

<b>WHAT'S IN THIS REPORT</b>		
<b>TIPS</b>	<b>NEW PROBLEMS SEEN</b>	<b>SPOTLIGHT</b>
<ul style="list-style-type: none"> <li>• Harvest, curing, and storage</li> </ul>	<ul style="list-style-type: none"> <li>• Cucumber Downy Mildew</li> <li>• Spotted cucumber beetles</li> <li>• Bean Yellow Mosaic Virus</li> <li>• Peach Brown Rot</li> </ul>	<ul style="list-style-type: none"> <li>• Sweat Bee</li> </ul>

**GARDENS SCOUTED FOR THIS REPORT:** *Madison Community Garden, ValleVue Preserve Community Garden in Morris Township and Wick Farm Garden at Jockey Hollow*

**GENERAL OBSERVATIONS AND TIPS**

The gardens and plots scouted are filled with summer produce and fruit. An abundant August may find you doing garden overtime by keeping up with laborious tasks of harvesting, preserving, and getting back out to plant for fall. Harvesting a large variety of crops may seem overwhelming, and summer burnout hits the best of us, so be sure to take a breather, rest, take a day off, and return refreshed to enjoy the splendor of your plot. There's still time to get an autumn garden started with cool season greens.

**HARVEST, CURING AND STORAGE**

Harvesting at maturity and proper curing are recommended for successful storage. These crops were selected as examples, since they are specific to what we found growing in the gardens we scout. Many were planted in spring and have now reached their date to maturity. Shelf life depends on factors such as the variety and conditions, but given the right management you will enjoy your harvest for months. Curing helps heal any blemishes, toughen skins, and concentrates sugars for sweeter taste. Be sure to regularly inspect stored vegetables for any signs of mold or rot and remove. Best spaces to store are cool basements, unheated rooms, root cellar, or pantry. Just try to control the storage environment as best you can, we realize commercial growers have the benefit of refrigerated and heated storage. Do not refrigerate onions, garlic, shallots, potatoes, pumpkins, winter squash or spaghetti squash, since low temps and the moisture will affect texture and flavor, and may initiate mold to develop.

**Onions**

- Time to harvest when bulb leaves are yellowed and toppled over. Pull up in dry weather. Do not wash soil off.
- Leave to dry in plot for a week, if rainy, bring indoors to warm, dry area. Space singularly to avoid mold developing.
- Keep out of direct sun and allow to fully dry for up to two weeks. The point is to get that dry, papery covering.
- Braid leaves or cut tops. Cut tops help extend storage.
- Store in a cool space and separate from potatoes.
- Good storers are Red Zeppelin, Copra, Stuttgarter and Yellow Globe.

**Shallots**

- Foliage that has died back and yellowed indicates time to harvest the clump.
- Gently lift out clump, separate cloves and bring indoors to a dry space.
- Allow up to two weeks till completely dry. Can be braided or cut tops.
- Save some seed for next year. Store cool and dry.
- Try long storer Dutch Red.

**Potatoes**

- Vines will die back or succumb to frost. You can leave for a week or more in ground, but don't let them freeze.
- Carefully dig to avoid damaged tubers. Do not wash soil off, allow tubers to dry for a couple hours.
- Store potatoes in a dark place that is medium cool and moist. Sprouting will occur at higher temps.
- Store away from onions, apples, bananas, peppers and tomatoes, as these give off ethylene gas, which speed rot.
- Good storers are Purple Viking, Yukon Gold, and Kennebec.

## Sweet Potatoes

- Cut vines and dig up before a frost. Soil temps at 50°F can cause injury to roots.
- Avoid cold and wet soil at harvest, it's just no fun digging up in poor conditions.
- Dig up carefully, avoiding punctures and slashes from tools, as fresh skins are delicate. Allow soil to dry then brush off.
- Bring indoors, space evenly on a table or counter. They need heat and high humidity to cure for ten days.
- Store in a cool, dark place, but do not refrigerate. You can wrap individual ones in newspaper to help maintain moisture, but check periodically for any deterioration.
- Good storers are Mahon Yam (Not a yam, a sweet potato), Beauregard, and Covington.

## Winter Squash- Butternut and Pumpkins

- Harvest Butternuts and pumpkins when vines are dying back, and the frost has arrived.
- The fruits should be at maturity with hard skin and exhibit good size and color. Turn over squash and look for a 'ground spot'. It is lighter in color, but good indicator that it is time.
- Leave a bit of stem. It helps in handling, but also prevents a wound for any fungus.
- Butternuts and pumpkins can be left in a sunny, warm plot for up to a week, or bring indoors and place in warm space with good ventilation for up to a week. Then store both at temps within 50 to 55°F.
- Acorn Squash, Delicata, and Spaghetti Squash don't require curing.
- Butternuts with good storage are Waltham, Sweet Meat and Butterbaby.
- Pie pumpkins with good storage are Long Island Cheese, Baby Bear, and Cinderella types such as Musque de Provence.



These harvested onions will be dried and stored. Margot Sample, NJAES



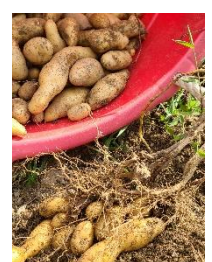
Waltham butternut squash



Cinderella pumpkin



Sweet Potatoes



Fingerling potatoes

These homegrown vegetables were stored and enjoyed up to 4 months post-harvest. Jennifer Basile, NJAES

References- Please check for additional details and enjoy your harvest!

1. Rutgers University <https://njaes.rutgers.edu/E340/>
2. Rutgers University <https://njaes.rutgers.edu/pubs/subcategory.php?cat=8&sub=57>
3. Oregon State University <https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/ec1632.pdf>
4. Purdue University <https://www.purdue.edu/hla/sites/yardandgarden/time-to-harvest-sweet-potatoes/>
5. University of Maryland <https://extension.umd.edu/resource/growing-sweet-potatoes-home-garden>
6. University of Minnesota <https://extension.umn.edu/planting-and-growing-guides/harvesting-and-storing-home-garden-vegetables>
7. University of Missouri <https://extension.missouri.edu/publications/g6226>

### Upcoming Event

Rutgers University, the New Jersey Agricultural Experiment Station, and Rutgers Cooperative Extension proudly present the Snyder Research and Extension Farm Open House and Tomato Tasting.

**Wednesday August 30, 2023 1–7 p.m.**

**Rutgers Snyder Research and Extension Farm, 140 Locust Grove Road, Pittstown, NJ 08867**

Enjoy tasting 50 plus tomato varieties! Learn about the research and projects being conducted at the farm by taking a wagon tour of the farm's research plots.

Rutgers faculty, staff and Master Gardener volunteers will be available to answer your gardening and research questions.

**Registration required.** <https://snyderfarm.rutgers.edu/open-house/>

## REPORTS ON NEW PROBLEMS

**Cucurbit Downy Mildew**  
*(Pseudoperonospora cubensis)*

**Morris Township Community Garden 8/17**  
**Morris Township Home Garden 8/16**  
**Wick Farm Garden at Jockey Hollow 8/14**

**Description:** Cucurbit Downy Mildew has been detected on cucumber plants. Hosts include cucumber, melon, pumpkin, and squash. When looking at the upper surface, leaves present with pale green to yellow spots, which eventually advance to brown. These leaf spots are angular and bounded within leaf veins. This is most distinct in cucumber plants. A telltale sign of downy mildew is the grey to black fuzz (spores) found on the underside of the host leaves, giving it a somewhat moldy appearance. This may be most evident when scouting in the morning or when the leaves are wet.

This water mold pathogen thrives in wet or very humid conditions, of which NJ gets its fair share of in summer. The pathogen moves with air currents and this year was found in Atlantic County on 6/13 and Gloucester County on 7/1, now making its way up the state. Plants can become infected through splashing water, using shared tools and even gardeners' hands. Cucurbit Downy mildew does not overwinter in New Jersey; it blows in from the South.

Researchers continue to develop new cucumber varieties that are worth trying to grow in your plot. Growers can also track its path through the Cucumber Downy Mildew Forecast page <https://cdm.ipmpipe.org/>



Characteristic angular spots caused by downy mildew on cucumber. As the disease progresses, the leaves will shrivel and curl upward. Mary Albright, NJAES

Underside of cucumber leaf showing fuzzy appearance of spores. Mary Albright, NJAES

### Management

- Plant resistant varieties. For pickling cucumbers: Citadel, Chaperon, and Peacemaker. For slicing cucumbers: Bristol, DMR 401, Marketmore 76, and Brickyard.
- Plant early in the season and try early maturing varieties to help bypass high disease pressure.
- Avoid overhead watering. Water at the base of the plants or use drip irrigation.
- Do not work in garden during wet weather. Direct contact with wet plant material can help spread fungal diseases.
- Avoid overcrowding plants. Provide space to promote good air circulation.
- Grow vertical. Use a trellis or fence for plant vines to climb.
- Remove infected plants directly to trash to help stop the spread.
- Practice good garden sanitation by clearing up plot of old debris in the fall.

### References

1. Rutgers University <https://njaes.rutgers.edu/E310/>
2. University of Minnesota <https://extension.umn.edu/disease-management/downy-mildew-cucurbits>
3. Cornell University [Cucumber and Cantaloupe Varieties Resistant to Downy Mildew \(cornell.edu\)](https://www.cornell.edu/cupress/cucurbit-varieties-resistant-to-downy-mildew/)
4. University of Florida <https://edis.ifas.ufl.edu/publication/pp325>

**Spotted cucumber beetles on squash  
aka Southern corn rootworm  
(*Diabrotica undecimpunctata howardi*)**

**Morris Township Community Garden 8/17**

**Description:** Spotted cucumber beetles, were found recently on squash plants. A similar pest, striped cucumber beetles, were reported earlier in the season and discussed in IPM Report #5 (June 12th). Both species of cucumber beetle adults cause feeding damage on the foliage and fruit of cucurbit plants (cucumbers, squash, and pumpkins). Adults overwinter in plant debris, emerge, and begin feeding on seedlings. Mating begins and eggs are laid on soil. The larvae feed on roots and stems, pupate and the cycle begins anew. There are one to three generations per year. Spotted cucumber beetles also attack asparagus, beets, cabbage, corn, eggplant, beans, peas, potato, tomato, and a wide variety of flowers. The feeding injury caused by the spotted cucumber beetle is usually less severe than that of the striped cucumber beetle. Both species of cucumber beetles carry the bacterial wilt pathogen that can cause cucurbit plants, especially cucumbers, to wilt and die.



Life stages of Spotted Cucumber Beetle from larvae, pupae to the golden, 12 spotted adult. The beetle undergoes complete metamorphosis.

Gerald M. Ghidui,  
Rutgers University



These collapsed, wilted vines will never recover, as the bacteria multiplies rapidly. Once found wilting, plants succumb within a week. Cull plant immediately, to help stop the spread, as the bacteria can also be found in the beetle's feces.

Mary Albright, NJAES

**Management**

- Scout for cucumber beetles early in the season. They overwinter as adults, emerge in spring, and begin feeding on seedlings, especially those in the cotyledon and first to third true-leaf stage. Once present, monitor often.
- Practice good garden sanitation. Remove weeds and dead plant debris. If a plant is showing signs of bacterial wilt, remove the infested plant before more beetles can feed on the plant and spread the bacterium.
- Use floating row cover to prevent the cucumber beetles from feeding and laying eggs. Be sure to remove the barrier when cucurbits start to flower unless you are growing a parthenocarpic variety (one that doesn't require insect pollination such as Beit Alpha or Diva).
- If you decide to try a squash trap crop such as Blue Hubbard, it is vital to scout that. The point of trap crops is to lure away, but they still need monitoring.
- Try using OMRI listed Surround, a kaolin clay that creates a barrier coating, protecting plants from feeding and egg laying. Yellow sticky traps with Cucumber beetle lures have variable results, since beneficials may also be drawn. Neem is a plant-based pesticide that prevents insects from feeding, which eventually kills them.

**Read and follow all recommended instructions for safe handling and application.**

**References**

1. Rutgers University <https://njaes.rutgers.edu/pubs/publication.php?pid=FS225>
2. Rutgers University <https://njaes.rutgers.edu/fs1123/>
3. University of Massachusetts <https://ag.umass.edu/vegetable/fact-sheets/cucumber-beetle-spotted>

**Bean Yellow Mosaic Virus**  
*(Potyviridae family)*

**Morris Township Community Garden 8/8**

**Description:** Bean Yellow Mosaic Virus (BV-2 or BYMV) was detected on bean plants. Leaves on several plants presented with mottled yellow and green coloration. Some older plant leaves were completely mottled. Plant vigor was noted to be weak, plant growth appeared slightly stunted and pods were unaffected. This virus can infect soybeans, peanuts, gladioli, canna, peas, clover, violet, and pumpkin. Aphids spread the virus, for which there is no cure.

A second variety is Bean Common Mosaic Virus (BV-1 or BCMV). It also has no cure and is spread by aphids; however, disease transmission is non-persistent, meaning the aphids will readily acquire the virus by feeding on infected plants but will only continue to transmit it for a few days to a week. Beans and other legumes, including clover, can be affected. This disease often stunts the plants and reduces yield. Leaves may exhibit a mottled pattern of light yellow and green or a band of darker green may follow the leaf veins, while the rest of the leaf remains green. Leaves may become puckered or malformed and often exhibit a downward cupping of the entire leaflet. The Bean Yellow Mosaic Virus **is not** carried by bean seeds. The Bean Common Mosaic Virus **is** carried by seed and the virus can survive up to 30 years on the seed.



Yellow green mottled bean leaf. Cull and destroy diseased plants to stop the spread of virus in your plot and overall garden. Mary Olin, NJAES



Older completely mottled bean leaves will struggle and eventually succumb to the virus. This plant will not recover, as there is no cure for this virus. Mary Olin, NJAES

**Management**

- Destroy diseased plants to help stop the spread.
- Aphid control early in the season may help reduce the spread of disease. See IPM Report #3, May 19th, 2023
- Avoid planting beans near other legumes and *Gladiolus sp.*
- Support top aphid predators, lady beetles and green lacewings, by providing plants with pollen and nectar from the *Umbelliferae*, or carrot family (Queen Anne's Lace, Cilantro, Fennel, Dill, Parsley) and *Compositae*, or aster family (Zinnia, Marigold, Calendula, Echinacea, Sunflowers, Yarrow)
- Plant resistant varieties to BCMV such as Provider, Tavera, Jade or Rocdor.
- Try foil/reflective mulch to repel aphids.

**References**

1. University of Connecticut [Bean Viruses - CT Integrated Pest Management Program \(uconn.edu\)](https://uconn.edu)
2. Washington State University <https://hortsense.cahnrs.wsu.edu/fact-sheet/bean-common-and-yellow-mosaics/>
3. Cornell University Virus [Diseases of Beans fact sheet \(cornell.edu\)](https://cornell.edu)

**Description:** A peach tree, located at the Morris Township Community Garden, has developed Brown Rot. This fungal disease affects stone and pome fruits worldwide. This airborne fungus spreads through the winds during spring storms. Spores are picked up from the previous years' infected twigs and decayed, old 'mummified' fruits, and circulate with air currents to transmit onto host fruit trees. As usual, the fungus thrives in warm, wet, humid conditions. The spores can infect early and late maturing tree varieties. Insects such as Japanese Beetles, green June Beetles and Oriental beetles can also transfer spores that they encounter as they travel amongst the flowers, leaves and branches of host trees. Fruit may appear to be growing well, but this can strike just as ripening begins, spreading from fruit to fruit, creating hardship for growers with total crop loss. Any wounds on fruits exacerbates infection.



This peach was fully covered with fuzzy fungus, while other fruit on the tree was in the beginning phase of disease.

Small, sunken round water-soaked lesions are the first symptom. In time, the lesions will develop and cover the fruit.  
Ned Gardner, NJAES

**Management**

- Practice good garden sanitation. Remove all decayed debris, since the fungus overwinters.
- Clean all pruning gear.
- Plant resistant varieties.
- Try Surround WP OMRI listed Kaolin clay spray.

**Read and follow all recommended instructions for safe handling and application.**

**References**

1. Cornell University <https://ecommons.cornell.edu/bitstream/handle/1813/43081.2/brown-rot-stone-fruit-FS-NYSIPM%202019.pdf?sequence=5&isAllowed=y>
2. Cornell University [https://ecommons.cornell.edu/bitstream/handle/1813/67/Cornell\\_Guide\\_to\\_Growing\\_Fruit.pdf?sequence=2&isAllowed=y](https://ecommons.cornell.edu/bitstream/handle/1813/67/Cornell_Guide_to_Growing_Fruit.pdf?sequence=2&isAllowed=y)

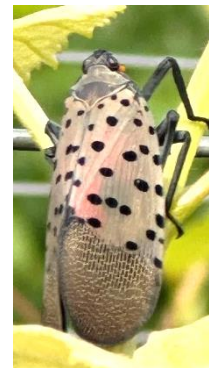
**Also Happening Now**



Harvest often and before something else does. This tomato has been nibbled possibly by a vole, mouse, or rabbit. Rotting fruits and vegetables are a buffet for hungry critters. Once they find a food source, they set up camp. Be sure to remove and practice good garden hygiene for your plot and your neighbors.  
Mary Olin, NJAES



Harlequin bugs were found mating on horseradish and collards. They were previously reported last month, but continue to scout for adults and eggs on the undersides of leaves. Destroy to prevent the next generation from overwintering.  
Ned Gardner, NJAES



Spotted Lanternfly nymphs have been previously reported, as they hatched and were found in early summer. Now the adults can be found on host trees and plants. This one of many was found within a grapevine. Grapevines are one of their favorite hosts. Follow recommended protocol and destroy it.  
Catherine Mathis, NJAES

## **BENEFICIAL SPOTLIGHT**

### **Sweat bee (*Halictidae* family)**



Sweat bees sitting on a leaf.  
Jennifer Basile, NJAES

Sweat bees are a diverse species that are observed here in New Jersey, but also worldwide, apart from Antarctica. There are 20,000 species of bees worldwide.

These small bees with sometimes beautiful metallic bodies, can be found flying in gardens, orchards, and woodlands. As herbivores, they visit flowering plants, wildflowers and sunflowers sipping nectar, and collecting pollen on their hairy legs. With the pressures on honey bees, these bees also help pollinate and play a large role in pollination of stone fruits. They are an ally for orchards.

Nesting sites include a spot in the soil or hideaway in a branch. Not considered a social bee, although females may share a nest communally, her cells are private. These bees undergo complete metamorphosis and will overwinter as larvae or pupae.

Given the name, they are attracted to salts in sweat, so wear a long-sleeved shirt while weeding. Known to be non-aggressive, but if threatened, of course a bee will sting.

National Honey Bee Day August 17, 2024

World Bee Day May 20, 2024

1. Rutgers University <https://njaes.rutgers.edu/fs1280/>
2. University of Massachusetts [https://ag.umass.edu/sites/ag.umass.edu/files/pdf-doc-ppt/2-1-17\\_a\\_review\\_on\\_bees.pdf](https://ag.umass.edu/sites/ag.umass.edu/files/pdf-doc-ppt/2-1-17_a_review_on_bees.pdf)

### **ADDITIONAL RESOURCES**

All Rutgers Gardening and Landscaping Fact Sheets & Bulletins

<https://njaes.rutgers.edu/pubs/subcategory.php?cat=5&sub=1001>

Rutgers Master Gardener Program <https://njaes.rutgers.edu/master-gardeners/>

Rutgers Soil Testing Laboratory <https://njaes.rutgers.edu/soil-testing-lab/>

Community Gardening Series <https://njaes.rutgers.edu/community-garden/>

Office of the New Jersey State Climatologist <https://climate.rutgers.edu/stateclim/>

Rutgers New Jersey Weather Network <https://www.njweather.org/>

Ticks and Tick-borne Disease <https://njaes.rutgers.edu/tick/>

Rutgers NJAES You Tube Channel <https://www.youtube.com/user/RutgersNJAES>

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