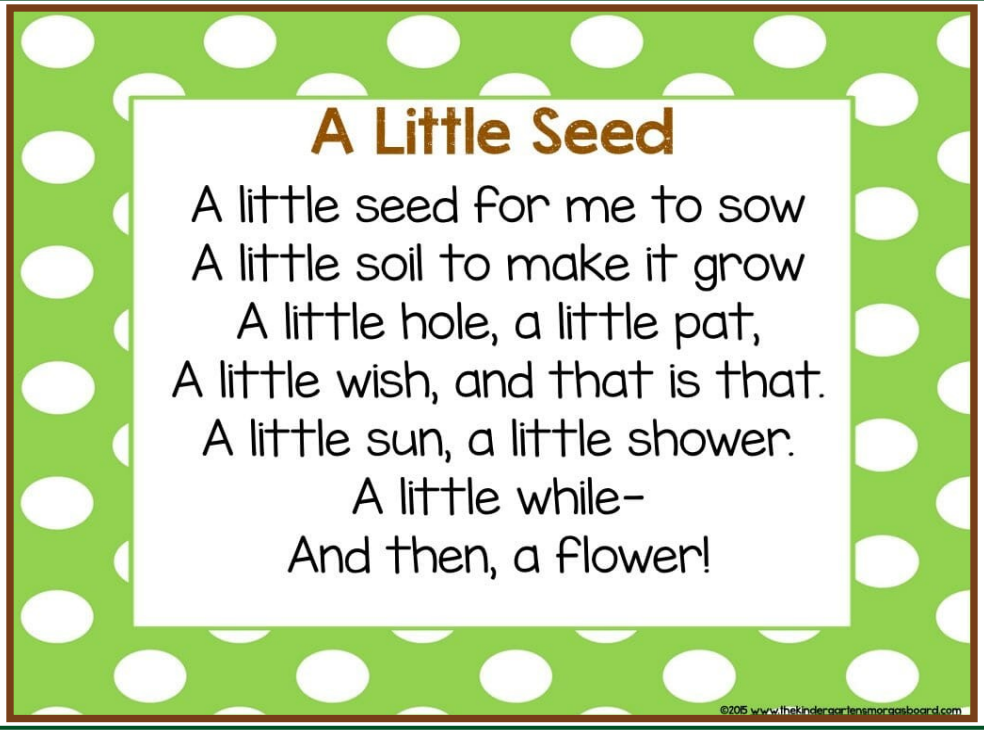
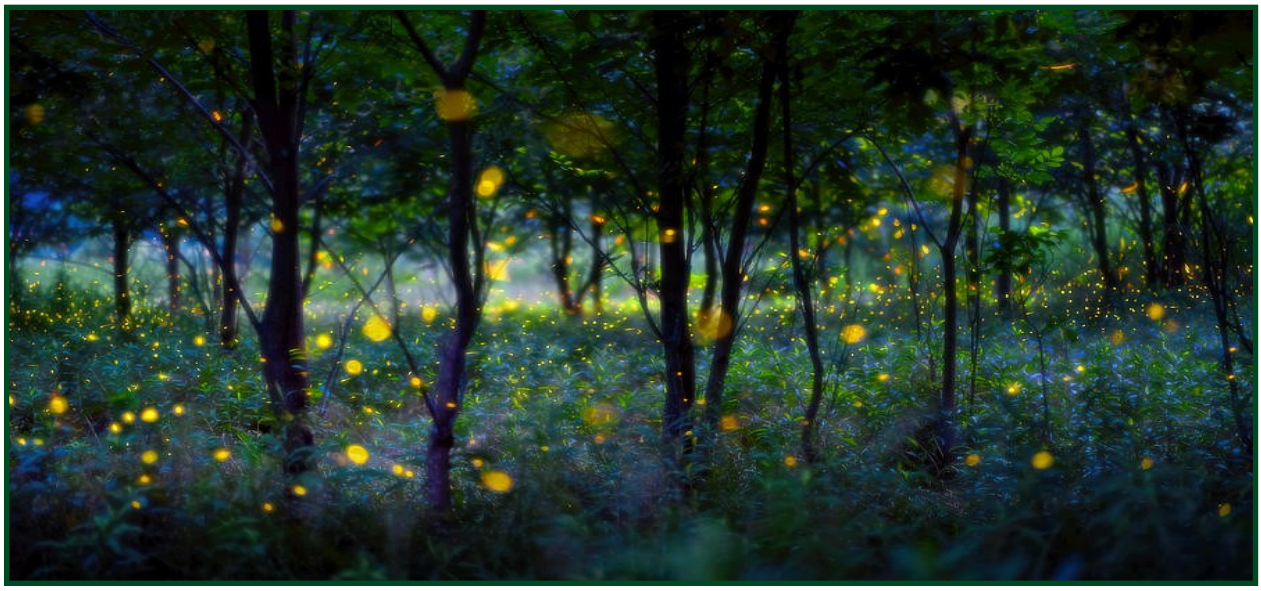
PURDUE HANCOCK COUNTY Master Gardener™ PROGRAM

SUMMER 2022 NEWSLETTER

Summer … hot, sticky, sauna-like summer is upon us. Time to watch the fruit of our germinating, planting, weeding, fertilizing, and watering begin to take shape. Whether you are a beginner gardener or have been gardening for many years, you will find something here to encourage you on your gardening path.

Thank you to this quarter's contributors! If you have a special gardening project or interest or learned something new—share it with us. Submit your article (and photos if you have them) for the Fall Newsletter by October 1 to Theresa Roush.





Fireflies

By Jackie Reeves

Summer, fall, winter, and spring all have their fans. Spring is often chosen as the favorite because it marks the end of blistering winter and the transitional period to a scorching summer. As the temperatures rise plants begin to bloom, trees pop their green canopies, and we hear many familiar sounds that remind us that nature is in motion. The birds chatter and the songs of bugs join the wake-up party. All bring exciting new life yet, "wait for it" …… the magical firefly light show on a warm spring or summer's night around my patch is always of a special delight.

What little I knew about these amazing bugs you could have put in a thimble. Prior to this writing I knew they have a distinctive unpleasant odor, they don't bite, and their lights are captivating. As Master Gardeners, it behooves us to learn from the those who have studied them in depth. Here are the common bits of information you might find interesting about these delightful beneficial insects.

* Approximately 2,000 species may be found in most tropical and temperate regions of the world.

* They are winged beetles, insect order Coleoptera, common name: Fireflies; scientific name: Lampyridae; average life span is about 2 months.

* There are about 170 species in North America, according to Firefly Research and Conservation (FRC), a nonprofit organization dedicated to the insects.

* According to the DNR, there are about 43 species of Lampyridae in Indiana. Of those species, 31 are lightning bug fireflies (those that flash). The others are called dark fireflies because they do not flash.

* Thomas Say's Firefly (Pyractomena angulata also known as the Angled Candle Firefly) was designated the official state insect of Indiana when legislation was signed by Gov. Eric Holcomb on March 23, 2018.

* All flashing fireflies in Indiana are classified in three genera. Species in the genus Photinu have a yellow flash. Those in the Photuris genus have a green flash. Those in the Pyractomena genus, like the Say's Firefly, have an amber flash.

* The most common firefly throughout Indiana and most of the Midwest is the Big Dipper (Photinus pyralis).

* Most fireflies produce short, rhythmic flashes in a pattern characteristic of the species. The rhythmic flash pattern is part of a signal system that brings the sexes together.

* Most fireflies are nocturnal, although some species are diurnal. The adults rest on foliage during the day and fly around between dusk and midnight.

* Females lay their eggs in the soil, particularly in damp places. The larvae that hatch from the eggs are carnivorous.

* Larvae of most species are specialized predators and feed on other insect larvae, snails, and slugs.

* The larvae overwinter in the soil, then pupate the following spring and eventually emerge as fireflies. These insects love moisture and spring to life when rainfall is plentiful.

* Firefly larvae may glow, even some that live underground or under water. They produce unpalatable, defensive steroids for protection.

* They have special light-producing organs on the underside of the abdomen. The light is created when oxygen combines with a substance called luciferin in the presence of the enzyme luciferase, in special cells called photocytes.

* Different species have different preferred habitats. Many are found primarily over open fields, others in just wooded areas, and some near bogs and marshes.

* Fireflies play an important role in nature beyond providing pyrotechnics. They loosen soil, allowing oxygen, sunlight, and water to penetrate. They maintain balance by eating impressive quantities of food while in the larval form.

* Factors that may be contributing to firefly decline include light pollution and habitat destruction—if a field where fireflies live is paved over, the fireflies don't migrate to another field, they just disappear forever.

My fireflies evoke a sense of wonder and delight. When I experience the flashing of my fireflies, I feel like I am in a different world and just maybe they can see my light as well. Finding myself surrounded by their flashing lights makes me feel like time stands still and that all is right in the world.

2022
Daylily Sale

Saturday July 9th
9am – 1pm

Purdue Extension

Hancock County

Demonstration Gardens

972 E. Park Avenue

Greenfield, IN 46140

You point ...

... we dig!

$3.50 / Fan

Find us on Facebook

We Accept All Major Credit Cards

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DAYLILY SALE HISTORY AND DETAILS

By Elaine Whitfield

In the spring of 2010, a friend invited us to come dig up daylilies that took up the entire front yard of a house she and her husband had just bought. We had an empty space where we had previously raised vegetables and that became the new home for those daylilies. Now they grace the Extension grounds and bring such beauty and some excited customers.

Once again, the HCMGA will be holding a Daylily sale at our very own Daylily garden on the Hancock County Purdue Extension grounds. The sale will be Saturday, July 9 from 9 a.m. to 1 p.m. We hope many of our members can participate in the sale. We need a crew to dig the daylilies that customers choose as well as cashiers. Members can donate daylilies from their own gardens if they wish. This year we will have some other perennials and bulbs for sale as well, since we have had some donations but don't have room for all of them in the Demonstration Gardens.

We will probably see some familiar faces as many of our customers have been coming to our sale since the first one we held. These are serious Daylily lovers as their collective philosophy is "you can't have too many daylilies ".

SAVE THE DATE

Fall Plant Sale

September 9 & 10

Why Prune Tomatoes?

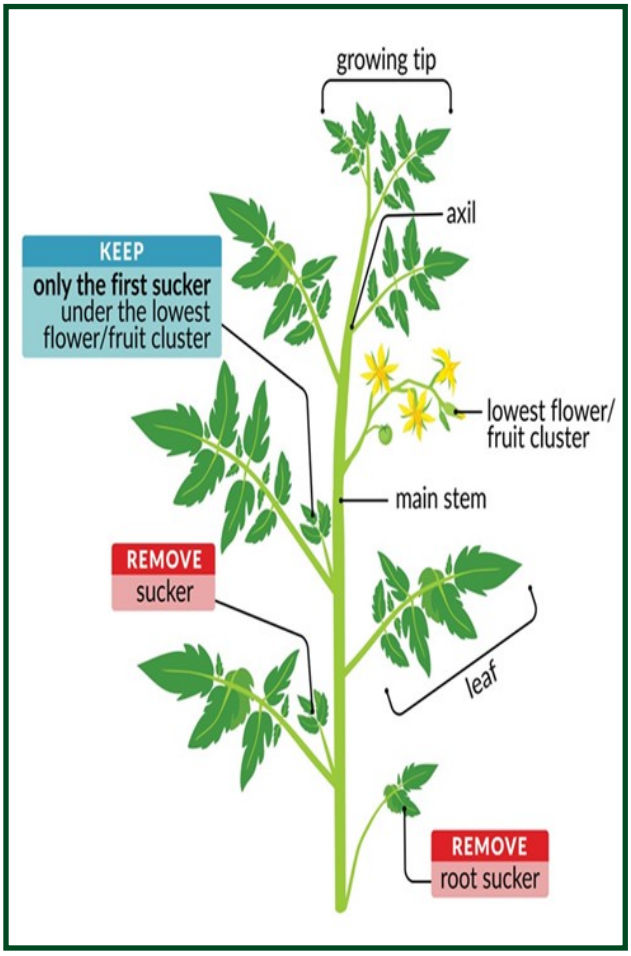
By Bruce Matter

There are several advantages when pruning your indeterminate tomato plants. They are:

1. **Fruit Development**. Decreasing the amount of leaves and stems lets the plant send more energy to the fruit for a bigger and juicer tomato.
2. **Improves Air Flow**. Pruning opens up the plant for better air circulation which reduces humidity and helps the drying time for wet leaves. This drier environment helps protect the plant from fungal and bacterial diseases.
3. **Fruit Shading**. Tomatoes need sunlight to develop. If the fruit is hidden under leaves it will take much longer to develop. The longer the tomato stays on the vine increases the chances of bug and environmental damage.

Pruning starts at planting time. Take several leaves off the bottom of your tomato plant and set it as deep as possible in the hole. Roots will emerge from the pruned leaves making the plant stronger and more productive. If the plant is tall and lanky, lay the plant on its side the day before you plant. The growing end of the plant will bend up towards the sun and it can be planted horizontally which will also produce more roots for a healthy and productive tomato plant.

Once your plant starts growing, keep removing the lower leaves until there is 12 inches of space between the soil and the lowest leaf. This practice helps prevent blight. Blight lives in the soil and is just waiting to hop on your tomato leaves. When it rains, the water drops hit the soil and catapults the blight into the air in search of a tomato leaf. With twelve inches of clearance, blight will have no place to go and falls back to the soil.



As your tomato plant grows check for suckers and remove by pinching or using pruners for a good clean cut. Suckers are the growth at the junction of the main stem and the leaf branch. (See illustration) Suckers are just another stem that will grow and produce flowers and fruit as well. Too many suckers will divert energy away from the other stems producing smaller fruit, providing a denser plant limiting air flow, and providing more shade than needed for the developing fruit. You may see new growth developing in the soil. This is a root sucker and should be trimmed as well. Continue pruning every ten to fourteen days throughout the season.

At the end of the season, cut the tops off all of the growing tips about a month before the first frost. This action lets your plant send all its energy to the existing fruits so they will ripen before the frost hits.

Happy growing! ☺

Bees can recognize human faces

Submitted by Jackie Reeves

Humans have known about bees for a long time: 8,000-year-old cave paintings in Bicorp, Spain, show early humans scaling trees to collect honey. But modern scientists wanted to know if bees recognize *us*, which is why researchers have put the insects' microscopic brains to the test. In a 2005 study, honey bees were trained to memorize pictures of human faces by scientists who rewarded them for correct matches with droplets of sugar water. While a bee's-eye view isn't as clear as our own gaze, the buzzing insects were able to correctly differentiate between faces up to 90% of the time — even two days after first seeing them, and when the sweet incentives were removed.

The emerging research into bee brains shows that not all living creatures need the complex brain systems humans have in order to recognize and recall environmental differences, but some researchers say that's not entirely shocking. The *Apis mellifera* (aka the European honey bee) can visit up to 5,000 flowers in one day, distinguishing between buds that give off beaucoup nectar and those that don't. So, it makes sense that bees have some form of working memory. And unlocking how bee brains work has practical applications for both us and them: Tech developers may be able to fine-tune artificial intelligence systems (in part by understanding how such tiny brains work so efficiently), and entomologists can better focus on supporting these crucial insects — which are responsible for an estimated 80% of food crop pollination.

URBAN SOIL HEALTH

URBAN SOIL HEALTH PROGRAM

Improving soil health on Indiana's urban and community small-scale agricultural land.

FREE site visit & assistance

Urban Soil Health Specialists are here to help. One Specialist is located in each region of Indiana.

SITE VISIT

Soil health starts with you. It starts where you grow food. It starts with how you grow food.

Let us come to you.

We visit your operation. We talk through your resource concerns and about conservation practices you can use to improve soil health where you grow.

TECHNICAL ASSISTANCE

It takes ongoing commitment to improve soil health. It's a journey, and it will take time to figure out the practices that work best in your production context.

We're here on that journey. We follow-up with you after the site visit to provide additional recommendations and assistance to implement new conservation practices.

Urban Soil Health Specialists coordinate, advise, and assist locally-led Soil Health Working Groups to advance soil health with urban and small-scale producers. We work with local, state, and federal entities to integrate soil health education and assistance for urban and small farms into local-level planning and conservation work.

Contact us to schedule a site visit.
https://tinyurl.com/urbansoilhealth
info@urbansoilhealth.org

USDA United States Department of Agriculture
Natural Resources Conservation Service

This work is supported by the U.S. Department of Agriculture - Natural Resources Conservation Service. The USDA-NRCS is an equal opportunity provider, employer, and lender.

SOIL SQUAD

The Hancock County Master Gardener Association is embarking on a new educational project that also has the potential to raise funds for our group. The new project is called the Soil Squad, composed of volunteers who respond to requests for soil sampling from the public, those farmers and landholders that have gardens that produce vegetables or flowers for sale or consumption.

The Soil Squad will have three teams of three individuals. When questions come into the Extension Office about soil quality a team will be sent to meet with the land owner on his or her property and conduct soil sampling for testing and perform slump tests. This will be of no cost to the landowner. Each team will complete the required paperwork and submit the soil to the lab for testing. The team will then follow up on the lab's findings with the landowner. The HCMGA Soil Squad will work closely with our regional soil specialist, Casey Kennett, to make sure that each landholder will receive the highest quality service.

If you are a HCMGA member or intern and would like be assigned to a Soil Squad or if you are a landholder interested in the health of your soil please contact us at hancockmga.com on our Ask a Master Gardener tab or call the Extension Office (317) 462-1113 to book a site visit.

GARDENS ARE MY THERAPY

by Robin Brunner

Somewhere recently, I said to someone, “My gardens are my therapy.” Had to think about that for a bit. I’ve had other hobbies and enjoyed them a great deal. Those too were my therapy, for as long as they lasted. This one may last as long as I’m physically up to it. But what does it mean, to call gardening my therapy?

Formal studies have also called gardening therapy, and shown that it has many benefits: improving physical, mental and emotional health, providing relaxation & stress relief.

What makes plants so effective in relieving stress? A horticultural therapist at the Chicago Botanic Garden's Enabling Garden sums it up well: "Plants provide us an escape. Whether through passive viewing or active gardening, our minds let go of current worries and become absorbed in positive thoughts of beauty, renewal, and wonder."

Escape, or at least a break, from the pressures of normal everyday worries and sometimes the extraordinary worries as well. Bills, job issues, family ill? Time to take a break to go outside and weed, water & admire the vegetables, the flowers, the glowing leaves of a coleus, shoo the rabbits from the lettuce…. Nothing may have changed upon coming back in, but something has shifted inside, ready to prioritize and deal with things.

Also you learn a lot!

Things learned so far:

It’s true, “to everything there is a season.” Missed the window of opportunity to plant? Better luck next year!

Every dang thing is in competition with everything else!

Plants often don’t do what you want them to. And some plants are vicious.

Weeds are a terrible, deadly tide that will overwhelm all your precious work. Fast. That goes for trees too. Getting very tired of white mulberries.

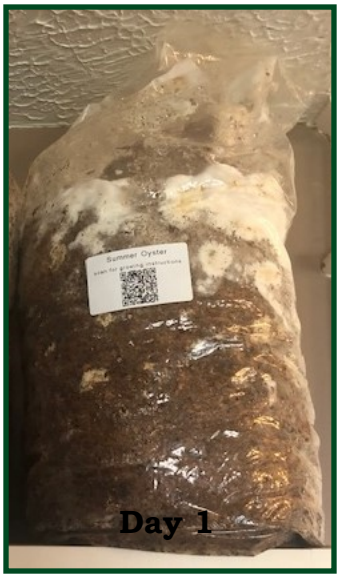
Weeding is fun! You get to put your frustrations to use, pulling those stubborn things out. And you get to see your accomplishment, a neater, cleaner bed of veggies or flowers, healthy and bright.

There’s always more to learn!

GROWING MUSHROOMS

By Theresa Roush

This past May I attended Garden Fest in Rushville; it's an annual event featuring vendors offering vegetable plants, perennials, house plants, annuals, and various home-crafted items. The sponsors also offered a couple of seminars one of which was about growing mushrooms. Since this is something that has been on my bucket list for a while, I decided I would attend and see what I could learn.



A local mushroom farmer was very knowledgeable and answered all of my questions. In fact, we found out we are neighbors living just 2 miles from each other. With the fact that she was so close and her teachable spirit, I purchased a "mushroom bag."

This bag was full of what was needed to grow my own oyster mushrooms … saw dust, rye grain, manure, and mushroom spores. Once the spores have fully populated the bag, mycelium develops – think of this as the mushroom "roots." You can see in this photo well-developed mycelium as evidenced by the bag's whiteness.

Once the mycelium has fully developed, an opening must be made in the sealed bag to allow the actual mushrooms to develop outside the bag. I made an "x" cut in the bag and sprayed the opening with a bit of water. As the farmer had suggested that a humid location was the best environment for the mushrooms to grow, I placed the bag in my bathroom. Also, they need light but not direct sunlight, so I chose a place on top of my medicine cabinet that faces west but does not receive direct sun. I sprayed the opening once a day.

After 6 days of making the cut, I could see growth! Over the next few days, the mushrooms grew VERY quickly; I could see changes daily. My first harvest of oyster mush-rooms

weighed .90 ounces. They were meatier than store bought mushrooms and were mild in flavor – perfect for a stir-fry.

The second harvest from the same bag was quite a bit smaller which is to be expected. Each bag could yield 3-5 harvests. I am currently waiting/hoping for harvest #3.

This was a fun learning experience and a tasty one as well. I might even jump in and try starting my own mushroom bags. I can now mark this adventure off my bucket list!

What's on your bucket list that you want to try??? Go for it!!!

A beautiful Hummingbird's nest with a leaf roof...

HANCOCK COUNTY MASTER GARDENERS

FACEBOOK

https://www.facebook.com/hancockmga

WEBSITE

https://hancockmga.com/

MONTHLY MEETING

4th Wednesday of the month in-person (at 792 E. Park Ave, Greenfield, IN) or Zoom (email to register: meier_lynn@yahoo.com).

MASTER GARDENER TRAINING

https://hancockmga.com/become-a-master-gardener/