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Rutgers Cooperative Extension
of Cumberland County
291 Morton Ave.
Millville, NJ 08332

856.451.2800 x4
mastergardener@co.cumberland.nj.us

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New Jersey Agricultural Experiment Station
COOPERATIVE EXTENSION
CUMBERLAND COUNTY

What's Growing On?

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Garden Gab

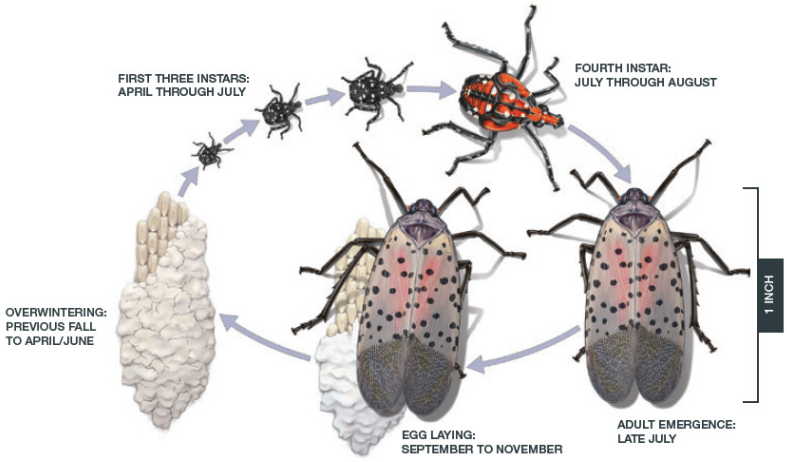
The entire Northeast has been battling abnormally dry conditions for the past couple of weeks and many plants are starting to suffer as a result. You may have noticed large, established trees and shrubs have turned yellow or brown, and wilted. Many lawns are completely brown and vegetable crops are dropping fruit and declining in yield. Here are some tips on managing drought in your garden or landscape:

- Water slowly and infrequently, but deeply to promote deep roots. This is best achieved using drip irrigation or soaker hoses on timers.
- Water in the evening or early morning, being sure not to soak the foliage.
- Plants need 1 inch of water a week.
- Do not transplant or start seeds outdoors.
- Pay close attention to potted plants as they will require more frequent watering.
- Prioritize vulnerable, or high-dollar plants first (large trees and shrubs are harder to replace than flowers or vegetables!).
- Avoid watering your lawn and let it go dormant. Trying to keep it green may only stress the grass more.
- Use mulches to help regulate soil temperature and conserver soil moisture.
- Do not fertilize or prune plants under drought conditions.
- Be careful not to over-water. The top 6 inches of soil should be moist, not dry or wet.

Spotted Lanternfly

The adult spotted lanternflies (SLF) have finally appeared and will begin feeding on woody plants as they look for places to lay their eggs for the winter. If you have the following plants in your garden, be sure to monitor them closely for SLF adults or egg masses as these are some of their favorite plants to feed on:

- Grapes
- Tree-of-heaven
- Black walnut
- River Birch
- Willow
- Sumac
- Red and Silver Maple



Spotted lanternfly lifecycle. Illustration by Emily Damstra, Penn State.

Managing Adults

Adults will feed throughout trees in late summer, but in the fall they will feed more on the trunks and branches. Circle traps and sticky band traps (with a wildlife barrier) can still be used to capture adult spotted lanternflies. Pesticides are often times not necessary and not practical if the insect is feeding on large trees. It is common for SLF to choose a "hot" tree where many of them will gather and feed. If you notice this, contact a NJ Licensed Pesticide Applicator as they can apply a systemic insecticide to kill all of the adults feeding on that tree. To protect your plants, it is essential to reduce other plant stressors, like lack of water or disease, which can exacerbate SLF damage.

Managing Egg Masses

Spotted lanternfly adults will begin to lay eggs in September and by November the adults will die off with the egg masses overwintering on outdoor surfaces. These egg masses can contain up to 50 SLF so their removal is essential in limiting spotted lanternfly populations. If you come across egg masses, scrape them off and into a container with alcohol or squish them. Egg masses that are simply scraped onto the ground will still hatch. Check the following surfaces for egg masses from September to April:

- Tree trunks (especially on favored trees)
- Outdoor furniture
- Fences
- Bricks, siding
- Vehicles, boats, trailers
- Firewood

Variations of spotted lanternfly egg masses. Adapted from Heather Leach and Emelie Swackhamer, Penn State.

If you have any questions about the spotted lanternfly or its control, please call the Rutgers Cooperative Extension of Cumberland County at 856-451-2800 x4.

Lawn Seeding

If you are looking to establish a new lawn, August 20th through October 10th is the ideal time to do so. A late summer-early fall seeding will give the grass enough time to set roots and grow before the winter. In addition, seeding now is better than seeding in the spring as the grass doesn't have to compete with the emerging spring weeds.

Prior to establishing your new lawn, you should get a soil test to determine how much fertilizer or lime you will need to add. Soil test kits can be purchased from your local Rutgers Cooperative Extension. Allow 2-3 weeks to receive your soil test results. In the meantime, think about what type of grass seed you would like to use. Mixtures of various grass seeds are commonly used as these can be used in a variety of areas (wet, dry, sunny, shady). Common grass types in New Jersey are: Kentucky bluegrass, tall fescues, fine fescues, and perennial rye grass.

Once you receive your soil test results, apply the recommended amounts of lime and fertilizer. Till into the top 3-4 inches of soil.

To prepare the area for seeding, rake up any debris or stones. Spread the seed with a drop or rotary spreader, working in two directions to apply 1/2 the recommended seed in each direction. The seed should then be raked in 1/4 inch deep and lightly rolled. Keep the soil moist, especially during the germination period. 2-4 weeks after establishment, top-dress with 3-5 pounds of 20-10-10 fertilizer per 1000 square feet.

Monarch Butterflies

The migratory monarch butterfly is now listed as an endangered species. The eastern population of these awe-inspiring creatures has decreased by 84% between 1996 and 2014. Much of this decline is attributed to deforestation, habitat fragmentation, pesticide use, and climate change.

To protect monarch butterflies from extinction, you should reduce pesticide usage especially on flowering plants. Consider creating a pollinator meadow or garden with a variety of flowering plants. Turning barren fields or open lawns into pollinator habitat can mitigate some of the affects that land fragmentation and development have. Milkweed is essential for monarch caterpillars to complete their metamorphosis, so some native species you can consider planting are:

Whorled Milkweed, *Asclepias verticillata*
Common Milkweed, *Asclepias syriaca*
Swamp Milkweed, *Asclepias incarnata*
Butterfly Weed, *Asclepias tuberosa*
Purple Milkweed, *Asclepias purpurascens*
Green Comet Milkweed, *Asclepias viridiflora Raf.*
Poke Milkweed, *Asclepias exaltata*

Native flowers are also essential for monarch conservation as the nectar from flowering plants provides monarchs with the energy and nutrients necessary to migrate south to Mexico. Some excellent nectar sources are:

Joe-pye weed, *Eutrochium stulosum*
Wild bergamot, *Monarda stulosa*
Flat-top goldenrod, *Euthamia graminifolia*
NY Ironweed, *Vernonia noveboracensis*
Common bonset, *Eupatorium perfoliatum*
Dense blazing star, *Liatris spicata*
Black-eyed Susan, *Rudbeckia hirta*
Seaside goldenrod, *Solidago sempervirens*
Eastern purple coneflower, *Echinacea purpurea*

If you find monarch eggs on plants in your garden, be sure to leave them where they are. Bringing eggs inside to raise the caterpillars can have negative consequence for monarchs. Buying monarchs online is also not a recommended conservation practice.

Alternatives to Common Invasive Plants

Invasive plants pose a threat to native populations and biodiversity. They are capable of taking over landscapes, out-competing or strangling native populations, altering plant communities and harming the organisms that rely on those plant communities. Often times these plants are accidentally introduced to the landscape. While new invasive species emerge every year, some are well documented as being invasive. Those plants and their alternatives are recommended below. Please note that invasive is different from non-native. Non-native (exotic, alien) species are not indigenous to a particular region, but are well behaved. Invasive species are non-native organisms that cause harm to the environment, economy, or human health.

Invasive species	**Alternative species**
Norway Maple, *Acer platanoides*	Sugar Maple, *Acer saccharum* Red Maple, *Acer rubrum* Scarlet Oak, *Quercus coccinea*
Black Locust, *Robinia pseudoacacia*	Thornless honeylocust, *Gleditsia triacanthos var. inermis* Shagbark hickory, *Carya ovata* Black cherry, *Prunus serotina*
Burning Bush, *Euonymus alatus*	Red chokeberry, *Photinia pyrifolia* Virginia sweetspire, *Itea virginica* Smokebush, *Cotinus obovatus*
Chinese wisteria, *Wisteria sinensis*	Trumpet honeysuckle, *Lonicera sempervirens* Trumpet vine, *Campsis radicans* American wisteria, *Wisteria frutescens*
Seaside rose, *Rosa rugosa*	Virginia rose, *Rosa virginiana* Sheep Laurel, *Kalmia angustifolia*
Kousa dogwood, *Cornus kousa*	Pagoda dogwood, *Cornus alternifolia* Flowering dogwood, *Cornus florida*
Butterfly bush, *Buddleja davidii*	New Jersey tea, *Ceanothus americanus* Summersweet, *Clethra alnifolia*
European privet, *Ligustrum vulgare*	Northern bayberry, *Morella pensylvanica* Inkberry holly, *Ilex glabra*
Japanese barberry, *Berberis thunbergii*	Eastern ninebark, *Physocarpus opulifolius* Fragrant sumac, *Rhus aromatica*

Cut Flower Garden

A cut flower garden can be a great way to provide nectar and habitat to wildlife, while giving you endless bouquets of colorful blooms. You can use a wide variety of flowers, but there are some characteristics that you should select for. Good cut flowers will have stiff and long stems with a lengthly bloom period. Many seed companies will sell varieties specifically for cut flower gardeners. You can choose to fill your cut flower garden with perennial or annual flowers, and you might even include some flowering shrubs.

Cosmos (annual)

Black-eyed Susans (perennial)

Zinnias (annual)

Bee balm (perennial)

Asters (annual/perennial)

Celosia (annual)

Tomato Problems

Gardeners across the state are seeing some common tomato problems. The first two problems are related to the hot and dry conditions we have been experiencing. Blossom end rot and blossom drop are widespread. Consistent temperatures over 90 degrees have caused flowers to drop and prevented new fruit from forming. Avoid adding nitrogen fertilizers, as they may only worsen this. The best thing you can do is wait it out, and that goes for blossom end rot too. Blossom end rot is caused by calcium deficiency and tomatoes exhibiting blossom end rot will have dark, sunken in bottoms. While it is common to see this is calcium deficient soils, it is also common to see when there is extreme heat. During hot, dry spells tomato plants cannot uptake nutrients as well. Therefore, applying fertilizer or calcium to plants affected by bloom end rot, will not make things better. Ensure plants are receiving consistent water and eventually the plant will produce viable tomatoes. In the meantime, pick off any tomatoes that appear to have blossom end rot as the fruit will not grow out of this.

Anthracnose is another problem starting to show up on tomatoes. You may notice circular soft spots appearing on fruit, and then pink or orange fungal spores. This type of fruit rot is caused by pathogens that can be introduced by infected seeds, or spread from the soil. To prevent anthracnose in the garden, apply mulch to prevent spores from splashing up from the soil, keep plants spaced evenly to allow airflow, water from the base to avoid wetting foliage, and rotate tomato plants in the garden. Remove infected fruit immediately and do not attempt to compost or save seed from disease fruit.

If you've noticed chewed leaves on your tomato plants, it is likely the notorious tomato or tobacco hornworm. These large green caterpillars, with black or red horns can defoliate tomato plants rather quickly. Scout your tomato plants for hornworms, starting at the top as they enjoy new growth. If you find one, simply pluck it off and toss it for the birds, or squish it. If you come across a hornworm with white, oval projections on its back, you can leave the caterpillar or move it to a safe place. The white projections are the eggs of a parasitic wasp that uses the hornworm as an incubator. The hornworm will be sluggish and not eating much once infected. Sprays for tomato hornworms are unnecessary in the home garden as you can usually hand pick the few that may be affecting your tomatoes.

Seasonal Checklist

- Remove infected plant material from vegetable and flower beds.
- Get your soil tested.
- Plant a fall crop of carrots, broccoli, or radishes.
- Can or freeze tomatoes, peppers, and corn.
- Look for spotted lanternfly eggs.
- Water your plants deeply.
- Mow grass 3" or taller to help it survive the heat.
- Order garlic for fall planting.
- Plant and divide daylilies, irises, peonies.
- Seed a new lawn.
- Leave seed heads for birds to eat.
- Buy local produce!
- Avoid pruning trees and shrubs.
- Order bulbs.
- Plant trees or shrubs.
- Remove summer annual weeds such as crabgrass before they go to seed.
- Provide birds and pollinators with water.
- Check for scale insects on your trees and shrubs.
- Protect sensitive crops from the cool nights ahead.
- Dry herbs and flowers to use in teas throughout the winter.
- Visit a local botanical garden.

Interested in receiving bi-weekly pest and disease reports for southern NJ? The Rutgers Master Gardeners of Cumberland County will be sending out bi-weekly integrated pest management (IPM) reports to inform gardeners of current and upcoming garden pests, and how to control and prevent them. This free report will be sent right to your email, starting next spring. Call 856-451-2800 x4 if you;d like to receive this informative report.

Resources

Spotted Lanternfly:

https://extension.psu.edu/spotted-lanternfly-management-guide

Lawn Seeding:

https://njaes.rutgers.edu/fs584/

Monarch Butterflies:

https://www.fs.fed.us/wildflowers/pollinators/Monarch_Butterfly/habitat/index.shtml
https://www.iucn.org/press-release/202207/migratory-monarch-butterfly-now-endangered-iucn-red-list
https://www.nwf.org/Garden-for-Wildlife/About/Native-Plants/Monarch-Nectar-Guides

Alternatives to Common Invasive Plants:

chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.fohvos.info/wp-content/uploads/2022/05/2022Common_DoNotPlant.pdf
https://nysipm.cornell.edu/agriculture/ornamental-crops/greenhouse-resources/alternatives-ornamental-invasive-plants-sustainable-solution-new-york-state/

Cut Flower Garden:

https://extension.psu.edu/great-cut-flowers-from-your-home-garden

Tomato Problems:

https://extension.psu.edu/programs/master-gardener/counties/northampton/news/2018/why-are-my-tomato-flowers-drying-up-without-forming-fruit
https://extension.unl.edu/statewide/dodge/blossom-end-rot-of-vegetables/

Prepared by Lauren Fordyce, Home Horticulture Educator & Master Gardener Coordinator

Scan these QR codes using a smartphone camera to view online.

Wesley L. Kline, Ph.D
Cooperative Extension Agent
Vegetable Production and Food Safety
wkline@njaes.rutgers.edu

Timothy J. Waller, Ph.D
Cooperative Extension Agent
Nursery Production
twaller@njaes.rutgers.edu

Salvatore Mangiafico, Ph.D
Extension Department Head
Environmental and Resources Mgmt. Agent
mangiafico@njaes.rutgers.edu