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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.

The Water You Drink and Garden Nutrient Management... It's Good Chemistry

By Jim Sullivan

An article about the benefits of organic gardening practices and clean drinking water may seem to be somewhat “preaching to the choir”. Is gardening organically a good thing? Absolutely. Expecting safe pure drinking water from your tap? Again, absolutely. But even organic gardening, if not done responsibly, can have negative consequences upon the water that you drink and upon our streams and rivers. Knowing a little bit about your soil type, working with your landscape and Mother Nature will ensure protection of our waters while providing spectacular gardens and bountiful harvests.



Jim Sullivan

Ok, where to start. An essential first step, knowing your soil and soil pH. For context, consider this simplistic analogy between we humans and gardens. As humans, we need the right balance of drinking clean water, eating the right variety of foods to get the vitamins and minerals needed for a healthy life. Not getting that right balance leads to various consequences. Your garden has analogous needs as well. Without the balance of soil pH, soil nutrients and life, supporting water consequences happen. Consequences are in the form of low seed germination rates, weak leggy plants, mediocre harvests and potential unintentional impacts to our waters. Beneficial nutrients can become pollutants through over application, overwatering and runoff into our streams and/or migration into our ground water. Testing your soil chemistry is the right direction to start the journey to better water quality.

There are various inexpensive soil test kits available at garden centers and seed catalogues for do-it-yourself (DIY) analysis. For the non-DIY'ers soil-testing labs will do the same all starting at about \$20.00 or less. Doing it yourself soil test instructions are pretty straightforward and gives you instant information. Soil labs, depending upon your needs, are done in a more controlled environment and can provide just the basic information as the DIY or much more information than one can ever imagine. Refer to the links at the end of this article for basic soil analysis information and labs available for soil analysis. Make sure that your results include basic pH, nitrogen (N), Phosphorus (P) and potash/potassium (K) as these are the basic pieces of information necessary for balancing your soil. Knowing this information will guide you towards what to add to promote healthy growth, and minimize the over application of nutrients. Remember to water responsibly and minimize soil erosion, another key prevention measure to protect resources.

Now that your soil chemistry is balanced let's look closer at that water quality question. If you are on a private well, managing your garden watering runoff is not only important for

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stream and river water quality but also your drinking water quality. Take a long look at where your well sits on your property. How is storm runoff directed in relation to your well... a) Is runoff directed away from your well? b) Is your well protected from standing water? Hopefully you can answer yes to both questions. If not, you may want to consider some landscape changes to prevent these issues from happening. Drainage patterns are important considerations in your landscape design. Directing runoff away from your wellhead makes the water travel a longer distance in the soil before it hits the ground water that is pumped into your home. The added time water migrates in the soil maximizes the ability of the soil to do its cleansing ability. The wellhead is sometimes a landscape challenge depending upon the placement of that pipe that sticks out of the ground about a foot or so. If your garden is located near your well, you want to protect your wellhead from becoming damaged and direct runoff AWAY from the well. You want to protect this resource and take full advantage of the soils' natural abilities to purify waters that migrate down to the ground water you drink. Remember your well is where your drinking water comes from so it should be at the top of the list of important landscape and maintenance checks.

Verification of your water quality is done through testing your well water for at least bacteria and nitrates regularly (once a year is generally recommended). Not only is it a good idea, it is relatively inexpensive (\$8.00 for the basic nitrate and bacteria scan through the Indiana State Department of Health, link below). Sampling your drinking water regularly is especially important if you have an older well or live in an area where soils are sandy/course-textured and more vulnerable to potential contamination. Your local county health department is a good place to start for getting your water tested. Again, web resources are listed below for additional information.

Let's talk about watering those thirsty yards. One of the leading contributors to algae growth/plumes in our lakes is due to excessive phosphorus runoff from over application of yard fertilizers or improper watering techniques following application of lawn nutrients to keep those yards green. Phosphorus is an impressive "stimulus" for algae, which is an amazing oxygen grabber robbing beneficial fish, crayfish, and other aquatic life. Residential lawns and Neighborhood Associations are notorious for over application of phosphorus and over watering, leading to runoff into our storm-drains. Results of this runoff can be evident through algae covering retention ponds, which drain into our lakes, streams and rivers.

Not a fan of either water pollution, or cutting steroid grass twice a week at our home, we have cut out the use of phosphorus and have drastically reduced lawn watering. This will be our third year doing this practice, so those roots are now pretty deep and established. Last year, watering consisted of maybe three times during the driest times of the season... Our three times during the season compared to some daily doses by others in our area. In our case it's one small 50' by 150' city lot reducing pollution in a sea of fertilizer application madness... but you have to start somewhere (Education, education, education). And we're pretty happy with our results so far, not to mention the added benefit of a much lower monthly water bill. Our mixed grasses, clover and occasional dandelion blends nicely in contrast to the predominately steroid neon green area lawns. Neighbors tied to multiple chemical applications to their yards haven't chastised our natural efforts either (or yet). Take that back, one neighbor did complain that we had too many bees in our yard. He may or may not have been serious in his comment, but that could be another article.

Here are the resources for additional information:

A good guide to horticulture 101 and plant needs can be found through the Purdue extension at:
<http://www.hort.purdue.edu/ext/HO-32.pdf> .

Soil 101 through the United States Department of Agriculture:
http://soils.usda.gov/sqi/assessment/files/indicator_sheet_guide_sheet.pdf

Nutrient Management from the Hamilton Co. Soil and Water Conservation District:
http://www.hamiltonswcd.org/sitebuildercontent/sitebuilderfiles/nutrient_management.pdf

Water Well Testing:
<https://engineering.purdue.edu/SafeWater/drinkinfo/testwater.html>
<http://www.ces.purdue.edu/extmedia/wq/WQ-22-F1.html>
<http://www.heidelberg.edu/wql/wellwatertesting>

Going Phosphorous free:
<http://www.indianawildlife.org/phosphorus.htm>

Jim Sullivan is an IOGA member and husband of our president, Lynne Sullivan.

Message from Our President

Spring is an exciting time in the garden. And it's an exciting time to be a member of IOGA! Our fellow garden-lovers have recently been busy staffing the IOGA booth at events such as the Spring Garden Clinic at Cold Springs Elementary School on February 27, the Flower and Patio Show at the State Fairgrounds from March 13 -21, and will be at the Earth Day Indiana Festival at White River State Park on April 24. We've also been busy preparing for our annual Plant and Garden Auction to take place April 17 at the Zionsville Public Library. We sure hope you can join us!



Lynne Sullivan

Our participation in these events gives us numerous opportunities to interact with others who may share our passion in gardening naturally as well as to provide information on organic methods with those who are curious and may wish to learn more. We hope you will volunteer to join us at upcoming events. No expertise is necessary...just a willingness to meet with some gardening friends. If you are aware of an event in which you'd like IOGA to participate, please let us know.

Sharing information keeps us energized and learning. You can find out more information on gardening organically as well as news on upcoming events on our website at gardeningnaturally.org. We've set up a forum on our website so that we can share information with each other. Have a great tip on composting? Know of an event that you think would be of interest? Have a question you'd like to pose to the group? Please log on and let us hear from you!

See you on the Forum! — Lynne

What Is a Rain Barrel?

A rain barrel is a system that collects and stores rainwater from your roof that would otherwise run off and be diverted to storm drains, streams, and rivers. It is composed of a 55 gallon drum (plastic or wooden), a vinyl hose, PVC couplings, a screen grate to keep debris and insects out, and other common items. A rain barrel is relatively simple and inexpensive to construct and can sit conveniently under a residential gutter downspout.

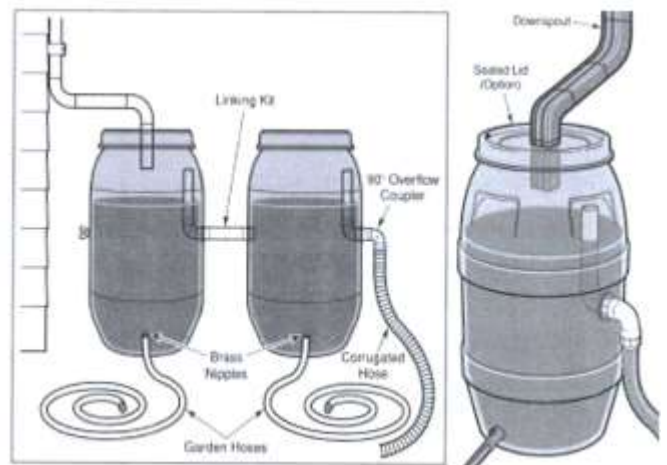
What Are the Advantages of a Rain Barrel?

Lawn and garden watering make up nearly 40% of total household water use during the summer. A rain barrel collects water and stores it for when you need it most—during periods of drought—to water plants, wash your car or top a swimming pool. It provides an ample supply of free “soft water” to homeowners, containing no chlorine, lime or calcium. This makes it ideal for gardens, flower pots, and car and window washing

A rain barrel will save most homeowners about 1,300 gallons of water during peak summer months. Saving water not only helps protect the environment, it saves you money and energy (decreased demand for treated tap water). Diverting water from storm drains also decreases the impact of runoff to streams and rivers. Therefore, a rain barrel is an easy way for you to help protect our watersheds and have a consistent supply of clean, fresh water for outdoor use, for FREE!

Boone County Soil and Water Conservation District

[Contact your county Soil and Water Conservation District for purchase (\$70) or questions about rain barrels. Some districts also sell composter barrels (\$125)]



Typical Single or Double Rain Barrel System

January IOGA Meeting

The Jan. 16, 2010 IOGA meeting was held at Paula Boone's home in rural Boone County. After the president welcomed the thirty one people present, everyone introduced themselves and then Q&A began. One of the questions was about deer damage, and how to deter both deer and raccoons from destroying the garden. A 6-foot high, wire fence will stop deer. An electrified wire fence will deter raccoons, unless they dig under the fence. One member suggested planting old fashioned varieties of pumpkins, those with prickly stems and leaves, all around the perimeter of the garden because deer (raccoons?) don't like walking through them. Others thought multiple-wired, electric, baited fence may be an option for deer, while Pat Buedel described her method of making very narrow beds (6-7 ft wide at most) and placing a large mesh fence in the center of the outer fence, so deer cannot jump in or out. Other questions pertained to the cultivation of greens, how to extend the growing season, and the presence of bugs on produce during the summer.

Paula Boone explained the Biodynamic Calendar, and Bob Layman described how he grows sweet potatoes in his garden in Greenwood.

Upcoming events were announced: the Indiana Horticultural Congress and Trade Show, Jan. 19-21, sponsored by Purdue University; Conservation



Welcoming Committee for the January IOGA Meeting at the Home of Paula and Dwight Boone'

Day on Jan. 26; the annual Flower and Patio Show, March 13-24; Earth Day, April 24, 2010, and the OEFFA Conference in Granville, OH, Feb. 12-14, where Joel Salatin will be one of the speakers (oeffa.org/conference2010.php).

It was announced that Jeff Evard, a farmer in Martinsville, started a seed company called *Nature's Crossroads*. The seed collection will be available starting Monday, January 11th at naturecrossroads.com. Use the coupon code "organic-gardener" and receive 10% off your order.

—Rosie Oaks, Secretary

Spencer Mushroom Farm

After the IOGA meeting at Paula and Dwight Boone's home, IOGA members and visitors headed out to the Spencer Mushroom Farm in Sheridan, IN. The property dates back to 1838, when the Spencer family used to run a large dairy and beef farm on the land that was later converted into a produce farm. At the present time Anita and Steve Spencer maintain both a large garden and a mushroom farm. The mushroom operation is a year-round enterprise, and it is located inside a large industrial building. The facility can produce up to 1,000 lbs. of mushrooms per week, mostly Shiitake and Oyster which, according to Steve, are the easiest ones to grow. In the winter the building is kept heated at around 60F, because that is the Shiitake ideal temperature. Humidity is also very important and is kept at 90% with the aid of a complex system of mist fans and ventilation devices.

The Spencers buy blocks made of sawdust and grain (oat and millet) with the substrate already spawned. They soak the blocks in large tanks of water and lay the blocks to rest on specially made shelves. At 60F shiitake mushrooms take 7 to 10 days to grow. Lower temperatures will slow down the growth rate of the mushrooms. After the first harvest, the blocks will be put to rest for two weeks. Then again, they will be soaked in water and placed on the shelves. After three cycles the blocks are composted and replaced by new ones.

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Different wood will grow different kinds of mushrooms. Unlike Shiitake, Oyster mushrooms grow from a maple substrate usually in the summer. During the wintertime more moisture is needed indoors to insure optimal mushroom growth. In the summertime the facility is kept cool by A/C. Shiitake mushrooms will grow when the temperature is between 52F and 65F; over 65F there is a risk of mold growth. Mold and the mushroom fly are the only problems that can plague mushrooms. The summer is also the most expensive time to grow mushrooms, because of weather conditions.

The Spencers find that due to different atmosphere and growing requirements, it is not possible to grow too many different kinds of mushrooms. Also every cycle will produce smaller and smaller mushrooms, and the first flush will always result in the biggest mushrooms. One block will produce from 1 3/4 to 2 lb. of Shiitake, and since Shiitake are the easiest mushrooms to grow, they are the biggest sellers.

Friday is when the Spencers pick their mushrooms for the Saturday market. They are currently attending five farmers markets in the summer and three in the winter. Their Shiitake mushrooms can be found at the Trader's Point Saturday Market and in Bloomington. They serve only a few local restaurants.

After the tour, many people bought relishes, sauces, and other products produced by the Spencers' new company, Local Folks Foods.

—*Rosie Oaks, Secretary*



Shiitake Mushrooms Growing on Blocks Made of Sawdust and Grain



Steve Spencer Discusses How Shiitake Mushrooms Grow on Blocks Made of Sawdust and Grain



Mushroom Growing Blocks Stacked on One of Many Shelves in the Barn

Tomato Blight

There are three major blights that can attack your tomatoes: **Septoria Leaf Spot**, **Early Blight** and **Late Blight**. All are fungal diseases spread by spores, which require dew or rain to infect the plant. These are most severe in wet weather.

Septoria Leaf Spot, sometimes called Septoria Blight, is the most common blight. It is caused by the fungus *Septoria lycopersici*. Septoria Blight first appears around the end of July after the first fruits set. It appears as small round black or brown lesions on the lower leaves. It works its way up the plant starting at the bottom. Fruits are rarely affected. All the leaf loss reduces fruit yield and quality, and exposed fruits are more susceptible to sunscald. The fungus is spread by splashing water and by working among the plants when they are wet. It overwinters on tomato and weed refuse.



Photo: U of MN Department of Plant Pathology

Septoria Leaf Spot on Tomato Leaves

Early Blight is the second most common blight. It is caused by the fungus *Alternaria solani*. Early Blight appears on the lower leaves about the same time as the Septoria Blight, usually after a heavy fruit set. The spots are dark brown to black. Concentric rings develop in the spot forming a bull's eye. The leaf area around each target spot turns yellow, and soon the entire leaf turns yellow and drops. Early Blight fungus also infects stems and may produce stem cankers. It occasionally attacks the fruit, producing large sunken black target spots on the stem end of the fruit. Infected fruits often drop before they mature. This disease is most common late in the growing season. The fungus overwinters on old tomato vines and on weeds in the nightshade family.



Photo: U of MN Department of Plant Pathology

Early Blight on Tomato Leaves



Photo: U of MN Department of Plant Pathology

Early blight Fruit Rot

Late Blight is the least common blight but most destructive. It is caused by the fungus *Phytophthora infestans*. Late Blight occurs in moist weather with cool nights and moderately warm days. Dark-green to nearly black wet-looking spots begin spreading in from the leaf edge. In wet weather, the spots may have a downy, white growth on the lower leaf surface near the outer portion of the spot. Spots also develop on the fruits. At first, the spots are gray-green and water-soaked, but they soon enlarge and turn dark brown and firm, with a rough surface. When conditions are favorable, the disease may progress very rapidly. Late Blight may destroy an entire crop within a week.



Beth Jarvis, U of MN

Late Blight on Tomato Leaf



Late blight Fruit Rot

(Late Blight was confirmed in many counties in Indiana last year. See the following website link ppdl.purdue.edu/PPDL/images/INLateBlight.jpg to see if your county was affected.)

Cultural Control Practices

The best way to treat tomato blights is to prevent them in the first place. Here are some things that you can do:

1. Mulch to prevent splash-up from rain. (One source suggested to use landscape fabric as a mulch. Landscape fabric can be purchased at garden centers.)
2. Don't water overhead.
3. Don't water in the evening
4. Install drip irrigation or direct water to the base of the plant.
5. Give your plants plenty of space for air circulation.
6. Stake or gage your tomatoes to keep them away from the ground and improve air circulation.
7. Don't work around your plants when they are wet.
8. Rotate your crops. Don't plant tomatoes in the same place where tomatoes, potatoes, peppers or eggplants were grown last year. (One source recommends not planting tomatoes in the same location for 3-4 years)
9. Clean up all debris in the fall and don't compost it.
10. Plow or rototill to bury any remaining crop refuse.
11. Prune out diseased branches promptly and destroy. (Never remove more than 1/3 of a plant's foliage.)
12. Keep weeds at a minimum.
13. Plant resistant varieties when available. Heirloom tomatoes are more susceptible to blight.

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14. Avoidance of infected nursery stock (Late Blight)
15. Elimination of overwintered "volunteers" which can serve as inoculum sources (Late Blight)

By the time symptoms appear on your tomatoes, it is probably too late to apply a fungicide. Fungicide should be applied preventatively or at the first sign of the blight and reapplied throughout the growing season.

Chemicals

The ***Bordeaux Mixture*** was created in France to treat fungal disease in vines. Consisting of copper sulfate and hydrated lime, this fungicide has been used for more than a century to control the infections that attack vineyards, nurseries, farms, and garden. The ***Bordeaux Mixture*** can be used for organic gardening. However, use of the ***Bordeaux Mixture*** causes Copper to build up in the soil and care must be used to protect your skin and eyes and must be kept away from children. It is poisonous for animals and fish.

Home Remedies

According to Norman W. Henley, who published a book titled, "Henley's Twentieth Century Formulas, Recipes And Processes, 1916" you can use **soft soap** to create a handful of home remedies. Three recipes mentioned in his book include:

40 parts **soft soap**
50 parts amyl alcohol
20 parts methylated spirits
1,000 parts water

30 parts **soft soap**
2 parts sulphureted potash
32 parts amyl alcohol
1,000 parts water

15 parts **soft soap**
29 parts sulphureted potash
1,000 parts water

Milk

Mix equal parts fat-free milk and water, and pour it into a spray bottle. Locate all of the leaves that are infected with the disease and lightly coat them. Coat other surrounding leaves as well in case other spores have landed on them.

Baking Soda Spray as a Treatment for Tomato Blight:

It is suggested that the non-toxic and anti fungal properties of baking soda can help in killing fungi. This can help treating tomato blight. You might mix one tablespoon baking soda and one tablespoon dormant oil in one gallon of water. You can spray this mixture with a hand sprayer to the affected portion of infected plant.

Add three level teaspoons of baking soda to four liters of water and some fish emulsion. Mix these ingredients well. Pour it into a spray bottle after it cools and spray it on the plants every week. The fish emulsion is to make the solution stick without harming the plant, while adding anti-fungal properties. The oil from the fish emulsion helps to kill the disease by coating and suffocating it

Compost Tea as a Treatment for Tomato Blight: There are many possible compost teas. Here is one: mix one ounce of blackstrap molasses, one ounce of apple cider vinegar and one teaspoon of powdered seaweed to a gallon of water. The antibiotic property of compost tea can help in controlling fungal growth and in treating tomato blight.

Garlic Tea and Baking Soda Spray for Tomato Blight Treatment: You can mix one tablespoon of baking soda in one-fourth cup of garlic tea and spray the mixture to the plant. The antifungal property of garlic tea and baking soda might help in arresting the spread of tomato blight.

Neem Oil Spray for Tomato Blight Treatment: You might frequently spray Neem oil alternately with garlic spray to arrest the spread of tomato blight. The fungicidal property of Neem oil can help in treating tomato blight

(Editors' Note: We are experimenting this summer with using a combination of Neem Oil and *Actinovate* organic fungicide (an active, biological fungicide) on our squash plants in hopes of preventing Powdery Mildew. We will also try this combination on our tomato plants to see if it helps against blight.)

References

Purdue Plant & Pest Diagnostic Laboratory

-- Beverly Shaw, *Advanced Master Gardener Purdue University*

<http://www.ppdl.purdue.edu/PPDL/expert/tomato-blight.html>

<http://www.extension.umn.edu/projects/yardandgarden/AAMG/vegetables/tomatobligh.html>

<http://www.grandmashomeremedies.com/home-remedies-for-tomato-blight.html>

Henley's Twentieth Century Formulas, Recipes And Processes by Norman W. Henley Publisher; 1916

http://www.ehow.com/way_5914570_early-blight-home-remedy.html

<http://blog.douggreensgarden.com/tomato-blight/>

Tomato Blight Suggestions

Jane Garari

For tomato blight I'd say try Mumsey's Magic Mix which came from the OG forum online. Here's the recipe-

1/2 cup bone meal
1/2 cup corn meal
1/4 cup dry milk powder
2 tbs epsom salts

Throw the ingredients in the planting hole, mix with the soil a little and plant the tomato.

I do this for each plant and have much less fungus, blight, black spot etc. than I used to. The tomatoes go until frost now instead of dying in late summer.

Paula Boone

I grow my tomatoes from seed every year.

I use a heat mat but not a grow light.

I use red plastic mulch. I roll it up and use it again the next year.

I grow my tomatoes so the row is north and south. That way it gets the full blast of the morning sun and again in the afternoon, full sun.

No plant shades another. Plenty of space between them in the row is important for air circulation.

I did not experience any blight in '09 but they surely seemed slow coming on.

The first few I picked off most plants were rotten and then they were OK after that.

(Editor's note: Paula also says she plants tomato plants on fruit dates – Biodynamic Calendar. You need to ask Paula about this – she swears by it.)

Rosie Bishop

How about ASKING AT THE WEBSITE!?? (gardeningnaturally.org) I have not had that problem yet--but did you use mulch? One year early in my yardening sojourn I had mulched when the wet season hit and recall some problem with leaves. Is that blight?

Bobbie Mattasits

Foliar feeding with "compost tea".

Kris Medic

I'm afraid our garden was the textbook example of the blight run rampant. I would also welcome ideas on treatment that's consistent with organic ideals.

The good news: blight like this is so weather-dependent that - one way or the other - it will be different this year. We may or may not see it!

Lynn Jenkins

The late blight last year was spread rapidly by plants in the Big Box stores. Thus the problem became nearly national. There was much discussion of it on the Garden Writers List, including this explanation by Doug Green,

<http://blog.dougreensgarden.com/tomato-blight/>

Rosie Oaks

My approach to gardening is very much a "laissez faire", which to me means that once I get it going it will have to essentially take care of itself.

I work mostly on the soil, and I do it prevalently in the Fall.

I found that there are a couple of things that may help with tomato problems. One is sowing Winter Rye in the areas that will be intended for tomatoes, the other is using *Mycorrhizae* at planting time. (I dust the tomato root ball with a scant 1/2 teaspoon of powdered *Mycorrhizae* and then I bury it in the designated hole. I bought the *Mycorrhizae* from a catalog some time ago after reading about it, and I think I got it from *Peaceful Valley*.)

I don't turn the rye under, but I drastically cut it down 3 or 4 times until it just stops growing, and I let the clippings decompose in place.

Both these measures are supposed to work by "suppressing" (actually colonizing would be a better word) harmful bacteria and fungi in the soil.

I cannot tell you specifically how the Rye/*Mycorrhizae* combo works. I had read somewhere that Rye discourages the growth of certain organisms in the soil. Some of these organisms happen to affect tomatoes negatively if allowed to multiply endlessly (I can't remember if they are fungi or bacteria), so basically Rye keeps them in check.

The Rodale Institute is currently doing research in this field, and here is the link:

<http://www.rodaleinstitute.org/20090625/nf2>

Another suggestion would be growing tomatoes that ripen at different times. I think that having early, midseason and late tomatoes will ensure that at least some of them will make it throughout the season.

Spacing tomato plants is also a good idea, but I don't know if caging them is a good or a bad thing overall. I cage my plants, but I wonder if they would be more disease resistant if I just let them sprawl. Unfortunately

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I don't have the kind of space that would allow me to experiment in that sense.

Some people report that pruning tomatoes makes them healthier, but again I never tried it so I cannot speak from experience.

And when it's all said and done, we can only wish for weather and such to be merciful. So, let's cross our fingers and hope for the best.

What Are Mycorrhizal Fungi?

Mycorrhizal fungi are a group of fungi that live on and within plant roots in a symbiotic or mutually beneficial relationship. The fungus attaches itself to the plant root and then grows out into the soil with very fine "roots" or mycelium. These mycorrhizal root systems increase the absorbing area of plant roots 10 to 1,000 times thus greatly improving the ability of plants to utilize soil resources. In return the fungus receives finished product in the form of carbohydrates, proteins and sugars. Mycorrhizal fungi are able to absorb all of the 15 major macro and micro nutrients required for plant growth. Mycorrhizal fungi release powerful chemicals into the soil that dissolve hard to capture nutrients such as phosphorus. It does this so well that mycorrhizae do not perform well in phosphorus rich soils. This phenomenon is particularly important in plant nutrition and explains why non-mycorrhizal plants require higher levels of fertility to maintain their health. Moreover, this extended root system is very important for water uptake and storage. In non-irrigated conditions, plants inoculated with mycorrhizae are under far less drought stress compared to untreated plants.

From an article by Donald Lester. See the complete article at

http://www.maximumyield.com/article_sh_db.php?articleID=483&yearVar=2009&issueVar=September

Thanks to Maria Smietana and Valentine Hill Farm for her generous contribution of \$140 to cover the booth costs for the Flower & Patio Show. Maria, a longtime IOGA volunteer at the show, stated "some of the best organic gardening conversations I have had with people over the years have been at F&P." The booth has been free in the past, but this year the show is asking for a booth fee from all non-profit organizations that have been given a free booth in the past. Thanks, Maria, for allowing IOGA to continue it's organic mission!

Carbon Sequestration & Organic Farming

For years, many have argued that organically produced food is safer and more nutritious. According to Mike Amaranthus, now we are learning that a switch to organic production methods is an expedient and soil-based sink for reducing carbon from the atmosphere. Data from the Rodale Institute's long-term comparison of organic and conventional farming methods substantiates that organic practices are much more effective at removing carbon dioxide, a major greenhouse gas, from the atmosphere and fixing it as beneficial organic matter in the soil. Organic practices result in rapid carbon buildup in the soil. ...

And ... Mycorrhizal activity has been shown to significantly increase the accumulation of carbon in the soil

From Soil Carbon, Diamond in the Rough, Mike Amaranthus, Ph.D., Mycorrhizal Applications, Inc.,
<http://www.mycorrhizae.com/index.php?cid=667>



free outdoor festival

Saturday April 24 • 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.earthdayindiana.org

Visit the IOGA Booth

(Contact Lynne Sullivan if you care to volunteer at the IOGA booth)

LETTERS:



Composting

I really enjoyed the different approaches to composting described in a recent newsletter (January, 2010)! In the spirit of diversity I have heaps that represent many of these approaches, from Lynn (Jenkins)' informal and laid back "just let it rot" piles, to some high intensity cookers that I put together in store-bought, Smith and Hawkins bins - using shredded leaves and either coffee grounds or spent Brew Pub mash for the nitrogen kick. Yes, the scientist in me also employs a compost thermometer in these ones. This is to celebrate in units of measurement God's transforming power. And I love mixing these ones up with the auger I bought from Johnny's seeds.

I know I'm spending money I don't have to with these high tech gadgets and strongly support not making composting a complicated and expensive process, but I figure my frugality in other areas permits me to enjoy an occasional harmless luxury. The same goes for the money I spend on raised beds and wire cages to keep animals out of some of them. Definitely not frugal if I look at what it would cost me to buy the same (well, not the same!) vegetables in a market but I know this is not a simple financial transaction and after considering the "externalities" for the environment, neighborhood and the health of those who eat my produce, it is worth it.

Bill Scott

Spencer Farm

Thank you for stopping by our farm! We enjoyed having you all and are thrilled with the interest you showed toward our mushroom barn, farm, and food product line.

Thank you again!

Steve and Anita Spencer

Squash Bugs

I was reading Organic Gardening Magazine (March issue) in letters from readers, p 18 about getting rid of squash bugs with onions, bulbs and tops. I am going to do this next spring.

Beulah Cobb

(Editor's note: *Bobbie Mattasits* sent a copy of the same letter. The reader planted two bulbs in each hill and took a handful of onion tops, cut them into short pieces, and dropped them around the plants. He has had no squash bug damage for 15 years.)

TALK: Planet Indy: *Gestalt Gardening with Felder Rushing*

Can garden design be a subversive act? At this Planet Indy talk, on the 40th anniversary of Earth Day, offbeat garden guru Felder Rushing addresses "slow" gardening for cheapskates, alternatives to the oppressive lawn, and irreverent approaches to horticulture that are also more sustainable. Rushing is a 10th-generation American gardener from Jackson, Miss., whose quirky cottage garden has been featured in many TV programs and magazines, and includes a huge variety of weather-hardy plants and a collection of folk art. Rushing is the author or co-author of 15 gardening books and co-hosts a public radio call-in garden program. After the event, buy a book, have it signed, and enter to win a free garden consultation by Rushing the next day and \$50 worth of plants at the Perennial Premiere event. Presented with support from the IMA Horticultural Society.

Indianapolis Museum of Art (IMA)

Thursday, Apr 22

7:00 pm

The Toby

\$7 Public / \$4 IMA members

Free to Horticultural Society members

Ticket Required For tickets visit imamuseum.org, call 317-923-1331, or purchase at the door.

Recommended Book

Bringing It To The Table

by Wendell Berry (2009)

(Introduction by Michael Pollan)



Long before organic produce was available at the local supermarket,

Wendell Berry was farming and writing with the purity of food in mind. For the last five decades he has embodied mindful eating through his land practices and his writing. This book is a collection of essays, many dating back to the 1970's & 1980's, and is essential reading for all who care about what they eat.

(Berry and his wife have lived and farmed in Kentucky for over forty years.)

Bobbie Mattasits

Ask us...!

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New IOGA Members

Ella Sprecklemeyer, Greenfield, IN 46140
Shelley & Mark Blakely, Indianapolis, IN 46202
Lori Colpaert, Indianapolis, IN 46220
Melissa May, Indianapolis, IN 46227
Carol Radke, Indianapolis, IN 46227
Radka Nemynarova, Indianapolis, IN 46220
Susan & Thomas Noone, Indianapolis, IN 46227
Anne Heighway, Indianapolis, IN 46222
David A. Cline, Greenwood, IN 46142
Kevin & Tracy Cooley, Lafayette, IN 47905
Andrea & Jim Norwood, Morgantown, IN 46160
Blythe Potts, Indianapolis, IN 46220

UPCOMING MEETINGS

Mark your calendar

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

April 17, 2010
(Plant Auction)
July 17, 2010
October 16, 2010
January 15, 2011



Treasurer's Report

1st Quarter 2010

Opening Balance Oct. 1, 2009 \$ 913.33

Income

Donations \$ 152.00

Membership Dues \$ 686.00

Total \$ 838.00

Expenses

Newsletter \$ 71.00

Misc.-Stamps, Printing/Copying \$ 101.84

Hosting Gratuity \$ 50.00

F&P Show, Z'GreenFest \$ 150.00

Business Entity Report \$ 7.14

Room Deposit \$100.00

Total \$404.54

Closing Balance Dec. 31, 2009 \$1271.35

Respectfully submitted by Ron Clark, Treasurer

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
7282 E 550 S
Whitestown, IN 46075

Please include ALL of the following information:

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

I prefer my newsletter to be ___ emailed ___ mailed.

IOGA
Meeting
Sat. April 17
10:30 am

Annual Plant Auction at Zionsville Library

250 North 5th Street, Zionsville, IN

317-873-3149

- 10:30 Arrive with Auction Items
11:00—11:30 Great Pitch-in Lunch
(bring food to share plus table service)
11:30—12:00 Introductions & Gardening Q&A
12:00—12:15 Business Meeting
12:15 Auction Begins

Plants, books, and garden items will be available for auction. Your donations are appreciated. Please label plants with name and culture. Proceeds will be used to fund future IOGA programs. Each year the IOGA plant and garden 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 to share and your plate, fork, and drink.

From I-465 take the Michigan Rd./421 exit. At the exit, go north to SR334. Turn left to Zionsville and follow SR334 into Zionsville until it becomes Oak Street. Go west on Oak Street until you come to 5th Street. Turn right onto 5th Street. Park on the 5th Street side of the library (lower level). **Or,**

From I-65 take SR334/Zionsville exit. Go east on SR334 through Zionsville and watch for 5th Street. Turn left onto 5th Street. Park on the 5th Street side of the library (lower level).

Everyone welcome! 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



Bring an item to
the IOGA Auction
Sat. April 17