

April 2013



Shades of Green

From Gardeners, To Gardeners

Athens-Clarke County Cooperative Extension

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Add Organic Matter, Water Deeply for Healthy Tomato Plants

By Michael Wheeler

Homegrown vegetables are a must-have for many Southerners during the summer.

The one vegetable (technically a fruit), which makes everyone's mouth water in anticipation is the tomato. The folks I know always say the first tomato of the season is the best.

It is a known fact that homegrown tomatoes are much better than anything you can buy from the grocery store. Nothing can beat it.

Watering

Speaking of rain and moisture, what if we don't get any during the summer? This is where many of the problems in growing vegetables come from — improper watering.

Water your plants so the soil stays fairly evenly moist, avoiding the extremes of it being parched and then flooded. When you do water, keep the water at the base of the plant. Wetting the leaves will encourage diseases.

Growing

Give your tomatoes fertilizer when they are first planted. After that, they do not need much fertilization until the first tomatoes are the size of a dime or so.

Pushing your tomatoes to grow through the addition of too much nitrogen will only encourage the growth of leaves and stems, but not much fruit.

If during the summer you have problems growing tomatoes, stop by your local University of Georgia Cooperative Extension office for help identifying pests or diseases.

*(Michael Wheeler is the University of Georgia
Cooperative Extension coordinator
in Hall County)*

Whether or not you are trying to grow tomatoes for the first time, or this is your 30th season, there are some tips to follow to make sure your harvest is plentiful.

Planting

Before you plant, incorporate four inches of new organic matter. This will encourage the plants to explore and get established quickly.

Plant your tomatoes deep. At planting, remove the leaves from the bottom of the plant and bury about two-thirds of the stem. This deep planting causes the plant to grow roots up and down the portion of the stem that is in the ground. These extra roots will make the plant stronger and more stable as it matures. If you read my column regularly, you know I always talk about using mulch when you plant anything. Well the same goes for veggies. A good 2- to 3-inch layer of wheat straw will go a long way to hold back weeds, keep the plants clean from rainfall, and keep the soil moist in the middle of summer.



UGA Manual Helps Businesses, Homeowners Fight Pests

by Amanda Swennes

The 2013 Georgia Pest Management Handbook is now available for purchase. The thirty-fourth **commercial edition**, published by the University of Georgia College of Agricultural and Environmental Sciences, provides more than 800 pages of current information on selection, application, and safe uses of pest control chemicals around farms, homes, urban areas, recreational areas, and other environments where pests may occur.

Special attention is given to cultural, biological, physical and other types of control for insects, diseases and weeds in agronomic crops such as grains, cotton and tobacco as well as for commercial operations specializing in fruits, vegetables and ornamental horticulture production. Recommendations are also given for managing pests around livestock and aquatic

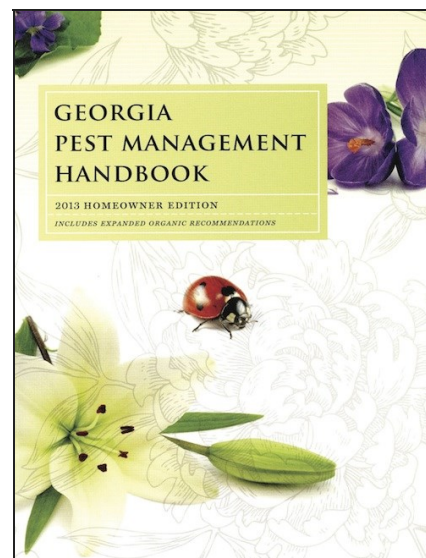
environments.

A companion **homeowner edition** contains more than 100 pages of insect, weed, and disease control recommendations for private homes, lawns, orchards and pets, including an expanded section with organic recommendations.

Printed commercial handbooks are available for \$30. Homeowner handbooks cost \$15. Both can be ordered from the UGA CAES Office of Communications and Technology Services at :

www.caes.uga.edu/publications/for_sale.cfm.

Individual sections of both the commercial and homeowner editions are also available for download as PDFs from www.ent.uga.edu/pmh/.



(Amanda Swennes is a publications editor for the University of Georgia College of Agricultural and Environmental Sciences.)

Q&A: Attract Butterflies with food, water

by Amanda Tedrow

I would like to start a butterfly garden with my kids but I am not sure if my sunny back yard will have everything they need. Can you give me some tips for starting this garden?

—Amy L., Athens

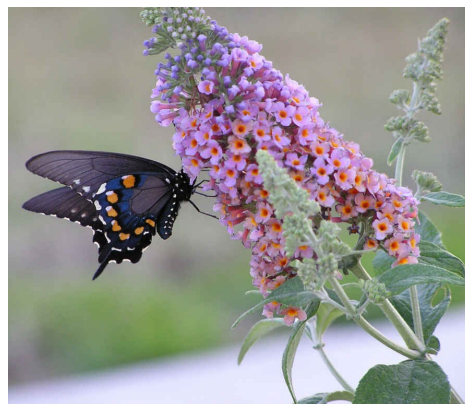
A sunny yard is a great place to start butterfly gardening. It is recommended to provide your butterflies and their larvae with nectar-producing plants, larval food plants and a shallow



pool of water. The nectar-producing plants provide food for the adult butterflies. The link below has a list of trees, shrubs, wildflowers, perennials and annuals that produce nectar for the butterflies you will be attracting. Some common butterfly-attracting plants you may already have in your garden include butterfly bush, lantana, purple coneflower, sunflowers, pentas, single marigolds, verbena and zinnias.

Once you have plants to attract the adult butterflies don't forget about the larvae. The caterpillars need food and habitat to thrive. Tall grasses and native wildflowers are a great food source and should only be mown in the late fall. Some of the best foods include willow, milkweed, passion vine, parsley and asters.

The last crucial element to a butterfly garden is a shallow water source. A clay saucer filled with wet sand or mud with a rock in the center as a resting spot is a great water source for your beginner butterfly gardening.



(Amanda Tedrow is the Athens-Clarke County Agriculture and Natural Resources Extension agent for the University of Georgia College of Agricultural and Environmental Sciences.)



Growing Vegetables Organically Doesn't Mean You Can't Use Chemicals

by Judy Ashley

Admit it, when you envision someone who buys "organic" you imagine a tree-hugging, Birkenstock-wearing, granola-eating hippie, right? Well, I'm here to confess, I once did, too. But, now I "get it."

Thanks to the Sustainable Agriculture Research and Education program, I've recently attended several trainings on the philosophy and practices of organic farming. I've come to better understand the reasoning and yes, research behind organic food production.

Probably, the biggest misconception about organic farming is that it is solely about being chemical free. Actually, chemicals can be used in organic farming. They just can't be synthetically made.

But it is much more than that. It is about building the soil and implementing good agricultural practices that create an environment that helps a plant or animal resist pests and disease. A healthy plant or animal is more likely to perform better, therefore requiring fewer synthetic pesticides to survive.

It is about planting cover crops on fallow soil that will naturally build nitrogen. It is about using manure to build soil texture and quality. It is about growing certain plants alongside your intended crops to trap pests before they can reach their host plants.

According to the United States Department of Agriculture's Consumer Bulletin on the National Organic Pro-

gram, "Organic food is produced by farmers who emphasize the use of renewable resources and the conservation of soil and water to enhance environmental quality for future generations. Organic meat, poultry, eggs, and dairy products come from animals that are given no antibiotics or growth hormones. Organic food is produced without using most conventional pesticides; fertilizers made with synthetic ingredients or sewage sludge; bioengineering; or ionizing radiation. Before a product can be labeled 'organic,' a government-approved certifier inspects the farm where the food is grown to make sure the farmer is following all the rules necessary to meet USDA organic standards."

Of course all of this comes at a cost. You may wonder why the organic food in your local market is more expensive. One of the reasons is that organic farming, although often done on a much smaller scale than conventional farming, is much more labor intensive. In addition, the few pesticides that are approved for use are often more costly. And without the certification process that a grower must undergo, he is not allowed to use the term "organic" on his product. And, the USDA Organic certification process can cost several thousands of dollars.

Organic production can also result in higher loss of product. A portion of the food grown can be lost to pests or disease or culled for these same reasons. The combination of these factors explains a higher cost to the farmer who must pass these costs on to the buyer. One money-saving tip

when buying organic is to purchase from a local farmers market to cut out the middle-man.

Regarding certification, there are alternative certification programs to the USDA National Organic Program. One is Certified Naturally Grown. CNG offers farmers a way to minimize paperwork and certification fees and it employs a peer-inspection process to certify their farms. CNG bases its standards on the National Organic Program but does not confer permission for its members to use the term "organic," as this is a term reserved for farms that have completed the USDA program. It is worth mentioning that USDA does offer financial assistance programs to help with the cost of certification.

I now see how organic farming can be a viable alternative. There is room in the market place for conventional, organic, and certified naturally grown food. It is up to us as consumers to make an educated decision on which we prefer to purchase.

*(Judy Ashley is the University of Georgia
County Extension Coordinator
in Walton County.)*



Remedy Last Year's Low Yield Problems Before You Plant

By Amanda Tedrow

There is nothing more frustrating than planting a vegetable garden and not producing a substantial crop of fresh vegetables. Numerous problems can contribute to low yields, but, fortunately, most of them can be avoided.

Most vegetable crops require at least 60 to 120 days from planting to produce fruit. Keep this in mind when planning your garden. When planting outdoors, it is virtually impossible to have vine-ripe tomatoes in early May because Georgia's last frost dates come in April. Nor can you expect pumpkins in October if the vines were planted after early August.

An issue that goes hand-in-hand with the time of year is the plant's age. Young plants often don't produce fruit from their first flowers. On squash and zucchini plants, the first flowers are often all male and won't produce fruit. Plants also may produce sterile pollen or only male flowers during hot weather. Cold weather can also inhibit fruit production.

So, the solution to this problem is to wait for your plants to mature or temperatures to change.

A lack of pollinators is another problem in the vegetable garden that can lead to poor fruit-set or misshapen fruit. Flowers need to be visited several times for complete pollination. This is a very frustrating problem because it's difficult for a homeowner to remedy. To help

pollinate your plants, rent a beehive if you are financially able and your neighborhood allows it.

Home gardeners often over-fertilize with liquid fertilizers that are high in nitrogen. An abundance of nitrogen encourages plants to grow leaves, not fruit, and most people would prefer to eat a tomato rather than a tomato plant leaf.

To remedy over fertilization, wait for the nitrogen to be taken up by the plant or leached out of the soil. To avoid this situation, take a soil test before planting season. Kits are available at your local University of Georgia Cooperative Extension office. Follow the directions for collecting the sample, return the sample bag and a list of recommendations based on the test will be returned to you.

When fertilizing your vegetable garden, always follow the recommendations from your soil sample results. These results can also be targeted to help you have optimum growth in your vegetable garden.

Water, both too much and too little, is also a common issue home gardeners run into. Too little water can create a stunted plant with few flowers and can cause the plant to drop both flowers and immature fruit. Too much water can cause roots to rot and fruit to drop.

An additional problem with watering is uneven watering, which can lead to fruit drop but more commonly leads to fruit cracking and blossom end



rot. Blossom end rot is more common when the fruit is young. Fruit cracking is more common when fruits are ripe or very close to ripening. Both blossom end rot and fruit cracking are aesthetic problems. The fruit is still edible, just not as attractive.

To keep the plant roots cooler and the moisture more even, cover the soil with at least three inches of mulch. This will help reduce the incidence of both blossom end rot and fruit cracking.

Many minor problems can affect the quantity and quality of produce from your backyard garden. The good news is that many of these problems are easy to remedy.

For more vegetable gardening information, call your UGA Extension office at 1-800-ASK-UGA1 or visit online at extension.uga.edu.

(Amanda Tedrow is the Agriculture & Natural Resources agent for the University of Georgia Cooperative Extension office in Athens-Clarke County.)



Most Ground-nesting Bees are Useful Pollinators

by Paul Pugliese

As a University of Georgia Extension agent, each spring I receive several calls from people who encounter ground-nesting bees and wasps for the first time.

These are actually “good bugs” that are doing their job as pollinators or serving as useful predators by controlling other harmful insect pests. But when ground nests are located in areas such as yards, gardens, flowerbeds or playgrounds, most clients would rather not hear a discourse in entomology.

There are more than 3,500 species of solitary bees in North America. The most common ground-nesting bees and wasps we see include bumble bees (those “giant” ones), sweat bees, digger bees, leafcutting bees, digger wasps and cicada killer wasps.

Most bees aren't aggressive

All of these ground-nesting bees and wasps are curious and investigate people and pets near their burrows. This is probably what you would do if someone walked onto your front porch, right? Generally, these bees do not present a stinging hazard and do not defend their nest territory aggressively — unlike their yellow jacket and honeybee cousins who are more easily provoked.

With the exception of yellow jackets, most ground-nesting bees and wasps are solitary. This means only one female works and lives alone in each underground nest. However, multiple solitary nests can be found in an individual back yard or lawn. These neighborhood-like communities are what make them appear to be “swarming” around.

I'm often asked, “Why do certain back yards or lawns seem to have more ground-nesting bees than others?”



Sunny spots with well-drained soil

According to most entomologists, these yards are more attractive because they have an environment that these bees prefer. Ground-nesting bees generally nest in areas with morning sun exposure and well-drained soils containing little organic matter. Burrows are excavated in areas of bare ground or sparse vegetation.

The best control methods include heavy watering or irrigation with a lawn sprinkler during the nest-building period to discourage nest construction. Tilling the soil to destroy tunnels may help a little but establishment of a dense turfgrass is probably the best long-term discouragement to further nesting. Applications of heavy organic matter could be included as a soil amendment, if practical, when tilling the soil.

If the soil or location is not conducive to a healthy lawn, installing ground covers or heavy mulches may be an alternative solution. Mulches may be used on bare patches where grass will not grow.

Spraying pesticides is futile

Chemical pesticide applications are not

generally practical because each individual nest cell or colony would require treatment in order to entirely remove the bees. If possible, try to identify which type of bee you have before reaching for the bug spray.

For aggressive bees and wasps - like yellow jackets - this may be your only option, but remember most ground-nesting bees and wasps are “good bugs.” They have a very important, valuable function in landscapes: pollinating and getting rid of bad bugs.

For some crops, bumblebees and other native bees are more efficient pollinators than managed honeybees. It's estimated that one of every three bites of food you eat depends on pollination by bees. In fact, 90 percent of all commercially grown field crops depend on pollination for growth.

So, instead of destroying these valuable insects, take a moment to appreciate their importance and respect their place in nature.

(Paul Pugliese is the Agriculture & Natural Resources agent for the University of Georgia Cooperative Extension office in Bartow County.)

Lawn Care: Timing is Everything

By Stacey Gregory

The key to using pre-emergence herbicide and fertilizer on home lawns is timing. The common pitfall is to apply either (or both) of these products too early.

Early application of fertilizer can lead to early green-up, which means your lawn may look prettier sooner, but it will also be more likely to be damaged by late, cold weather.

Fertilizing too early can also lead to turf disease problems. Plant roots that are still dormant may not take up any nitrogen that is applied too early. Therefore, fertilizers will be lost through leaching and runoff.

Apply at optimal times

Contrary to many advertisements you'll see in the springtime for herbicide and fertilizer combination products (commonly called "weed and feed" treatments), the two actually should not be applied at the same time. It can be done (and face

it...time-wise, it's all many of us may be able to do with our hectic schedules), but that means that one of the two components will not be used at the optimal time.

For the best weed control, pre-emergence herbicide should be applied before weeds emerge. Suggested application dates for pre-emergence herbicides being used on annual grass weeds are March 1 to March 20. So, get busy.

These dates typically correspond to the time when soil temperatures begin to reach 55 degrees Fahrenheit, which is the temperature at which crabgrass will germinate. (See the University of Georgia website www.georgiaweather.net for current soil temperatures.)

Also try to time your lawn fertilization based on soil temperatures. It is recommended to hold off on the first, spring nitrogen application until the soil temperatures at a 4-inch depth are consistently 65 degrees and rising. Nitrogen application is typically 30 to 45 days after the application time for pre-emergent herbicide for sum-

mer-annual, grassy-weed control products.

Application tips

Some good options for applying pre-emergence herbicides and fertilizers are as follows:

- Apply the pre-emergent herbicide alone, then apply fertilizer several weeks later.
- Use combination fertilizer products that do not contain nitrogen. Potassium is a good fertilizer for late winter or early spring application. Products that combine potassium fertilizer (like 0-0-7) are better choices than those that contain nitrogen.

For more good information on timing your lawn maintenance tasks, check the UGA Georgia Turf website at www.georgiaturf.com.

(Stacey Gregory is a County Extension Associate in the White County Extension office.)

Fruit-bearing Plants and Trees Should Wait a Year to Provide Fruit

By Frank Watson

The temptation is great to let newly set fruit plants bear fruit the first year, but don't give in. Whether they are fruit trees or tiny plants like strawberries, these plants need that first year to become established.

If you gather your berries or fruits this year, you could deal with less healthy, less productive plants for years to come.

Remove first blooms

Gardeners should remove all of a fruit plants blooms the first year after planting to prevent them from bearing fruit. For strawberries, allowing the newly set plants to produce fruit the first year can reduce the amount of fruit the plant produces the following year and delay the formation of daughter plants.

Just a single fruit can sap the limited resources of a young fruit tree and delay its development. Even if new shoots do develop, they can be stunted and produce a mis-shapened tree.

Fertilization is an important practice in growing all fruit crops. When properly used, fertilizers help achieve better plant growth and increased yields. Improperly used, fertilizer can be wasted or even damage fruit plants. Fertilizer cannot compensate for poor plants or cultural practices.

Follow soil test results

Take a soil sample to your local University of Georgia Cooperative Extension office to determine fertilizer needs. Soil samples can be taken at any time but late winter is probably the best time.

A soil test will provide a lot of information about your soil, but one of the most important things to know for fruit trees is whether you need to adjust the soil pH by applying lime. Lime applications made during the Fall will have ample time to react before the spring growing season begins. Generally it takes about three months for lime to react in the soil.

(Frank Watson is the University of Georgia Cooperative Extension agent in Wilkes County)



Gardening Events in Our Area

Athens Area Master Gardener Plant Sale, Saturday, April 20, 8AM-1PM, ACC Cooperative Extension Office.

Piedmont Gardeners Garden Tour, Saturday, April 20, 10AM-4PM, rain or shine, \$15 if purchased from local businesses/\$20 day of.

Butterfly Day, Saturday, April 20, 9AM-5PM, Goodness Grows Nursery, 332 Elberton Road, Lexington, for more information call 706-743-5055.

Organic Gardening Day, Saturday, April 20, 9AM-5PM, Goodness Grows Nursery, 332 Elberton Road, Lexington, for more information call 706-743-5055.

Organic Gardening Day, Saturday, April 20, 9AM-5PM, Goodness Grows Nursery, 332 Elberton Road, Lexington, for more information call 706-743-5055.

Woody Plant ID: Spring Flowering Trees that Aren't Dogwoods, Sunday, April 21, 2-4PM, Specialty Ornamentals, 3650 Colham Ferry Road, Watkinsville,

\$35, Pre-registration required, for more information call 706-310-0143.

Building a Fairy Garden, Saturday and Sunday, April 26-27, 10AM, Hodge Podge Arts, Antiques and Interiors, 132 B East Church Street, Monroe, \$5 plus supplies, for more information contact (678) 635-8750.

West Broad Farmers Market, corner of West Broad and Minor Street, beginning May 4, first Saturday of every month (May-December), 10AM-1PM.

How to Make Hypertufa Pots, Specialty Ornamentals, 3650 Colham Ferry Road, Watkinsville, May 7 & 8, 2-4PM, \$35, Pre-registration required for more information call 706-310-0143.

Build Your Own Planting Trough, Saturday and Sunday, \$35, May 10-11, 10AM, Hodge Podge Arts, Antiques and Interiors, 132 B East Church Street, Monroe, for more information contact (678) 635-8750.

Propagation Workshop, Saturday, May 11th at 11:00AM, [Piccadilly Farm](#), 1971 Whippoorwill Rd in Bishop, for more information contact Mr. Jones at (706) 769-6516.

Medical and Edible Herbs (plus lunch), Saturday and Sunday, May 24-25, 10AM, Hodge Podge Arts, Antiques and Interiors, 132 B East Church Street, Monroe, \$15, for more information contact (678) 635-8750.

Spring Sale, May 24th and 25th, [Piccadilly Farm](#), 1971 Whippoorwill Rd in Bishop, for more information contact Mr. Jones at (706) 769-6516.

Seniors Garden Club, Athens Council on Aging, Thursdays, 10-11:30 AM, FREE, contact (706) 549-4850 for more information.

Athens Farmers Market, every Saturday beginning April 6, 8AM-noon, Bishop Park.

Amanda's Slice

Now that the 2013 Master Gardener and Composter classes have wrapped up, class members have begun volunteering within the community. If you were able to make it to the Athens Area Master Gardener Plant sale, you may have had the pleasure of meeting many wonderful new and veteran Extension volunteers. Since Spring has sprung, the new Master Gardeners are quickly learning that there is never a dull moment in the Extension office as they begin their volunteer hours with us at the Clarke County Extension office as well as at other volunteer opportunities such as at the State Botanical Garden of Georgia and at local schools with Junior Master Gardener programs. Master Composter Volunteers are gearing up for International Compost Awareness Week (May 6-10) and will be answering questions at the local

farmers markets, helping with compost bins sales, hosting a screening of 'Dirt! The Movie', and so much more. Volunteers from both groups will also be at the Winterville Marigold festival on May 18th answering questions in their respective areas. Also, the Master Gardeners will be selling annuals, perennials, vegetables, shrubs and trees which they have grown themselves and the Master Composters will be selling compost bins.

Feel free to seek out these individuals as they volunteer in our community to ask them gardening or composting questions. They love the challenge of a good question!

In search of my mother's garden, I found my own..

—Alice Walker

Outdoor Water Restrictions:

Clarke, Barrow, Oconee & Jackson Counties

Outdoor water use for Clarke, Barrow, Oconee, and Jackson Counties is now limited to one day per week with even number addresses allowed to water on Saturday and odd number addresses allowed to water on Sunday. The ban on watering between 10:00 AM and 4:00 PM remains in effect on Saturdays and Sundays.

THE FOLLOWING USES ARE EXEMPT FROM ALL HOURLY/DAY OF THE WEEK RESTRICTIONS:

- Drip Irrigation
- Soaker Hoses
- Hand Watering
- Food Gardens
- New installations of plants and turf (with a permit)
- Grey Water, Rainwater and AC Condensation Reuse
- Golf Course- Tee and Green Irrigation
- Plants for sale, resale, or installation

For more information and additional exemptions please see the following link:

athensclarkecounty.com/index.aspx?NID=1243



Helpful information online:

[Find my local Extension Office](#)

[Pest Management Handbook](#)

[SE Ornamental Horticulture Production & IPM blog](#)

[Bugwood – Pest Images](#)

[Georgia Turf](#)

[Pesticide Applicator Info](#)

[Georgia Certified Landscape Professional](#)

[Landscape Alerts online](#)

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Mission Statement

The Cooperative Extension's mission is to respond to the people's needs and interest in Agriculture, the Environment, Families, and 4-H/Youth in Athens-Clarke County with unbiased, research-based education and information.

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