



“What’s Growing On...”

Volume 18 Number 2 Summer 2015 Edition Published Quarterly

Inside this issue:

Rutgers on the Radio	1
From the Desk of..	1
Bagworms	2
Tomatoes	2
Basil	3
Sunflowers	4
Gardening with Youth	4
Earwigs	5
Greenheads	5
Vegetable Disease Recommendations	6
Lightning Bugs	7
Safety In the Sun	7
Grass Clippings	8
Petunias	9
Dragonflies	10
Living with Black Bears	10
Poison Ivy	11
Milipedes	12
Squash Vine Borer	12
Garden Checklist for June	13
Things to Do for July	14
Checklist for August	15
Rain Barrel Class	16
Available Fact Sheets	17
Check out our Website	18



RUTGERS COOPERATIVE EXTENSION ON THE RADIO

For agriculture news and horticultural tips, listen to me, Pam Burton, on the RCE Agricultural Program on Monday, Tuesday, Wednesday & Thursday on SNJ Today AM 1240 at **12:40 pm** announcing local workshops, seminars, and horticultural tips.

From The Desk of Pam Burton

What do I love about summer? The abundance of down Jersey roadside farm stands with fresh from the field produce and flowers. I enjoy stopping and shopping for a farm-to-table meal of mixed vegetables with fruit as dessert complete with a medley of wildflowers in my Gram’s vintage vase as a centerpiece of memories. There is indisputably no other taste that is comparable to a Jersey tomato. Gram used to sit on the back porch and eat it like an apple with the juices running off her chin. I enjoy mine stacked on herb crackers with basil, fresh mozzarella and drizzled with balsamic vinaigrette. Add corn on the cob, some cucumber salad and there’s a whole dinner to share with friends and family!

It’s hard to go far in Cumberland County without finding a roadside farm stand and many are operated by generations of family with happy surprises like local honey and homemade jams by Aunt Nan (complete with the secret ingredient which I think could be jalapeno peppers) or pies. Some are fancier than others and some are simply a ladder with offerings of extras from the garden.

No matter the size or location, half the fun is in the hunt to find a new roadside farm stand stocked with your favorites, no matter what that is – heirlooms, stand-bys, unusual or specialty varieties... there’s bound to be a roadside farm stand for one-and-all.



Bagworms

We've been getting reports of many bagworms on trees this year and especially evergreens. Certain evergreens seem to be the bagworms favorite food of choice, but they are generalists and will feed on over 100 species of trees, including some deciduous trees, as well .

The life cycle of the bagworm is such that the eggs hatch and the early instars stages can easily be overlooked in June. Best control methods include targeting these hard-to-notice early instars which come out around June. These instars also have a ballooning stage in which they can blow in from upwind infestations. Some of the 1st instars will weave silk from their mouths and then ride the wind to travel to otherwise unaffected trees so they can spread their infestation. The winds ride better the higher up you go, so nature has built in a survival method where the females pupate at a higher level of the tree. When the eggs hatch they are at the optimum wind travel height. This also explains why feeding symptoms occur at the top of the plant first. Those 1st instars that remain on the host plant start feeding where they are born. They continue to feed until they reach the stage where the late instars begin to pupate and secure themselves to the twigs of the plant they are feeding on. The bag that we are all too familiar with is made of silk and bits of host foliage which are interwoven to disguise the case and add strength. By the time you notice the bags, unfortunately the most effective control measure is to hand-pick the bags and put them in soapy water. It's too late for an insecticide to be fully effective & that's where we are at now. By the way, it's also interesting to note that when treating late instars the caterpillars can perform a survival behavior by accelerating into an early pupation.

Once in their bags, the females never leave again as a moth once she lays her 500-1000 eggs she crawls out and dies. The eggs overwinter and thus the cycle begins again. There is some thought that because the female does not emerge as a moth, the eggs remain where they were laid and that can add to the heavy infestation. Put your plans together for next spring when insecticides can be effective.

References:

Rutgers University: <http://plant-pest-advisory.rutgers.edu/?p=5610>

Purdue: <http://extension.entm.purdue.edu/publications/E-27.pdf>

Penn State: <http://extension.psu.edu/perry/news/2013/bagworms>

Penn State: <http://extension.psu.edu/juniata/news/2013/control-bagworms-before-its-too-late>

Penn State: <http://ento.psu.edu/extension/factsheets/bagworm>



Jersey Fresh Tomatoes

Rutgers Fact Sheet FS374 & FS678

I can remember days gone by when my Gram would sit on her back porch and eat a fresh tomato right from the garden.

So, why do the Jersey tomatoes taste so good? Rutgers Fact Sheet FS 374 explains that one answer to the mystery of their great taste is that they are vine-ripened. Tomatoes are ready to eat when firm and slightly soft to the touch but not mushy. A tomato can be completely red, but if it is too firm it is still not ripe. Tomatoes are a good source of vitamins C and A as well as potassium and fiber. They are also low in calories.

At this time of the year, you will have already planted your tomatoes and have harvested some as well. If you are having weed control issues, try applying a 3-5 inch layer mulch layer of straw, salt hay, or dried grass clippings. However, be certain that the grass was not treated with herbicides.

Rutgers Fact Sheet FS 678 lists some common tomato disorders, and how to help prevent them from occurring. Mulches will help prevent blossom end rot by keeping the soil evenly moist. Fruit cracking will occur after a heavy rainfall followed by a dry spurt. Mulches can help avoid fluctuations in the soil moisture. If your plant has wonderful lush foliage but no fruit, you may have too much nitrogen in which case avoid using a high nitrogen content fertilizer. To help prevent sunscald, do not remove mature foliage from the plant.

Fact Sheet FS 374 includes tips for storing Jersey Fresh unripe tomatoes such as never refrigerate unripe tomatoes. Refrigeration of unripe tomatoes will alter the natural vine-ripened taste. Also, don't do what I always do and that is to place them on a windowsill. Windows are usually too hot plus the light will destroy the ripening process. So where do we store the unripe Jersey tomatoes? The best case scenario is at room temperature in a cool dark place.



Basil

Basil is one of my favorite herbs. I am happily experiencing a bumper crop of it this year and am enjoying it in different dishes and in sharing it with friends. I have a renewed interest in cooking and the experience of garden to table with basil has provided a variety of culinary delights.

Ocimum basilicum or Sweet Basil has a wonderfully spicy fragrance that is released every-time you brush against it. It is in the mint family and is an annual in our area, so it does not become invasive like mint can be in a garden. Basil is tremendously versatile and offers varieties that can add accents to any garden. Dark Opal basil has beautiful purple foliage with mauve flowers. Bush basil can make an effective border and there are ruffled varieties for options in textures. Basil also is available in different scents such as cinnamon and lemon.

Basil is native to southern Asia, the islands of the South Pacific. In keeping with its origin, it grows best in a sunny location with 6-8 hours of sunlight per day. It wants rich, well-drained soil with a pH range of around 6.0-6.5. It's helpful for moisture retention and weed control to add a 1-2 inch mulch layer.

Don't be afraid to prune your basil especially if you are using it for cooking. Cut just above a pair of leaves, which will also encourage new succulent and productive growth. Be sure to pinch off flower buds as soon as they appear so that the basil does not become woody and the quality of flavor is not impaired. If you miss it, and a flower appears, use it as a garnish!

In order to make sure you have enough basil to last through the winter, you can dry it, but I'll warn you, the leaves turn an unattractive brown. Another option is to freeze it in ice cubes or better yet, make some awesome pesto and freeze it in batches. Pesto is one of my favorite foods and I'm a believer that pesto goes with most everything. Try it on a panini with some asiago cheese, caramelized onions and blackened chicken!

References:

Ohio State University: <http://ohioline.osu.edu/hyg-fact/1000/1644.html>

Clemson Cooperative Extension: <http://www.clemson.edu/extension/hgic/plants/vegetables/crops/hgic1327.html>

University of Minnesota: <http://www.extension.umn.edu/garden/yard-garden/vegetables/growing-basil/>



Sunflowers



Sunflower or *Helianthus annuus* originated in North America. Its name comes from the Greek helios, meaning "sun" and anthos, meaning "flower, and annus meaning annual. Its common name of sunflower comes from the fact that the sunflower head is heliotropich and move in response to the direction of the sun. East at sunrise and follow the sun through the sky until they face west at sunset. Then they turn back east to start a new day.

Sunflowers require full sun and good drainage but are not particularly sensitive to the soil pH. Typically sunflowers grow 5 to 10 feet tall, but they can be found in both extremes as dwarf and mammoth. Hybridization has also given us the choice of a range of flower colors including many shades of yellow as well as browns and white.

There are a number of uses for sunflowers, including a mutualistic relationship with honeybees. Sunflowers offer nectar to the honeybees, who in turn help pollinate the sunflower. Birds and butterflies are also attracted to the sunflower with its large surface area that can provide a perch while enjoying lunch.

Humans have started growing sunflowers for commercial cut flower purposes, but by far the most valuable part of a sunflower for commercial purposes is the oil which is used as salad dressing or in cooking.

Artists have been inspired by sunflowers and Vincent Van Gogh depicted the changes in a sunflower as it cycles through life in his painting of "Vase with Twelve Sunflowers". Sunflowers are sure to make us smile. A quote from Helen Keller says "Keep your face to the sunshine and you cannot see the shadow. It is what sunflowers do"

References:

Purdue: <https://www.hort.purdue.edu/newcrop/afcm/sunflower.html>

University of Washington: <http://courses.washington.edu/esrm412/protocols/HEAN3.pdf>

University of Wisconsin: http://bioweb.uwlax.edu/bio203/s2008/mitchell_sara/

Gardening with Youth

School's out for another year. What do we do with the kids?

Rutgers Fact Sheet FS003 is entitled Gardening Activities for Youth. The Fact Sheet gives a brief summary of age groups and then provides a breakdown of activities as well as potential concerns per age group for introducing our youth to garden activities.

In choosing the activity based on the child's age, and your level of expertise, keep in mind that one of the most important benefits from gardening with youth is the quality time you will spend together. If the corn doesn't quite grow right or the tomatoes get eaten by deer, turn it into an okay learning experience. Be patient and be flexible. Your goal on a given day may be to plant the marigolds in a nice straight row, and the child might in fact be intrigued by an insect they find, or they may want the marigolds in a circle. Encourage creativity. Use as many senses as you can in your garden discovery. The senses of sight, sound, smell, touch and taste can be found in most every garden.

Encourage your kids to learn about the plant lifecycle by observing how the plants grow. They will learn the importance of following directions from their successes and from their visible results. Certainly gardening is a healthy physical activity and the rewards of beautiful flowers, and delicious fruits and vegetables will encourage them to continue to garden as they grow.

Above all, safety comes first, so be certain to keep all pesticides and any sharp tools out of the reach of curious hands. Remember that some seeds may be harmful if ingested.

Earwigs



Ewwww! Earwigs are those creepy crawlers that have claw-like forceps located at the end of their abdomen. The earwigs use the forceps for protection and to capture prey. There is an old superstition that earwigs would crawl into the ears of people while they were sleeping and once in the ear they would bore into the brain. I am very happy to report that this is not true. However, the name earwig does mean ear creature.

The other creepy thing about earwigs is that they are more active at night, and anything we encounter at night is a bit scarier than daytime! The European earwig tends to seek shelter in homes and then becomes a notorious household pest! Earwigs are known to get into everything including laundry, furniture, clothing, bedding and loaves of bread.

They feed on a wide variety of foodstuffs much of which can be found in our pantries. Earwigs also enjoy a meal of lichens, pollen, arthropods, aphids, spiders, caterpillar pupae, leaf beetle eggs, scale insects, spiders, and springtails. They tend to find shelter within the heads of cauliflower, the stem bases of chard, and the ears of corn. There have been reports of damage to flowers such as dahlia, carnation, pinks, sweet william, and zinnia and ripe fruits such as apple, apricot, peach, plum, pear, and strawberries.

Control of earwigs in the home can be difficult. The first step is to be aware of the breeding and nesting places and control or eliminate them. Earwigs prefer to hang out under boards, in tree holes, under decaying bark and basically any place that is moist and dark. Remove any decaying matter around the home, such as piles of leaves or grass clippings. Repair any poorly placed rain downspouts and broken irrigation systems.

Another cultural control method involves persistent trapping. This can be done by placing boards with channels on the soil, or by placing a moist rolled up newspaper overnight in the garden. It has also been noted that you can fill a flowerpot with wood shavings and invert that over a short stake that has been driven into the soil. While this may seem like a lesson in futility a certain amount of satisfaction can be gained by a successful trapping day. Happy hunting.

References:

University of Florida: http://entnemdept.ufl.edu/creatures/veg/european_earwig.htm

© The Pennsylvania State University 2014: <http://ento.psu.edu/extension/factsheets/earwigs>

The Greenhead and You

The plans for the ever-popular greenhead trap are available in Leaflet 574 at the cost of \$1.00 or you can download them from Rutgers website. As the real estate rule says, location, location, location and that is true with the placement of the greenhead boxes as well.

Place your traps out when the first greenheads arrive, which is around mid to late June. Trust me if you've ever been bit by a greenhead you will be on the look out for their arrival, but not in a happy kind of way. The traps are best placed on the marsh on the open edge of wooded or shrubby area. Most of the greenhead traffic will actually travel from marsh to upland passes through fly paths. These are breaks or openings of low vegetation in screening stands of trees or tall brush near the marshes. It's been noted that clusters of 2 or 3 traps placed in a fly-path are more effective than isolated traps.

Keep the vegetation low beneath the box and around it for a 6' radius. Inspect your trap at least once a week and dispose of dead flies. You are allowed to give a hearty laugh when you do this. You may want to hang a decoy beneath the trap. Suspend a 14-16" beach ball that is painted shiny black beneath the trap. Make sure it clears the ground by 4-6" so it can move with the breeze.

Female greenheads bite during the day and are persistent. They also occur in large numbers and have a long flight range. The population peaks in July, but the season extends into September. The cost of the greenhead trap is minimal and the rewards of catching the greenheads far outweigh the cost. The Rutgers website and leaflet provide in-depth information for the plans and building of the box trap. The Rutgers web site is www.rutgers.edu and then enter "Greenheads and You" in the search box.

Reference: Rutgers: <http://www.rci.rutgers.edu/~insects/greenheads.htm>





Vegetable Disease Recommendations for Home Gardens

This is the time of year when we start seeing some diseases in our home gardens and I have seen a few come into the Center for help. There is a Rutgers Fact Sheet FS 1124 entitled Vegetable Disease Recommendations for Home Gardens that details Keys to Effective Management of Diseases in the home gardens.

Many of the tips given are for pre-planting but there are still important management tips that we can put to use now. The Fact Sheet recommends frequent monitoring of the garden to detect problems at an early stage and the ability to know when and under what condition the diseases are most likely to occur. We offer a wide array of Fact Sheets for specific crops and diseases that can be obtained at the Extension Center or by going on the NJAES website.

When checking your garden, be sure to inspect the plants carefully from top to bottom including the upper and lower surfaces of the leaves. The Fact Sheet suggests checking at least twice a week, but I can assure you that most of the people I encounter at the Extension office are prone to checking their gardens on a daily basis!

Cultural practices can help with disease control, as well. When watering, use a soaker hose or hand water at the base of the plants. Run the sprinkler in the morning or early afternoon versus the late afternoon or evening. Give the plants enough time for the leaves to dry out before sunset. Diseases are more prevalent when there are long hours of wetness.

Harvest the fruit and vegetables as soon as they ripen. Pests may be attracted to overripe fruit left on a plant.

When the plant is done producing destroy the plant, remove it from the garden or plow it under. Don't leave any infected plants or weeds in the garden to harbor the pathogens and cause more disease. Likewise, don't add infested plants to a mulch or compost bin.

Rutgers Fact Sheet FS 1124 provides a comprehensive list of crops and some possible diseases along with control recommendations.



Lightning bugs

What makes that Lightning bug glow? Bioluminescence. Bioluminescence is the production of light by a living organism. In the case of male fireflies, chemicals are combined in the tailight segments where living light is produced and is referred to as cold light, meaning that nearly 100% of the energy given off is light with little or no emission of heat. For a contrast, energy produced by an incandescent light bulb emits 10% light and 90% heat.



Male fireflies use their glow to flash patterns of light to the females who will recognize the flash from a male of the same species and will communicate a signal in response. Each firefly species has its own characteristic flash pattern which is part of the mating ritual and display. Generally the flashes are greenish yellow although one species has a bluish light.

The firefly glow may also be used to avoid predators by association. Fireflies contain a nasty chemical that predators soon associate with the glow and will stay away.

Fireflies are known as beneficial insects. They feed on insect larvae, snails and slugs and do not carry diseases, nor are they poisonous. Because the beetles contain the chemicals of luciferin and luciferase, they are also aiding in the research on cancer, ms, cystic fibrosis and heart disease. Give yourself a summer treat and on a hot summer night, find some woods to watch the show & dream the stuff that dreams are made of.

References:

Texas A& M: http://aggie-horticulture.tamu.edu/galveston/beneficials/beneficial-40_lightning_bug.htm

University of Kentucky: <http://www.uky.edu/Ag/CritterFiles/casefile/insects/beetles/lightning/lightning.htm>

University of Utah: <http://learn.genetics.utah.edu/content/molecules/firefly/>

National Park Service, Great Smoky Mountains: <http://www.nps.gov/grsm/naturescience/fireflies.htm>

Jersey Summer Shore Safety: Be Safe Out in the Sun

Rutgers Fact Sheet FS 1132

Did you know sunscreen has an expiration date? Don't find out the hard way! There are tons of sunscreen products on the market to choose from. Every day, including the cloudy and cool days of summer, apply a waterproof sunscreen of at least 15 with UVA and UVB protection to dry skin at least 30 minutes before going outdoors and at least every 80 minutes thereafter. Apply this even if you are using makeup. Don't forget the lip balm and the sunglasses as well. Reapply sunscreen often for children for the best protection from the sun. Just a few serious sunburns can increase a child's risk of skin cancer.



Common sense prevails as well. Try to limit your outdoor activities and avoid exposure as much as possible at midday when the sun is the strongest. Dress comfortably in loose fitting clothes and add a wide brimmed hat to protect your head, face, neck and ears. People often forget about protecting your ears and they are quite vulnerable to burns.

If you want to try your hand at water sports, there are a multitude of clothing options that are not just for surfers anymore. They offer a quick drying, lightweight option that will offer good sun protection and may even come with specific SPF ratings.

If you are a sunworshipper, you are not alone. In fact, the sun is essential to life on earth by providing the energy for plants to grow. It also provides vitamin D for humans and has been shown to be a mood enhancer and a motivator for physical activity. FS 1132 suggests that 10-15 minutes of sun exposure a day is healthy. However, that's not much time on a sunny summer day, so be sure to follow these guidelines to be safe in the sun.





Grass clippings

It's estimated that on an annual basis yardwaste makes up anywhere from 18-20% of materials bagged and hauled to landfills that are running out of space. Given that 100% of yardwaste is recyclable, this represents substantial costs in labor and fuel expended in the hauling of yardwaste as trash. Likewise, once a landfill reaches capacity, there are enormous expenses involved with the consideration of a new site. In fact, there are cities in which disposal of yardwaste in landfills is no longer allowed.

One alternative to bagging and dumping the grass is to leave it on the lawn. A very good argument for doing so is the amount of nutrients that are recycled by leaving the grass clippings. It is estimated that leaving grass clippings can provide up to 25% of your lawn's total fertilizer needs. Additionally, while decomposing, the grass clippings help shade the soil and conserve soil moisture. Grass clippings break down quickly and will encourage beneficial earthworms, and microorganisms that are needed for a healthy grass and soil.

One reason given for collecting grass clippings is the mistaken belief that they will contribute to thatch production. Grass clippings contain 80 to 85% water and decompose rapidly recycling nutrients back to the soil and turf. You may want to assess the thatch layer before you consider beginning the process of grasscycling. Rutgers Fact Sheet FS 740 entitled "Thatch Management in Turf" provides a comprehensive and detailed discussion of thatch in lawns.

Give some consideration to leaving the grass clippings in your lawn rather than bagging them as trash. You can help reduce waste problems while enjoying a healthy and beautiful lawn.

The success of grasscycling directly depends on mowing techniques that will allow the clipping to decompose and become part of the turf-soil nutrient cycle. Part of your success can be the choice of mower. In this case, mulching mowers are helpful because they cut the clippings into smaller pieces and distribute them evenly across the lawn surface. If your mower is a side dispersing mower, please note that it is unsafe to operate without a bagging attachment.

An easy guide to judge how often to mow your lawn is that only one third of the leaf height should be removed at any one mowing. While this may sound like more frequent mowing, the advantage is that lawns mowed at the proper height will cut easier and quicker than grass allowed to get too long.

As a general guideline for cool-season grasses, set your mower at 2½ to 3½ inches, and for warm-season grasses use a setting from 1½ to 2½ inches. Turf that is cut at a higher setting will produce a deep root system which can reduce the need for watering. Taller mowing can also help shade out weeds and often times if you remove more than one-third the result will be browning of the grasses. Make sure you continue to mow until the leaves drop from the trees or until it snows. For the last fall mowing, you can consider lowering the height to 1½ inches which will help prevent the grass from matting overwinter and will undergo less stress when mowed short at the last cutting of the season.

It's essential to keep the mower blades sharp for several reasons. Blades that are dull or improperly adjusted will rip and tear the turfgrass leaving ragged edges will promote invasion of disease and insects. The look of the turf suffers as well.

Lastly, but certainly as important as any other point I've made, mow only when the grass is dry. If you mow when the grass is wet, it will clump up on the lawn itself and clog under the mower which is a mess and it also does not allow for a clean cut on the leaf blade.

Turf breeders have been working on a hard fescues to try to produce dwarf, lowgrowing varieties of grasses that might help with the reduction of the time and expense of mowing, watering and fertilizing.

References:

University of Missouri: <http://extension.missouri.edu/p/g6958>

Virginia Cooperative Extension: <http://pubs.ext.vt.edu/430/430-402/430-402.html>

University of New Hampshire: http://extension.unh.edu/resources/representation/Resource000517_Rep539.pdf

Colorado State University: <http://www.ext.colostate.edu/pubs/garden/07007.html>

University of Minnesota: <http://www.extension.umn.edu/garden/yard-garden/lawns/lawn-clipping-management/>

Petunias in the Garden

Rutgers Fact Sheet FS 1157

In this area petunias are an annual, and you are safe in planting them now. Garden centers are sure to have a wide variety to choose from in many color combinations and with different leaf patterns and flower sizes. They bloom from spring until frost. When you are choosing a site, pick a place they will thrive in, so you can enjoy their blooms all summer long. They enjoy full sun to partial shade and want at least 6 hours of sunlight per day with a pH of 6.0 to 7.5. You may want to fertilize at planting and supplement later in the summer. The site has to have good drainage and you can incorporate soil additives to improve the soil structure. I often see petunias as part of a hanging basket which are lovely, but keep in mind you may have to water them daily, depending on the type of container and potting mix. That doesn't sound like such a hard task, until the temperatures and humidity creep higher as the summer progresses and not only do the flowers wilt, but we do too.

Other uses of petunias include window boxes, containers, borders or beds. The choice of which petunia you use may be dependent on the use. Grandiflora petunias are large and fewer in number with trailing stems. Rain damage is common with them, so they need to be slightly protected. Multiflora petunias are smaller and make good bedding plants. They are more tolerant of rain damage. There are also compact miniflora petunias that are great for containers and hanging baskets. Groundcover petunias flower along the stems and are widely used as ground covers. Whatever kind you chose, you are sure to enjoy them.

Another possible added bonus is the smell of petunias. Some people like them, some not so much. If you are one of those that like the smell, it's suggested that the white and lavender cultivars have a very sweet fragrance. Petunias will bloom until frost if you deadhead them. Another option is to allow them to become leggy and then cut them back to encourage new growth from the base of the plant. They are heat tolerant and don't require a lot of water if planted in a border or bed. You may find that petunias reseed in your garden, but should that happen, they will not return true to type. Instead, they are likely to revert to a mix of small white, lavender and rose flowers. Don't hesitate to bring some in the house so you can enjoy them in a cut flower bouquet.

References:

Clemson: <http://www.clemson.edu/extension/hgic/plants/landscape/flowers/hgic1171.html>

University of Minnesota Extension: <http://www.extension.umn.edu/garden/yard-garden/flowers/growing-petunias/>



Dragonflies

It's been suggested that the quality of a good ecosystem can be judged by the number of dragonflies present. Dragonflies hatch from eggs in water and undergo a series of molting until the adult stage emerges from the skin of the nymph. The larvae stage can be affected by ecological factors such as the pH of the water, the water temperature and the water flow movement.

Adult dragonflies are generalists and will help themselves to eat whatever prey is available. They are in the order Odonata which means toothed ones. Their mouths are adapted with a prehensile labium which extends from under their head so fast that their prey cannot react, making their bite fatal. Their long legs are used to capture insects in flight and then their sharp mouthparts bite up the prey. They have been known to eat small insects especially flies, and mosquitoes as well as aphids, termites and ants.

To avoid predation on themselves they have been adapted with exceptional visual responses and quick and agile flight. They have compound eyes that cover most of the head and more than 80% of their brain is used to analyze visual data. Dragonflies can hover in the air for about a minute then dart off at 100 body lengths per second.

Fossils that resemble dragonflies date back to 300 million years, so they have had plenty of time to evolve.

References:

University of Michigan: <http://www.biokids.umich.edu/critters/Anisoptera/>

Berkeley: <http://www.ucmp.berkeley.edu/arthropoda/uniramia/odonatoida.html>

The Audubon Society Field Guide to North American Insects and Spiders; Lorus and Margery Milne, University of New Hampshire; Alfred A. Knopf, Inc., NY, 1980



Living with Black Bears in New Jersey

Rutgers Bulletin E 345

Black bear sightings have been documented in all 21 counties, however the majority of the black bear population is in the northwestern portion of the state. One reason for the increase in the number of human to bear encounters directly correlates to the increase of the human population density located right in the midst of the primary bear habitat.

In residential areas the most effective way to keep bears away is to remove any attractive nuisances. Use bear resistant garbage cans and wash them thoroughly once a week with disinfectant. Wash recyclables and don't store them outdoors. If you are doing summertime grilling be sure to clean the grill after every use and store it in a shed. Consider keeping the windows and doors closed when you cook indoors so the aroma doesn't attract the bears as an uninvited visitor to your table. In short, avoid food smells. Black bears sense of smell is incredibly acute and even a small amount of food can attract them into your yard or campsite. Black bears also have a great memory so if they find food someplace once they are likely to re-visit that foraging location again.

If you are planning on camping during these awesome summer months, there are a few common-sense things to keep in mind. Before you set up your campsite, check the area for any evidence of bears. Choose a site with trees that can't hold up to the weight of a bear and keep all of your food stored in a bear-proof container that is 100 yards downwind of your campsite. Travel in large groups and carry noisemakers. Avoid getting near anything that bears may find attractive, such as berries or animal carcasses. Bears feed mainly on vegetative material, but will also make a meal of insects, small mammals and have been known to scavenge animal carcasses.

Bears can cause a significant amount of damage to the agriculture industry through feeding and preying on livestock. Rutgers Bulletin E345 addresses the management strategies of these concerns.



Is it Poison Ivy or it's look-alike Virginia creeper?

You really don't want to think it's Virginia creeper only to get a serious rash and realize it was poison ivy. Since both are prolific this time of the year, it's important to note their similarities and differences.

Both plants are woody vines that grow in the same areas. I have often seen them intermingled along the woods, old fence rows or the edges of roadways. They will also frequently climb high on trees, walls or fences and may trail along the ground. They both can survive in deep woods with plentiful moisture as well as dry soil on a hillside. Both develop brilliant and beautiful red fall foliage.

The biggest identifiable factor that distinguishes one plant from another is the number of leaflets. Simply put, poison ivy has three and Virginia creeper has five. Remember the old saying of "Leaves of three, let it be; leaves of five, let it thrive". While some people may not want to consider letting Virginia creeper thrive, it's a catchy phrase that reminds us to steer clear of poison ivy. One other notable difference is in the color of the fruit. Poison Ivy may have white waxy berry like fruits while the berries of Virginia Creeper are bluish black. Another less noticeable difference is the way they attach themselves to whatever they come in contact with. Poison Ivy has aerial roots that can look like a millipede, while Virginia creeper has tendrils that end in oval-shaped adhesive disks.

There are several methods of controlling poison ivy which are outlined in detail in Rutgers Fact Sheet FS 1019 entitled "Poison Ivy and Brush Control Around the Home Grounds". Please remember when using any herbicide to read all of the directions and follow them carefully. The label is the law. Be sure not to spray herbicides on a windy day where you have the potential of accidentally spreading herbicide by wind drift. Do your absolute best to take all precautions from coming into direct contact with the poison ivy as a bad case of poison ivy can ruin a potentially fun summer.

References:

University of Florida: <http://polkhort.ifas.ufl.edu/documents/publications/Poison%20Ivy.pdf>

University of Georgia: <http://www.caes.uga.edu/extension/cobb/anr/Documents/ControllingPoisonIvy.pdf>

University of Georgia: <http://extension.uga.edu/publications/detail.cfm?number=C867-10>

Ohio State University: <http://www.oardc.ohio-state.edu/weedguide/singlerecord.asp?id=460>



Garden Tips for June

- Allow the tops of spring-flowering bulbs to completely wither and turn brown.
- Protect ripening strawberries from birds with netting or row cover fabric. FS97 & 98
- Make plans to pick locally grown strawberries.
- Thin developing fruit on fruit trees if there seems to be an excessive amount. This will result in larger fruit.
- Prune fruit trees to eliminate suckers and watersprouts.
- Plant more gladiolus bulbs for a succession of bloom.
- Plant seeds of cabbage, cauliflower and broccoli directly in the garden for fall garden transplants.
- Check plants carefully and regularly for insect pests.
- Cabbage worms can be safely and effectively controlled with Bt.
- Be sure to thin vegetables, particularly root crops, so they'll have room to grow properly. FS561
- Tomatoes that are supported with stakes or cages tend to have cleaner and larger fruits. FS678
- Harvest established asparagus beds through the end of the month. FS221 & NE221
- As perennials finish blooming, cut off the blooms and fertilize the plants.
- Stake perennials as needed.
- Apply mulches around shrubs, perennials and annuals to maintain soil moisture and an even soil temperature.
- Apply a labeled fungicide every 7 to 10 days to protect roses from black spot.
- Prune climbing roses after they have bloomed. Remove dead and older canes. FS944
- Fertilize roses during their first bloom.
- Pinch established chrysanthemums to develop fuller and stockier plants.
- Balled and burlapped or container trees and shrubs can still be planted. FS376
- Take softwood cuttings of shrubs to start new plants. FS49
- Remove spent flower clusters or forming seed pods from azaleas, lilacs and rhododendrons.
- Shape the growth of pines by snapping out one half to two thirds of the new candle growth.
- Raise the mower blades to a height of 2 to 2½" and mow frequently. Remove no more than one third of the total length of the grass blade.
- Lawn and garden areas need a minimum of 1" of water in the form of rain or irrigation each week.
- Move some houseplants to a screened porch or shaded location outdoors.
- Use bark mulch around young trees to protect them from lawn mower damage.
- Various pest problems can occur in June. If you have plants that you suspect may be facing a pest problem, bring in a representative sample to your local County Extension Office and they will help diagnose the problem and recommend the appropriate control.
- Fruit trees should be on a regular spray program. See your local extension website for tree spray program bulletin.
- You can also plant vegetables in containers and grow them on decks, patios or other small spaces. Use potting mix when planting.
- Fertilize zoysia lawns now.
- You can move houseplants outside to the deck or patio and enjoy them outdoors for the summer. It is best to gradually introduce them to more direct sunlight to prevent the leaves from being burned.
- Feed houseplants with a good quality indoor slow-release granular plant food.
- If needed, re-pot root bound houseplants to a larger pot. Use potting mix when repotting houseplants.
- Hibiscus, Jasmine, Oleander and Mandevilla are just some of the flowering tropical plants you can add to your deck, patio or balcony.
- Enjoy the beautiful weather!

Gardening Tips for July

- Attend the Cumberland County Fair.
- Transplant new chrysanthemum plants.
- Start a compost pile. FS74
- Sidedress rhubarb with well-rotted manure or humus from the compost pile.
- Plant seeds of early cabbage, ornamental kale, and broccoli in cell packs early in the month for transplanting to the fall garden in early August.
- Cabbage worms can be safely and effectively controlled with Bt. FS231 & FS277
- Continue pulling weeds. Put them in the compost pile.
- Train staked tomatoes to one or two vines by removing all other branches as soon as they appear.
- Thoroughly water your newly planted trees and shrubs. FS786
- As perennials finish blooming, cut off the blooms and fertilize the plants.
- Stake perennials as needed.
- Apply mulches around trees, shrubs, perennials and annuals to maintain soil moisture and an even soil temperature. Cover the soil 2" thick. Keep mulch away from the trunks of trees and shrubs. FS122
- Apply a labeled fungicide every 7 to 10 days to control black spot on roses.
- Prop branches of heavily loaded fruit trees.
- Renovate established strawberry plantings.
- Pinch established chrysanthemums to develop fuller and stockier plants early in the month.
- Make another planting of snap beans, beets, carrots, cucumbers and zucchini. FS562 & FS57
- Harvest vegetables regularly for continued production. FS988
- Remove spent flowers from annual flowers to keep them flowering.
- Divide clumps of crowded iris and Oriental poppies.
- Continue to mow the lawn at 2½".
- Water the lawn and garden deeply or don't water at all. FS829 & EB431
- Fertilize your roses. FS944
- Apply all pesticides according to label directions.
- Many plants are easily propagated by layering. Verbenas, euonymus and climbing roses are a few plants that will root if the stems are fastened down and covered with soil.
- Cutter flowers is best done with sharp shears or a knife which will help avoid injury to the growing plant. A slanting cut will expose a larger absorbing surface to water and will prevent the base of the stem from resting on the bottom of the vase. It is best to carry a bucket of water to the garden for collecting flowers, rather than a cutting basket.
- A brown or grayish cast over a lawn can be caused by a dull or improperly adjusted mower blades that shred grass rather than cut it.
- Store pesticides in a safe place in their original containers, away from children and pets. Use pesticides carefully in your garden. Read the labels and follow the directions. The warnings and precautions are for your protection.
- Control mosquitoes by eliminating all sources of stagnant water.
- Check the soil moisture of container grown vegetables and flowers daily. As the temperature rises, some plants may need water twice a day.
- Continue attracting insect eating birds to the garden area by providing them with a fresh water source.
- Plants and trees that provide color in the month of July include Crape Myrtles, Spireas, Hydrangeas, Summersweet, Hypericum, Butterfly Bush and Golden Rain Tree. Visit the nursery and see these beautiful plants in bloom.
- Perennials that provide interest in the month of July include Daylillies, Rudbeckia, Phlox, Veronica, Ligularia, Tickseed and much more.
- Gator bags provide a great way to keep trees watered during hot and dry months. These bags which can hold up to 20 gallons of water, are secured to the trunk of the tree, where they release the water slowly to the root ball over the course of 15-20 hours.
- Stop pinching Chrysanthemums by July 16th.
- Do not prune Azaleas and Rhododendrons after the second week of July for they soon will begin setting their buds for next year's bloom.
- Various pest problems can occur in July. If you have plants that you suspect may be facing a pest problem, contact your local extension office for their recommendations of pest control. If using chemicals, follow the direction EXACTLY.

Gardening Tips for August

- Enjoy fresh fruits and vegetables from local farms.
- Fertilize your roses the first week of the month and then don't fertilize them any more this year.
- Be alert for wasp nests when mowing and gardening.
- Deadhead annuals to keep them blooming.
- Control weeds before they flower and produce seeds.
- Gather herb leaves before their flowers bloom.
- Divide overcrowded spring-flowering perennials.
- Apply one inch of water to your lawn and gardens weekly during dry periods.
- Check with Extension for the latest recommendations on food preservation.
- Collards, kale, leaf lettuce, mustard, spinach, radishes, turnips and bok choy are good crops for your fall garden.
- Early September is an ideal time for sowing grass seed or establishing a new lawn. Prepare now to renovate that tired lawn.
- Divide and transplant garden lilies and lilies-of-the-valley.
- Sow seeds of California poppy, columbine, delphinium and gloriosa and Shasta daisy.
- Watch for garden supply sales.
- Take cuttings of begonias, coleus and impatiens for winter houseplants.
- Remove melon blossoms at the end of the month that won't have time to set fruit. Ripening melons will then be larger.
- Donate vegetables to a hunger center.
- Colorful plastic golf tees can be stuck in the ground to mark the location of dormant plants such as spring bulbs or perennials.
- Since container-grown plants have a limited area from which to absorb water, plants in a sunny location may require watering several times a week. Check plants often to avoid water stress.
- Check on water needs of hanging baskets daily in the summer. Wind and sun dry them much more quickly than other containers.
- Clean up fallen rose and peony leaves. They can harbor disease and insect pests over the winter if allowed to remain on the ground.
- Pick summer squash and zucchini every day or two to keep the plants producing.
- Remove old plants which have stopped producing to eliminate shelter for insects and disease organisms.
- Water the garden early in the day so plants can absorb the moisture before the hot sun dries the soil. Early watering also insures that the foliage dries before night. Wet foliage at night increases susceptibility to fungus diseases.
- To reduce the number of pests on your fruit tree for the coming year, pick up and destroy all fallen fruit.
- Bt is used by many gardeners to protect cole crops from chewing caterpillars.
- Every weed that produces seed means more trouble next year. Control weeds before they go to seed.
- Do not add weeds with mature seed heads to the compost pile. Many weed seeds can remain viable and germinate next year when the compost is used.
- Plants and trees that provide color in the month of August include Crape Myrtles, Pee Gee Hydrangeas, Viburnums, Hypericum and Butterfly Bush. Visit your local nursery and see these beautiful plants in bloom.
- Plant ornamental grasses such as Miscanthus, Pennisetum and Hardy Pampas Grass for motion and contrast.
- Fall mums are in – plant now for a colorful autumn.
- Check all plants, especially newly planted ones, for water regularly. Water deeply and thoroughly as needed.
- Daffodils & tulips should be fertilized early to mid-August. Apply 2lbs. of 5-10-10/6-12-12 per 100 sq. ft.
- Various pest problems can occur in August. Use Diatomaceous Earth to control crawling insects such as cockroaches, ants, slugs, silverfish, earwigs, fleas, spiders, millepedes, centipedes and carpet beetles. Use in/outdoors.
- Use Round-Up or Finale to kill weeds and grasses in brick patios and walks.
- Control slugs and snails on hosta and other plants with distomaceous.
- If necessary, spray tomato plants and other vegetables to control diseases.
- Fertilize zoysia lawns for the final time this season with 26-4-12 balanced fertilizer.
- If needed, re-pot root bound houseplants to a larger pot. Use a potting mix when repotting houseplants.



Rain Barrel Workshop

Saturday, August 29th, 2015

10:00am-noon

With optional Decorating
Information Session following
workshop

Rutgers Master Gardeners of Cumberland
County invites you to a hands-on workshop
designed to educate participants on the
benefits of rainwater harvesting. **Workshop
participants will build a rain barrel to take
home!**

Workshop location:
Extension Education Center
291 Morton Avenue
Millville, NJ 08332

A \$35 registration fee includes instruction and
materials for building one rain barrel. Checks
should be made payable to Board of Ag
Research Account and received at the
Extension Education Center office no later
than Monday, 8/10, 2015. Space is limited.

Partners:
Rutgers Cooperative Extension
Rutgers Master Gardeners of Cumberland Co
American Littoral Society
Cumberland County Improvement Authority



Cumberland
COUNTY
IMPROVEMENT
Authority



RUTGERS

New Jersey Agricultural
Experiment Station

To register for the workshop, please fill out the form below and send with payment to:

Extension Education Center, 291 Morton Ave., Millville, NJ 08332

All questions should be directed to Pam Burton (856) 451-2800 Ext 4

Name: _____ Phone: _____

Address: _____

Street

City

State

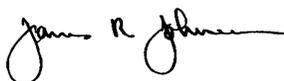
Zip Code

Rutgers Cooperative Extensions Fact Sheets

FS #	Fact Sheet Name
Fact Sheet 2	Brown Marmorated stink bug– a non-native insect in New Jersey
Fact Sheet 5	Millipedes
Fact Sheet 11	Blossom End Rot: Tomatoes, Peppers, Eggplant
Fact Sheet 20	Weed control around the home grounds
Fact Sheet 58	Mulches for the Vegetable Garden
Fact Sheet 106	Blueberry Pest Management for Home Gardens
Fact Sheet 112	Apple Pest Control Schedule for New Jersey Home Orchards
Fact Sheet 115	Cherry Spray Schedule for New Jersey Home Orchards
Fact Sheet 119	Weed control in home lawns
Fact Sheet 235	Spidermites
Fact Sheet 399	Vole Ecology and Management
Fact Sheet 419	Selecting Blueberry Varieties for the Home Garden
Fact Sheet 426	Moss in the Lawn
Fact Sheet 450	Using Water Wisely in the Garden
Fact Sheet 521	Zoysiagrass Lawns in New Jersey
Fact Sheet 555	Best Management Practices for Watering Lawns
Fact Sheet 595	Low Water Use Landscaping
Fact Sheet 599	Principles of Low Water use landscaping IV: Apply Mulches
Fact Sheet 610	Harvesting Melons at Peak Flavor
Fact Sheet 626	Fertilizing the home vegetable garden
Fact Sheet 678	Growing Tomatoes in the Home Garden
Fact Sheet 814	Managing Diseases of Landscape Turf
Fact Sheet 871	Understanding the Fertilizer Labels
Fact Sheet 901	Topsoil Suitable for Landscape Use
Fact Sheet 921	Conserving Water on Home lawns and Landscapes in New Jersey
Fact Sheet 924	Home Landscape Practices for Water Quality Protection
Fact Sheet 930	Natural Pest Control using Beneficial Insects to Control landscape Pests
Fact Sheet 944	Roses and their Care
Fact Sheet 988	Picking Vegetables for the Home Garden
Fact Sheet 1019	Poison Ivy and Brush Control Around the Home Grounds
Fact Sheet 1133	Cedar Apple Rust in the Home Landscape
Fact Sheet 1140	Incorporating Native Plants in Your Residential Landscape
Fact Sheet 1151	Hollies for New Jersey
Fact Sheet 1152	Hydrangeas in the Garden
Fact Sheet 1153	Growing Dahlias
Fact Sheet 1158	Black Spot of Rose
Fact Sheet 1161	Cut Flowers for the Market and Home Garden—Zinnia

Call 856/451-2800 x4 ask for Pam Burton. When calling to request a fact sheet refer to the Fact Sheet by FS# or by name. All fact sheets are free unless otherwise noted.

What's Growing On is prepared by Pam Burton, Horticultural Assistant, Rutgers Cooperative Extension of Cumberland County.



James R. Johnson
Agricultural Agent
Nursery Management Commercial
Internet: jjohnson@NJAES.rutgers.edu

Sincerely,



Wesley L. Kline, Ph.D.
Agricultural Agent
Vegetable & Herb Production
Internet: wkline@NJAES.rutgers.edu

For important announcements concerning the Cumberland County Extension Center visit:
<http://Cumberland.njaes.rutgers.edu>

If you have any questions concerning the website, please call our office at
856-451-2800 x1 for agriculture and
856-451-2800 x4 for Home Horticulture and Master Gardeners

Public Notification and Non-discrimination Statement

Rutgers Cooperative Extension is an equal opportunity program provider and employer. Contact your local Extension Office for information regarding special needs or accommodations. Contact the State Extension Director's Office if you have concerns related to discrimination, 848-932-3584.

Time To Renew your subscription to "What's Growing On....."
If you no longer wish to receive this newsletter, please
Call Tammy Commander at 856-451-2800 x1 or
Email: tammyco@co.cumberland.nj.us

NONPROFIT ORGANIZATION
U.S. POSTAGE PAID
VINELAND, NJ
PERMIT NO. 186

Cooperative Extension of Cumberland County
291 Morton Avenue
Millville, NJ 08332-9791

RUTGERS
New Jersey Agricultural
Experiment Station