercial and Private applicators to obtain the required credits for those licensees whose five-year recertification cycle ends 10/31/2020. To address this concern, the Department has made an exception for those affected individuals and relaxed the 25% maximum total online credits allowed. Licensees with one or more certifications expiring on 10/31/2020 may earn up to 100% total required credits through online courses. Please note that this exception only applies to individuals whose five-year recertification cycle expires on 10/31/2020. The Department will revisit this policy relaxation further based on continued social distancing and other COVID-related restrictions.

Q: Am I eligible to take the remainder of my continuing education credits online?

Click the link below to see if your name appears on the eligibility list.
https://www13.state.nj.us/DataMiner/RUN_REPORT.aspx?RN=Applicators+Eligible+for+100+Percent+Online+Credits+thru+2020

PRIVATE APPLICATORS

There is **no fee** for Private applicator license renewals. However, **a license will not generate unless the "$0.00" renewal invoice is processed**. The most efficient way to process these invoices is by using the "paying online" directions that are provided above in the General Information section.

PESTICIDE OPERATORS

Pesticide Operator renewal invoices are mailed directly to the employer. Please note that once a Licensed Operator leaves a business, it is the employer's responsibility to notify the Department in writing of the employee's departure within 30 calendar days from the last date of employment.

Q: How does an employer notify the Department when an Operator is no longer employed?
Requests to delete an Operator license from a business can be emailed to Brittney.Strano@dep.nj.gov

PESTICIDE BUSINESSES

Pesticide businesses are required to update their insurance information during the annual license renewal. In an effort to reduce paper, Insurance Verification Forms are not included with the business license renewal invoices.

- When renewing online, an Insurnace Verification Form is not necessary because the insurance information is required as part of the online process.
- When renewing by mailing in payment to the *Division of Revenue*, you must print and complete the Insurance Verification form, and include it with the payment.

Q: Where can I find an insurance verification form?
To access the form, click this link
https://www.state.nj.us/dep/enforcement/pcp/Insurance%20Coverage%20Verification%20Form.pdf

RECIPROCAL LICENSES

If a five-year reciprocal license recertification cycle expires on 10/30/2020, a license renewal invoice will not be generated until a copy of the valid pesticide license from your primary licensing state has been received or if the required recertification credits have been obtained: 16 credits per category and 8 credits for Core.

Q. Where should I send the copy of my primary state license?

Copies of licenses should be emailed to Joanne.Taroco@dep.nj.gov

How to Contact Us:

General Questions: Latangerla.Hunter@dep.nj.gov
Exam related questions: Lula.Hollice@dep.nj.gov
Operator Licenses: Brittney.Strano@dep.nj.gov
Recertification courses and credits Pestcertcourses@dep.nj.gov
Unit Supervisor: Joanne.Taroco@dep.nj.gov

Managing Heat Stress in Nursery and Landscape Plants

Bill Errickson
Email: william.errickson@njaes.rutgers.edu

With temperatures approaching or exceeding 95°F for many areas of the state, there is potential for heat stress to negatively impact nursery and landscape plants both in the ground and in containers. Most trees and shrubs in our area can begin to experience some degree of heat stress when temperatures exceed 85°F. Several factors can influence the extent of heat stress injury, including the severity and duration of high temperatures, relative humidity, wind, soil moisture status, the age and condition of the plant, and how well the particular species of plant is adapted to dealing with these conditions.

Leaf scorch on Japanese Maple caused by heat stress.

Heat stress can cause damage to the leaves, resulting in dried or curled edges, as well as reddish or pale coloration as the green chlorophyll pigment begins to break down. This damage may only be superficial, but in some cases it could cause serious injury and death of the leaf tissue. One factor that greatly affects the severity of tissue damage caused by heat stress is the hydration status of the plant before the onset of extreme temperatures.

Plants will naturally dissipate heat through the process of transpiration, provided there is adequate moisture in the soil to support this function. During periods of extreme temperatures, the roots will struggle to draw enough water from the soil to keep up with the rate of water vapor that is exiting the leaves through transpiration. This leads to symptoms such as leaf scorch, curled leaves, discoloration, defoliation, die-back, and temporary wilting. Because the plant is experiencing stress and a disruption in its normal physiological functions, it becomes more susceptible to insect and disease problems.

There are several preventative measures that can be taken to reduce the impacts of heat stress in nursery and landscape plants.

1. Thoroughly water plants either in the evening or in the early morning before extreme temperatures occur. Water the plants deeply and use irrigation methods that minimize leaf wetness to reduce the potential for foliar diseases.
2. Properly mulch plants to conserve water in the soil and help lower soil temperatures. Bark mulch, leaf mulch, straw, and other organic mulches will help to lower the temperature in the root zone, while gravel mulches can actually increase root zone temperatures. Be sure to provide additional water to newly mulched plants to prevent dry mulch from taking moisture away from the roots.
3. Avoid fertilization during periods of heat stress because this can absorb moisture in the root zone and further contribute to dehydration of the plant.
4. Avoid applying herbicides that can volatilize in high temperatures and drift, causing damage to non-target species.
5. Pay special attention to plantings that are located next to driveways, concrete patios, or other structures that can absorb and radiate additional heat to the plants. These areas will likely require additional irrigation.

Tuliptree and Magnolia Scale Egg Hatch and Crawler Activity

Timothy J. Waller

Tuliptree scale insects & sooty mold

Magnolia Scale and Maturing Females

photo credits: Steve Rettke, Ornamental IPM Program of RCE

Tuliptree scale and **Magnolia scale** insects begin hatching around ~2000 GDD50 but continue to emerge through the month of September (+6 week period). Therefore scouting for 1st and 2nd instar nymphs (crawlers) is critical to controlling these pests. Treatments will be ineffective if made too early in the season, as many of the un-hatched eggs will still be viable and lead to infestation and damages later.

Given this wide window of emergence three treatment strategies can be deployed

1. Delay pesticide applications for these pests until mid-October as the females will be dead and not harming the trees, all of the eggs will have hatched, and all of the crawlers will be vulnerable to appropriate materials (***best approach***)
2. Apply multiple suppressive sprays at the first sign of emergence (*time consuming*)
3. Root or trunk applied systemic insecticides (*often for very large trees*)

Please Subscribe to the Plant and Pest Advisory (PPA) for additional information:

https://plant-pest-advisory.rutgers.edu/category/landscape-nursery-turf/

Scale information please search for the following within the PPA:

“Magnolia and Tuliptree Scales: Two Exceptions to the Rule” – Steve Rettke

“Early August Nursery Update” – Tim Waller

“Scale Insect Crawler Activity and Summer Treatment Options” – Tim Waller

USDA Announces More Specialty Crops, Nursery Crops, Cut Flowers Eligible for CFAP Payments

Rick VanVranken

The U.S. Department of Agriculture (USDA) announced today that **additional specialty crops, including nursery crops and cut flowers, are covered by the Coronavirus Food Assistance Program (CFAP)** and that the deadline to apply for the program is extended to September 11th. Additionally, producers with approved applications will receive their final payment. The full news release is available at https://www.ams.usda.gov/press-release/usda-announces-more-eligible-commodities-cfap.

USDA collected comments and supporting data for consideration of additional commodities through June 22, 2020. The following commodities are now eligible for CFAP:

- **Specialty Crops –** aloe leaves, bananas, batatas, bok choy, carambola (star fruit), cherimoya, chervil (french parsley), citron, curry leaves, daikon, dates, dill, donqua (winter melon), dragon fruit (red pitaya), endive, escarole, filberts, frisee, horseradish, kohlrabi, kumquats, leeks, mamey sapote, maple sap (for maple syrup), mesculin mix, microgreens, nectarines, parsley, persimmons, plantains, pomegranates, pummelos, pumpkins, rutabagas, shallots, tangelos, turnips/celeriac, turmeric, upland/winter cress, water cress, yautia/malanga, and yuca/cassava.
- **Nursery Crops and Flowers –** nursery crops and cut flowers.

Other changes to CFAP include:

- Seven commodities – onions (green), pistachios, peppermint, spearmint, walnuts and watermelons – are now eligible for Coronavirus Aid, Relief, and Economic Stability (CARES) Act funding for sales losses. Originally, these commodities were only eligible for payments on marketing adjustments.
- Correcting payment rates for onions (green), pistachios, peppermint, spearmint, walnuts, and watermelons.

Additional details can be found in the Federal Register in the Notice of Funding Availability and Final Rule Correction and at www.farmers.gov/cfap/specialty.

Producers Who Have Applied:

To ensure availability of funding, producers with approved applications initially received 80 percent of their payments. The Farm Service Agency (FSA) will automatically issue the remaining 20 percent of the calculated payment to eligible producers. Going forward, producers who apply for CFAP will receive 100 percent of their total payment, not to exceed the payment limit, when their applications are approved.

Applying for CFAP:

Producers, especially those who have not worked with FSA previously, are recommended to call 877-508-8364 to begin the application process. An FSA staff member can help producers start their application during the phone call.

On farmers.gov/cfap, producers can:

Download the AD-3114 application form and manually complete the form to submit to their local USDA Service Center by mail, electronically or by hand delivery to their local office or office drop box.

Complete the application form using the CFAP Application Generator and Payment Calculator. This Excel workbook allows customers to input information specific to their operation to determine estimated payments and populate the application form, which can be printed, then signed and submitted to their local USDA Service Center.

- If producers have login credentials known as eAuthentication, they can use the online CFAP Application Portal to certify eligible commodities online, digitally sign applications and submit directly to the local USDA Service Center.

All other eligibility forms, such as those related to adjusted gross income and payment information, can be downloaded from farmers.gov/cfap. For existing FSA customers, these documents are likely already on file.

NRCS Announces EQIP Signup for 2021 Funding

SOMERSET, N.J., September 1, 2020 – The USDA Natural Resources Conservation Service (NRCS) is now accepting applications from New Jersey's agricultural producers who want to implement conservation practices on their land through the Environmental Quality Incentives Program (EQIP), EQIP Conservation Activity Plans and EQIP Initiatives. Applications for assistance submitted by October 15, 2020 will be considered for fiscal year 2021 funding.

NRCS soil conservationists are available to help New Jersey private land managers assess the natural resources on their property and suggest conservation practices that can be planned and implemented with NRCS assistance.

The Environmental Quality Incentives Program provides financial assistance for a variety of conservation issues, such as water quality degradation, soil erosion, soil quality degradation and inadequate habitat for fish and wildlife.

NRCS provides financial and technical assistance to help agricultural producers address resource concerns through conservation programs authorized by the Farm Bill. NRCS accepts applications for conservation programs year-round and are processed when funding becomes available. Interested producers should visit their local NRCS service center and the NJ NRCS website for more information.

USDA Cumberland County Farm Service Agency

Vineland Service Center

1318 S Main Rd, Building 5 Suite A

Vineland, NJ 08360

Phone: 856-205-1225

MEETING DETAILS

Subscribe for September twilight meeting announcements at https://plant-pest-advisory.rutgers.edu
This meeting will be held virtually. Registration is required.

Scan me

Rutgers Cooperative Extension
of Cumberland County
291 Morton Avenue, Millville, NJ 08332
(856) 451 - 2800 x1 Brandi or Katie
TWaller@njaes.rutgers.edu

PRESENTATION TOPICS

- Factors that contribute to pest and disease outbreaks
- Emerging diseases in nursery crops of NJ
- Cultivating sustainable soils in ornamentals
- Effective nutrient management via fertigation

NJ Pesticide License Recertification Credits
Video and ID are required for credit
To be determined.

Cooperating Agencies: Rutgers, The State University of New Jersey, U.S. Department of Agriculture, and County Boards of Chosen Freeholders. Rutgers Cooperative Extension, a unit of the Rutgers New Jersey Agricultural Experiment Station, is an equal opportunity program provider and employer.

Strawberry Plasticulture Plug Planting: Ways to Increase Chances for Success

Kathy Demchak, Dr. Mahfuzur Rahman, Bob Rouse

The propagation process involves growing mother plants in open fields or nurseries to multiply them and/or produce tips through runnering. During this time plants are exposed to pests and diseases from the surrounding environment. The step where plugs are produced from tips/cuttings is relatively short, requiring 4-6 weeks. Harvested runner tips are placed in clean plug trays filled with a soilless planting mix, and trays are then placed under intermittent mist, usually on the ground outdoors after covering it with horticultural landscape fabric. While new infection during the plug production stage is possible, the likelihood is relatively low. Thus, if the tips are pest and disease-free, plug plants are likely to be healthy, too. The plants are exposed to even more pests and pathogens after they get to your fruit production farm, not only from the soil in your field but also from the surrounding landscape and crops and for an extended period of time. So, what can you do to help get your plantings off to a good start, and keep them as healthy as possible?

First, check your plants when you first get them to identify any problem plants. If any plants appear to be weak, cut through a few of them, and look for signs of discoloration in the crown. If crowns are still solid white, chances are that the problem was just drought stress. Reddish or reddish-brown tissue is an indication of anthracnose crown rot, phytophthora crown rot, or a Pestalotiopsis, a new “warm-weather” disease that we need to watch for, which can cause fruit to rot or leaf spots/blight in addition to crown rot.

For most of us, it is difficult to tell these diseases apart, but other symptoms may be present that can provide additional clues to assist in diagnosis. You will also need to add “winter injury” to the list of possibilities. Look for the presence of dark elongated sunken lesions on petioles and runner stems, which may indicate plants have an infection from the anthracnose fruit rot-causing fungus. If that infection spreads to the crown, you may see blackening of the crown after making a longitudinal cut. With Phytophthora, entire outer leaves are likely to turn brown and die as they would with severe drought stress. With Pestalotiopsis, which can also kill plants, rather non-descript leaf spots may be present; these leaf symptoms can easily be confused with leaf blotch or Phomopsis leaf blight, but in general are less acutely V-shaped.

This publication from the University of FL provides much more info along with photos of symptoms:

Is Pestalotiopsis a new threat to Florida strawberry production?

Cultivar can also provide a clue as to which of the above diseases is most likely. ‘Chandler’ is especially susceptible to both anthracnose fruit rot and crown rot. If you have both ‘Chandler’ and ‘Sweet Charlie’, and ‘Sweet Charlie’ is more severely affected, consider Phytophthora as the likely culprit, as ‘Sweet Charlie’ is very susceptible if conditions are right for infection. Phytophthora has also been isolated from ‘Flavorfest’ crowns in the past. ‘Sweet Charlie’ was affected by Pestalotiopsis in other states, but we don’t know the relative susceptibility of various cultivars.

All of this info together is not enough to serve as proof of which of these three crown-rotting diseases is present, but can provide a direction for stop-gap treatments you can take (see below) while you contact your supplier or an extension educator, or send a sample to a disease clinic for a more definite diagnosis. Due to the cryptic (asymptomatic) nature of anthracnose infections, your plant supplier may be unaware of any potentially infected plants; however, early communication may be helpful to both of you, and your supplier may have some suggestions for preventative measures you can take.

Second, avoid planting suspicious plants as much as possible. Often, it is a good idea to order 10% or so more plants than you actually need to avoid feeling the pressure to plant everything. Otherwise, you may pause and question whether you should put suspicious plants in the ground, and then plant them anyway. You can use any healthy extra plants later as replacements if needed. If you must use plants of questionable health, planting them in one corner of the field may facilitate taking special care of them. This is also less detrimental than having questionable plants scattered throughout the field where they can serve as potential sources of infection for surrounding healthy plants.

Third, while planting, make sure the planting depth is correct and soil is firmed around the crown. Make sure that anyone involved in planting understands this and its importance. The soil level should be at mid-crown. If the plant is too shallow and roots are showing, the roots will dry out and the plant won’t grow well. If too deep, soil will cover the growing point and rots will set in. Have someone check plants that were set and correct any issues. Plants at the wrong depth or without good root-to-soil contact simply will not grow as well as they should.

Fourth, either immediately before or right after planting, trim off any dead or dying leaves or runners. Take note of any dark sunken lesions that may be present especially on runners and leaf petioles since this may be a sign of anthracnose organism(s). There are other causes of tissue death including leaves just getting shaded out while in trays, or runners or petioles getting pinched between trays or cooked if on the edge of a tray. However, if you notice these symptoms on plants in the center of a tray, a disease organism is a more likely cause.

Fifth, make any fungicide applications that are needed. In the past, we generally hadn't recommended Fall fungicide applications. However, the very hot temperatures this summer combined with the need to mist plants frequently resulted in conditions that were perfect for development of certain diseases. If phytophthora has been a problem in the past on your farm, or if you are growing varieties that may be susceptible to phytophthora, an application of mefenoxam (Ridomil Gold SL and others) or metalaxyl (MetaStar 2E) through the drip system 15 days after planting is warranted, as are follow-up foliar applications of fosetyl-Al (Aliette WDG) or a phosphite product (Phostrol, Prophyte, etc.) 2 to 3 weeks later.

If anthracnose crown rot or Pestalotiopsis is suspected, captan and Switch both have good efficacy, and should be applied 2 or 3 times during the fall being sure to get good coverage into the crown area. Quadris Top also has some efficacy on Pestalotiopsis. As we are seeing more resistance in anthracnose population against QoIs (category 11 fungicides), it is logical not to use QoI products in the Fall, but you may reconsider that depending on the risk relative to potential infection on your plug plants. It is more important than ever to select your fungicide sprays wisely and rotate among chemistries to avoid control failure. Follow your state's regulations regarding whether products can be used for diseases that are not on the label as long as the use pattern is followed; some states (such as PA) allow this, while others do not.

Lastly, keep the plantings well-watered, and make sure your planting is protected from deer during the fall. Apparently 'Chandler' strawberry plants are one of the tastiest things around. In one of our variety trials, deer nibbled each of our 'Chandler' plots to nothing, passing by "eastern" varieties in the process.

With all of these steps in place (along with following other standard recommendations before and after planting), you will know you've done everything you could to get your planting off to a good start.

Calendar of Important Events

- ✓ Indicates a newly added event since the last calendar
- ● Online

✓ **September 24**

● **Incentive Programs for Working Lands;** 8PM—9PM; New Jersey Audubon will be hosting a virtual outreach event on September 24th. Participants are being asked to register using this link: https://us02web.zoom.us/webinar/register/WN_LWBPD0jnS2Ohg0fBOhePWw. Please direct any questions regarding the outreach event to Brittany Dobrzynksi at Brittany.dobrzynski@njaudubon.org

✓ **September 23**

General & Household Pest Control; Radisson Hotel Piscataway - Somerset; 21 Kingsbridge Road, Piscataway, NJ 08854; 9AM—3PM; $145; This is a one-day 6-hour class. This class is designed to be used in lieu of 40 hrs of on-the training for the Category 7A License. In addition, you must also take the Basic Pesticide Training Course for CORE Certification to be certified. For Category 8A / General Public Health, this course is only valid for Re-Certification Credits. https://njpma.com/classes/category_7a/

✓ **September 30**

● **Rodent Control & Technology Online Workshop;** 8AM—12 PM; This two day virtual workshop will feature a mix of in-depth sessions featuring the latest research and technology in the pest management industry and how to combat rodents. Pesticide credits will be offered. For more information or to sign up go to https://njpma.com/njpma-rodent-control-technology-workshop/

✓ **Late September**

● **Virtual Twilight Nursery Meeting;** This meeting will have pesticide credits. Date of meeting will be posted on the Plant & Pest Advisory website. For more information subscribe to Plant & Pest advisory by going to plant-pest-advisory.rutgers.edu.

✓ **October 7**

● **Virtual Rutgers Turfgrass Research Field Day;** Virtual video format due to the pandemic. Videos will be posted on https://turf.rutgers.edu/ on October 7. Videos will remain on the website through 2020. We will resume our onsite Turf Field Days in July 2021.

✓ **October 8**

● **Emergency Pesticide Recertification Seminar;** 9AM-3PM; Beat the October 31 deadline with this one-day online class in the comfort of your home while also learning some useful information. Our top-notch team of instructors will keep it interesting as they teach the most current control techniques and the most up-to-date safety regulations from the NJDEP. Pesticide Credits: 2 units in 3A, 3B, and CORE; To register or find more information go to http://www.cpe.rutgers.edu/courses/current/al0427wa.html

✓ **October 28**

General & Household Pest Control; Radisson Hotel Piscataway - Somerset; 21 Kingsbridge Road, Piscataway, NJ 08854; 9AM—3PM; $145; This is a one-day 6-hour class. This class is designed to be used in lieu of 40 hrs of on-the training for the Category 7A License. In addition, you must also take the Basic Pesticide Training Course for CORE Certification to be certified. For Category 8A / General Public Health, this course is only valid for Re-Certification Credits. https://njpma.com/classes/category_7a/

✓ **October 29**

- **Rodent Control & Technology Online Workshop;** 8AM—12 PM; This two day virtual workshop will feature a mix of in-depth sessions featuring the latest research and technology in the pest management industry and how to combat rodents. Pesticide credits will be offered. For more information or to sign up go to https://njpma.com/njpma-rodent-control-technology-workshop/

✓ **January 14, 2021**

CORE Training Program for the NJ Pesticide Applicators License; Extension Conference Center 18 Ag Extension Way, New Brunswick, NJ 08901; 12:30 PM – 4:30 PM; Bilingual Class; This course satisfies New Jersey's requirement of attending a basic pesticide training course for new applicants; Registration fee is $145; Six (6) CORE units toward re-certification for New Jersey licensed applicators/operators; For more information or to register go to http://www.cpe.rutgers.edu/courses/current/ae0801ca.html

✓ **May 3, 2021**

Rutgers Turfgrass Research Golf Classic, 25th Anniversary; Fiddler's Elbow Country Club, 811 Rattlesnake Bridge Rd, Bedminster, NJ 07911; This event is the largest turfgrass research golf event in the US; For more information or to register go to https://njta.wildapricot.org/

REGULARLY SCHEDULED MEETINGS

✓ Indicates meeting will be held at RCE of Cumberland County

Extension Education Bldg., 291 Morton Ave, Rosenhayn, NJ (Between Carmel and Rosenhayn)

✓

Cumberland County Pesticide Certification Exam Schedule

RCE of Cumberland County
291 Morton Avenue
Millville, NJ 08332
(Between Rosenhayn & Carmel)

Rutgers will be taking over the pesticide exam program.

More information to come.

No exams will be held until further notice.

No registration at this time.

For information call 856-451-2800

Cumberland County Agriculture Development Board

Virtual Meeting Information
Call (856) 209-3537
Access Code 701-083-822 #

2020

Sep 8 Oct 13 Nov 10 Dec 8

Meetings start at 7 p.m.

For information call Matt Pisarski, Department Director at 856-453-2211

✓

Cumberland County Board Of Agriculture

Virtual Meeting Information
Email or call Katie
KatieSi@Co.Cumberland.Nj.Us
(856) 451-2800 x1
for meeting details.

2020

Sep 17 Oct 15 Nov 19 Dec 17

Meetings start at 7 p.m.

For information call Lew DePietro, President at 856-981-9843

The program in Cumberland County is suspended until further notice.

Cumberland County Improvement Authority (CCIA)
Pesticide Container Recycling
9:00 a.m. to 12 Noon
Cumberland County Solid Waste Complex
169 Jesse's Bridge Rd. (located off Route 55 Exit 29)
Deerfield Township, New Jersey
Questions? Call Division of Ag & Natural Resources, NJ Dept. of Ag 609-292-2242

Sincerely,

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Environmental and Resource Mgt. Agent
Mangiafico@njaes.rutgers.edu

Pesticide User Responsibility: Use pesticides safely and follow instructions on labels. The user is responsible for the proper use of pesticides, residues on crops, storage and disposal, as well as damages caused by drift.

Use of Trade Names: Trade names are used in this publication with the understanding that no discrimination is intended and no endorsement is implied. In some instances the compound may be sold under different trade names, which may vary as to label.

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Have you visited the Cumberland County website for the

Present and/or past issues of “Cultivating Cumberland”? It’s a great

resource for information and dates...

http://Cumberland.njaes.rutgers.edu/

Public Notification and Non-discrimination Statement

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Cooperative Extension of Cumberland County

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Cooperative Extension of Cumberland County
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