



Hoosier Organic Gardener

January 2022

Indiana Organic Gardeners Association

IN THIS ISSUE

**President's
Message**

**A Yak About
Yacon**

**Why Potatoes
Turn Green**

**Encouraging
Healthy Soil**

**How Lightning
Helps Plants
Grow**

**October
Meeting**

**Upcoming
Events**

IOGA MISSION:

To educate ourselves and others in reasons for and methods of environmentally friendly gardening; and to encourage the reduction of chemical dependency in gardens, lawns and farms.

President's Message

Happy New Year! And off we go on a fresh start plus a rather easy winter so far. I always enjoy Indiana's long fall season but this one was really long.....no complaining on my part. My three compost bins are stuffed full of leaves and I keep adding table scraps daily. They don't break down as fast as in the summer and fall of course, but I turn them once a week and by Spring they will have changed quite a bit. I added a short article that I pieced together from one of my rather old organic garden books on soil preparation as far as high quality ingredients to add to your soil most of which can be purchased at most good garden centers. I get mine at Habig's, on 82nd Street, across from Whole Foods, on the corner.



Doug Rohde

A special shout-out to Margaret for the idea and work she did to have our October meeting at Purdue University's Jules Janick Horticulture Garden and the Purdue farm. Great coordination on her part! The day turned out quite well, the weather was a bit cool but not cold, everyone brought food and desserts to share and we enjoyed the day. After our tour and very informative lecture at the horticulture garden plus lunch, we drove to the Purdue farm. This was a walking tour and one of the really interesting tour and professional lectures as far as we have had in a while. We asked a lot of questions and received great explanations. Those of you who have missed the IOGA October meeting sure missed an interesting day. I was up there early to get a few things set up, took a short tour of the Purdue Union building, then slipped across the street to one of my favorite stores, Von's Bookstore. It's one of those old bookstores with creaking wooden floors, stacked full of books of every kind and with a talented and very knowledgeable staff that will get a book for you in a couple of days if it's not on the shelf. Von's is located down a half a block from Purdue's famous "Harry's Chocolate Shop" (no, no chocolate, just great beer) so after the farm tour I returned to the main campus and Harry's to "wet my whistle" before heading back to Indy. Judy kept great notes (as she always does) on the tour so you can read a more in depth account of the day.

On the 15th of January we are heading back to Cool Creek Nature Park for our January meeting. We are having a very interesting speaker from the Hamilton County Master Gardeners Association sharing how she "winters gardens". I've

Continued on Page 2

heard it before and really enjoyed it and I am anxious to repeat it as there were some things that I want to take more notes on how certain things she does that I forgot or missed. It's really an interesting lecture.

With Covid's latest edition hovering over us, I think by now most of us have had our two shots and a booster and will bring masks as we see fit, so you can still brown bag your lunch like we did last year and/or bring something for the pitch-in like we normally always did....your choice. Don't miss this meeting as it should be a good educational learning and fun day.

Margaret and I are working on the April plant sale and maybe we'll squeeze in Earth Day downtown if they have it. Stay tuned. Don't forget to send in your dues this month.

Doug

Keep IOGA Organic



A Yak About Yacon

by Paul Matzek

Yacon (yah-CONE) is a South American tuber, typically grown in the central to northern Andes for its sweet, crisp roots. With its crunchy texture it can be used in salads similar to water chestnuts. It can be boiled, dehydrated, roasted or processed into beverages, jams, syrup, vinegar, flour, chips and juice. The taste has been described as a cross between apples, watermelon and with a touch of pear. The sweetness comes from inulin which humans can't digest.

Yacon forms tubers and crowns, much like a dahlia. Intrigued, I ordered some crowns this spring, started them growing, and when danger of frost was passed, planted them in the bed with the sweet potatoes. Though the plants can get 5-6 ft tall, these put on growth very slowly. By November 1, when the first bloom opened, they were about 3 ft tall. They require a longer growing season. Frost turned them black shortly after, and that is the time to dig them.

I harvested 11 pounds of tubers from four plants. They are fragile, breaking easily during the uprooting process. They are full of water, in fact, yacon means "water root". I found the taste to be a very weak raw potato and carrot flavor. They sweeten with time so I left them out in the open for a week. By this time they started feeling soft and leathery, so I moved most of them to the cellar. Due to the high water content, they didn't keep well. The raw ends where the tubers had broken seeped water and soon began to discolor and mold.

I baked a couple tubers. There are a lot of benefits nutritionally to yacon, but flavor-wise I found it nothing to get excited about. A few days later I sliced and fried some baked yacon, along with sliced, baked sweet potatoes, one of my favorite things. The yacon was OK, the sweet potatoes much better.

One thing some of the information about yacon doesn't touch on is that, though it is good for the digestive tract, the fiber and inulin can cause gas and bloating. Both times I tried it I could have lofted a zeppelin. After that effect, I removed the tubers and the crowns I have stored for next year and cast them on the compost heap.

*Paul and Annie Matzek are IOGA members formerly living in
Elizabeth, Indiana, now residing in Meriden, Kansas.*

Shining a Light On Why Potatoes Turn Green

Whether store-bought or homegrown, potatoes will turn green when they are exposed to light. Most folks know that they shouldn't eat potatoes that have turned green, or should at least cut away the affected portion. But it's not actually the green color that is the problem.

The green color comes from the pigment chlorophyll, produced as a response to light. The potato tuber that we eat is actually a modified stem structure that grows underground. The "eyes" of the potato tuber are buds, which will sprout into shoots.

Potatoes will turn green when growing too close to the soil surface as well as when stored under even low-light conditions. Mulching potato plants in the garden and storing harvested potatoes in complete darkness will prevent them from greening.

Chlorophyll is not toxic. However, another response of the potato tuber to light exposure is increased production of a colorless alkaloid called solanine. The amount of solanine increases with the length of exposure and the intensity of light.

Consuming a large quantity of solanine can cause illness or even death in extreme cases. However, most people are not likely to eat enough of the affected tissue to cause illness because of solanine's bitter taste.

The highest concentration of solanine is in the skin of the potato; removing the green portion will also remove most of the toxin. Sprouts of the eyes are also high in solanine and should be removed before cooking.

The next time you see a green potato, be thankful for that color change because it is warning you of the presence of toxic solanine.

AgWeb – Purdue University Extension
October 22, 2020



Potato tubers turn green when exposed to light.



Potato tubers buds sprout into shoots.



Editor's Notes

If you haven't already sent your 2022 dues in to Larry, now is a good time unless you want to wait until the January meeting.

The **plant sale** will be in April so now is a good time to think about starting extra seeds and what other gardening items you would like to donate.

Please note the information about a **Seed Swap** on January 22 at the Hamilton County 4—H Fairgrounds on page 8.

Things To Do To Encourage Healthy Soil

By: Doug Rohde

Biological controls and cultural methods rarely wipe out a pathogen, but can reduce its numbers or its ability to produce disease. You can intensify the pathogen's antagonists by one or more of the following methods: using tillage methods that modify soil structure, crumb size, and aeration. Light spading is preferable to tilling. Add organic amendments that stimulate the antagonists, using inhibitory plants to reduce nematodes and some fungus pathogens. Here are a few things you can do to encourage the beneficial organisms in your soil.

Crop rotation: Probably the best method of control for soil borne pathogens. This works especially well with a winter cover crop of winter rye, clover, alfalfa or other like crops.

Adding organic amendments: Dig in winter rye, clover, alfalfa, straw, fall leaves, or mowed grass (not from chemical or fertilized and treated lawns). Do this about a month before planting.

Nitrogen: Get this from gradual decomposition of organic matter such as composted plant waste, manure. Clovers, alfalfa, fava beans, and other bean type plants lock this element into the soil by the nitrogen-fixing bacteria on their root nodules. Along with the just mentioned items are earthworms. They add nitrogen to the garden by converting unusable forms into usable ones and by contributing the nitrogen contained in their dead bodies. Nematodes, mites, snails, millipedes, centipedes and others help too. Their excreta and dead bodies enrich the soil with nitrogen proteins.

Phosphorus: Called the "Master Key to Agriculture" because crop production is due more often to a lack of this element than any other plant nutrient. Rock phosphate is especially effective in soils which have organic matter. Bone meal, dried blood, cottonseed and soybean meal are great additions.

Bone Meal and dried blood (blood meal): Garden stores also stock small bags of both. Blood meal is especially good for breaking down green fibrous matter in compost piles. Bone meal acts more quickly when used with other organic materials. Potatoes will have less potato bugs when rolled around in bone meal so that it adheres to the damp cuts. Sprinkle handfuls of bone meal in borders and between plants to chase out aphid-carrying ants from the lawn, flower beds and garden.

Compost: Probably the best organic fertilizer, compost can include any of all of the other materials listed above. Leaves, grass, vegetable debris waste paper, manure and a good number of other ingredients all combine to make this an excellent fertilizer for flower beds, orchards, garden trees and ornamental flowers. The ingredients will decompose naturally. To speed up the process, you can add materials high in nitrogen and protein such as dried blood, bone meal and manure. Avoid putting in fat or meat in the compost pile as they don't break down very well (plus they attract rodents and other animals). Shred or chop up all materials as small as you can before you add them to the pile as this speeds up the decomposition. In the garden, compost should be applied freely, from one to three inches thick a year. Flower beds need only a scattering. Orchard trees can handle a bushel of compost per tree.

The heat of the compost pile is what kills off most weed seeds, grubs and diseases on discarded vegetable matter, BUT the pile must be turned several times so that plants near the surface get a chance on the inside where the peak heat is generated. Because compost contains so many elements in proper amounts, it gives growers insurance against diseases prompted by any deficiencies. Compost also tends to balance soil that is too acid or alkaline since it itself is generally neutral.

Cottonseed Meal: Good for acid loving crops.

Continued on page 5

Granite Dust: It's rich in potash and potassium. The added ingredients may include chicken manure, fish meal, blood meal, greensand or any of several other organic fertilizers.

Grass clippings: Because they are so rich in nitrogen, grass clippings are useful as a green manure to be worked into the soil, for adding to compost piles or for mulching (again, NOT from chemically fertilized lawns!).

Greensand: Contains more potash than granite dust. Because it's an undersea deposit, it contains most or not all of the elements occurring in the ocean such as silica, iron oxide, magnesia, lime and phosphoric acid.

Herbs: Any plant with repellent qualities, including herbs, peppers, members of the allium family, can lend its repellency to a mulch.

Leaves: Just plain old leaves can work as a fertilizer. They are an excellent source of humus and mineral material, including calcium, magnesium, nitrogen, phosphorus, and potassium. Great for compost piles, especially oak leaves.

More things to add to your compost pile: Limestone, dried manure, fresh manure, newspaper, peat moss, phosphate rock, small amount of sawdust, seaweed and kelp, and a small amount of wood ashes. Mulching with wood chips is also good for garden paths.

Some bits of information from one of my old organic plant protection books.



How Lightning Helps Crops Grow

Lightning is nature's way of fertilizing. Nitrogen is a key nutrient for plant growth. Three fourths of the earth's atmosphere is made up of nitrogen, but this is unavailable to plants. The heat and electric energy from a lightning flash is enough to break the natural atmospheric nitrogen molecules into a usable form. This process is called nitrogen fixation. These atoms then often times form a new bond with oxygen in the atmosphere. When they do, the nitrogen dioxide molecule dissolves in the water of clouds, traveling down to earth through raindrops. There it seeps through the soil making the nitrates available to the plants.

This does not replace the need to add fertilizer to crops. It produces only about 7% of the nitrogen many fields need and the amount and timing are unpredictable. It does, however, provide a boost to plants in forests, pastures, prairies and other unmanaged land.

Indianapolis Star August 15, 2021



IOGA MEETING MINUTES

October 16, 2021

The meeting on October 16, 2021 was held at Purdue University, West Lafayette, Indiana. There were 12 members and 1 guest present.

Members began arriving at 11:00 at the Stevenson Pavilion on the grounds of the Jules Janick Horticulture Garden. We were met there by Professor Michael Dana who talked about the history of the garden. The garden was established in 1982. A re-construction began in 2019 with Dr. Janick as the lead donor. The Pavilion was constructed using funds donated by family and friends of Dr. E.C. Stevenson. The original greenhouses have been replaced, but the head house remains. There is a French drain along the side of the Pavilion nearest the street. A steam pipe which heats some of the buildings runs along the street side of the garden. This helps a banana tree survive the winter, but it was detrimental to plants planted on top of it. Professor Dana teaches 2 classes about perennials and one on annuals. There are many examples of perennial and annual varieties, along with some woody plants for structure, that are used for teaching purposes.



After Professor Dana's presentation about the history of the Horticulture Garden, members ate lunch and walked around the garden. There was a good selection of entrees and also a lot of desserts.

At 1:30 members drove over to the Student Farm for a tour led by Steve Hallett. After they were evicted from the original farm (which is now a subdivision), they convinced the university that another location was needed. They began clearing the land of honeysuckle and other invasives and started building the soil. The buildings were then built, nothing fancy. They try to keep it as realistic as possible for the classes. Most of the work is done by students and volunteers.

We met in the equipment shed which houses their walk-behind tractors, rototillers and a roller-crimper among others.



Continued on Page 7

There are 4 large hoop houses and crops are rotated. There is a lot of potential for disease in hoop houses. Peppers and tomatoes are their most important food crops for their CSA's and residence halls.

The 1st hoop house we visited was one in which they grow greens in the spring and fall. These are washed, spun, bagged and sold. There were rows of Red Russian kale which they sell as microgreens. They use a pinpoint seed-er for these.

The 2nd hoop house contained tomatoes. The roof and landscape fabric basically eliminates early blight. They prune the tomatoes at the bottom to maintain good air-flow. All suckers are removed and also all side growth below the fruit. Tomatoes grown outside do not get a lot of help and don't do as well as those grown inside.

The 3rd hoop house was the pepper tunnel. This is used for education only and researchers must follow rules of sustainability.

The 4th hoop house was the "crazy house". It is used for experiments with unusual plants. In the center they were growing red noodle beans to the ceiling. It has proven to be a popular crop, but it is difficult to harvest near the top. It also blocks sunlight to crops on the other side. Another plant popular with the CSAs and residence halls is ginger and samples were given out. They also were growing turmeric which didn't turn out as well. If you want to try growing ginger, you can purchase in a store, soak 48 hours to remove the growth inhibitor, chop and plant.

They also grow in outside plots. They had one section growing a cover crop of buckwheat, sorghum and hairy vetch. Outside the 4th hoop house they were growing kale which still looked good, but it was about time to tear it out and plant a winter cover crop.

The last stop was in the wash house where they clean the vegetables before sending them out. Food comes in one way and out the other. They clean and sanitize each day. The field workers are not allowed in the building until they have cleaned up. They use city water to wash and well water for irrigation.



Steve Hallett pulling ginger.



Judy Houser
Secretary



Upcoming Events of Interest

Wednesday, January 19 Indiana Native Plant Society Central Chapter- Bats of Indiana

This informative virtual program will help participants better prepare themselves to be a bat advocate year-round, dispelling bat myths and sharing interesting facts about these unique creatures such as what the bats of Indiana do seasonally and where they go in the summer versus winter. Speaker Brad Westrich, Mammalogist with Indiana DNR, will discuss the benefits bats provide people; how to help bats through gardening, landscaping, providing artificial habitats, and some out-of-the-box ideas too; and what to do if you find a bat under a number of scenarios. Open to everyone. Registration required at <https://bit.ly/3ccHekH> to obtain a link to the 7:00 p.m. program.

Saturday, January 22, 2022 Annual Central Indiana Gardeners Seed Swap

Sponsored by Hamilton County Master Gardener Association, this event will take place at the Hamilton County 4-H Fairgrounds, 9 am to 2pm. Free Admission, with food available to purchase! This is a Buy/Sell/Trade event, and be sure to visit the table of FREE SEEDS! There will be knowledgeable speakers, seed-saving demonstrations, and a Kids' Kraft Korner.



Purpose of Committee

Every gardener has extra seeds that often never get used. Bring them to our seed swap, and take home some new seeds. Even if you don't have any seeds to share, you're still invited. There will be plenty of seeds for everyone. Join us for an afternoon of meeting other gardeners and chatting about all things green and growing.

How it Works

1. Show up with seeds to swap (labeled in envelopes or bags).
2. Swap your seeds with other gardeners.
3. Have fun, try new varieties.
4. Socialize with other gardeners. Share and gain knowledge while making new friends.
5. Any extra seeds from the event shall be donated to the seed library.



History of Committee

This committee was formed in the gardening season of 2017. Committee chairs as of the end of 2020: Shelli Broadbent, Jenny Lambert, and Dennis Bean.

Saturday, January 29 Indiana Wildlife Conference

Indiana Wildlife Federation will offer an in-person event as well as a virtual attendance option. Attendance in-person will be available only to those who have been fully vaccinated against the coronavirus. Keynote speaker is Dr. Mamie Parker, the first Black woman regional director in the U.S. Fish and Wildlife Service, overseeing 13 Northeastern states and key conservation successes, including pivotal work to remove dams and restore fish passage for Atlantic salmon. She went on to serve as Head of Fisheries nationally. Popular speaker Jim McCormac will talk about Flora, Moths, and Birds, and Amanda Wuestefeld and Brad Westrich will present updates from DNR's Division of Fish and Wildlife. For in-person attendees, there will be a live bird demonstration by the Eagle Creek Ornithology Center and a catered lunch at the Garrison at Fort Harrison State Park. Fees range from \$25 to \$75 for in-person versus online participation and member/non-member status. Register online at indianawildlife.org/conference.

Ask us...!

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Treasurer's Report 4th Quarter 2021



Opening Balance September 30, 2021 \$6,290.11

Income	0.00
Total	\$0.00

Expenses	
Newsletter	84.40
Purdue University	100.00
Purdue University	100.00
Total	\$284.40

Closing Balance December 31, 2021 \$6,005.71

Respectfully submitted by Larry Bills, Treasurer

Upcoming Meetings

IOGA generally meets quarterly on the third Saturday of the month.
Mark your calendar for upcoming meetings.

April 16, 2022—Plant auction
July 16, 2022
October 15, 2022



How do I join IOGA?

Dues are \$10.00 per individual member, and \$12.00 for a dual membership (same address, one newsletter).

To join, please send your annual dues to: I.O.G.A., 7159 W 200 N, Tipton, IN 46072-8637

Please include ALL of the following information:

Full Name _____
2nd Name (if dual membership) _____
Address _____
Address _____
Phone Number _____
Email Address _____

I prefer my newsletter to be _____ emailed _____ mailed.



IOGA
Meeting
Sat. Jan 15

Cool Creek Park Nature Center
2000 E. 151st St., Carmel, IN ([Map](#))

11:00—12:00	Pitch-in/Brown-Bag Lunch
12:00—1:00	Introductions & Gardening Q&A, Business,
1:00	Speaker—Denise Miller

Because of Covid-19, masks will be required inside the building except during lunch, and social distancing will be in place. Also, because of the virus, it will be helpful to know how many will be attending. Therefore please let Margaret Smith know if you can attend and whether you are bringing a dish to share (email—margaret.smith803@gmail.com) or (cell phone 317-698-0526). We hope that many of you can attend.

Lunch: Bring a favorite dish filled with food (“home-made” and/or organic appreciated) to share and your plate, fork and drink. If anyone is not comfortable with that, please feel free to bring your own lunch. Kitchen facilities will be available.

Speaker: Denise Miller will speak about Winter Sowing.

Directions: From north I-465 in Indianapolis take Exit 31 north onto US-31 N / N. Meridian St.. Take Exit 129A to E. 151st Street. At the traffic circle take the 2nd exit (north). Go past the playground to the Nature Center where we will be meeting. The room is to your right. For more specific directions, click on MAP above.

Everyone welcome! Questions, or if lost, call Margaret Smith cell phone (317) 698-0526.

Join us and bring a friend!



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