

Home Horticulture - Ricky's Gardening Tips and Tricks - August 2020

Issue

Written and compiled by Ricky D. Kemery, Allen County Extension Educator Retired, phone or text: 260-431-6893

Ricky's Home Horticulture is an online newsletter designed to provide citizens with up-to-date information about Horticulture and home issues, written in a lighthearted style! To subscribe, send an email to kemeryr7@frontier.com.



One subscriber of Home Horticulture asked if I could discuss nightshades; in particular how some members of the nightshade family can cause rashes similar to poison ivy, sumac, and oak that were discussed in the previous edition of Home Horticulture. Allergies to nightshade plants are rare, but it can happen.

As it turns out, some folks can develop dermatitis (general inflammation and itching) after direct contact with a nightshade. Shortly after touching the foliage or fruit, the skin becomes blotchy, inflamed, and irritated in response to increased histamine in the skin. Hives may form in various shapes and sizes. If you have eczema, an allergic reaction to nightshade vegetables can cause a flare-up, according to the American Academy of Allergy, Asthma, and Immunology.

Many plants used for food like tomatoes, potatoes, peppers, and eggplants, are nightshades. Tobacco is also a nightshade member. Common garden flowers that belong to the nightshade family are petunia, nicotiana, Angel's Trumpet / Brugmansia. Goji Berry and Garden Huckleberry are also nightshades.

Nightshades contain an alkaloid called solanine, which is toxic in high concentrations. Solanine is found in trace amounts in potatoes and is normally safe, though the leafy stalks of the potato plant and green potatoes are toxic, and solanine poisoning has occurred from eating green potatoes. The rare but small white fruit produced by the above-ground portion of the potato is highly toxic.

The Arthritis Foundation and medical experts report that some folks believe that Solanine may aggravate arthritis pain and inflammation. While some people may report allergies when eating nightshades, there is no research to support that solanine has a direct effect on inflammation or arthritis pain.



Two Common Nightshades Found in Gardens and Landscapes

Eastern Black Nightshade (Black Nightshade) is a summer annual native to the U.S. which emerges in the spring - sets seed in late summer/fall - and dies. Each plant produces between 50-100 berries, with each berry containing about 100 seeds. You do the math.... Black nightshade has very persistent seed. 90 percent of the seed remains viable in the soil – even after 5 years. It is often found growing in and amongst other shrubs and perennials.

Solitary clusters of nodding white flowers develop from the axils of the middle to upper leaves. Each flower cluster has 3-10 flowers. Each flower has a star-like white flowers with 5 tapering lobes that curve backward. Projecting from the center of the flowers are 5 stamens with large yellow anthers.

The flowers are replaced by small round berries about 6-8 mm. across. The outer surface of the berries is initially green and smooth, but later becomes black and shiny. Black Nightshade is found in thickets, openings in degraded woodlands, thinly wooded bluffs, cropland and pastures, gardens, vacant lots, areas along railroads, fence rows, back alleys in urban areas, and waste areas. This plant is more common at sites with a history of disturbance.



Bumblebees collect pollen from the flowers. Often one will observe damage to the leaves cause by several types of leaf beetles. The green berries of Black nightshade contain the toxic alkaloid, solanum, like the foliage. The ripe fruit is toxic if eaten in larger quantities.



Bittersweet Nightshade is also known as Deadly Nightshade or Climbing Nightshade. This nightshade is a perennial native to Europe and Asia – but naturalized in the United States. This plant also tolerates shade and is mostly found as a shrub or vine that can reach eight feet in length.

This nightshade has clusters of purple flowers arising from leaf axils and at the tips of branching stems. Flowers are ½ inch across. Protruding like a missile in the center is a yellow column of stamens with a slender style extending at the tip.

The leaves are generally egg-shaped - tapering to a pointed or blunt tip. Most leaves have 2 small lobes at the base of the leaf that do not quite appear to be part of the blade. Stems are many branched, hairless to sparsely hairy, and lack tendrils, the stems climbing up anything nearby or becoming bushy depending on the particular site. Prostrate stems root at the nodes, and the roots can sucker profusely, creating sizable patches. Lower stems are woody, the leafy branches dying back each year.



:



The fruit is a ¼-inch, green, oval to egg-shaped berry that ripens to shiny red.

While this plant isn't as deadly as one of its common names suggests, the berries can make you sick if eaten in any quantity. This weed is commonly found in yards, field and woodland edges, vacant lots, shorelines, and other disturbed, partly shady, average to moist soils.

Spider Mites

This is the time of year when spider mite damage begins to show up on veggies (beans in particular) and ornamentals like Burning bush. Often the leaf tissue exhibits a bronzing effect- especially between the leaf veins. If infestations are heavy, one can observe with a hand lens or magnifying glass the webbing and



even the tiny mites crawling like mad on the leaves.

The mite is not a true insect as it has eight legs like a real spider. In my opinion Diatomaceous Earth is the material to use. Mites despise D - Earth. Dust after rainfall – I use a used Parmesan cheese dispenser to dust the plants. Other garden plants like tomatoes can be attacked by mites, especially in dry years like this season.



Miyawaki

Miyawaki is a technique developed by famous Japanese botanist Akira Miyawaki that helps build dense, native forests in a fraction of the time it normally takes a forest to develop. He pioneered a method of restoring indigenous forests on degraded or deforested land which had been devoid of humus. Miyawaki has created over 1,700 forests throughout Asia, 96.7% of which developed into a resilient sustainable community.



Native communities normally are established by the process of succession – where “pioneer” species first occupy a site – followed by a succession of different species until a “climax” community is established. The beech/maple forest community is one example of a climax forest in Indiana.

Miyawaki forests can grow into mature ecosystems in 20 years or less – astonishingly fast when compared to the 200 years it can take a forest to regenerate on its own.

Miyawaki’s method involves planting dozens of native species in the same small area. The planting reportably becomes maintenance-free after the first three years. Volunteers plant densely-packed clusters of seedlings from indigenous plants to create a small functional ecosystem that can restore soil, protect resources like water and air quality, and act as a biodiversity hotspots that can have a measurable effect on both the local and regional environment. European countries are beginning to dot their urban landscapes with tiny Miyawaki forests, as productive and biodiverse as any in wilderness areas, yet sometimes only as big as a tennis court.


The popularity of Miyawaki forests is growing, with initiatives in India, Pakistan, Brazil, and Europe. Projects like Urban Forests in Belgium and France, and Tiny Forest in the Netherlands, are bringing together volunteers to transform small patches of wasteland and “brownfields” into highly biodiverse areas with more variety in food and shelter for birds, insects, and animals.

Planting Miyawaki forests can create wildlife corridors in suburban and urban areas, and absorb more CO₂ than plantations grown for timber.

Urban forests can also bring many benefits to communities beyond their impact on biodiversity. Research has shown that green spaces like Miyawaki forests can also help to improve mental health, reduce air and water pollution, reduce erosion, and help cool cities, where expanses of concrete and asphalt raise temperatures unnaturally high.

Establishing Miyawaki forests seems like a good ideas for cities to convert and utilize vacant lots and brownfields.

ALL ABOUT MIYAWAKI METHOD



<ul style="list-style-type: none">➤ Urban forests grown in 2 to 5 cents of land➤ Native species to be surveyed to identify the best species suitable for the area➤ Assessment of soil nutrition and fertility will be done➤ Nutrient-rich soil to be prepared for fuelling growth of sapling	<ul style="list-style-type: none">➤ For two years, weeds will be regularly removed and saplings will be allowed to grow swiftly➤ Saplings are planted so close to each other that they compete for sunlight by growing taller➤ In 10 years, the area will be transformed into a dense forest
---	--

Above: I am not sure what “cents of land means – but I am assuming it means a small area.

One of the issues that hamper reforestation projects – or converting vacant lots and waster areas on urban sites - is the time and effort it takes to restore these areas into stable communities. Many times, these efforts turn out to be another weed patch. Miyawaki forests – once established – are reportably stable in the long term – and in my opinion worth the effort to establish.



Miyawaki forest in Pakistan

Since Miyawaki projects involve small plots, the establishment of these forests is more realistic. However, establishment of these forests still takes time and work. Soil improvement and especially weeding and watering are vital in the first two - three years. It would take a group of dedicated volunteers to be successful. Even homeowners wanting to convert areas into a Miyawaki forest need to realize the work and commitment it takes to try and convert an area.

Conservation groups stress small, unconnected wooded areas can never replace the large tracts of forest that are vital to so many species and remain under threat from commercial development. But if you have a patch of wasteland in your local community that is sitting idle, a Miyawaki forest could be one way of doing your bit to help the environment.



Jimson Weed is often found in disturbed areas - abandoned fields, construction sites, and sometimes appears in home gardens. Its large white flowers are attractive and similar in appearance to Angels Trumpet, another nightshade family member. Both are very poisonous to humans and wildlife. Jimson weed is sometimes ingested or smoked by thrill seekers and many die because it is extremely toxic.

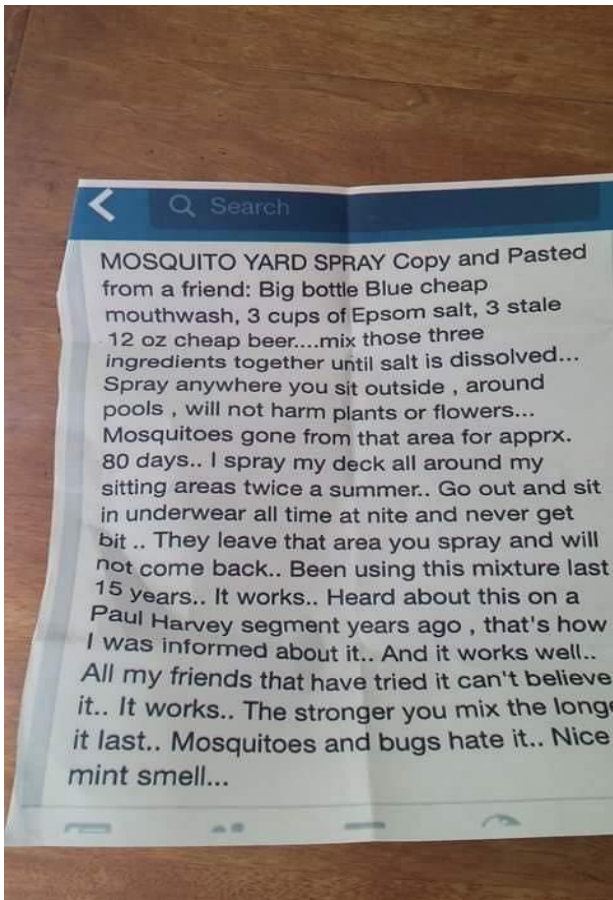
It is best to wear gloves and long sleeves when pulling or removing weedy nightshades from gardens and landscapes. Even handling Angel Trumpet foliage can have adverse effects. It is best to bag these weeds and send them away in the trash. Burning nightshades – especially Jimson weed – can be disastrous.

Leaf Rolling and Curling of Tomatoes

Curling and rolling of tomato leaves causes consternation with gardeners. Most of the time there isn't much to worry about. Leaf roll occurs when a plant's leaves curl or twist in response to environmental conditions such as dry air, wind, or lack of water. When humidity levels are low, plants lose more water through their leaves at a faster rate. To prevent this, tomato plants will curl up their leaves – especially on dry windy days. Sometimes leaf roll can occur when the soil is completely saturated from too much rainfall. In most cases, the leaf roll will go away when conditions improve.



A more serious scenario is when a virus causes leaf roll, Virus is transmitted from the seed itself, or by insects such as whitefly or leafhoppers. “Curly Top” is a common virus, and also the name of a 1935 movie starring Shirley Temple. In this case there is no “cure”. If the plant has a virus that causes leaf roll, then the symptoms will not disappear, but rather increase over time. It is best to cut your losses and remove and destroy the infected plants. Do not compost the infected plants since the virus may survive in your compost pile and infect your garden in subsequent years.



Once Again Facebook “Experts”

It is increasingly difficult to separate fact from fiction from posts from self-proclaimed “experts” who post information on social media. The post to the left illustrates this point. This person claims a concoction made from a “big bottle of cheap blue mouthwash, 2 cups of Epsom salts, and 3 stale beers will repel mosquitoes for 80 days when sprayed outside, claiming that the radio show personality Paul Harvey gave the recipe long ago. Paul Harvey was known for his radio segments called “The Rest of the Story” which were sometimes uplifting, informative, historical, or wrong.

A few folks in the Facebook comments section did indeed say the concoction worked - of course there may have been no mosquitoes in the first place since it has been a very dry year.

Over half the folks commented that the product: Didn’t work, damaged plants, created a sticky residue, and smelled awful.

It is no surprise the mix damaged plants as it contains Epsom salts and alcohol. Epsom salts is part of the weed killer concoction I discussed as an alternative in an earlier issue of Home Horticulture that actually does help to control weeds.

Research has shown that alcohol damages plants if higher concentrations are used.

The author of the post defended his claim by saying that the concoction used by commenters who were displeased didn’t work because: “Cheap beer was needed instead of the more expensive beer that was used” The beer needed to be stale instead of fresh. Cheap (no expensive product) and blue (no other color) mouthwash was essential.

Ultrasonic devices, homemade concoctions, mosquito repellant plants, and even traditional pesticides will not keep mosquitos away for any period of time. Mosquito Dunks, an organic product applied to standing water, birdbaths, and uncovered rain barrels can safely control mosquito larvae and thus reduce adult populations – but it still will not stop roaming mosquitos from entering an area.

Wearing some sort of repellant can help. Otherwise just don’t go outdoors at dusk or dawn when mosquitos are most active and don’t go hiking in a swamp at midnight on a warm humid night when the temperature is over 70 degrees with over 65 percent humidity. Spraying the surroundings or even yourself with mouthwash probably won’t work.



Hickory Horned Devil The hickory horned devil is the largest caterpillar of the United States. It shows up in our area in late summer. The adult is a large moth called the regal moth. Although it has a ferocious appearance, the hickory horned devil is harmless.



Powdery Mildew

The fungal disease we refer to as powdery mildew is actually caused by several different species of a group of specific pathogens called powdery mildew. In our area, phlox, lilac, zinnia, oak, bee balm, cucumber, and squash are especially susceptible to powdery mildew. Disease specificity means that the mildew that affects lilac leaves may not spread to infect nearby zinnias. All types of powdery mildew love high humidity - paired with somewhat cooler temperatures (from 60-80 degrees) during the day. This is why mildew on pumpkin, and summer and winter squash are often worse from mid - summer into fall.



As powdery mildew fungi grow over the plant surface, they develop structures that are inserted into and in-between plant cells enabling them to extract nutrients necessary for growth and spore production. Powdery mildew is an obligate parasite, meaning powdery mildew is “obligated” to allow the host plant to live, so that the fungus can draw nutrients from the leaf – much like a vampire draws blood from victims. – until the vampire gets too greedy – of course.

Over time, the host plant is weakened because of reduced photosynthesis and energy utilization. Powdery mildew also creates other effects that are not readily apparent. For example, a severely infected woody plant may have a reduced level of winter hardiness. Trees have also been observed to leaf out later in the spring after being infected the previous season.



Healthy plants are more resistant to powdery mildew. There are certain cultivars of squash and cucumbers that are genetically more resistant to the fungus. Avoid overhead irrigation, watering at night, and crowding which raises the level of relative humidity within the plant canopy. Over- fertilizing later in the season can create succulent new growth more susceptible to mildew.

If powdery mildew is noticed on a few leaves, simply removing them will help with control. At the end of the growing season, clean up debris and rotate crops to reduce the amount of available pathogen next spring.

For many vegetable crops, sulfur, copper-based Bordeaux mix, and horticultural oil are labeled for organic control. However, they can damage leaves when sunlight is intense, and when temperatures are above 80 degrees. Biological fungicides such as Serenade Garden Disease control can be very effective against mildew. Neem oil is also an organic alternative, though neem is a better insecticide than it is a fungicide. Baking soda mixed with horticultural oil is recommended by some experts. Again, it can damage plants during hot sunny weather.

Applications of milk were also once touted as effective against mildew, but research does not support those conclusions. About a decade ago, the “milk” treatment was touted by a Brazilian researcher with little evidence to support his claims of mildew control. I knew several individuals who sprayed milk on flowers in the hopes of controlling or preventing mildew. Have you ever smelled spoiled milk – or had a baby spit up milk on you? Trust me it ain’t good....

It is important that any fungicides be applied at the first sign of mildew, as most fungicides only control and do not cure disease. It is extremely difficult to find complete information online about controlling powdery mildew in home gardens. Here is a link to a video that does a good job.

<https://www.groworganic.com/blogs/videos/powdery-mildew-organic-control>

I Miss the Grocery Store

I have not been inside a grocery store (or any store for that matter) for quite a while. Ever since it was possible to order and pick up my groceries – there was no reason to go inside – except for liquor. Now ordering liquor is possible in this pandemic age.

Do I miss being inside a store? Sometimes. I do not miss long waits at checkout lines; searching for parking spots on a weekend, or crowded aisles full of folks parked right in the center of the aisle.

I do miss the playful banter I used to engage in with grocery store employees at the checkout. I also greatly respect folks at the store putting themselves at risk for folks who need to shop for their groceries.

Here are some conversations and interactions I miss.

Checkout clerk: “*Did you find everything you were looking for?*” This statement is usually asked with a look of concern. The clerk, who isn’t old enough to check out the seven bottles of various wines I have purchased, seems to say- really - you look like you couldn’t find your way around a tire.

My responses have included remarks such as: “Would I be here if I had not found everything I was looking for?” (Blank look by the youthful clerk)

or

“Somehow – somehow- I made it around the store- and yes indeed I found my way – back home to you” (insert name on store clerk’s tag).

Or ...

“No I was looking for kangaroo tail meat- where is that?” **or** “Maple-flavored Spam on a stick- where is that?”

I love it when clerks ask for my ID for liquor purchases- Sometimes I wish I could have a fake ID that listed my age as 20, just to see if they would deny me my purchase.

I also miss when the grocery store clerk – and the grocery store bagger - flirt with each other- talking about boy bands, Taylor Swift, and how parents are sooooo boring. Sometimes I join the conversation and agree with everything they say. I work on my Tic Tok lingo “*Taylor Swift “Totally Dope”*”

Sometimes, my food purchases invoked comments such as “Is that any good? I would usually say: “*No- it is horrible*”. (Blank look from clerk).

Huge items don't do well in the self-checkout lanes. Try running a huge box of cat litter through the lane. The robot lady with a calm pleasant voice tells you to put the item on the checkout bin. The issue is there is no room on the checkout bag area for two huge containers of cat litter- let alone any other items. At least the robot lady at the checkout lane does not ask if you found everything you needed,

I sometimes found it amusing to purchase bizarre items such as jicama or leeks. The clerk will look at the items with suspicion for a moment. *"Did you find this item in this store?"* one asked. *"Yes, indeed I say- I found everything I absolutely wanted to find in this store"* Sometimes we have a quiz session. *"Is it a beet?"* *"No, it is not a beet,"* I say. *"A radish?"* *"No it is not a radish."* *"Actually, I did find this at another store, but I brought it here as a test for you"*

Finally, I relent *"It is an organic leek,"* I remark. *"What is it used for?"* the clerk asks. *"I seal gutters with it",* I answer. With a look of suspicion, the clerk rings up the item.

I so miss those "Warm Fuzzy" times at the grocery.....

Morning Glories

Approximately 1000 species belong to the Morning glory family (Ipomoea). This family contains climbing plants and have trumpet-like flowers with heart-shaped leaves. It's their worm-like stem that gave it its genus name which in (Greek) means "worm" and "like," respectively.

Japanese were the first to cultivate it as an ornamental flower in the 9th century,

In the Victorian meaning of flowers, morning glory flowers signify love, affection, or mortality. In Chinese folklore, they represent a single day for lovers to meet. They also represent the month of September and 11th wedding anniversaries.

Morning glories were greatly respected by the ancient Mayans, Aztecs and Native American tribes of Mexico for the spiritual properties they were believed to possess. The seeds were used for vision quests and to communicate with the gods because of their psychoactive properties. The Chenthal and Mazatec Indian tribes believed that a highly evolved spirit lived in morning glories.

Morning glory seeds contain toxins that can make you violently ill. Many commercially sold seeds are also treated with poisonous fungicides and other chemicals. In fact, eating morning glory seeds is illegal in most parts of the world. Hybrid varieties of morning glories, like "Flying Saucer," "Pearly Gates" and "Heavenly Blue," not only describe the colorful flowers of these varieties but also seem to touch on the psychoactive properties and history of the morning glory. Morning glory seeds contain the alkaloids d-lysergic and d-isolysergic acids (similar to LSD). Just to be clear- don't eat the seeds.

Morning glories can exist as perennials in tropical regions and have become a troublesome weed in parts of southeastern United States.





One of the largest-flowering species of Ipomoea is the moonflower - with 6-inch white, fragrant, night-blooming flowers. Ancient Central and South American civilizations used the acidic sap of the moonflower to convert the latex from the Panama rubber tree and also the guayule plant to produce bouncing rubber balls still used in a version of the Aztec game ullamaliztli - one of the oldest continuous games in history. A version of this game is still played in Mexico. The sulfur in the moonflower's sap was used to vulcanize the rubber, a process predating Charles Goodyear's discovery by at least 3,000

years.



Ullamaliztli Court

Cardinal Climber, Hummingbird Vine, Sweet Potato Vine are all types of morning glory family members. Field bindweed - a very difficult weed with white flowers - is a morning glory family member.

Morning glories are easily grown from seed and can be started indoors four to six weeks before the last spring frost. If sown directly into the garden, plant on bare soil after any threat of frost and once the ground has warmed up to 64 F.

Morning Glories prefer full sun but will tolerate some light shade. Because of their rapid growth, choose a location that will allow for its mature size.

Morning glories will readily self-seed if allowed, so make sure they are in an area that is accessible for cutting back spent blooms before they go to seed or an area where self-seeding is acceptable

Use a file to score the outer shell of the seed and soak for 24 hours prior to planting to help with germination. Cover lightly with one-quarter to one-half inch of soil and water thoroughly. When transplanting, be careful of the roots, as they don't like being disturbed. Morning glories grow quite rapidly once established, up to 12 feet or more in one season.

Although usually not necessary, you can apply a balanced liquid fertilizer monthly during growing season. Be careful not to fertilize too much as this can produce more foliage than flowers. I have lots of morning glories in my garden this year. I plant them near sunflowers, so the morning glories have something to climb on.



Heavenly Blue

Following are some cultivars of morning glory found in seed catalogs online, and garden shops in our region.



Grandpa Ott is an heirloom flower from Bavaria, Germany



Flying Saucer



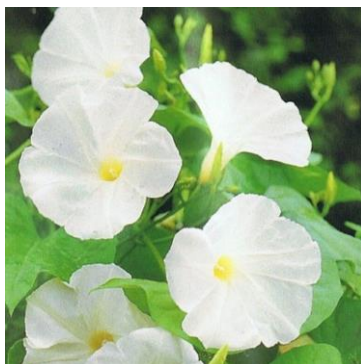
Milky Way



Mt. Fuji Mix



Scarlett O'Hara



Pearly Gates



Blue Silk



Glacier Star



Knolia's Black

Display Gardens History – Master Gardener Youth Program

The Master Gardener Youth program in Allen County was modeled after the adult Purdue Master Gardener program. A community - wide needs assessment conducted by our Allen County extension office in 1997 revealed that citizens of Allen County thought that educating youth about gardening and environmental awareness was important. I formed a group of interested Master Gardeners after the meetings, and we began researching and planning a youth gardening program. Master Gardener Art Stahlhut helped us design and construct raised bed gardens for the kids. We developed a curriculum – loosely based on the adult



Blake Young of Young's Greenhouse teaches youth volunteers

program. Instead of a final exam, we developed a community service requirement for graduation. It was important to us that the youth had a voice – so we asked for input – we provided raised beds for the children to grow plants, but allowed them to choose what they wanted to grow and insisted they maintained their garden spaces – not us. We also encouraged responsibility, personal growth, and creativity.

The program ran for about 15 years. It was a wonderful experience. To see children - many who had not ever tasted a fresh pea or felt the joy of growing flowers and vegetables – flourish and grow along with their gardens - was a true delight. The amazing thing was we really never had any discipline issues. I always said I learned much more from them than I could ever teach them.

I developed class on public speaking, based on my own shyness of speaking in public until I took a communication class at IPFW when I was about 34 years old. I later served as a speech judge for my daughter's speech competition team at McCutchen high school in Lafayette. When I entered graduate school at Purdue, Professor Steve Weller gave a very funny presentation to students entering graduate about how NOT to give an effective presentation. I used that as a pattern for the youth class.



Dr Larry Yoder

We taught a cooking class where the students picked menus and cooked in teams to produce a surprise meal for their parents when the parents came to pick them up. Master Gardener Barb Travis did a wonderful job of coordinating the cooking class, and also made aprons for each class

member. Dr Larry Yoder of Goshen College taught a wonderful program about food at the grocery – where it came from – trivia and folklore - and of course science. Dr Fred Whitford from Purdue's Pesticide Programs taught about Integrated Pest Management, reading pesticide labels, and pesticide drift after we learned from students that their parents never read labels or applied pesticides properly. Our County extension Director at the time, Roger Moll, did a wonderful job of teaching the students about lawns, including alternative and low maintenance grasses for the lawn – knowing that someday these young students would need to care for their own lawns. Master Gardener Dennis Bowman took time off his extremely busy schedule at Gassafy flowers to teach the kids about using and arranging cut flowers. Master Gardener Suzanne

Wyss helped the students explore their creativity by creating their own fairy gardens – long before fairy gardening became a popular trend.



MG Dennis Bowman teaches youth about flowers.

Often the community service program presentations at the end of the year brought us all to tears, as time after time we were

moved by their willingness, resolve, and skills.

One student told us of his efforts to establish a

garden at a hospice facility. When we asked him why he chose that

project, he said” because they (the residents) needed and deserved a beautiful garden to look at when they were dying”. Another extremely shy little girl explained how she went to a home for disabled seniors and convinced the director (on her own with no help) to provide funds so she could install an enabling garden for the residents. The projects were always amazing...



MG Shelia Hamilton Taylor works her magic in the classroom.

Master Gardener Kate Ferguson and Shelia-Hamilton Taylor primarily coordinated the program, but it was always a team effort with many Master Gardeners (too many to mention them all). Years later I would receive letters and visits from previous MG Youth graduates (some who became adult Master Gardeners) who would tell me how much the program influenced them in later life. One former student said “In your class, you and your volunteers taught me to believe in myself and my abilities – to love and appreciate nature and growing healthy food – to be happy and “nice” – and spread joy to others.



Yellow Jackets

The life cycle of the yellow jacket nest begins in winter, when fertilized yellow jacket queens go into hibernation. Queens hibernate in covered natural locations such as tree stumps and hollow logs, although they may also choose structures for shelter. The eaves above a front door are popular.

In spring, the queen will emerge and begin to build a nest from plant fibers that she chews, making a type of paper. When the nest is started, she begins to lay her eggs. After eggs hatch into larvae, the queen feeds her young with scavenged meat, fish, and other insects. Her first offspring are sterile workers that expand the nest, search for food and care for the queen and her young. After her first generation matures, the yellow jacket queen remains inside the nest laying eggs which hatch into workers for the rest of the summer.

At its height, a colony may contain up to 5,000 worker wasps. In the fall, cells will contain larvae ready to become adult males and fertile females. These males and females will leave their colonies to mate. After mating, males die, and the fertilized females go in search of hibernation locations. Usually, all the worker yellow jackets naturally die off during the winter season leaving the hibernating queen to begin anew in spring. While nests may last through winter if built in sheltered areas, they will not be used again. Only the queen survives the cold climate and comes out in the next season to build a new nest and a new colony.

Yellow jackets are extremely aggressive insects that are drawn mainly to sugary liquids and meats. Each insect stings multiple times and injects venom into its victim. Bees and yellow jackets appear similar at first glance, but yellow jackets are smaller than bees and have narrow mid-sections where bees do not. Additionally, while honeybees and bumblebees are excellent pollinators, yellow jackets are somewhat less so. They do not often visit flowers, and their exteriors are much less hairy than that of bees, meaning they neither pick up nor spread much pollen except incidentally. Typically, bees are also much less aggressive than yellow jackets. Both honeybees and bumblebees will only sting defensively, while yellow jackets are easily provoked, and attacks are often triggered by sound or vibrations. They attack in swarms and will give chase over long distances if they feel threatened. Yellow jackets are a type of wasp that typically live in the ground, although there are a few varieties that also build nests in eaves and crevices of homes.

Trying to control yellow jackets late in the summer can be a dangerous activity. Many of my readers don't like applying pesticides. I rarely use any pesticides in my home garden. However, if I had a yellow jacket nest in my lawn, I would either call an exterminator or I would use the insecticide Sevin dust – applying the dust in the entry hole at night wearing long sleeves and pants. The wasps actually carry the dust into the nest – eliminating the wasps. I would be ready to run as fast as possible with a planned escape route in case they came angrily pouring out of the nest. Since I don't get around that well with a bad knee- I would call a professional.

I have heard “experts” recommend methods like pouring boiling water, spraying lavender or mint extracts in the entrance – these will not effectively rid the nest of the wasps, and most likely anger them – an angry yellow jacket is not good. They have killed people with their stings in the past.

One can keep outdoor trash cans clean and sealed to limit yellow jacket foraging, store pet food or animal feed in tightly closed containers and try to avoid outdoor areas where you note yellow jacket activity.

If you plan to do any yard maintenance, carefully inspect the area before beginning work to be sure there are no nests nearby. Avoid using overly floral body or hair products if camping or spending a lot of time outdoors as the scent can be a yellow jacket attractant.

Mechanical, non-toxic traps can be a good way to get rid of yellow jackets early in the season, or they can be useful to temporarily lure the wasps away from areas they are not wanted. Like a picnic outdoors for instance...

A Closer look at Tomato Hornworm

Tomato hornworms are some of the biggest caterpillars you're likely to find in your garden. On average, these tomato worms are three to four inches in length. They are bright green with approximately seven diagonal V-shapes along their sides. A black tail-like horn protrudes from the rear. A close relative, the tobacco hornworm, has a red-colored horn and diagonal white stripes instead of V-shapes but is otherwise identical.



Both tomato and tobacco hornworms prey on similar plants, so it's quite possible to misidentify one as the other since they do the same types of damage. In addition, both types of hornworms have breathing holes along their sides that are called spiracles. These look like little yellow-and-black spots near the white V's or stripes.

The tomato worm life cycle begins as overwintering adults emerge in the late spring, mate, and lay eggs on the underside of leaves. The tomato hornworm eggs are spherical and are whitish to light green in color. Within about five days tomato hornworm larvae emerge from their eggs. These larvae go through five or six stages of growth, shedding their skin and becoming larger over the course of 3-4 weeks. This period is when a tomato caterpillar is at its most destructive, and when it can decimate the plants that it's living on and around. Once the larval stages have concluded, the final form of the larva will burrow into the ground and pupate. They form a pupa around themselves for protection under the soil's surface. Eventually the adult tomato hornworm moth (called a five-spotted hawkmoth) will dig its way to the surface and emerge to start another generation. The five-spotted hawkmoth is huge, often reaching wingspans of 4-5 inches. On the abdomen of the adult moth, there are five spots, hence the name.



In most areas, there are two full lifecycles per year. Tomato hornworms can be found throughout the United States, Mexico, and even southern Canada. They are less common in some regions of the southeastern United States and in the Great Plains region than in other areas.

Not only do tomato worms eat tomatoes, but they also consume tobacco, potatoes, eggplants, some pepper plants, other nightshade-family plants, and moonflowers. One larva can decimate a plant very rapidly, as they have voracious appetites. The coloration of the larva acts as camouflage, making it difficult to see the larvae despite their significant size. It's generally easiest to identify the damage that they do, which includes devouring whole leaves and smaller stems on the plant, and occasionally leaving holes in the side of fruit. You can also see their waste on leaves as a blackish dropping. Companion planting can be beneficial in the fight against tomato hornworms, especially around tomatoes. Planting basil nearby will improve the flavor of your tomatoes while simultaneously repelling tomato hornworms, flies, mosquitos, and some other moths. Similarly, borage will attract bees and other beneficial insects while repelling tomato worms. Finally, marigold is a wonderful draw for all manner of beneficial insects, including parasitic wasps. *Bacillus thuringiensis* var. *Kurstaki*, is a naturally occurring bacteria that will organically control all manner of caterpillars, including tomato hornworm, cabbage worms, and cutworms. Some folks just pick off the worms. There are even a few recipes for eating the hornworms. I will pass on that. Most gardeners know to leave parasitic wasp infested hornworms (they look like they have white sacs attached to the skin) in the garden to infest other hornworms lurking in the garden.



Hoggles Demented Cat Logic

To my Caregiver: *Remember when you used to spray milk on your plants to foolishly try and control powdery mildew? Boy what a feast that was..... Didn't you ever wonder why all the milk disappeared so quickly – and why my belly reached the size of a pumpkin?*

Community Gardens Interest in Community Gardens began circa 2010 after I began receiving many inquiries wanting information on how to establish community gardens from citizens.

A dedicated group of Master Gardeners led by Master Gardeners Juanita LaHureau and Jennifer Manning helped meet the need from schools, neighborhood associations, churches for information and programs about establishing community gardens. Over the next 2 years over 50 Community Gardens were installed in Allen County - including the community gardens still located at the Allen County Extension office. Our guidelines for establishing community gardens were as follows:

1. A Safe and Secure Location with easy access and parking under lights. Fencing to protect gardens from critters and theft. Full Sun – Raised beds preferred – No noxious weeds on the site.
2. Water access is absolutely essential.
3. Community Buy In - This is also vital. Many times, gardens were established by just a few enthusiastic people and failed because the surrounding community didn't care whether there were community gardens or not. I am a big believer that the surrounding community must do their own work establishing and maintaining areas.
4. Value – I learned early on that even charging a small fee to use community garden space gave value to the spaces. If one simply opens up plots for free, then there are more problems with a lack of commitment to maintain the space.
5. Rules – Written rules and guidelines are important, so everyone is on the same page. For instance, I had rules about using only organic materials for pest and disease control.
6. An Outreach coordinator - Someone is needed to coordinate activities, allocate plots and make sure plots are not abandoned, and the rules are followed. Otherwise it can be chaos.

One Fine Morning on Facebook

Mary: *Good morning everyone. What a wonderful day in my garden. (posts picture of flower garden in backyard)*

Mike: Uh ... where are your native plants? In my garden all I use are natives... (Posts picture of garden with native plants...)

Zoe: In MY garden, I totally replaced the lawn and planted vegetables. everyone should be doing this, and frankly I don't respect anyone who has a lawn... (removing you from my feed...)

Tesla: Is that a peony? OMG... Do you know they are from China? They could be poisonous...or something

Mary: *I just wanted to share a beautiful moment....*

Jim: You know there is a bagel shop in Washington D.C. that has a tunnel in the basement that leads all the way to China.....

Mike: So why is the peony featured in your picture. What about the poor milkweed put all the way in the back? Doesn't the milkweed have a right to be featured in your photo? #milkweed abuse....

Julie: My grandmother told me when she was young folks were told they could dig a hole all the way through the Earth to China. I think there has been a huge cover up...I saw William Shatner talk about this on television.....

Bobbie: Here is a picture of a meal I prepared last night with vegetables from my garden...along with pictures of our wonderful trip to Barbados...

Moondog: I just want to highlight the plight of the lack of proper light for stargazers in this area ...with my proposal to eliminate all lights in a city to (1500-word thesis on lighting with a description of every planet in the universe affected,,,,)

Tesla: Does anyone have any advice on how to start an herb garden? I could use plants, shovels, seed and soil and material for raised beds.....

Mary: uh..... **Tesla:** ...its August... a little late to begin a garden...

Tesla: oh I see **Mary**, its all about making a personal attack against me and my need to feed my family.....

Mary: *You know... I think I will take a break from Facebook for a bit.. I am heading out to the garden....*

.....

Volunteers helped install community gardens at the Allen County Extension Office in the spring of 2011

