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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.

## President's Message

IOGA Plant Sale.....It's great to say/print that without a Covid dark shadow hanging over it. We had an interesting January meeting with Denise Miller giving the presentation on "winter gardening," I found the information really interesting and have several gallon milk cartons set out with perennial seeds like New England Asters, Butterfly Weed, Milkweed and Joe-Pye Weed. Too many of our native plant names have the word "weed" in it and that adds to some misunderstanding by some people who are not gardeners or aware of native plant (pollinator) species. Last fall I ordered some pollinator houses from Crown Bees (Google it). They look like Wren houses but have an open



Doug Rohde



end so that you can insert bee tubes (order some of these too). I also included a wire protection for that end to keep the woodpeckers from lurching on the bee tubes once they have eggs/cocoons in them. I drilled out the attachment hole a bit, inserted a bolt with nut that can be attached to one of those green, metal garden stakes (a 5 or 6 foot one) that you can find at Menards, Home Depot, etc. I got two kinds of bee tubes, one bunch for Mason Bees and another for Leaf Cutter Bees.

Last fall, I decided that those of us gardeners who volunteer at one of our local city parks should dig up one of our large pollinator beds, save what native plants we were sure of and completely dig up the whole bed and start anew. We ordered a complete package of native seeds from Prairie Moon (Google it) and spread the seeds out, tapped the seeds into the soil and now we'll see what comes up this Spring. It will take about 3 years for the bed to have all the seeds blooming and I can't wait.

At our January meeting everyone brought the usual IOGA fantastic pitch-in food and it sure was great to start to get back to normal. I definitely like it at Cool Creek Park, especially for our plant sale. Plenty of space for the plants, food and us. We'll be working up new places to visit for July and October. Cool Creek is easier to hold our meetings at as they aren't so fussy about running a cleaner, putting away the chairs and scrubbing down the place like it always was the case at the local libraries and no "shushing" either.

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So, you should have had your seeds planted in early March and the plants well on their way. I like to go to Kroger or wherever and get a package of plastic tumblers. I punch out 4 holes in the bottom with a nail, fill with potting soil, drop the seed in and just keep them moist. Works for me. The outside plastic gallon milk containers are the easiest to do as there's limited fiddling to take care of them and since they are planted ONLY with perennial seeds, they don't mind being frozen but probably don't like getting dried out.

My 3 compost bins have been doing well. One is ready to go into my big raised bed, the middle bin will be shoveled into the then empty large one and the last one just has excess oak leaves in it so the contents will move into the middle one and since the 3rd one is a sturdy wire bin, it gets folded up and put away until the fall. I never put any chemical fertilizer on my back yard so all leaves and grass can be composted without any concern for chemicals.

Looking forward to see everyone on Saturday, April 16th. And, it's still OK to wear a mask if you wish.

Keep IOGA organic!

Doug



## WHAT IS THAT SMELL BEFORE THE RAIN?

Dark clouds crowd the sky with their dim overcast shadows. Lightning cracks and a roll of thunder quickly follow. But before the rain starts to pour, a distinct smell lingers in the air. A frequently asked question is what exactly the smell before it rains is, and why it occurs. Professionals in atmospheric sciences from the University were able to answer the question.

According to Stephen Nesbitt, a professor in atmospheric sciences, the scientific name for the smell that comes before rain is petrichor. Nesbitt explained how the scent is created. "It's actually a bunch of chemical interactions that happen as the rain falls through the sky and also when it hits the surface and hits things like plants," Nesbitt said. "It's all chemistry."

Troy Zaremba, a graduate student studying atmospheric sciences, explained how plants interact with rain to create the smell. "When it's dry, plants will secrete oils and stuff that helps prevent other plants from sprouting up nearby," Zaremba said.

Robert Rauber, a professor of atmospheric sciences and the director of the School of Earth, Society and Environment, said that the oils fall into the soil and interact with bacteria. He explained what happens to these oils when it rains. "When it rains, these bacteria produce spores (airborne reproductive methods) that carry those oils mixed with other chemicals". "There's a particular chemical called geosmin that creates that fresh smell that you smell when it rains."

Nesbitt said that the smell is produced as the first few droplets of rain start to hit the soil at the beginning of a rainstorm. These initial interactions are usually what is smelled. "When the rain starts to hit plants, when the initial few drops start to fall, that's when those chemicals are released."

While petrichor is the smell that occurs before a rainstorm, Nesbitt and Rauber said that thunderstorms have a slightly different scent. "I'm going to describe it as an electrical smell," Rauber said. "But that's actually ozone you're smelling and ozone is produced by electrical charges."

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During a storm, lightning heats the air in the higher atmosphere and scatters the existing nitrogen and oxygen particles. Sometimes, three of the free-floating oxygen atoms combine and form ozone. The scent is noticeable after this process. Wind serves as the carrier of these smells. Nesbitt said that after storms produce cold air through processes in the upper atmosphere, the air is released and takes the smell with it. “You’ll feel that cold air start to rush towards you. That cold air rushes out of the front of the storm, but then also brings, for example, some of the ozone that might have been released by lightning up in the clouds.” The air carries ozone, bacteria spores and plant oil in it and is the reason it is possible to smell a storm before it hits a certain area.

To both Rauber and Zaremba, the scent of rain reminds them of spring. “I just find it very fresh,” Rauber said. “I think, if anything, it kind of brings this fresh ‘spring is here’ type of mood that you get.” Nesbitt, however, has a different experience. “It just kind of smells a little moldy, like when you’ve been down in your basement and you haven’t had a lot of ventilation.” According to Nesbitt and Rauber, rain in the Midwest is comparatively different than it is in other parts of the U.S. For example, the Midwest experiences a variety of storms and the full range of seasons. Rauber said that the Midwest is also prone to having stratus clouds. “Stratus clouds are big sheets of clouds that cover large areas and produce rain for long periods of time, but at a relatively low intensity.” Similarly, Nesbitt said that rain droplets in the Midwest are smaller and more frequent in number and that in warmer areas, they are larger and fewer in number. He said that this is because of the difference in the type of aerosols — liquid and solid particles in the air. “All raindrops form on a tiny dust, salt or pollen particle. The chemical properties of those aerosol particles can lead to different precipitation processes.”

Nesbitt explained how this applies to the Midwest. “A lot of our rain is formed on tiny aerosol particles that come from the soil. If you go down to the tropics...their precipitation is formed on salt particles.”

Neither Rauber, Nesbitt or Zaremba think that climate change will impact the smell itself. But they do believe that it will affect the frequency that the scent occurs. “I think those processes are going to happen in a warmer climate as much as they do now,” Nesbitt said. “We will probably have more precipitation and perhaps more severe storms going into the future here in the Midwest.” Zaremba also said that there will be more storms in the future. “I think like with climate change, you definitely have more extreme precipitation events because warm air can hold more water. So basically, you end up getting more precipitation.”

The Daily Illini  
By [Faith Allendorf](#), Features Editor  
March 23, 2022

## EARTH DAY IS APRIL 22, 2022

The theme for Earth Day 2022 is **Invest In Our Planet**.  
Take action and make a difference today.



### EARTH DAY INDIANA FESTIVAL



June 4, 2022  
11:00 am -5:00 pm  
Garfield Park  
2345 Pagoda Dr.  
Indianapolis, IN

# Beulah Cobb

Beulah Cobb, 96, passed away peacefully on January 14, 2022 in Indianapolis, Indiana attended by her family.

She was born in Howard County, Indiana, on November 8, 1925 to Carrie Leoda (Troyer) and Joseph Elmer Marner. She was the second of six children and the only girl.

After graduating from Jackson Township High School in 1943, Beulah was the first in her family to attend college. She worked her way through Goshen College, graduating in 1948. She taught science and history in Ohio before returning to her first love, medicine. She was among the first small, select group of students in Indiana to complete training as a medical technologist.

In 1956, after working at St. Elizabeth's Hospital in Indianapolis, she married Clarence M. Cobb, MD on October 13 at The Church of the Nazarene in Zionsville, Indiana. They lived in Logansport and later in Indianapolis while they raised their two children, Daphne Rue (Cobb) Harris (Indianapolis) and Clay Marner Cobb (Los Angeles). After Clarence retired, they bought a farm in Howard County, close to Beulah's birthplace, and they remained there until Clarence's death on March 15, 2019.

Beulah's mother's family were early members of Howard-Miami Mennonite Church, and Beulah attended as long as she was able. She was an active member of the Heritage Society and the Women's Quilting Circle. She developed an antique business specializing in Indiana primitives, Cobbweb Corners, and exhibited at quilt shows across the country. Her quilt collection was featured in Quiltmania. A passionate lover of trees and gardens, **Beulah was a founding member of Indiana Organic Gardeners Association following Earth Day 1969.** She also served as a board member of the Greentown Historical Society. She and Clarence received a Conservation Award from Howard County in February 2012.

Beulah was preceded in death by her parents, Carrie and Joseph Marner, brothers Eugene (Audrey), Kenny (Barbara), and Larry (Lorine) Marner. She is survived by her brothers Wayne (Beverly) and Wilbur (Donna) Marner, children Daphne Harris and Clay Cobb, stepdaughters, Judith (Cobb) Dailey and Cathy Cobb, as well as four step-grandchildren, and one step-great-grandson.

A celebration of life will be held from 2 p.m. to 4 p.m. on April 20, 2022 at Mast-Hensler Cemetery, 3828 600 E, Kokomo, Indiana 46901.

Kokomo Tribune 1/16/22



*Beulah Cobb and her husband Clarence were among the founding members of the Indiana Organic Gardeners Association (originally the Indiana Growers Association). She was elected Treasurer in February, 1980 and was responsible for the newsletter from 11/79 to 1/84. She was currently an IOGA member. Her daughter reports that as recently as the summer of 2020, Beulah and she cultivated an abundant organic garden and raised organic chickens at her farm near Greentown. Beulah cared deeply about organic farming and influenced so many others to care too. Truly, her legacy lives on. For more on the Cobbs, see the October 2009 issue of Hoosier Organic Gardener on the IOGA website)*

# IOGA MEETING MINUTES

## January 15, 2021

The meeting on January 15, 2022 was held at Cool Creek Nature Center, Carmel, Indiana. There were 16 members and 1 guest present.

Members met at 11:00. and conversed among themselves before enjoying a bountiful pitch-in lunch. At 12:30 President Doug Rohde began a short meeting. He announced there would be a seed swap at the Hamilton County 4-H Fairgrounds on January 22nd. IOGA's next meeting will be on April 16th and will be our annual plant auction. He advised starting seeds now. Earth Day will be held June 5th at Garfield Park in Indianapolis.



At 12:40, Denise Miller, Hamilton County Master Gardener, began a presentation on "Winter Sowing" which basically is starting seeds outside in clear plastic mini-greenhouses. Seeds can be started any time after the winter solstice. Take a clear plastic container that will let the sunlight in. Make holes in the bottom and the top to allow for drainage and air flow. This also allows rain and snow to enter. If the temperature is 50° outside, it will be 70° inside the container.

If using a milk jug, wash in soapy water and rinse. Cut all the way around, starting at the bottom on one side of the handle and ending at the other side leaving a hinge. If you are using a 2 liter bottle, cut it in half. For either, leave the cap off for air circulation and to allow moisture in. Drill holes in the bottom for drainage. You can also use a large clear tote or even a roasting pan with a clear lid as a mini greenhouse. Fill with small pots.

Use regular potting soil about 3" deep. Plant your seeds. Place in a large container, soak well and allow to drain. Use duct tape to seal the edges together.

In January start those seeds that need cold stratification. Perennials can be started in January or February. Annuals, vegetables and herbs should be started mid-March. Keep tops on as long as there is frost.

When the weather is warm enough take the container tops off during the day. Denise has so many containers that she uses a sheet on sawhorses at night and takes it off during the day.

Label your containers. Permanent markers don't work. Denise recommends using a #2 pencil on mini blind slats.

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Once your containers are ready, set them outside but not under the eaves of your house. Do something to make sure they don't fall over. Keep the soil moist, adding water as needed.

When seeds are ready to transplant, water, then take the whole pillow out and break off hunks and plant.

Denise recommended joining the "Winter Sowers" FaceBook group for tips and advice.

Judy Houser  
Secretary



## PLANT SALES

May 7th and 8th 9:00-1:00

**Indy Urban Acres**  
7900 Shearer Rd  
Indianapolis, IN

Organic vegetables, herbs, native plants and flowers.

100% of all sales support the work of Indy Urban Acres. Indy Urban Acres, a project of The Parks Alliance of Indianapolis, is a collection of organic farms used to empower and educate people by providing equitable access to free, high quality produce.



May 21st 8:00-3:00

**Hamilton County Master Gardener Assn's 23rd Annual Plant Sale**

Hamilton County 4H Fairgrounds  
2003 Pleasant St.  
Noblesville, IN

Large selection of plants including: native plants, hostas, daylilies, perennials, vegetables, water plants and some shrubs and small trees.

Bearded iris dug to order.



# WHAT IS PARTIAL SUNLIGHT: UNDERSTANDING PARTIAL SUN PATTERNS

By: Susan Patterson, Master Gardener  
Submitted by Douglas Rohde, Master Gardener

In order for plants to survive and thrive, they require certain things. Among these things are soil, water, fertilizer and light. Different plants require different degrees of light, some prefer morning sun, some like all day sun, some enjoy filtered light throughout the day and others shade. It can get confusing to sort through all these light requirements. While sun and shade are pretty straightforward, partial sun or partial shade are a little more ambiguous.

Sometimes determining sun density and partial sun patterns can be a difficult thing. Sunlight is necessary for photosynthesis, which is the process by which plants make food that they need to thrive. Most light requirements are listed on the seed packets or on the plastic inserts that are found in potted plants. These light requirements are relative to the amount of sun necessary for plant food production.

## What is Partial Sunlight?

Many gardeners ask the question, are part sun and part shade the same? While partial sun and partial shade are often used interchangeably, there is a fine line between the two. Partial sun generally means less than six and more than four hours of sun per day. Plants for partial sun will do well in a location where they receive a break from the sun each day. They like the sun but will not tolerate a full day of it and need at least some shade each day.

Partial shade refers to less than four hours, but more than one and a half hours of sun. Any plants that require partial sunlight should be provided with the minimal sunlight requirements. Plants that require partial shade should be planted in locations where they will be sheltered from the hot afternoon sun. Partial shade plants may also be referred to as those that need filtered or dappled light. These plants thrive under the protection of other larger plants, trees or even a lattice structure.

## Measuring Sunlight

The amount of sunlight that certain areas in your garden receive changes with the season and budding of trees and plants. For instance, a location may receive lots of sun in the early spring, but once the leaves on trees bud out, it may receive less sun or filtered sun. This can make determining such things as partial sun patterns difficult to assess, making the choices of plants for partial sun just as hard. However, if you want to be sure just how much sunlight your plants are receiving, you can invest in a Suncalc, which provides accurate sunlight measurement. This inexpensive device allows you to test certain locations in your garden before planting. After twelve hours of measurement, the device will let you know if the area receives full sun, partial sun, partial shade or full shade. If exact measurements are necessary, this is a good little tool to invest in.

I have this exact shade/sun problem in my backyard garden and determining what to plant and where. DR

*See the [Vegetable Container Gardening Guide](#) on the next page for information about the light requirements for specific vegetables.*

I have found this chart really helpful for me to know as two of my garden beds only have sun in the mornings and the rest of the day it's shade. I know many others who wonder what grows well in shade.

Doug

## Vegetable Container Gardening Guide

<u>Vegetable Plant</u>	<u>Minimum Light Requirement</u>	<u>Space Container Size</u>	<u>Between Plants</u>
Arugula	Full Sun/Part Shade	1/2 gallon	3-4 inches
Beans, Bush	Full Sun	2 gallon	2-3 inches
Beans, Pole	Full Sun	5 gallon	2-4 inches
Beets	Full Sun/Part Shade	1/2 gallon	2-3 inches
Broccoli	Full Sun	3 gallon	12-18 inches
Cabbage	Full Sun/Part Shade	5 gallon	2-3 inches
Chard, Swiss	Full Sun/Part Shade	1/2 gallon	12-18 inches
Carrots	Full Sun/Part Shade	1 quart	4-6 inches
Collards	Full Sun	5 gallon	5-7 inches
Cucumbers	Full Sun	5 gallon	14-18 inches
Eggplant	Full Sun	5 gallon	1 per container
Kale	Full Sun/Part Shade	5 gallon	10-15 inches
Lettuce, Leaf	Full Sun/Part Shade	1/2 gallon	4-6 inches
Onions, Green	Full Sun/Part Shade	1/2 gallon	2-3 inches
Peas	Full Sun/Part Shade	2-5 gallon	3-4 inches
Peas, Snow	Full Sun/Part Shade	2-5 gallon	3-4 inches
Peppers, Bell	Full Sun	2 gallon	1 per container
Peppers, Hot	Full Sun	5 gallon	1-2 per container
Radishes	Full Sun/Part Shade	1 pint	1 per container
Squash	Full Sun	5 gallon	1 per container
Squash, Summer	Full Sun	5 gallon	1 per container
Tomato	Full Sun	5 gallon	1 per container
Tomato, Cherry	Full Sun	1 gallon	1 per container
Turnip	Full Sun	1 gallon	2-3 inches
Zucchini	Full Sun	5 gallon	2 per container

Source: The Seed Guy/FaceBook

Other charts can be found at [thespruce.com](http://thespruce.com) and [almanac.com](http://almanac.com).

### *New IOGA Members*



John & Rebecca Irick, Kokomo, IN  
 Brenda Johnson, Edinburgh, IN  
 Elizabeth Masur, Indianapolis, IN  
 James Panyan, Kokomo, IN



## Ask us...!

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## Treasurer's Report 1st Quarter 2022



Opening Balance December 31, 2021	\$6,005.71
Income	246.00
<b>Total</b>	<b>\$246.00</b>
Expenses	
Newsletter	130.46
Quicken	38.51
Liability Insurance	203.00
<b>Total</b>	<b>\$371.97</b>
Closing Balance March 31, 2022	\$5,879.74

*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. April 16

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

10:30	Arrive with auction items
11:00—11:45	Pitch-in/Brown-Bag Lunch
11:45—12:40	Introductions & Gardening Q&A, Business,
12:45	Plant auction

**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.

Masks will be optional. Margaret would appreciate knowing who plans to attend, but it is not required (email—[margaret.smith803@gmail.com](mailto: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.

**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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