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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.

More on GMOs

The March 2015 issue of Consumer Reports adds still more facts to the GMO debate. We hear about the supposed costs of mandating labeling of GMOs. It is interesting to note that more than 60 countries do have mandatory labeling without negative side effects to the market. Since there is virtually no independent research on the safety of GMOs, it is important that consumers at least have the right to know which products do have GMOs so consumers can then decide for themselves if they want a non-GMO product or not.



Processed foods often contain GMOs from corn, soy, canola, and sugar beets. Corn syrup from GMO corn is in many products including soft drinks, ice cream, and more. If a bag of sugar just says "sugar," then there is a high probability it is sugar from sugar beets and likely from GMO sugar beets. If a bag of sugar says cane sugar, it does not contain any GMO.

With GMO crops that are engineered to be immune to the effects of glyphosates (Roundup), the use of herbicides that kill weeds has increased almost ten times since the introduction of Round-Up Ready crops. The large use of glyphosates has resulted in super-weeds which have evolved to become immune to glyphosate. Dow AgriSciences recently got federal approval to sell its Enlist brand of GMO corn and soybeans which are resistant to both glyphosate and 2,4-D.

Increases in these herbicides can leave a chemical residue in food crops (consumed by humans) and in water runoff and can create health problems for humans.

REMEMBER ORGANIC FOODS CANNOT HAVE GMO'S. SO BUY ORGANIC FOODS TO BE SURE TO AVOID GMO'S. ORGANIC PRODUCTS HAVE BAR CODES WITH 5 DIGITS BEGINNING WITH 9

Prez Sez —

I am anxiously looking forward to IOGA's annual Plant and Garden Auction on April 18 at the Zionsville Public Library. I never know what type of wonderful things will be available, as folks bring in a variety of organic seedlings, plant divisions, books, seeds, and other items. For more information about this fun event, please see the last page of this newsletter.

-Lynne

January IOGA Meeting & GMO Lecture

The winter meeting of the Indiana Organic Gardeners Association took place at the King of Glory Lutheran Church in Carmel. After the delicious pitch-in luncheon, the Question & Answer (Q&A) period followed. Ron Clark has a system to get rid of Squash Bugs. One thing he does is place boards beside the squash plants. The squash bugs seek cover during the night and the heat of the day and can easily be destroyed when the boards are turned over. Onions planted in the garden, especially running onions, are effective in controlling pests.

One tip for seed starting was to get your starts as close to the grow lights as possible and to keep the lights close throughout the early growing stages. This will encourage your stems and stalks to grow thicker and hardier as they develop.

Another member said that asparagus beetles had destroyed one of her asparagus plants and she wondered if she should start over. Lynne Sullivan had the same problem once. She pulled out all of the plants and waited a few years to start over in order to interrupt the life cycle of the beetle. Lynne reminded us to plant complimentary plants such carrots and tomatoes to deter pests. Also, having chickens would be helpful as they eat the bugs. The [Agrarian](#), located at 49th and College, has lots of information about chickens.

Next, Michael Yagar from [Sophia Organics](#) told us about his worm castings. He brought a few of the 2# bags that he is selling at \$5 each. He uses African red worms which are fed peat moss and other non-GMO sources. The worm castings are a rich organic nutrient source, and a small amount can be placed in the hole when a seedling is planted. The worm castings are also good for house plants

Another member said that they had no luck growing spinach. Claudia said her spinach plants planted in the Fall were small but became quite large in the spring after over wintering under deep snow.

After a short break, our presenter, Dr. Kent Blacklidge, who has a Ph.D. from Purdue, was

introduced. He spent twenty years working for the *Kokomo Tribune*, but reading *The Silent Spring* by Rachael Carson changed his life. Thus began his interest in genetically modified organisms (GMOs). A strong principle with him from his newspaper background is that the public has the right to know. We should not be willing to be lab rats without our consent.



Dr. Kent Blacklidge
GMO Presentation

Dr. Blacklidge said that during the early 20th Century the focus was on small farms and local markets. Chemicals came into agricultural use after WW II. In 1972 DDT was banned. The year before that Earl Butz from Purdue had become Secretary of Agriculture. He told farmers to “get big or get out.” This meant planting many acres of a single crop and mass-producing animals, which essentially led to the demise of the family farm. Most of the processed food in groceries today is controlled by ten giant corporations.

Dr. Blacklidge said the four major crops that are genetically modified are soy (94%), corn (88%), cotton (93%), and canola (90%). Monsanto controls 23% of the patented seed market overall and 72% of the corn crop. He also said that Americans are in poorer health than people in other industrialized countries that do not allow GMOs.

In creating GMOs scientists isolate a gene that codes for a desired trait, which can then be transferred to another cell’s DNA by using a gene gun or a micro-injector.

It is now known that introducing a gene that codes for antibiotic resistance can lead to allergens and toxins in plants. The big seed companies try to say that there is no significant difference between traditional foods and GMO foods. They say it is the responsibility of the government to prove food safety, but others say that it is big seed companies’

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responsibility.

There are five main problems with GMOs. First, unpredicted changes in the DNA can lead to mutations, deletions, and altered gene expression, which will transcribe for altered RNA which can lead to altered proteins, but little testing for this is being done. A Dr. Pusztai did an experiment in which rats were fed GMO potatoes, and these rats developed precancerous cells growths and other problems. He was fired, and his research project was shut down. Later he was vindicated, and he continues to speak out against GMOs today.

Second, herbicide tolerance does not make the plants better for humans and animals and may have unintended consequences. Genes, such as those in Bt (bacillus thuringiensis) toxin, do survive passage through the digestive system. For example, in India Bt cotton causes itching in humans, and sheep died after grazing on the Bt cotton plants.

Third, the protein coded for after the genetic alteration may be different than what was intended. For example, mad cow disease is caused by a protein that is folded differently, and sickle cell disease is caused by a different amino acid sequence. Thus, a minor change may have serious consequences.

Fourth, there is a greater and greater use of herbicides, which has increased to 527 million pounds from 1996 to 2011. This has all led to the development of “super weeds,” resistant to herbicides. There has been a great increase in the incidence of autism, dementia, diabetes, and other diseases that correlates almost directly with the increase use of glyphosate (Round Up).

Fifth, the transfer of trans genes to gut bacteria is optimized since the genes are not destroyed. This could turn our intestinal bacteria into living pesticide factories.

Assessments of GMOs are based on industrial studies, not scientific studies. In Europe, McDonalds and Burger King have taken GMO foods off the market. While many countries do label GMO foods, the US does not. Monsanto says, “Trust us,” but they gave us DDT! Some states have tried to require labeling of GMO foods, but most bills have been defeated by the big companies.

Dr. Blacklidge told us to buy organic, grow organic, and buy products that are labeled non-GMO. The big companies are trying to avoid liability because they don't want an evidence trail leading back to them. **If a product's code starts with a 9, it is organic.**

In closing his most informative presentation Dr. Blacklidge recommended some good books that talk about GMOs. Ann Leatherman agreed to read *Organic Manifesto*, an excellent book by Maria Rodale, and write a review for our newsletter. Also recommended were *Genetic Roulette* and *Seeds of Deception*, both by Jeffrey Smith although he does not have a scientific basis and training.

A short business meeting followed. Sheets were passed out, telling us how we can contact our representatives to let them know we are in favor of labeling GMO foods. Lynne reminded us that our annual dues should be paid now. Bags and shirts with our logo were available for sale on a side table, as well as some free books. Our next meeting will include our annual Plant and Garden Auction at the Zionsville Public Library.

- Margaret Smith, Secretary



Some of the Delicious Desserts Served at the Pitch-In Lunch

Roundup Linked to Cancer Risk

In a March 20, 2015 [report](#) the International Agency for Research on Cancer (IARC), the specialized cancer agency of the World Health Organization classified herbicide glyphosate (the main ingredient in Roundup) as *probably carcinogenic to humans* (Group 2A).

The report states that there was *limited evidence of carcinogenicity* in humans for non-Hodgkin lymphoma. The evidence in humans is from studies of exposures, mostly agricultural, in the USA, Canada, and Sweden published since 2001. In addition, there is convincing evidence that glyphosate also can cause cancer in laboratory animals.

The report states that glyphosate also caused DNA and chromosomal damage in human cells, although it gave negative results in tests using bacteria. The report states that one study in community residents reported increases in blood makers of chromosomal damage (micronuclei) after glyphosate formulations were sprayed nearby.

The report states that glyphosate currently has the highest global production volume of all herbicides. The largest use worldwide is in agriculture. The agricultural use of glyphosate has increased sharply since the development of crops that have been genetically modified to make them resistant to glyphosate. Glyphosate is also used in forestry, urban, and home applications. Glyphosate has been detected in the air during spraying, in water, and in food. The general population is exposed primarily through residence near sprayed areas, home use, and diet, and the level that has been observed is generally low.

Group 2A means that the agent is *probably carcinogenic to humans*. This category is used when there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals. Limited evidence means that a positive association has been observed between exposure to the agent and cancer but that other explanations for the observations (called chance, bias, or confounding) could not be ruled out. This category is also used when there is limited evidence of carcinogenicity in humans and strong data on how the agent causes cancer.

A good article by Andrew Pollack about the IARC report appeared March 27, 2015 in the New York Times entitled, [Weed Killer, Long Cleared, Is Doubted](#).

History of Zucchini Squash

[Zucchini](#) is one of the most popular vegetables grown in gardens today. It is prolific (sometimes too prolific) and extremely versatile. It is used as a fried or boiled vegetable, as a raw vegetable for salads and dips, in breads and desserts, in soups, and even the flowers are eaten. Your editor was thus surprised recently when reading in [Organic Gardening Magazine](#) that in their 1979 magazine they wrote that “zucchini, once unusual in American gardens, is increasing in popularity.”

Zucchini like all squash, has its ancestry in the Americas. However, the varieties of squash typically called “zucchini” were developed in Italy. Zucchini was developed in Italy and became prominent in the food world in Italy during the late 1900s. It was probably brought to the U.S. in the 1930s by Italian immigrants.

Zucchini needs bees for pollination and thus in areas without a high bee population and where pesticide use is high the result can be zucchini that does not mature but dries or rots because not enough pollen is delivered from the male plant to the female flower.

Ask us...!

President – Lynne Sullivan
(317) 574-1921
sagaemoo@yahoo.com

VP/Programs – Karen Nelson
(317) 366-1954
karenjn56@yahoo.com

Secretary – Margaret Smith
(317) 283-3146
margaret.smith803@gmail.com

Treasurer – Ron Clark
(317) 769-6566
ronaldrayc@gmail.com

Editors – Claudia and Ron Clark
(317) 769-6566
ronaldrayc@gmail.com



Lasagna Gardening

by Paul Matzek

Stumbling onto my copy of Lasagna Gardening by Patricia Lanza last spring pushed me over the edge. I had gotten really interested several years ago, but had not tried it. After all the snow and sub-zero weather, I was getting a pent-up case of gardening fever that thumbing through the seed catalogs wouldn't ease, so, on February 19th, a rare sixty degree day that had erased a lot of the remaining snow, I set out into the mud to make the attempt.

Lasagna gardening gets its name from building a bed from layers of various organic materials, like layers of lasagna in a pan. Materials called for are newspaper, peat, barn litter, compost, grass clippings, chopped leaves, and wood ashes.

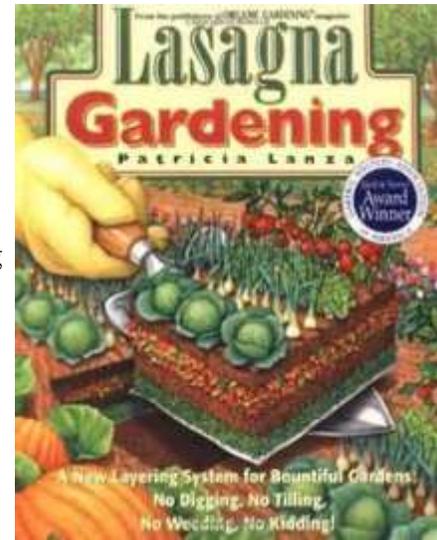
On our clay hillside I knocked together a crude frame of packing crate boards about a foot high to help hold materials in place. First in the enclosure was a thick layer of newspaper to suffocate grass and weeds, followed by layers of horse manure and bedding, leaves, dry grass, compost, ashes, stalks and leaves cleaned from the asparagus bed, plus more manure.

Since I'm not new-age enough to fathom growing without dirt to provide minerals, I added a layer of dirt and humus I teased from the brambles and roots in the woods to the middle, then capped the bed with three inches of the same. Included were a number of earthworms. I imagine generations from now earthworm lore in the bed will have stories of how their ancestors were torn from their homes in the woods and forced to toil in the penal colony, though they were guilty of nothing but being good workers.

Adding up the thickness of the layers indicated the bed should have been about 57 inches high, but it measured only about 20. I must have a faulty tape measure. We covered the bed with black plastic to help it cook until planting time.

At appropriate times we planted samples of peas, carrots, beets and bush beans. By mid-July, I was far enough along to rate the results. The bed was about 10 inches high. The peas were pathetic. Half as tall as those in our established garden bed, the yield was underwhelming. But considering their small root system, I do believe they were planted too close to the edge to get adequate moisture from the layers of the bed. The carrots were vigorous and healthy, though a few pulled to thin them show crooked, misshapen roots. I surmise they grow down until they hit compacted leaves, then start snaking their way between them to continue downward. Beets performed nicely, and the green beans were producing quite well. Though the dirt on top was dry, a hand plunged eight inches deep into the pile came up with material that was quite damp.

I would suggest building lasagna beds in the fall. Solid wood sides to hold moisture at the edges would be of benefit over the boards at the top of the heap as I did. By spring the pile will have settled down and will make a better growing medium.



Lasagna

Starting Seeds Inside

by Claudia Clark

STARTING SEEDS

We use the following steps when starting and growing seedling indoors:

1. Use potting soil (We use Happy Frog brand that we get from Worm's Way in Bloomington or Urban Farmer Garden Center in Westfield. Other locations.) Mix 4 parts soil to 1 part water. Mix well.
2. Fill a tray of containers with the moistened potting soil and put one or two seeds in each container. Containers may be just paper cups with holes in the bottom. Pat down soil gently over seeds.
3. Place tray inside a large plastic bag (to retain moisture) and set on an electric blanket set to Low. Do not place in sunlight.
4. In a few days check to see if some of the seeds have germinated and are showing some green stems/leaves. Germination may take anywhere from a few days to 10 days or more. Tomatoes take roughly 5-7 days. Peppers take a really long time, maybe 7-10 days longer.
5. The seeds that have germinated should be removed from the plastic bag and placed under a grow light if available. Otherwise, place the young plants next to a south facing window. Under a grow light you get plants with stronger stems by placing them immediately under the light so that they are almost touching the light. As the plants grow taller, move the lights higher so that the plants continual to almost touch the light. This will result in the strongest and sturdiest stems.
6. To water the small plants, water them from the bottom (to prevent rotting) by removing the containers from the tray and placing them in a large tray filled with about an inch of water. Leave the seedlings in the water for several hours until the moisture is fully absorbed. You should be able to see the wetter soil on some of the plants. Every two weeks, add some liquid organic fertilizer to the water.
7. Keep the plants under the grow lights until a few weeks before planting. Then put them outside for an increasing number of hours each day to get them adjusted to the outdoors. This is called "hardening them off." We place the plants outside next to a south facing wall under some old storm windows that lean against the house and eventually leave them there overnight. We open or close off the sides of the windows depending upon the temperature. (Probably not a good idea to use liquid fish fertilizer on the plants when they are left outside unprotected — Raccoons!)



WHEN TO PLANT SEEDS INDOORS

Plant tomato seeds April 1st or about six weeks before planting outside. Plant pepper and basil seeds March 15 or about 8 weeks before planting outside. Also, plant broccoli, cabbage, lettuce, spinach, and parsley seeds about March 15th.

WHEN TO PLANT PLANTS OUTSIDE

Plant the broccoli, cabbage, lettuce, and spinach seedlings outside in early to mid April. Plant the tomato plants outside May 15th. Also, plant peppers plants May 15 if they are big enough.

WHEN PLANTING TOMATOES

Dig a hole deep enough so that half of the plant is in the hole, with only the top half above ground. Add organic fertilizer to the hole and water thoroughly. Place the plant in the hole and cover with dirt. Roots will develop from the stem of the plant that is under the dirt. Another option is to lay the plant down and plant the lower half of the plant in a shallow trench next to the plant with the top half of the plant above ground.

LETTERS:



Letter from the Cobbs

(Editors' Note: Beulah and Clarence Cobb are the only charter members of IOGA still members of IOGA. Beulah attended the first organizational meeting of IOGA in the early 1970s.)

Dear Claudia and Ron,

I am glad that you are having Dr. Blacklidge as a speaker on GMO's. I think we have a right to know what we are eating.

I have tried to talk to farmers about this and they say things like, "there's lots of money in corn and beans and if the Gov't says it's safe — then GMO's are safe for humans and environment." It's a very big hurdle to surmount.

I am sorry I can't be there on Saturday. I am not driving on the bad roads or "long" distances. Clarence does not drive at all.

Keep me posted. Thanks.

Beulah Cobb

Gayle Swant, 1953-2014

Ron and Claudia,

I am sad to let you know that my partner of 33 years, IOGA member, and half of Yeager Farm Produce Gayle Swant passed away Dec. 26 after her courageous battle with cancer. I believe that I mentioned her illness to you last summer. I have decided to close the Farm. Hope to see you in April.

Kathy Ambler



Gayle Swant

UPCOMING MEETINGS

Mark your calendar

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

April 18, 2015
(Plant Auction)
July 18, 2015
October 17, 2015
January 16, 2016



While at the White House Last Fall Doug Rhode Was Given a Tour of Their Garden

Grafted Tomato Plants

Ron and Claudia,

Last year I tried some of the grafted tomatoes as my dental hygienist had told me about the grafted tomatoes she had grown in 2013. She said they had wonderful flavor and produced so well. I recently talked to her about last year's crop and she said the grafted tomatoes she grew did not do any better than the non-grafted ones. That was the experience I had had last year. I grew three grafted San Marzano tomatoes and three from seed I had started of the same variety. I could tell no difference between the two. The April issue of Fine Gardening Magazine has an article about grafted tomatoes grown in Charlotte, NC last summer. They grew two varieties, Big Beef and Carmello using both grafted plants and non-grafted plants. Their conclusion was there wasn't a whole lot of difference in the amount of tomatoes produced. With good soil, the non-grafted tomatoes had more tomatoes per plant and were larger than the grafted plant. However, in poor soil, the grafted plants had more tomatoes per plant and were larger than the non-grafted plants. An interesting outcome. Perhaps some IOGA members have had experience with grafted plants. If so, what is your consensus?



Pam Sims

Editors' Note: The latest craze is grafted tomatoes. Producers are grafting familiar heirloom and hybrids tomatoes onto disease-resistant and insect-resistant roots. The Territorial Seed Company even has a grafted potato/tomato, potatoes on the bottom with tomatoes on top. Park Seed company claims that their grafted tomatoes have 1) bigger and tastier fruit, and more of them, 2) better pest and disease resistance, and are 3) less stressed by bad weather and poor soils. Some of the companies that are offering grafted tomatoes are the following: Park Seeds, Burbee, Garden Harvest Supply, White Flower Farm, Jung, and Territorial Seed Company.

In a discussion at Dave's Garden, it was stated that that grafting is done primarily for soil borne diseases and that the major tomato diseases in the northern states are foliage diseases, not soil borne diseases.



Left is Jennifer Kost-**Baker's** Mexican Midget Tomato Plant that She Got at the IOGA Plant Auction Last Year from Debbie Voelpel. Jennifer says that **she "loves that my daughter can pick these and snack on them while we're working in the garden"**

Local Food Guide

Again this year IOGA is helping sponsor the Guide to Local, Sustainable & Organic Food in Central Indiana that is distributed by The Food Coalition of Central Indiana. The guide includes listings for farms, farmers markets, CSAs, wineries, brewers, and food business and restaurants that source locally. The guide also highlights when local produce is in season with an annual harvest calendar created by urban growers in Indianapolis.

The Food Coalition of Central Indiana's Local Food Guide has become a much anticipated resource for families, chefs, and business owners. Check out the Central Indiana Local Food Map of markets, farms, wine/alcohol, businesses, and/or local gardens.

Earth Day Indiana

free outdoor festival

Saturday April 25 • 11 a.m. to 4 p.m.

Fun, Exhibits, Food, Children's Activities, Live Music

**Celebration Plaza
at White River State Park
801 W. Washington St., Indianapolis**

www.earthdavindiana.org

Visit the IOGA Booth



Treasurer's Report



1st Quarter 2015

Opening Balance Jan. 1, 2015	\$4267.21
Income	
Membership Dues	\$ 666.00
T-Shirts & Bags	\$ 5.00
Donations	\$ 65.00
Total	\$ 736.00
Expenses	
Newsletter (Stamps)	\$ 39.20
Local Food Guide Sponsor	\$ 75.00
Liability Insurance	\$ 200.00
Speaker Fee	\$ 100.00
Earth Day Registration	\$ 46.00
Business Entity Report	\$ 7.14
Room Deposit	\$ 100.00
Total	\$ 567.34
Closing Balance Mar. 31, 2015	\$ 4435.87

Respectfully submitted by Ron Clark, Treasurer

New IOGA Members

Katherine Lehman, Noblesville, IN 46060

Stephanie Lynn Myers, Carmel, IN 46033

Lorie Lee Andrews

Diana Harrington, Greenwood, IN 46143

Michael Yegar, Indianapolis, IN 46220

Kent & Marcia Blackledge, Kokomo IN 46902

Dustin Matzek , Kansas City, KS 66106

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:

Please include ALL of the following information:

I prefer my newsletter to be emailed mailed.



I O G A

7282 E 550 S

Whitestown, IN 46075

Full Name

2nd Name (if dual membership)

Address

Phone Number

Email Address



IOGA
Meeting
Sat. April 18
10:30 am

Annual Plant Auction at Zionsville Library
250 North 5th Street, Zionsville, IN ([Map](#))

317-873-3149

- | | |
|-------------|--|
| 10:30 | Arrive with Auction Items |
| 11:00—11:45 | Great Pitch-in Lunch
(bring food to share plus table service) |
| 11:45—12:40 | Introductions, Q&A, and Business |
| 12:45 | Auction Begins |

Plants, books, and garden items will be available for auction. Your donations are appreciated. Please label plants. Proceeds will be used to fund future IOGA programs. Each year the IOGA plant auction is attended by recently converted organic gardeners who are looking for plants and ideas, as well as those who have more experience and have lots of plants, tips and techniques to share.

For the pitch-in lunch, bring a favorite dish filled with food ("home-made" and/or "organic" appreciated) to share and your plate, fork, and drink.

From I-465 take the Michigan Rd./421 exit #27. Then go north 2.3 miles and turn left on E Sycamore (W 116th St.) and go 1.1 miles. Turn right onto S 1st St. and go 0.2 miles, taking the 3rd left onto W Oak St. Go 0.2 miles and turn right onto S 5th St. Park on the 5th St. side of the library (lower level). Or,

From I-65 take the Zionsville exit #130. Go east 4.8 miles on W Oak St. through Zionsville and watch for 5th St. Turn left onto S 5th St. Park on the 5th St. side of the library (lower level).

Everyone welcome! Questions, or if lost, call Karen Nelson cell phone (317) 366-1954.

Remember to car pool, if possible.

Join us and bring a friend!

Hoosier Organic Gardener
Claudia and Ron Clark, editors
7282 E 550 S
Whitestown, IN 46075



Join us!
IOGA Meeting
Sat. April 18