June 21st marks the summer solstice, the longest day of daylight for the year. Since the 21st is also Father’s Day this year, why not plan a BBQ, pack a picnic lunch, or plan a special event to honor your father, or his memory, with your loved ones and to mark the official beginning of summer. Don’t forget the sunscreen!...Jolene

Taking Ticks Seriously

By Jolene Wallace

The most common ticks in New York are the American dog tick and the black-legged tick, also known as the deer tick. The deer tick is the one that we need to be most aware of. Only the female deer tick bites and is able to transmit pathogens. You have probably heard quite a bit about Lyme disease, and the pathogen that causes it is carried by the deer tick. Not all female deer ticks carry the pathogen but the best way to protect yourself is to know how the deer tick attaches and what to do about it if you find one.

The deer tick goes through 4 life stages over a period of two years; egg, larvae, nymph, and adult. The nymph is the size of a poppy seed and the adult the size of an apple seed. The nymph is found in leaf litter where animals bed down. Ticks can’t fly, jump, or drop from trees. They wait for a host, resting on the tips of grasses and shrubs in a position known as "questing". While questing, ticks hold onto leaves and grass by their lower legs. They hold their upper pair of legs outstretched, waiting to climb onto a passing host. When a host brushes the spot where a tick is waiting, it quickly climbs aboard. It then finds a suitable place to bite its host, often in hard-to-see areas such as the groin, armpits, and scalp.

The majority of cases of Lyme disease are caused by infected nymphs because their small size makes them difficult to detect. They can attach to shoes or boots and work their way up to find a site on which to attach. It is unlikely that you would feel the bite of a tick as they secrete a substance that acts as an anesthetic. Engorged females are easier to spot and remove because of their size so they are more likely to be discovered before they can transmit disease-causing bacteria.

When outdoors where ticks may be questing wear light-colored clothing, long sleeves and pants, with your pants tucked into your socks, and shoes. Shower when coming indoors and check thoroughly for ticks. Showering will not remove embedded ticks so check yourself carefully. If a tick is found remove by grasping just behind the head with a tweezers and slowly pull up and away from your skin taking care not to squeeze the abdomen or detach the tick from its head. Tick removal ‘tools’ are available for sale in many locations. Save the tick for identification in case you subsequently show signs of illness. Contact our office for more information.
Whenever you have a few minutes, take the time to get up close to your plants. Turn the leaves over to look for eggs or newly hatching insects. Here are some insect pests that show up every June.

Colorado potato beetles love potatoes, of course, but their favorite crop of all is eggplant, which is related to potatoes. Luckily, they don’t have much appetite for tomatoes, another relative. The eggs are bright orange, about the size of a fat sesame seed and are laid in clusters of 8-12 on the undersides of the leaves. Crush and egg clusters you see. By crushing them now you prevent that whole generation from developing.

Aphids love lupines. Actually, aphids feed on a lot of different flowers and vegetables but they really do love lupines. If you have a mixed flower garden, the first place you’ll find aphids is there. I find they are most interested in the flower stalk and will completely cover the stalk as it begins to bloom. You can knock them off with a hard stream of water or direct a spray of insecticidal soap since they move very slowly. Just don’t use that spray on hot, muggy days or it may harm your plants. As soon as the lupine flowers fade I cut the entire plant back to the ground. It quickly produces beautiful new growth that is rarely bothered by aphids and lasts the rest of the summer. Be sure to give this method a try if you grow lupines.

Flea beetles love crucifers, which is the group that includes broccoli, cabbage, cauliflower, Brussels sprouts and Chinese cabbage. I don’t have any easy ways to deal with these pests. They are small, round, black beetles that hop like a flea when you get close, so hand-picking is impossible. They make round ‘bullet holes’ right through the leaf and can wipe out young seedlings. There are some dusts you can use that leave a residue for when they hop back that can help. If you have a problem every year you can plant these crops under row covers to keep flea beetles off until they’re big enough to tolerate some damage.

Amy’s Tips for June
Amy’s tips continued

Cucumber beetles, as their name implies feed on cucumbers as well as members of the Cucurbit family such as summer and winter squash, melons and pumpkins. The beetles are particularly damaging at the seedling stage when they devour the young plants when they are the most vulnerable. They are attracted to the color yellow so sticky cards may help but handpicking is impossible since the beetles are quick and numerous. Later in the summer, cucumber beetles can also transmit bacterial wilt, a particular problem for cucumbers.

Here are some of the organic pest control options for the above pests: For Colorado potato beetle, flea beetle and cucumber beetle: spinosad (Entrust ®), azadirachtin (Azaguard ®), beauveria bassiana (Mycotrol ®). For aphids: insecticidal soap (but do not use in hot, humid conditions, over 85 degrees).

For more control options, including conventional pesticides, contact our office. There are many types of pests out there, along with many beneficials, too.

When in doubt, bring a sample by our office for a free identification and we can suggest control options tailored to that particular pest. We are open from 9:00 AM until 4:30 PM Monday through Friday.

PESTICIDE DISCLAIMER: Every effort has been made to provide correct, complete and up-to-date pesticide recommendations. Nevertheless, changes in pesticide regulations occur constantly, human errors are still possible. These recommendations are not a substitute for pesticide labeling. Please read the label before applying any pesticide and follow the directions exactly.

Photo credits:

Colorado Potato beetle—Wikipedia
Potato beetle eggs—Miami.gov
Lupine—boisestate.edu
Flea Beetle—utahpests.usu.edu
Striped Cucumber beetle—Wikipedia Commons
Berries: Local = Delicious!

By Jordy Kivette, Nutrition Educator

It’s berry time! Summer brings so many superb tastes and fresh berries are where it’s at. Strawberries usually arrive first, with raspberries, blackberries and blueberries to follow. In our region, it is easy to find them locally grown and even growing in the wild.

If you have the inclination, definitely check out a u-pick operation. I usually go for strawberries, which are easy to pick as long as you don’t mind getting close to the ground. You can pick more than you can possibly eat fresh in under an hour. Most places will allow you to bring your own containers or provide containers for you to use, weighing on the way in and on the way out to get your total cost. If you are picking your own berries at an orchard or in the wild, plan on sun and bug protection, and consider long sleeves and pants for raspberries and blackberries, as the plants are thorny.

Once you get your berries here are a few tips for storing them:

- To get berries to last a little longer fresh, try rinsing them in a vinegar and water solution (1:3 parts), rinse again to remove any lingering vinegar, pat dry and store in the refrigerator in a towel lined container (not sealed).
- To freeze berries, take fresh rinsed and dried berries and lay them flat, close but not touching, on a waxed paper lined baking sheet (or plate depending on freezer space). Place them in a freezer, once they are frozen, dump into freezer bags, removing most of the air. This will give you loose frozen berries like you can find in the freezer section of the grocery store. They will be ready to add to smoothies or yogurt or oatmeal.

Ideas for fresh berries:

- Eat them for a snack
- Chop or lightly mash and mix with a little sweetener for shortcake
- Add to a green salad
- Try making a glacee pie

Ideas for frozen berries:

- Use in smoothies
- Flavor plain yogurt with real berries
- Add to oatmeal (great for cooling it off)
- Add to a glass or bottle of water for a refreshing twist

However you plan on using berries this season, try our local berries. It is guaranteed to be a delicious way to support local agriculture!
Berry Yogurt Smoothie

Ingredients:
1 32-ounce container plain yogurt
1 teaspoon vanilla extract
8 teaspoons sugar
2 cups frozen strawberries, raspberries, blackberries, or blueberries
2 small, ripe bananas (optional)

Directions:
Combine all ingredients in a blender container, and puree to blend. This may need to be done in two batches.

Yields about 4 servings

Source: Cayuga County CCE

Tips:
- Do not add any sugar until you taste the smoothie. Chances are you will not need 8 tsp of sugar.
- Ripe bananas do a wonderful job of sweetening the smoothie, eliminating the need for added sugar.
- You can add raw oats, chia seeds, or flax seeds to add texture and fiber to the smoothie.

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* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

Calories: 2000

Saturated Fat: 65g

Cholesterol: 220mg

Sodium: 300mg

Total Carbohydrate: 300g

Dietary Fiber: 24g

0% calories from fat

Nutrition facts based on standard recipe using non-fat plain yogurt, frozen strawberries, and no bananas.
Melting Colors Experiment

By Chelsea Baxter, 4H Community Educator

Summer is finally here and with the change in temperatures we are all looking for a nice, cool experiment to do with our little ones! It was not too long ago that we were all stocked up on salt for our sidewalks and driveways. Now, we are opening swimming pools and trying to cool down. In this experiment little ones will stay cool with a giant block of ice, but will also learn about how salt alters the freezing temperature of water.

What you’ll need:

- Different size bowls or dishes to make the ice in
- A large tray with sides to catch the mess
- Salt
- Liquid watercolors or food coloring
- Liquid droppers or a spoon

What to do:

- The night before you want to experiment you should fill and freeze the different size bowls of water.
- Use a little bit of warm water to loosen the ice from the bowls (they will look sort of like a dome of ice when flipped upside down). Once you have gotten the ice out place on the tray *Since you will be using food coloring and melting the ice you might want to try this outside or put down some plastic to catch the mess.
- Sprinkle some salt (table salt like Morton’s will do the trick) across the top of the ice domes. After a couple moments you will see the ice begin to melt away where the salt was sprinkled.
  - Once you see the salt melting the ice break out the food coloring and use the droppers or spoon, and place some drops of color onto the ice.
  - Then watch! The food coloring looks beautiful, however, it’s really used to exemplify the effects of the salt on the ice. You will begin to notice the different ravines, crevasses and tunnels that are being formed in the ice as the salt melts through it.
- The water will begin to melt more quickly as time goes on so to avoid having your ice swimming in a pool of water you can take some of the water out with a turkey baster or just pour it down the drain.

The science behind it:

- Salt alters the freezing point of water. When water has a higher salt content it will have a lower freezing point than fresh water.
- In the winter we use salt on our roadways and sidewalks to help melt the ice. The salt actually stops ice from forming because of the change in temperature in which it would take to form ice.

To find this full experiment & others like it go to: www.theartfulparent.com
How Much Do I Need to Buy?

By Jim Cayea, Master Gardener Volunteer

In this article, I will address two questions that Master Gardeners often receive about how to determine the amount of soil or mulch needed for a given area.

The first question concerns how much soil a person needs to fill their new raised bed. First, you need to measure the raised bed for its length, width, and depth. Stay in feet for length and width for ease of calculation. Note the number of inches that the depth (or board width) is. Now convert to feet by dividing the number of inches by 12 (number of inches in one foot) to give you the amount of cubic feet you have.

EXAMPLE: You have a raised bed that measures 8 feet long, 3 feet wide and 8 inches deep. First convert 8 inches into feet so divide 8 by 12, which will give you 0.67 foot. Then multiply the three numbers to get cubic feet. 0.67 x 8 x 3 equals 16.08 cubic feet.

If you are buying bagged soil, look for how many cubic feet is in a bag. If you are buying 2 cubic foot bags, you will need at least 8 bags of soil.

If you are buying by the cubic yard, you will need one more calculation. One cubic yard equals 27 cubic feet. (A cubic yard is 3 feet length x 3 feet width x 3 feet depth.) Now divide 16 cubic feet by 27 cubic feet that will give you a long decimal number 0.5925....

Round the number to one cubic yard since no one I know will sell you less than one cubic yard.

Here is a handy chart to help you determine how much topsoil, compost, mulch or other product you need to spread over a given area. First measure the square footage of the area you want to cover and decide what depth you want to apply. In general, apply about 2 inches of soil amendments, such as compost or rotted manure at a time and DO NOT apply 4 inches of mulch at a time.

1 cu. yd. will cover 324 sq. ft. 1” deep.
1 cu. yd. will cover 162 sq. ft. 2” deep.
1 cu. Yd. will cover 108 sq. ft. 3” deep.
1 cu. Yd. will cover 81 sq. ft. 4” deep.
1 cu. Yd. will cover 54 sq. ft. 6” deep.
1 cu. Yd. will cover 40 sq. ft. 8” deep.
1 cu. Yd. will cover 27 sq. ft. 12” deep.

Happy gardening and remember to lift with your legs when handling all those heavy bags.

...
The Root of the Problem

By Paul Hetzler, St Lawrence County Extension

This is the time of year we awaken to the sounds of birds and backhoes. Yes, it’s construction season, which for arborists and trees is also root-damage season.

As far as trees are concerned, root injury is the source of all evil. Well, most of it, anyway—chainsaws and forest fires aren’t so kind to trees, either. But regardless of the worrisome signs a tree may develop, whether early fall leaf color, tip dieback, slow growth, or even some diseases and insect infestations, the problem is below ground in the majority of cases.

Part of the issue stems from a flawed understanding of tree biology. There is a lot of tree-root apocrypha floating around the public consciousness. One myth—let’s call it the Legend of the Big Taproot—maintains that trees make enormous deep taproots. While the legend allows that a few side roots may branch off, the key element is the Big Taproot.

It’s true that trees such as oaks and walnuts have a significant taproot when they’re young, but in maturity their root systems look like a pancake, not a carrot, the same as other tree species. Most of us have seen trees that have blown down, but that monster taproot has yet to be spotted. It’s no coincidence that the flat root system one sees on a windthrown tree is referred to as a root plate.

About 90% of tree roots are in the top ten inches of soil, and 98% are in the top eighteen inches. A tree’s roots extend, unless there’s an obstacle like a road or building, at least twice the length of its branches. This is a tree’s root zone, a broad, shallow, vulnerable mass of roots.

Sadly, the Big Taproot Legend has dreadful health implications. For trees, at least—who knows what it portends for our well-being. If we believe tree roots like it deep, we won’t think twice about adding soil or fill, or even paving some of the root zone.

What’s wrong with that? To survive, roots need oxygen, which they get directly from soil pores. Even though they make oxygen when they photosynthesize, trees can’t transport it through their vascular tissues that work so nicely for carrying water, sugars, and nutrients.

Soil compaction from operating vehicles or equipment within the root zone causes the same problems. In wet soil conditions, even excessive foot traffic can cause enough compaction to mash soil pores shut and exclude oxygen. In these cases, roots slowly suffocate, and the tree will eventually show symptoms of decline.

Excavating or trenching within a root zone severs some tree roots and usually compacts the rest. Sometimes root damage will kill a tree outright within a few years, but more commonly there will be a prolonged decline over five to ten years or more. Because of the time lag, secondary, opportunistic agents often get the blame.

As with relationships, where trees are concerned the problem at hand is often not the real issue. Imagine glancing out the window one day to see wood chips the size of baseballs raining down from your favorite white pine. You rush outside with your Kevlar umbrella and discover an army of Jig Sawflies, their carbide blades freshly sharpened, power-sawing their way down the
trunk. As they smirk at you atop the mound of pine chips, you search the Internet for an exterminator, knowing you’ll miss sitting under the pine’s yellow foliage.

Wait a minute! Yellow foliage? How long was it like that? Maybe there’s something else going on here. A strong, happy tree will be able to respond to insect feeding by manufacturing chemicals known to scientists as Bad-Tasting Stuff to repel them (bugs, not scientists). It will endure some loss due to insect feeding, but it will be able to keep the balance in its favor.

Let’s think back on your white pine. Wasn’t that the one that you worked so hard not to hit with the backhoe when the septic went in six years ago? Or was that the one the gas company trenched near ten years ago? It doesn’t matter. Human activity compromised the root system, resulting in the demise of the tree years later. Sawflies or no, that pine was doomed.

By now you may be thinking, I could sure use another coffee, or, how do trees in those little concrete squares (tree pits) in the sidewalk survive? The difference is that they are put there as little tykes and never come to depend on a normal root system. They’ve adapted to available root space and are considered “unhappy.” Mature trees that have a large root system suddenly cut or damaged to the size of tree pits are considered “dead.”

You can preserve trees in a construction site by cordoning off the root zone at least to the tree’s drip line (branch length) with snow fence before the project begins. Keep in mind that even stockpiling material under trees causes root damage. If driving near trees is unavoidable, adding four to six inches of wood chips or gravel (two-inch or larger) to the traffic pathway will help.

If excavation within the root zone is unavoidable, cut roots cleanly, flush with the trench wall. If possible, lay wet burlap over the root ends until backfilling is done. If over 50% of a tree’s root system needs to be cut, it’s probably best to remove the tree. Any significant root damage, including compaction, can lead to future instability of the tree.

To repair damage already done, act quickly—once symptoms show up years later it’s usually too late. Hire a tree care company to loosen the soil with high-pressure water or air injection. Soil injections of beneficial microbes in a solution of dilute sugars and various natural compounds have been shown to be valuable. If this isn’t in your budget, aerating on a 2-foot grid using a soil auger (1-2” diameter by 18-24” long) will help.

Don’t create raised bed gardens around trees or otherwise add soil to the root zone, and try not to drive or park within it. So long as the soil isn’t wet, Morris dancers are acceptable, but not on a regular basis, and only if they first remove their bells.
Lichens, Part 2

by Jolene Wallace

Last month I shared some information with you about lichens; those fascinating, miniature, plant-like organisms found on any surface that either doesn’t move at all (such as rocks) or moves very slowly (like live tree bark). As you may remember, lichens are made up of a fungus and an algae. The fungal partner (mycobiont) produces filaments which grow into and around the algal partner (phycobiont). Since the fungal partner makes up the majority of the physical size and shape of the lichen, and is more easily recognizable, the Latin binomial name as specified by the International Code of Botanical Nomenclature gives the Latin binomial of the fungal component.

This is not to say that the common names aren’t easily remembered once we make a connection between the appearance of the lichen and the name. The lichen pictured above, which has red spore-producing fruiting bodies on the top is called the British soldier lichen. There is also a powder-tipped antler lichen; black-eye lichen, pimpled kidney lichen; tattered jellyskin lichen; bloody heart lichen; cowpie lichen; five-o’clock shadow lichen; elf-ear lichen; hairball lichen; and blackened toadskin lichen, and many others that you can almost visualize.

Lichens have the unique ability to be able to dry out completely during times of drought or when present in scorching deserts but still be able to flesh out again when water becomes available. It may even become so brittle that parts crumble off. These crumbles may later grow into new lichens!

Throughout the ages and still today, lichens have been used to make dyes, medicines, and cosmetics. Lichens provide caribou with food to get them through winter. Deer, moose, flying squirrels and voles also eat lichens. Birds, especially ruby-throated hummingbirds, may build their nests with lichens to blend in to their surroundings. Toads and small animals may camouflage themselves, or hide beneath lichens.

As we learned last month, the presence of lichens is indicative of clean air. It follows that the most serious threat to the health of lichens is air pollution; especially factory and urban pollution.

“Lichens are perhaps the most “obvious” overlooked component of our landscape.” This is a quote from Joe Walewski in his book Lichens of the North Woods a Field Guide to 111 Northern Lichens. This book is filled with facts and beautiful photos and has a special place on my bookshelf. If you like lichens check it out.
SECRET GARDEN TOUR—July 11
The Kent-Delord House Museum Garden Club will be holding their annual Secret Garden Tour on Saturday, July 11 from 12 noon until 4:00pm. This self-guided tour of several private homes in our community will be held rain or shine and all proceeds are used for maintaining and improving the Museum’s gardens.

Advance tickets are $10 and can be purchased at Cook & Gardener, 139 Tom Miller Rd in Plattsburgh and the Kent-Delord House Museum at 17 Cumberland Ave, also in Plattsburgh.

On the day of the tour, tickets and maps are $15 and can be purchased from noon until 1:30 pm. at the Kent-Delord House Museum and at Conroys Organics at 8173 Rte. 9 in West Chazy. Complimentary refreshments will be offered at one of the homes.

For more information contact Nancy at 561-6793 or Dotte at 561-4823.

A PEONIES WORKSHOP @ 1 pm
Saturday, June 27 At ENTAYANT GARDENS on Rainbow Lake. All you ever wanted to know about peonies taught amongst 250 beautiful plants. This workshop will also touch on begonias, dahlia, nasturtiums & gladiolus.

Go home fully informed about growing and handling peonies and with A BOUQUET OF PEONIES from Don’s 250 plants. $24 fee. Hand-made peony plant supports available for sale. For information and to register contact Don at Dons2dy4@gmail.com or 518 891-3690

AN AFTERNOON TASTE OF ENTAYANT GARDENS
SUNDAY AUG.30 Tour ENTAYANT GARDENS featuring several thousand new plants, an over 13,000 gallon water course, fountains, water falls & lily pond, a rebuilt 170-foot boardwalk with addition of seating areas over the new pond. Visit a store full of Christmas garden art gifts from paintings to black fly houses & Adirondack chairs. Plus garden movies, musical entertainment, & of course, Yvonne’s Taste of Entayant. For info, E-mail or call: Dons2dy4@gmail.com or 518 891 3690.

Just a Reminder
Our Master Gardener Grow-line volunteers are available to help you identify insects or diseases you may be having problems with in your garden or home and to give you options and suggestions to deal with them. Bring a good sample into the office and we will do our best to help you. All the information we give you is research-based. For insects, a sample consisting of one or more insects in a jar or plastic container is adequate. The samples do not have to be live, but do need to be whole. For plants, a sample showing the damage as well as an undamaged part of the same plant is all that is usually needed. We can sometimes do an ID from a good photo which can be emailed to me at jmw442@cornell.edu. We are also at the Farmers Market on Saturdays from 9:00am until noon. This is no charge for this service!

Our office, located at 6064 State Route 22, Suite 5, is open from 9:00 am to 4:30 pm Monday through Friday. 561-7450
We will be closed Friday, July 3rd for Fourth of July celebrations.

North Country Gardening
North Country Gardening

June 2015

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