RUTGERS
New Jersey Agricultural Experiment Station

Rutgers Master Gardeners of Morris County
Community Garden IPM Team Report #7
July 25, 2025

WHAT'S IN THIS REPORT		
TIPS	**NEW PROBLEMS SEEN**	**SPOTLIGHTS**
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IPM TEAM REPORTS

The Morris County Rutgers Master Gardener Integrated Pest Management (IPM) Team scouts one or more community gardens each week. Every other week the team provides IPM Team reports on problems first observed during the two-week period. These reports contain summary descriptions, management methods, and research-based references for more information.

Refer to Rutgers Fact Sheet 1123 and 1124 for all recommended controls for insect and disease pests. They are valuable resources throughout the growing season:
Rutgers Fact Sheet on Vegetable Insect Control: https://njaes.rutgers.edu/fs1123
Rutgers Fact Sheet on Vegetable Disease Control: https://njaes.rutgers.edu/pubs/publication.php?pid=fs1124

The gardens scouted by the IPM Team include the Morris County Park Commission Community Garden, the Morris Township Ted Largman Community Garden, the Madison Community Garden, the Wick Garden in Jockey Hollow National Park, and the Randolph Community Garden. The team also reports on sightings in the Pequannock Community Garden and their own vegetable gardens.

GENERAL OBSERVATIONS and TIPS

Harvest your produce frequently

It is peak season for summer produce and gardeners are enjoying the fruits of their labors. Be sure to pick your produce frequently so you can enjoy it at its peak. If overripe fruit is left on vegetable plants, the plants will slow down producing new fruit. Rotting fruits can also be attractive to pests.

Some summer produce
Photo: M. Albright, NJAES

Rutgers Fact Sheets for controlling vegetable garden pests

Gardeners sometimes ask us “what can I spray with?” when they encounter a vegetable garden problem. Integrated Pest Management (IPM) uses pesticides as a last resort. The focus of IPM is to monitor and identify pests, prevent problems by good cultural practices, and control problems. IPM uses the methods least risky to people and the environment first such as handpicking and row covers. Pesticides are only used as a last resort.

Rutgers has two summary Fact Sheet resources that list both cultural controls and insecticides that can be used for specific insect pests and diseases. The two fact sheets also summarize key growing practices to help avoid problems in the first place. And they list other Rutgers Fact Sheets with information about the specific pests.

- Rutgers Fact Sheet on Vegetable Insect Control: https://njaes.rutgers.edu/fs1123
- Rutgers Fact Sheet on Vegetable Disease Control: https://njaes.rutgers.edu/pubs/publication.php?pid=fs1124

These two fact sheets tell you which pesticides can be used for which problem, as well as which are organic and which are chemical. They also provide product names to help you find them. Of course, be sure to read the label of any pesticide, make sure it includes the pest you want to control, and follow the label instructions.

To use the controls for specific problems in the Fact Sheets, you first need to identify the problem you have. Our IPM Team reports are designed to help you with that since we tell you which problems have recently been seen in our area and provide photos and information to help you identify the problems. IPM Team reports also provide information on managing the pests.

REPORTS ON NEW PROBLEMS

Problem: Pigweed flea beetles *(Disonycha glabrata)*	**Where: Madison Community Garden (7/7) Morris Township Community Garden (7/22)**

Description: The Pigweed flea beetle is easily mistaken for both the striped cucumber beetle and the three-lined potato beetle due to similarities in its color and stripe pattern. While their coloration seems very similar, there are notable differences as you can see in the side-by-side photos below. The Pigweed flea beetle has pronounced black and white stripes, a red pronotum (section behind the head) with either one or three black dots, and a black and red head.

Pigweed flea beetles feed upon plants in the Amaranth family, including pigweed, amaranth, callaloo, and the flower, love-lies-bleeding. They lay their eggs at the base of the plant as well as on both upper and lower leaf surfaces. The eggs are yellow orange. The larvae are light in color (almost white), about ¼ inch long with a dark-colored head and a bumpy texture to their body. They feed on foliage until ready to pupate at which time they burrow into the soil. After about 13 days, the mature adults emerge.

Pigweed flea beetle adult
Photo: S. Brighouse, NJAES

Three-lined potato beetle
Sometimes pigweed flea beetles are mistaken for three lined potato beetles.
Photo: Univ. of Minnesota Extension

Striped cucumber beetle
Sometimes pigweed flea beetles are mistaken for striped cucumber beetles.
Photo: Univ. of Minnesota Extension

Management:

- Hand pick adults and larvae. Successfully managing the first generation will help prevent subsequent generations.
- Spray plant foliage with the insecticide Spinosad (such as Captain Jack's Deadbug Brew).
- Remove pigweed and other amaranth-related plants from weedy borders as these provide a place for this pest to shelter.
- Adults overwinter in leaf litter so doing a good cleanup in the Fall will help prevent problems the following year.

References:

- Connecticut Agricultural Experiment Station: https://portal.ct.gov/-/media/CAES/DOCUMENTS/Publications/Fact_Sheets/Entomology/PigweedFleaBeetlepdf.pdf?la=en

Problem: Downy mildew disease on cucumber plants ***(Pseudoperonospora cubensis)***	**Where: Morris Township Community Garden (7/15) Randolph Community Garden (7/21)**

Description: Downy mildew can infect all cucurbits including cucumber, melon, pumpkin, and squash. Pale green to yellow spots form on the upper surface of leaves and later turn brown. Leaf spots are angular and bounded by leaf veins. This is most distinct in cucumber plants and often gives leaves a "quilt-like" look.

Downy mildew thrives in wet or very humid conditions. The pathogen can move on air currents, splashing water, and on the tools and hands of workers. Downy mildew does not overwinter in New Jersey; it blows into the area via air currents. Most cucumber varieties that previously had good resistance to downy mildew have now become susceptible to the disease.

Downy mildew causes angular spots on cucumber leaves, often giving the leaves a "quilt-like" appearance

Photo: M. Albright, NJAES

Downy mildew disease on a cucumber plant: underside of a leaf, top of a leaf.
Gray to black fuzz (spores) on the underside of the leaves can sometimes be seen, particularly in the morning or when the leaves are wet. The spores are a tell-tale sign of downy mildew.

Photo: M. Albright, NJAES

Downy mildew disease on cucumber plants

Photo: M. Albright, NJAES

As downy mildew disease progresses, the leaves shrivel and curl upward

Photo: B. Gugino, Penn State

Management:

- Plant cucumber varieties that have resistance to downy mildew: Bristol, DMR 401, and Brickyard.
- Plant early in the season to help escape high disease pressure.
- Water at the base of the plants or use drip irrigation since downy mildew thrives in wet conditions.
- Promote good air circulation by not crowding plants and growing them vertically on trellises or fences.
- Remove infected plants to help keep the pathogen from spreading.

References:

- Rutgers University: https://njaes.rutgers.edu/E310/
- University of Minnesota: https://extension.umn.edu/disease-management/downy-mildew-cucurbits
- Cornell University: https://www.vegetables.cornell.edu/pest-management/disease-factsheets/disease-resistant-vegetable-varieties/cucumber-and-cantaloupe-varieties-resistant-to-downy-mildew/

Problem: Spider mites on bean plants (*Tetranychus urticae*)	**Where: Morris Township Community Garden (7/16) Morris Township home garden (7/16) Randolph Community Garden (7/21)**

Description: Spider mites are tiny eight-legged mites that feed on the underside of leaves, causing yellow/whiteish stippling. Spider mites are difficult to see without a hand lens. They primarily infest bean, tomato, and cucurbit (cucumber, squash, melon) plants. They are also found on numerous other vegetables such as beet, carrot, corn, eggplant, parsley, pea, pepper, and sweet potato, as well as strawberry, blackberry, and other fruits. Their puncture-and-suck feeding produces yellow or white stippling and can lead to reddish or pale discoloration of leaves. Plants heavily infested with spider mites may become stunted and drop leaves. Spider mites also spin fine webbing giving them their name. The webbing may be seen when heavy infestations occur. Populations of spider mites develop and increase rapidly in hot, dry conditions. Spider mites have multiple generations per year and their life cycles can be as short as 8 days. Adults overwinter in plant debris or under bark.

Bean plants with stippling from feeding by spider mites

Photos:
Left: L. Terraneo, NJAES
Right: M. Olin, NJAES

Left photo: Two spotted spider mites, John A. Weidhass, Virginia Polytechnic Institute

Right photo: Spider mites (whitish specs) on webbing and the plant, M. Albright, NJAES

Management:

- Hose water on the undersides of leaves to help dislodge the mites.
- Reduce plant stress through good watering and fertilizing practices. Avoid excessive nitrogen fertilizer since it can increase mite populations.
- Pull up and dispose of badly infested plants. Clean up bean plant debris.
- Canola oil, insecticidal soap, and pyrethrin insecticides can be used. Horticultural oil and insecticidal soap are most effective on mite eggs. Use them when damage is first observed. Spray in the early morning when it's cool. Caution: Spraying badly damaged leaves can cause further injury.
- You can purchase predatory mites and release them into your garden to help control pest mites. A caution: insecticides can also kill these beneficial mites.
- Since mites can overwinter in nearby weeds and migrate to the garden, keep weeds under control.
- Row covers can be used to exclude mites. Row covers must be put up before mites are on the plants.

References:

- University of Maryland: Spider Mites on Vegetables | University of Maryland Extension (umd.edu)

Problem: Celery Anthracnose, aka Celery Leaf Curl *(Colletotrichum fioriniae and C. nymphaeae)*	**Where: Madison Community Garden (7/7) Morris Township Community Garden (7/14)**

Description: Celery Anthracnose is a fungus that is seed borne. Signs include stunted plant growth, curling leaves and small brown lesions that develop on the petiole. Lesions on petioles turn dark reddish brown to black as the disease progresses. Lesions displaying gall tissue and adventitious roots are sometimes observed. Invasion by secondary bacteria may lead to heart rot, which can resemble black heart, a physiological disorder of celery caused by calcium deficiency.

Infection and disease development are most common and severe in warm, wet conditions, when celery leaves remain wet for long periods of time.

Spores are spread primarily by splashing rain or irrigation water.

Several common weeds, including common lambsquarters, redroot pigweed, yellow nutsedge, oakleaf goosefoot, and common groundsel may also serve as hosts.

Celery plant showing downward cupping, twisting foliage characteristic of Anthracnose disease
Photo: M. Olin, NJAES

Curled leaves characteristic of Celery Anthracnose
Photo: M. Olin, NJAES

Blackening of center foliage due to secondary bacterial infection
Photo: M. Olin, NJAES

Management:

- Destroy infected plants to help limit the spread of disease.
- Remove infected plants immediately.
- Avoid overhead watering as this fungus thrives in moist, warm conditions.
- Avoid working within the crop during wet weather to prevent spread of disease.
- Practice crop rotation for a period of 4 years.
- Start with clean seed and try planting resistant varieties such as Hadrian, Geronimo, and Balada.
- Clear garden debris in the fall and keep garden free of potential weed hosts.

References:

- University of Massachusetts: https://ag.umass.edu/vegetable/fact-sheets/celery-anthracnose

Problem: Plectosporium Blight *(Plectosporium tabacinum)*	**Where: Morris Township Community Garden (7/14) Randolph Community Garden (7/22)**

Description: Plectosporium blight is caused by the fungus *Plectosporium tabacinum*. This disease of cucurbits is relatively new to the Northeast. It was first seen in the US in the 1980s. The strain present in the US primarily affects pumpkins, zucchini and summer squash. Rainy, humid weather provides ideal conditions for disease growth. The fungus can persist in the soil for years. It is spread by wind and rain splash.

Characteristic symptoms are small, white, elliptical to diamond-shaped spots. They form on stems, leaves, petioles (leaf stalks), vines, and fruit.

Wilted zucchini plant with Plectosporium blight
Photo: M. Albright, NJAES

Plectosporium blight spots on zucchini plant petioles (leaf stalks)
Photo: M. Albright, NJAES

Plectosporium blight spots on zucchini plant stem. Some of the spots have coalesced into a white area.
Photo: M. Albright, NJAES

Management:

- Plant cucurbits in a sunny, well-drained location.
- Rotate away from pumpkins and summer squash for 3 years if blight is evident.
- Avoid over-fertilization.
- Avoid overhead watering. Water at the base of plants.

References:

- Rutgers University fact sheet: Diagnosing and Managing Important Cucurbit Diseases in the Home Garden: https://njaes.rutgers.edu/E310/
- Cornell University: Plectosporium blight on cucurbits | Vegetable Pathology – Long Island Horticultural Research & Extension Center (cornell.edu)
- UMASS: Vegetable: Cucurbits, Plectosporium | Center for Agriculture, Food, and the Environment at UMass Amherst

Problem: Anthracnose disease on cucumber plants ***(Colletotrichum orbiculare)***	**Where: Morris Township Community Garden (7/14) Randolph Community Garden (7/21)**

Description: Anthracnose is a common foliar disease during cool, wet weather. The fungus survives in the soil and is splashed with soil particles onto healthy leaves during rainfall or overhead irrigation. Symptoms include small, tannish-brown spots on the upper leaf surface. Turning the leaf over will reveal pinkish-orange, spindle-shaped lesions, which are limited to the veins of leaves. Masses of conidia (spores) are produced and are spread by splashing water (i.e., rainfall or overhead watering). Older lesions eventually turn brown and often fall out leaving 'shotholes' on infected areas of the leaf.

Anthracnose on cucumber plant leaf
Photo: M. Albright, NJAES

Anthracnose on cucumber plant leaf
Photo: M. Albright, NJAES

Anthracnose lesions on veins on the underside of a cucumber leaf
Photo: M. Albright, NJAES

Management:

- Grow cucumber varieties that are resistant to anthracnose. See the second reference for disease resistant varieties.
- Destroy crop debris as soon as possible after harvest.
- Rotate curcurbit (e.g., cucumber, squash, pumpkins, melon) crops for at least three years.
- Avoid overhead watering. Water at the base of plants.
- Promote good air circulation by not crowding plants and growing them vertically on trellises or fences.

References:

- Rutgers University fact sheet: Diagnosing and Managing Important Cucurbit Diseases in the Home Garden: https://njaes.rutgers.edu/E310/
- Cornell University: Disease-resistant cucurbit varieties | Cornell Vegetables
- Cornell University: https://www.vegetables.cornell.edu/pest-management/disease-factsheets/anthracnose-of-cucurbits/

WEED SPOTLIGHT

Yellow Nutsedge
(*Cyperus esculentus*)

Description: Yellow Nutsedge (*Cyperus esculentus*) is an invasive, aggressive perennial weed that spreads rapidly and should be dug up when it is first spotted. It is very difficult to control once they have spread. Yellow nutsedge is so aggressive that it can even grow through weed cloth and penetrate potato tubers.

Nutsedges can be identified by their triangular-shaped stems. The yellow nutsedge shallow, fibrous root system includes rhizomes and nut-like tubers. These tubers spread rapidly. One plant can produce several hundred to several thousand tubers within one growing season.

Above left: Yellow nutsedge plant
Photo: Aaron Paxton, Purdue University

Above right: Yellow nutsedge flower head
Photo: M. Albright, NJAES

Left: The root system of a yellow nutsedge including rhizomes and nut-like tuber.
Photo: Dr. John Meade, Rutgers NJAES Cooperative Extension

References:

- Rutgers New Jersey Weed Gallery: Nutsedge (Yellow) (Rutgers NJAES)
- Rutgers University: https://burlington.njaes.rutgers.edu/2022/04/28/yellow-nutsedge/

RESOURCES

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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