

College of Agricultural and Environmental Sciences College of Family and Consumer Sciences

Shades of Green

From Gardeners, To Gardeners

Athens-Clarke County Cooperative Extension

March 2013

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A Gardener's List of New Year's Resolutions

By Mary Carol Sheffield

Every year I make a short list of resolutions for the new year, and I'm sure many of you do, too. Usually, it revolves around longer, more frequent workouts and fewer tempting desserts, but this year, as a University of Georgia county agent, I thought I would focus my resolutions on my yard and garden.

So here goes. I resolve...

1. To keep a garden notebook. I'm not good at journaling, but if I think of

5. To keep a list of the plants I put in my garden and record their sources, the date I purchased them and the date they get planted.

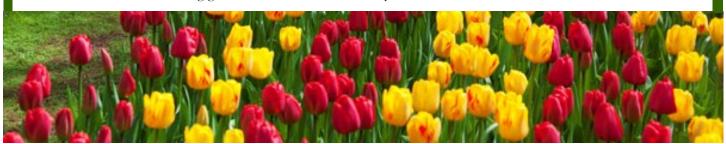
- 6. To look for ways to reduce water consumption around my landscape, including planting drought resistant plants and watering on a consistent schedule. I will water between 10 p.m. and 9 a.m. in order to use water efficiently. I will also consider adding a rain barrel to my landscape in order to capture rain water from my gutter system, which will be used in my landscape.
- 7. **To visit botanical gardens** in my area and in my travels. What better way to be inspired to plant and create new areas in our own land-scapes!
- 8. To plant a few new varieties in my vegetable garden, along with the tried and true varieties that always produce well in my area.
- 9. To reduce the area of my lawn to just the amount that is manageable and useful for my landscape needs.
- 10. **And, lastly, to lose ten pounds** while putting all of these resolutions into action!

I hope you will adopt some of my resolutions or create a list of your own for 2013.

(Mary Carol Sheffield is the University of Georgia Cooperative Extension agricultural and natural resources agent in Paulding County.)

it as data collection that makes it a little easier for me. I will record weather data, including the date of the last frost, amount of rain that collects in my rain gauge after that afternoon shower, and daily temperatures. I will also include my planting dates for when I start seeds and a map of my vegetable garden plot.

- 2. To sketch out my landscape and all the plants currently in place. I'm also not an artist, but a large piece of graph paper, a tape measure and a measuring wheel would go a long way towards preventing me from digging up dormant plants. It will also help me to plan for future bed installations and plantings. Before I do this, I resolve to call the "Call before you dig" number (811), so that I can add the underground utility lines to my map.
- 3. To spend at least 10 minutes each day, scouting my beds for insects, diseases and weeds, and take preventative measures to help reduce problems with these pesky garden visitors.
- 4. To use my UGA Extension soil test recommendations to help cultivate a healthy lawn and garden. Not only will following these recommendations help my plants look better, but they will help me prevent excessive nutrients from entering ground water and streams in my area.



First Steps to a Successful Garden

by Darbie Granberry



During this time of the year, all true gardeners are getting thoroughly excited about soon-to-be-planted spring vegetable gardens. We excitedly envision lush rows with perfect pods of peas, scrumptiously delicious sweet corn and big, beautiful tomatoes. We can hardly wait to put the seed in the ground and harvest the best vegetables ever.

But hold on just a minute. We need a vision, yes! And we need to put the seed in the soil, certainly! But it takes more than a vision to make that picturesque, bountiful garden a reality. We need a plan, as well. So, you should begin planning your garden before you order the first packet of seed or turn the first spade of soil. Proper planning is critical.

First, plan for the location and size of the garden. Then consider land availability, how much time you can spend caring for

the garden, and the kinds and amounts of vegetables you want to produce. It's best to put the garden near your home for quick, convienient access. Be sure to select a site with a suitable source of water for irrigating on hot, dry summer days. Locating the garden near your home makes it easier for watering and timely management.

When deciding on a garden site, remember, most vegetables like a lot of sunlight and prefer a well-drained, fertile soil. However, with adequate planning and appropriate cultural practices, you can grow a productive vegetable garden on most any Georgia soil. After you select the site, draw a map of the garden showing the overall dimensions and the number, width, and length of rows.

Next, decide which vegetables (and specific varieties) that you want to grow. List them in your garden plan. Place perennial crops, such as asparagus and strawberries, on one side, so they won't interfere with other garden activities. Plan to plant tall crops, such as sweet corn, on the north or west side of the garden to reduce shading of lower-growing vegetable plants. Put planting dates and fertilizer rates on your garden map.

Be sure to order your garden seed four to six weeks before the first scheduled planting date. This will help make sure you get your seed in plenty of time before planting. Order seed of transplanted crops, such as tomatoes, eggplant and pepper, even earlier to allow enough time to grow your transplants.

You will need a diverse array of tools and equipment to plant and maintain your garden. Here again, plan ahead so you will have the right tools and equipment on hand when you need them. A hoe, rake, spading fork, round-nosed shovel, and watering can may be all the equipment that you will need for a small garden. For larger gardens, more helpful implements might include a rotary tiller or garden tractor with a cultivator.

During the gardening season, keep records. These records will help you evaluate each variety that you grow and also document rainfall amounts and fertilizer applications. This is very important information to have and use for planning your garden next year. It's easy to make changes on paper, but almost impossible to change your garden after it has been planted. Carefully plan your garden and follow this plan to help make your 2009 vegetable garden the best ever.

(Dr. Darbie Granberry is a Horticulturist at The University of Georgia)

Q&A: Plant bed's height is about roots

by Amanda Tedrow

me raised beds in to allow deep rooting of the plants

I want to put in some raised beds in my back yard, but I don't know how tall to make them. Do you have suggestions?

— Phyllis H., Athens

There are several factors to consider when creating your bed design. You must consider the ease of maintenance, state of your current soil, need of the incoming plants, etc. Most raised beds are 3 to 4 feet wide so you can easily weed and prune the plants without stepping in the beds and compacting the soil. Most people have raised beds that are 10 to 12 feet long and often contain a variety of plants. The height of the bed will affect the depth of the root system. I would recommend the raised bed be at least 8 to 12 inches tall

to allow deep rooting of the plants, especially if perennials or vegetables will be planted.

Some gardeners follow the guidelines of square foot gardening which is a 4-by-4-foot bed that is 6 inches tall. When following the precepts of square foot gardening, only a certain number of each type of crop is planted in each square foot section of the bed. This method of gardening is preferred by some due to the ease of maintenance and manageably sized growing areas.

When constructing the beds, make sure to consider sunlight and watering. Make sure the bed is near a water source and angled so the plants will receive the necessary sunlight 6-8 hrs throughout the day. If you are utilizing your raised bed for vegetable gardening, many of the same rules that you

utilize for in-ground gardening must be followed concerning watering and crop rotation. Avoid overhead watering and make sure to rotate your crops so they are not planted in the same area other than once every four years.

Do you have an Agriculture and Natural Resources question? Contact Amanda Tedrow, Athens-Clarke County Extension agent at (706) 613-3640 or atedrow@uga.edu



Plants with Resistance Help Fight Winter Diseases

by Sharon Dowdy

To help keep diseases out of your winter annual flowerbeds, University of Georgia plant pathologist Jean Williams-Woodward recommends starting with disease-resistant plants.

"Selecting powdery mildew resistant cultivars of crape myrtles is easy. Just buy the ones with the Indian names," said Williams-Woodward, a scientist with the UGA College of Agricultural and Environmental Sciences. These include the white flowering, 'Natchez' and the lavender flowering 'Muskogee.' Selecting disease resistant flowering annuals takes a little more thought.

Pick the right varieties

When adding pansies to your winter landscape, she recommends selecting from this list of leaf spot resistant varieties: 'Bingo Red & Yellow,' 'Crown Blue,' 'Crown Golden,' 'Crystal Bowl Supreme Yellow,' 'Crystal Bowl True Blue,' 'Dynamite Red & Yellow,' 'Majestic Giants Yellow' and 'Viola Sorbet Blackberry Cream.'

"Leaf spot resistance doesn't mean they are totally immune to disease," she said. "It means they get less disease than a susceptible variety."

If Patiola pansies are your flower of choice, Williams-Woodard recommends buying Purple Passion Mix, Pure Yellow, Pure Lemon and Pure Orange. These varieties are all less susceptible to Cercospora leaf spot than the Colossus series cultivars, she said.



Remove infected plants

This season Williams-Woodward expects to see snapdragons and pansies with downy mildew. This disease likes wet, humid and cooler weather.

"The best control method is to remove the downy mildew infected plants because it spreads very fast," she said. "You can send the plants to me because I personally love mildews. Once it spreads in your flowerbed, you won't be able to control it."

Impatiens, another Georgia landscape favorite, is often infected by downy mildew. Williams-Woodward says home landscapers who saw the disease on their impatiens last year, will see it again if they plant in the same spot.

"It can be hard to spot the symptoms – rapid defoliation, subtle leaf discoloration, downward cupping of leaves and white sporulation on the leaf underside – but eventually your impatiens will look like bare stems or twigs," she said.

You get what you pay for

Root rot disease is also a major problem in winter landscape beds. Georgia has had a fairly wet winter, which will make conditions ideal for root rot disease.

"If you buy cheap plants from the 'almost dead rack' you are buying and bringing home problems," Williams-Woodward said.

To help prevent root rot diseases, she recommends installing plants at a higher elevation, not planting too deeply, improving soil drainage and redirecting water so plants are not overwatered. "And try not to till in old plants and plant materials," she said. "If you had disease there before you are just incorporating that material back into the area."

Root rot diseases thrive in moisture, so inspect plant beds and make sure there are no sources of extra water, such as a downspout aimed into the bed or an irrigation pattern that directly hits the area.

Numerous cases of black root rot (*Thielaviopsis basicola*) are being reported. It produces black spores in chains that survive in soil. In large numbers they cause the roots to look black, thus the name.

"We are seeing a lot of it this year but some years we don't. It favors cooler temperatures and alkaline soils, so keeping the pH below 5.8 will reduce it," she said.

Avoiding susceptible plants will also help fight black root rot. Susceptible plants include vincas, pansies/violas, snapdragons, impatiens, petunias, calibrachoas, verbenas and begonias. Less susceptible plants are salvias, geraniums, marigolds, zinnias, dusty millers, coleuses and celosias.

"I haven't met a calibrachoa yet that isn't susceptible to black root rot," she said.

Follow these tips

Overall, to help reduce the amount of disease growing in your landscape flowerbeds, Williams-Woodward recommends following these tips:

- 1. Follow good sanitation practices.
- 2. Propagate from clean stock.
- 3. Plant the correct plant in the correct location.
- 4. Manage and modify the environment. (But don't over water.)
- 5. Use resistant cultivars.
- 6. Eliminate disease-prone plants.
- 7. Use, but don't rely on, chemical control.
- 8. Keep your tools clean.

"Keeping track of what diseases you have in your beds now will help you plan for your landscape in the future," she said.

(Sharon Dowdy is a news editor with the University of Georgia College of Agricultural and Environmental Sciences.)

Intercropping Helps Farmers Save Money, Time, and Resources

By Clint Thompson

Cantaloupes and cotton might seem like an odd couple but they're actually proving to be a perfect pair.

Planting the two together is proving to reduce planting time and costs while generating the same, if not more, profit for some Georgia farmers.

Tift County Extension Coordinator Brian Tankersley has been studying the planting method, called intercropping, since 2010 and has seen positive results in some of his farmers' fields. He has also found that management and yields from intercropping canteloupes and watermelons with cotton are comparable to planting the melons alone.

William Dillard, who farms in Excelsior, approached Tankersley about planting cantaloupe and cotton in the same field after seeing the process in another farmer's field.

Prep once, harvest twice

"You prep your land one time for the melons. All you're doing is going in and seeding so you don't have as much cost as far as re-prepping your land," Dillard said.

Intercropping also saves valuable time during the growing season.

"Once you get through with the melons, it's very hard to get a second crop and get it to where you can get it to grow before frost. This way you're able to get it planted in a timely manner," he said.

One of Dillard's intercropped fields produced 1,200 pounds of cotton without affecting the cantaloupe yields and the other produced 800 pounds of cotton without affecting the melon yield.

"The difference was he ran out of water in the cotton crop on that second field," Tankersley said. In 2011, five growers participated in an evaluation study led by Tankersley. The study consisted of 12 fields, totaling 385 acres. The farmers intercropped 1,000 acres, but only collected data on 385.

The 385 acres yielded between 840 to 1,579 pounds an acre with an average of 1,216 pounds, or about two and half bales of cotton per acre. Georgia farmers produce an average of about 90 to 950 pounds an acre when cotton is grown alone.

Fertilizer goes farther

"Intercropping allows farmers to make better use of what could be limited resources," Tankersley said. Cotton fertilizer costs are reduced because the crop shares the same fertile soil used earlier in the season by cantaloupes or watermelons. The young cotton plants and the melon crop also share the same irrigation systems, so the cost of having to irrigate a second field is eliminated. Also, because the land is already tilled for the melon crop, land preparation costs for the cotton are eliminated.

Though intercropping has proven to be beneficial, it is not recommended for every farmer. For those who have limited water supplies, too little irrigation on the intercropped field will have adverse effects.

Also, intercropping won't work on the late cucurbit crops that some farmers plant with plans to harvest watermelons in late July. That's too long to hold back cotton crops, Tankersley said.

Look at market first before intercropping

Farmers should also consider the market. Grain sorghum is sometimes planted after cantaloupes so farmers must determine how the grain and cotton prices compare. Heavy weed pressure is another concern. According to the study, in 2012, 75 percent of fields had some weed pulling following the harvest of cucurbit crops.

"It's hard to fight those weeds for that long of a period of time," Tankersley said.

He cautions farmers not to do anything that would potentially harm their cantaloupes and watermelons, especially considering the expense that goes into growing both.

"The primary crop is the cantaloupes and watermelons," Tankersley said. "This is where they have to spend so much money. You don't want to jeopardize your primary crop trying to grow the secondary crop."

Many farmers spend about \$2,000 an acre to plant the melons and take them all the way to harvest.

Try it small-scale first

Tankersley recommends farmers who are interested in intercropping move forward cautiously and try it on a limited number of acres first.

"I tell people, don't grow watermelons and cantaloupes just to plant cotton in it," he said. "Don't do that because you can lose a lot of money, and we've got enough watermelons and cantaloupes being grown. We don't want to flood the market with melons."

(Clint Thompson is a news editor with the University of Georgia College of Agricultural and Environmental Sciences based in Tifton.)



Resistant Varieties Saved Georgia Tomatoes From Viral Destruction

by Clint Thompson

Once a major threat to the tomato industry, the thrips-vectored tomato spotted wilt virus (TSWV) has been unable to penetrate the vegetable's latest line of defense — resistant cultivars.

Scientists from the University of Georgia, University of Florida and Clemson, North Carolina State universities have collaborated over the last two decades in an effort to try to alleviate what had become a deadly problem. The results have proven to be beneficial and profitable for tomato growers.

"If we didn't come up with a solution, it would have killed the tomato industry in Georgia," said David Riley, a professor of entomology with the UGA College of Agricultural and Environmental Sciences in Tifton.

Riley is the team leader of the RAMP (Risk Avoidance and Mitigation Program) Project, which compiled data showing that an estimated \$9 million was lost in tomato and pepper from 1996 to 2006. The spotted wilt virus had a disastrous effect on the vegetable industry.

"It was bad. If you go back 10 years ago, there were fields that had complete yield loss," Riley said. "Once you get so much damage in a field,

at some point, it becomes uneconomical to go in and harvest it. With a tomato crop, nearly half of your production cost is tied up in that harvest cost. Once your production goes down too low from disease, they'll just cut it loose and not even go in there. So, not only do the growers lose their tomato crop, temporary workers lose jobs."

"Ten years ago, the tomato crop in Georgia would have been wiped out if resistant varieties weren't available," he said.

Today, Georgia's vegetable industry, including the state's tomato and bell pepper fields, is worth \$781 million and accounts for about 10,200 jobs across the state, according to the most recent Georgia Farm Gate Value Report.

TSWV dates back almost 40 years when it was discovered in peanuts in Texas. It was later found in Louisiana and Alabama. In the 1990s, the virus was detected as a major problem in such Georgia crops as peanuts, vegetables and tobacco.

Eventually, resistant cultivars (tomato varieties that possess the resistant gene) stopped almost all losses from the disease. Based on a 2008-2009 survey conducted by Riley and his team, 75 percent of farmers in Georgia, Florida, South Carolina and North

Carolina were using an improved method of growing tomatoes, which included resistant cultivars.

Seventy-one percent of those responding were satisfied with their crop's production. According to the USDA TSWV RAMP Project website (www.tswvramp.org) resistant cultivars prevent plants from wilting, which greatly increases the crop's yields. These cultivars also reduce irregular ripening of fruit.

Controlling the TSWV is a step in the right direction for tomato growers, but it didn't totally solve the problem of thrips, the small insects that can transmit the virus.

"There's still a little bit of a problem left with thrips themselves because western flower thrips can come in late season and feed directly on the fruit," Riley said. "Even if it's a resistant cultivar, you can still have some virus symptoms show up on the fruit. For the most part, the problem of major yield loss in tomato has been solved in Georgia."

Riley added that the best way to control late-season western flower thrips is achieved with products like spinetoram.

(Clint Thompson is a news editor with the University of Georgia College of Agricultural and Environmental Sciences based in Tifton.)





Winter is a great Time to Prune Overgrown Trees and Shrubs

By Stephen Garton

January and February are ideal months for pruning overgrown trees and shrubs. However, avoid pruning shrubs and trees that flower in the spring like dogwoods, azaleas and native hydrangeas.

These should be pruned after flowering -- in late spring or early summer. Fruit trees should be pruned before new growth starts in the spring.

The benefits of pruning include keeping plants attractive; maintaining safe and healthy conditions by removing branches that cross or rub against each other; removing obstructions to foot traffic or interference with safe operation of lawn mowers or other maintenance equipment; clearing blocked views of traffic at entrances to driveways; and removing limbs that are weak or infested with pests or diseases.

Don't cut too much

Thoughtful pruning produces desirable, well-formed compact plants that fit into the appropriate scale of the landscape. However, pruning a vigor-



ous healthy plant will stimulate vigorous, new, growth from buds that were lying dormant on the lower parts of branches or limbs. These new buds may produce three or more, new shoots from a single branch within 6 to 8 inches of the cut.

It may be necessary to reduce the number of branches that you allow to grow in order to prevent the development of branches that may shade each other and be weakly attached to the parent plant.



Rub away tiny shoots

Removal is very simple and can be done by rubbing the new developing buds with your fingers just as new growth begins. In vigorous plants such as crepe myrtles, buds may need to be removed over a period of several weeks to effectively control the development of too many shoots from a single pruning cut.

Sharp, clean, pruning tools should be used to minimize damage and to make precise cuts that will seal and heal quickly. This will reduce the chances of microbes invading the wounds and causing decay. No other treatments are necessary to stimulate rapid closure of wounds. Do not paint the pruned surfaces of branches or limbs with any type of sealant or wound treatment.

A good quality pruning saw should be used to cut limbs that are greater that one-half to three-fourths of inch in diameter. Lopping shears and hand shears can be used to remove smaller diameter shoots.



Keep tools clean

Tools should be cleaned periodically to remove traces of sap and occasionally honed to maintain a very sharp cutting edge. Pruning with blunt or dirty tools will retard the wound healing processes at the cut surfaces.

Before making any cuts on a tree or shrub it is essential to have a clear idea of why you are pruning and what changes you wish to see in the form of the plant. Consider what your needs are and prune to meet those needs. Pruning because your neighbor has started to trim trees and shrubs is rarely a good reason.

For more information on pruning ornamentals, shrubs and trees, see the University of Georgia Cooperative Extension publication website at www.caes.uga.edu/Publications.

(Stephen Garton is the University of Georgia Cooperative Extension Coordinator in Forsyth County.)



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Exotic Birds and Reptiles on Planet Earth Family Day, March 2, 10-11:30AM, \$5/person or \$20/family, State Botanical Garden of Georgia, for more information call (706) 542-6150.

25th Annual Southeastern Flower Show, Cobb Galleria Centre, March 15-16: 9AM-8PM and March 17, 9AM-3PM, Price varies. Contact Megan McDuffie for more info at mmcduffie@sehort.org or 404-351-4003.

Create a Rain Garden, March 9, 10 AM-11PM, Free, Dunwoody Nature Center. For more info contact David Boyd at programs@dunwoodynature.org (770) 394-3322.

Lawn Care on a Budget, March 19, 6:30PM-8:00PM, \$6, Rockdale county Cooperative Extension Office, for more information call (770) 278-7373.

Plant Fair and Sale, March 21, 2013-24, 9Am-5PM, Callaway Gardens, for more information contact (706) 663-5153.

Georgia Master Gardener Association Annual Conference, March 22-23, Oconee County Civic Center, \$85, Preregistration required.

Goodness Grows, Inc. Events, 332 Elberton Road, Lexington, GA 30648, Spring Celebration: March 23, 9AM-5PM, Goodness Grown-Up Easter Egg Hunt: March 30, 9AM-5PM, Butterfly Day at Goodness Grows: April 20 9AM-5PM, Organic Gardening Day: 9AM-5PM. For more information call 706-743 -5055.

Native Plants Course, March 26, 8:30 AM-12:30 PM, State Botanical Garden of Georgia, Classroom 2, \$50, for more information contact Connie Cottingham at (706) 542-6150.

Full Moon Hike, March 27, 7:00PM-8:30PM, \$5/person or \$15/family, State Botanical Garden of Georgia, for more information contact Connie Cottingham at (706) 542-6150.

Plantapalooza Plant Sales, April 6, 8AM-2PM, sales at State Botanical Garden of Georgia, UGA's Horticulture Club, and Trial Gardens at UGA.

16th Annual Seed Swap, April 6, 10AM-4PM, Grove Creek Farm, 10 Legacy Road in Crawford, for more information contact Daniella Adams at (706) 743-5715.

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

Athens Farmers Market, first market of 2013 season is Saturday, April 6, 8AMnoon, Bishop Park.

Athens Area Master Gardener Plant Sale, April 20, 8AM-2PM, ACC Cooperative Extension Office.

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





Amanda's Slice

We had a momentous event in February with the graduation of the 2012 Master Composter program participants. From the 13 program participants we had nine graduates who completed over 400 hours of volunteer service to the community. These volunteers have worked with local elementary, middle and high schools to build outdoor compost bins, in-classroom worm bins and provided presentations to students. These volunteers have also had booths at the local farmers market, community events and even at a 5-K race! They have worked with over



800 individuals in the community and taught over 20 classes.

As the 2013 Master Composter class begins, I am excited to see what they will contribute to our community.

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 AND 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

Upcoming Trainings

Free online webinars

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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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