RUTGERS MASTER GARDENERS OF MORRIS COUNTY
COMMUNITY GARDEN IPM TEAM REPORT #1 APRIL 20, 2026

RUTGERS UNIVERSITY
Cooperative Extension of Morris County
New Jersey Agricultural Experiment Station

WHAT'S IN THIS REPORT?

Tips
Amendments to refresh your plot

Problems
Overwintered Cabbage Whiteflies
Imported Cabbageworm Butterfly

Watch Out For
White Grubs, Allium Leaf Miners, and Flea Beetles

Spotlight
Hairy bittercress

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 FS1123 Vegetable Insect Control Rutgers Fact Sheet FS1124 Vegetable Disease Control

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

The IPM Team has resumed scouting and we look forward to seeing you for our ninth year! Attached with this first report are the two files that include the Top Problems and Observation Chart, with historic data accumulated for your use. The Top Problems report is a compilation of the most frequent problems that the IPM Team has observed over the past eight years. The Observation Chart provides a visual view of the team's data on dates of all problems reported on between 2019 and 2025. Please refer to both resources as you prepare your plot. Time for installing row covers, planting, and scouting for pests and diseases again. The Allium Leaf Miner adults and egg laying were found in Burlington County on April 7th, so they should emerge in Morris County soon. We wish you a prolific growing season and look forward to seeing you again. Thank you for all your feedback and for reading the reports!

SOIL AMENDMENTS TO REFRESH YOUR PLOT

Restoring your plot soil with amendments prior to planting can help re-energize the soil food web life and improve soil structure where needed. You will encourage healthy plants that will provide healthy food and yields. Try incorporating some compost, or composted manure, 2 to 4 inches as a top dressing for aeration, water retention, and overall soil structure improvements. Additional common amendments of coconut coir or worm castings may be helpful, as well as vermiculite or perlite for containers. Soil testing also provides detailed information on specifics of what nutrient is deficient or in excess.

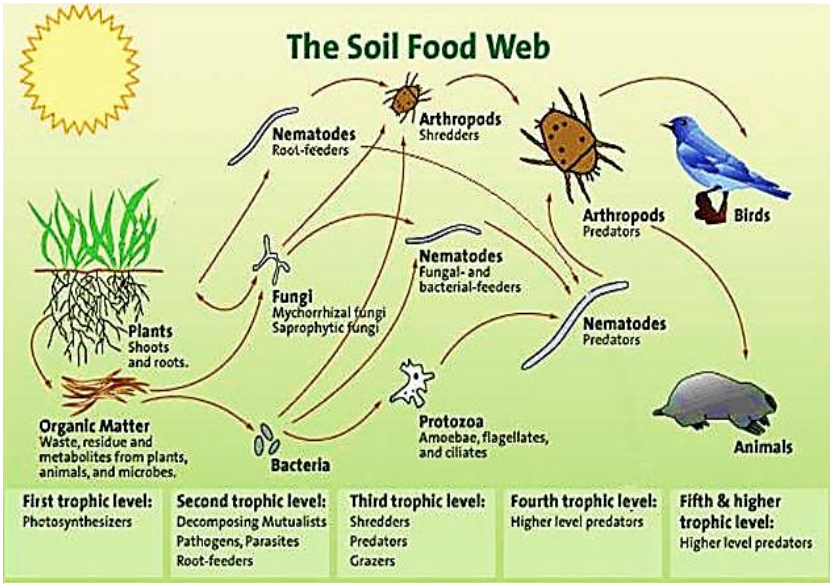

Figure 1 Diagram of the soil food web chain of decomposers and predators. NRCS.usda.gov

Figure 2 Compost
Create your own or purchase from reliable source.
Provides organic matter.
Moisture retention.
Encourages soil microbes.
Improves soil texture.
Overall top winner for the garden.

Figure 3 Vermiculite
Mineral. Looks sparkly golden.
Holds moisture.
Improves soil aeration and structure.
Lightweight.
Sterile. No nutrients.
Good for sowing seeds and plant propagation.
Take precautions with handling.
Can be dusty. Avoid inhaling.

Figure 4 Coconut Coir
Made from coconut husks.
Purchase in brick form or chips.
Renewable.
Lightweight.
Disease free.
Improves water retention and air space.

Figure 5 Vermicompost- Worm Castings
Purchase or make your own.
Rounded crumby appearance.
Improves soil moisture, aeration, and structure.
Feeds soil web.
Used for all plants.
Overall beneficial.

Figure 6 Perlite
Made from volcanic rock. Porous.
The white crunchy bits found in potting mixes.
Improves soil aeration.
Lightweight. pH neutral.
Sterile, good for sowing seeds and plant propagation.
Take precautions handling.
Can be dusty. Avoid inhaling.

Figure 7 Peat Moss
Improves moisture.
Lowers soil pH.
Sustainability issues.
Photos: J. Basile, NJAES

RESOURCES

Rutgers Soil For Raised Beds Fact Sheet FS1328

Cornell National Good Agricultural Practices Program Soil Amendments

North Carolina State Extension Vermicomposting

University of Maryland Extension Organic Matter and Soil Amendments

REPORTS ON NEW PROBLEMS

Problem: Whiteflies (*Aleyrodes proletella*) **Where:** Overwintered

Description: Cabbage whiteflies are an emerging pest that now overwinters in New Jersey and have become a significant pest of brassica plants, especially kale. The grey spots on the whiteflies indicate that they are cabbage whiteflies, *Aleyrodes proletella*. These pests are native to Europe, found worldwide, and have remained a pest in the Northeast since first found in 1993. They are now established in Oregon and California, and they can overwinter in Canada. Brassica crop preferences include kale, brussels sprouts, broccoli, and cauliflower. These small, piercing sapsuckers damage and deform foliage. Plants quickly become overrun, due to adults and nymphs equally feeding on plant sap. Their feeding leaves honeydew (feces) behind, with sooty mold fungus to follow. With favored host plants available throughout winter and rapid reproduction, infestation will survive and multiply if not controlled swiftly.

Management:

- Inspect overwintered brassica plants early in the gardening season.
- If infestations of whiteflies are found, bag and remove the plants.
- As the weather warms up, the whiteflies will start to fly when disturbed and will become more difficult to remove.
- If the whiteflies are left on overwintered plants in the garden, they will infest new brassica plants. Populations of whiteflies can grow quickly.

Figure 8 Whiteflies on the underside of a kale leaf. Photo: M. Albright, NJAES

Figure 9 A heavily infested kale leaf. Photo: M. Albright, NJAES

Figure 10 A close-up of cabbage whiteflies showing their identifying grey spots. The small white ovals are other stages of the whitefly lifecycle. Photo: P. Nitzsche, NJAES

References:

- Rutgers Fact Sheet FS240 Whiteflies
- University of Maryland Fact Sheet Whiteflies-Vegetables

Problem: Imported Cabbageworm Butterfly (*Pieris rapae*) **Where:** Morris Township Garden 4/9/26 (Adult sighting)

Description: Imported Cabbageworm butterflies lay their eggs on brassicas such as cabbage, broccoli, and cauliflower. The green color and small size of the larvae make it difficult to detect them, but you will know they are there if you begin to see holes in the leaves. The butterfly lays single white eggs on the underside of leaves. Eggs hatch three to five days later, and the green caterpillars begin feeding on the leaves. After two to three weeks of feeding, the caterpillars pupate and form a chrysalis on or near the affected plant. This matures in about two weeks and the cycle begins again. In our location, it is possible to have two to three overlapping generations in a season.

Figure 11 Adult Imported Cabbageworm Butterfly Photo: Rutgers Fact Sheet

Figure 12 Imported Cabbageworm egg on leaf. Photo: L. Terraneo, NJAES

Figure 13 Imported cabbageworm larva on green cabbage leaf. Photo: P. Nitzsche, NJAES

Figure 14 Imported cabbageworm larva on red kale leaf. Photo: J. Basile, NJAES

Figure 15 Chrysalis of Imported cabbageworm on leaf. In two weeks, this will emerge as an adult and lifecycle begins anew. Photo: J. Basile, NJAES

Figure 16 Cabbageworm larva on cabbage. Photo: P. Nitzsche, NJAES

Figure 17 Damaged cabbage with feeding holes. Photo: P. Nitzsche, NJAES

Management:

- Handpick eggs and caterpillars and dispose of them by crushing or dumping them in a jar of soapy water. The caterpillars are well camouflaged so your first inkling of a problem may be damage to leaves. Planting red cabbage varieties makes it easier to see the caterpillars.
- Row covers placed immediately after planting seedlings will keep the butterflies from laying eggs.
- Apply *Bacillus thuringiensis var. kurstaki* when caterpillars are small and actively feeding. The *BT* must be ingested to be effective. Read the label and apply thoroughly to the leaves.
- In the case of plants that form heads, harvest affected plants early to minimize tunneling by larger caterpillars into the head.

References:

- Rutgers Fact Sheet FS286 Imported Cabbageworm

ADDITIONAL PESTS LIKELY TO BE SEEN IN APRIL

Problem: White Grubs (many species)

Description: White grubs are the larvae of scarab beetles. They feed on the roots of many vegetables, including corn, bean, beet, potato, spinach, turnip, and other root crops. Some of the species include May or June beetles, European Chafer beetles, the Asiatic garden beetle, the green June beetle, the Japanese beetle, and the Oriental beetle.

Figure 18 White grubs in soil. Photo: Rutgers Fact Sheet

Figure 19 White grub feeding damage to spinach roots. Photo: Rutgers Fact Sheet

Figure 20 White grub feeding damage to sweet potato. Photo: Rutgers Fact Sheet

Management:

- When preparing the soil for planting, hand collect and destroy the grubs.
- Good garden hygiene. Clear up plant debris as female adults prefer to lay their eggs in vegetation.

References:

- Rutgers Fact Sheet FS293 White Grubs
- University of Massachusetts Fact Sheet Scarab Beetle

Problem: Allium Leaf Miners (*Phytomyza gymnostoma*)

Description: Allium leaf miner adults are small flies that are active in Morris County from late March/early April to late May/early June. A second generation occurs in September to October/November. Adult females lay eggs on the leaves. The larvae mine the leaves and migrate into the bulb and pupate. The injury caused by the larvae often leads to a rot in the bulb or neck of the plant and distortion of leaves. Injury to leeks, onions and scallions can be severe. Large numbers of orange pupae may also be found in harvested alliums, particularly leeks.

Figure 21 Adult Allium leafminer on garlic leaf. Photo: L. Terraneo, NJAES

Figure 22 Feeding marks from Allium leafminer adults. Photo: M. Sample, NJAES

Figure 23 Plants damaged by allium leaf miner larvae. Photo: Pennsylvania Dept. of Ag.

Figure 24 Allium leaf miner pupae. Photo: Pennsylvania Dept. of Ag.

Management:

- Row covers are effective at preventing egg laying during periods of adult activity. The spring row covers can be removed in early June after adults stop flying. Row covers should be used again in the fall to prevent damage from the second generation of adults.
- Spinosad (for example, Captain Jack's Dead Bug Brew) can be used for allium leaf miners. Please read label and spray allium foliage only (not other plants) to protect beneficial insects and pollinators.
- Good garden hygiene. Removal of all host debris before the end of the season can help prevent overwintering.

References:

- Rutgers Plant-Pest Advisory Allium Leafminer Update
- Cornell University Fact Sheet Allium Leafminer

Problem: Flea beetles (many species)

Description: There are many species of flea beetles and most feed on specific plants. Most flea beetle species are 1/20th to 1/8th inch long and are black, bronze, bluish, or brown to metallic gray in color. Since most flea beetles are very small, new gardeners often wonder what is causing the holes in their plant leaves. Flea Beetles feed on many different vegetables including tomato, potato, eggplant, radish, Swiss chard, sweet potatoes, and kale. Flea beetle infestation may affect the growth of young plants and can be a significant pest of eggplant. Flea Beetles are so small they can sometimes be mistaken for specks of soil, but will jump if disturbed.

Figure 25 Flea beetle feeding on radish.
Photo: M. Albright, NJAES

Figure 26 Flea beetles and their characteristic feeding holes on an eggplant leaf.
Photo: P. Nitzsche, NJAES

Figure 27 Close-up of flea beetles on eggplant leaf. Photo: L. Terraneo, NJAES

Management:

- Row covers can help protect young plants.
- Plants grown from small seeds are less tolerant to flea beetle damage than transplants.
- Early season plantings usually have more severe flea beetle infestations. Delaying planting can help reduce flea beetle problems.

References:

- Rutgers Fact Sheet FS233 Flea Beetles
- University of Minnesota Extension Flea Beetles

Weed Spotlight **Hairy Bittercress** (*Cardimine hirsute*)

Description: Hairy bittercress can be found in the landscape and in garden plots. It germinates in the fall and will continue to grow during warm spells throughout the winter. Growth is strong in the spring and will die when the weather gets hot after it has dispersed its seeds. More than one generation can emerge in any given season because its seed will germinate if favorable growing conditions are moist and cool. It is a member of the Brassica family. The flowers and nectar are a food source for bumblebees and some butterflies.

Figure 28 Hairy bittercress plants growing next to raised bed. Photo: P. Nitzsche, NJAES

Figure 29 Close-up of small white flowers. Photo: J. Basile, NJAES

Figure 30 Close-up of rosette of basal leaves. Photo: J. Basile, NJAES

Management:

- Hand weeding. Hairy bittercress is a prolific seed producer, so pull before it goes to seed. It is easy to pull or dig up due to its shallow fibrous roots.
- Mulching bare spots in the garden path will help control it.

References:

- North Carolina State Extension Plant Toolbox
- Penn State Extension Hairy Bittercress a Winter Annual Weed to Watch

RESOURCES

Rutgers New Jersey Agricultural Experiment Station Cooperative Extension of Morris County
Rutgers Gardening and Landscaping Fact Sheets & Bulletins
Rutgers Master Gardener Program
Rutgers Soil Testing Laboratory
Community Gardening Series
Office of the New Jersey State Climatologist
Rutgers New Jersey Weather Network
Ticks and Tick-borne Disease
Rutgers NJAES You Tube Channel

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