



**LAWNS:**

~This month is the time to seed, sod or sprig your lawn. (See charts below)

TWO-INCH PLUG SPACING AND SOD REQUIRED FOR WARM-SEASON GRASSES			SEEDING RATES FOR TURFGRASSES IN GEORGIA			
Turfgrass	SPACING (inches)	AMOUNT OF SOD (sq ft) / 1000 SQ FT	GRASS	SEEDING RATE	PLANTING TIME	REGION OF ADAPTATION
Bermuda	12	30-50	Improved Bermuda	3-5 (unhulled)	May to June	All
Centipede	6	100-150				
St. Augustine	6-12	30-50	Centipede	0.25-1.0	May to June	Piedmont to coast
Zoysia	6	100-150	Zoysia	1-3	May to June	All

**Suggested fertility program for Georgia lawns (See chart below)**

Turfgrass	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total LBS N/1000 FT <sup>2</sup> /YR
Centipede					C	Fe	C						1-2
St. Augustine					C*	C*	C*	C*	C*				2-5
Zoysia		N <sup>†</sup>			C	N	N	C			N <sup>†</sup>		2-3

Centipede: C= 12/4/8 @ 4 lbs. /1000 ft.

St. Augustine & Zoysia: C= 16/4/8 @ 5 lbs. /1000 ft.

\* = To reduce chinch bugs and gray leaf spot problems on St. Augustine use a slow-release N source

† = Fertilizing at this time is only for lawns over-seeded with ryegrass

From the Sixth Edition of the Georgia Master Gardener Handbook

**ORNAMENTALS**

~ Inspect your azaleas for [leaf galls](#) caused by the fungus *Exobasidium vaccinii*. *Exobasidium vaccinii* causes leaves and flowers to become swollen, curled, waxy and fleshy. The swollen plant tissues or "galls" are made up of abnormal plant tissue. Infected leaf tissue is usually pale green in color during the early stages of the disease; infected flowers are usually pinkish. Later in the season, a white spore layer covers the infected plant parts. Galls eventually turn brown and harden as the season progresses. Lower leaves on plants are usually the most seriously damaged, but under humid conditions and in shaded locations galls may occur at the ends of upper branches.

Virginia Cooperative Extension Publication

~ Prune back camellias once they have finish flowering. Cut back no more than 1/3 of plant height per season. If the plant has outgrown its location, wait until late winter to severely prune it back to the ground. Also scout for [tea scales](#). Treat with Sevin, Horticultural oils (summer), Bayer Advanced, Insecticidal soap or malathion 57EC

**VEGGIES/FRUITS**

~ Make third plantings of vegetables such as snap beans, corn, squash, and lima beans.

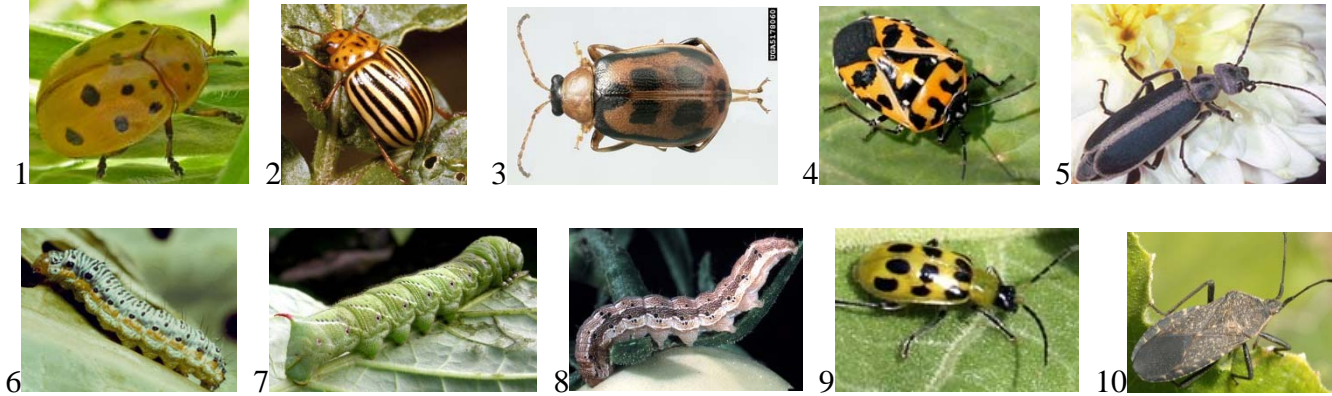
~ Control grass and weeds; they compete for moisture and fertilizer.

~ Locate mulching materials for such crops as tomatoes, peppers, eggplant, Irish potatoes, okra and lima beans. Apply before dry spells occur but after plants are well established (usually by blooming time).

~ Now is the time to start removing suckers from tomato plants and tying them up.

~ Watch out for the "10 most wanted culprits": (1) Mexican Bean Beetle, (2) Colorado Potato Beetle, (3)

Bean Leaf Beetle, (4) Harlequin Cabbage Bug, (5) Blister Beetle, (6) Cabbage Worm, (7) Tomato Hornworm, (8) Tomato Fruit Worm (aka Corn Earworm), (9) Cucumber Beetle and (10) Squash Bug. Early discovery makes possible early control.



~ Keep a log book of problems and failures that occur so you can avoid or prevent them in the next planting season. Note successful techniques and varieties for consideration next season.

~ Make plans now for putting up some of your garden produce. Check with Suzanne Williams in Dougherty County or your county extension office at 1-800-ASK UGA1 for more information.

*UGA Publication – Vegetable Garden Calendar*

## **FLOWERS**

~ Use insecticidal soap to control insects like aphids, spider mites, thrips and whiteflies. Apply during the early part of the day.

~ Check your flowers for [Eastern Lubber nymphs](#) (Georgia Thumpers). The immature eastern lubber grasshopper differs dramatically in appearance from the adults. Nymphs (immature grasshoppers) typically are completely black with one or more distinctive yellow, orange or red stripes. The front legs and sides of the head are often red. Sometimes the nymph is brownish red, but also displays the colorful stripes. Treat with carbaryl, bifenthrin, cyhalothrin, permethrin, and esfenvalerate.

*UF/University of Florida IFAS*



Young nymphs of the eastern lubber grasshopper, *Romalea microptera* (Beauvois), clustered on a young citrus tree.

*Photograph by John Capinera, University of Florida.*

# Nutrient-Rich Soil Is the Key to Growing Prize-Winning Produce

**Soil Testing Is Essential** - By Sharon Dowdy (UGA, College of Agricultural and Environmental Sciences)



A fistful of rich soil from the University of Georgia's J. Phil Campbell Sr. Research and Education Center in Watkinsville, Ga.  
*Image credit: Sharon Dowdy*

The key to growing prize produce isn't buying the highest quality transplants, sowing seeds on Good Friday or planting by the signs of the moon. University of Georgia Cooperative Extension experts say the secret's in the soil.

"It's all about the soil when you are planting vegetables," said Bob Westerfield, a UGA Extension consumer horticulturist based on the university's campus in Griffin, Ga. "If you are gardening in Georgia, chances are you are dealing with a lot of clay or sandy soils. Put your money into your soil. There's no need to worry about the crop until you have the soil ideal."

**Get your soil tested** - To help your garden soil become "ideal," Westerfield recommends having the soil tested. A soil test is essentially a clinical report on the soil's nutritional content. To get a soil test, take a sample of soil from your garden plot to your local UGA Extension office. For a small fee, the soil is tested at the UGA Soil, Plant and Water Lab in Athens, Ga. Operated by the College of Agricultural and Environmental Sciences, the lab uses a method developed specifically for Georgia's soils.

"Missouri and California use extractions developed for higher pH soils. If you send them a sample of our clay soils, the soil tests may not accurately reflect the available nutrients said Julia Gaskin, CAES sustainable agriculture coordinator.

The soil report will be mailed, or emailed, to you within a few days. Follow the report's recommendations, and your soil will be on its way to being plant worthy.

**pH plays a huge role** - The level of the pH in the garden soil is essential to the growth of garden plants. "If the pH is off, chemically, the plants can't absorb the nutrition," Westerfield said. "The soil needs to be in the 6 - 6.5 range, which is slightly acidic, for most vegetables."

When it comes to garden soil, Gaskin says pH is often called "the master variable." "Soils in Georgia are naturally acidic. Our subsoils are as low as 4.5 or 5.0," she said. "Roots don't like pH below 5.5. Very acidic is 4.0 and very basic is 9.0."

To build up the soil's tilth or structure, learn to read bags of soil amendments. Add four to six inches of organic material and till it into the soil. "Don't leave it on the top. Till it in, and you will see wonders from it," Westerfield said.

**Know your manure source** - Before adding animal manure to your soil, make sure you know the history of the manure and the animal that provided it. UGA Extension agents often field calls from home gardeners who want to know why their tomatoes or potatoes are twisted.

"The grower usually says he didn't add pesticides or fertilizers, but fresh manure often still has pesticides and herbicides in it from the forage the animal fed on," Westerfield said. "The chemical is still active, so to speak, and you end up with twisted, gnarled-looking plants."

To help prevent this, use manure that has set for six months or manure that has been turned for at least two months, he said.

Gaskin says straight broiler litter is the most nutrient rich manure in Georgia. "If you use it, you must be safe. Stop applying it 90 days before harvest when you incorporate on tomatoes and 120 days when you apply it to root crops like carrots that touch the soil or leafy greens and strawberries that are consumed raw," she said.

Planting cover crops in your garden plot in the winter and spring will also add nutrients to the soil. Plant a cover crop mixture of a cereal grain (wheat, rye or oats) and a legume (Austrian winter peas) in the winter



and millet or buckwheat in the summer, Westerfield said. "Just till in the cover crop at least two weeks before you plant," he said.

**Not too wet, not too often** - Once you have amended the soil, work it only when the soil moisture is right. "Don't get it in the garden when the soil is too moist. Grab a fistful of soil and make a dirt bomb," Westerfield said. "Put your finger in it and if the dirt bomb doesn't break apart into smaller segments, it's most likely too moist to be gardening. If the soil doesn't break apart, it's too moist."

Don't till the soil if it's too dry either. If you can't make a ball at all, your soil is too dry. "Excessive tillage destroys soil structure," Gaskin said. "Add mulches and till only when you need to for seedbed preparation or weed control."

To learn more about the makeup of your garden soil, Gaskin recommends reading "Soil Biology Primer," a book published by the U.S. Natural Resource Conservation Service, and two publications from the USDA's Sustainable Agriculture Research and Education program - "Building Soils for Better Crops" and "Managing Cover Crops Profitably."

## Chamberbitter

Jacob G Price

Chamberbitter is a summer annual weed that is commonly found in turfgrass and ornamentals that emerges in great numbers in July. It is native to Asia but found throughout Georgia,



Florida, Alabama, and Texas. It is in the spurge family and reproduces by numerous seeds which are found in the fruit attached to the underside of the branch.

**Description:** Chamberbitter is a small erect plant with angled or grooved stems. The leaves are thin and have smooth margins. Leaves are also oblong and arranged in alternating rows of two on the branch. It is easily identified by the small round fruit on the undersides of the stems.

**Control: Turfgrass:** For centipedegrass and St. Augustinegrass, Gallery and Atrazine are labeled as a pre-emergence control. Apply between April and May. For post-emergence control use Atrazine at recommended rates on St. Augustinegrass and Centipedegrass. Apply two applications spread three weeks apart. As an alternative, "Prompt" (BASF, contains atrazine + bentazon), may be used at recommended rates. Again, two applications spread three weeks apart.

**Control: Ornamentals:** Pre-emergence options are Ronstar 2G, Snapshot, Factor, and Gallery. Apply in March and re-apply 2-3 months later. This is a difficult weed to control in ornamentals, therefore two applications of one or more of the above products will be necessary. Pre-emergence herbicides will not be totally effective. There are no post-emergence over-the-top controls in ornamentals. Direct applications of Roundup Pro or Finale (without contact of ornamental foliage) along with supplemental hand-weeding will control this weed. Additionally, research has shown that chamberbitter seeds require light in order to germinate. An adequate layer of mulch will block sunlight and help to limit the presence of this weed in ornamentals.

# Bothersome Boxelder Bugs

Jim Howell, Ph.D., Entomologist, The University of Georgia

Noticed any peculiar "red and black" bugs that suddenly appeared in large numbers inside your home? Or perhaps on south or west-facing outside walls? Their appearance almost always coincides with unusually warm winter days.

These are boxelder bugs that have been temporarily "activated" by the warm temperatures and come inside through any cracks or fissures that they can find leading in from outside of your home.



**Identification** - Adult boxelder bugs are about 1/2 inch long, slate gray in color, with three red stripes behind the head and red lines on the wings. The rear margin of the wings is reddish, and the abdomen beneath the wings is also red, as are the eyes. Nymphs are very bright red, with darker heads.

**Biology/Life Cycle** - In late summer and fall, large numbers of adult and large nymph boxelder bugs come together, usually on the bark of boxelder trees, before moving to an overwintering site. They fly or crawl to a suitable retreat for the winter. These insects seek and find almost any crack or crevice --- in walls, door and window casings, rock piles, tree holes and the foundations of houses.

On warmer winter days, they will often emerge and rest on the south or west sides of our houses, usually on white or very light surfaces. If they have access to the inside, they may also appear there in large numbers. Adults emerge from these overwintering sites in March and early April and feed for about two weeks prior to mating. Females begin egg-laying in cracks and crevices near host plants.

In addition to box elder, this insect feeds on apple, ash, buckeye, maple, plum, cherry, peach and grape as well as other ornamentals. Around the middle of July, new adults lay eggs for a second generation by early autumn.

**Damage** - Boxelder bugs feed primarily on box elder and maple seeds but also suck sap from the leaves and twigs. Despite this, they do little damage to their primary hosts. Because of their fall invasion of our homes, this insect is more commonly considered a household pest. Their fecal material may stain wallpaper, upholstery, curtains and other furnishings. Also, these insects may emit a foul odor when crushed.

**Control** - It is very difficult to control boxelder bugs after they have gotten into the home. Individual bugs can be removed by hand or with a vacuum cleaner.

Although household sprays containing pyrethroids will kill these insects on contact, it is far better to prevent them from getting in by sealing or weather-stripping all cracks and crevices through which they might gain admittance. Windows, including those in the attic, should have screens or storm windows. Vents in soffits and crawl spaces should also be screened.

When they gather in large numbers at various times in the fall, the aggregation is vulnerable to an insecticide that can eliminate a great many at one time. One may also eliminate harborages like rock piles, lumber and leaves that have accumulated near the house.

Because female boxelder trees are the single most important food source for these insects, removal of female trees will greatly reduce the numbers of box elder bugs. Usually, populations are not large enough to warrant the use of pesticides, but if they are needed for use on clusters, permethrin or carbaryl (Sevin) is appropriate.

**Weeds of Turfgrass Word Search**

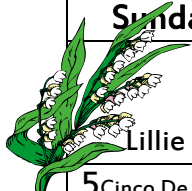







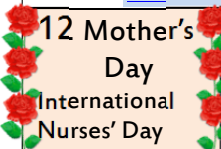









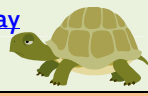







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- CHICK WEED
- CRABGRASS
- CUDWEED
- DALLISGRASS
- DANDELION
- DICHONDRA
- DOVEWEED
- FLORIDA BETONY
- GOOSEGRASS
- HENBIT
- HOP CLOVERS
- LESPEDAZA
- NUTSEGE
- PENNYWORT
- SPURGE
- VIOLETS
- WILD ONION
- WOODSORREL

Carrots & Cauliflower Month  
 Grapefruit & Kiwi Month  
 Potatoes & Limes Month  
 National Sweet Vidalia Month

[Gardening for Wildlife Month](#)  
[National Egg Month](#)  
[American Wetlands Month](#)  
 Get Caught Reading Month

[Gifts from the Garden Month](#)  
[Skin Cancer Awareness Month](#)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
 <b>MAY 2013</b> Lillie of the Valley		Emeralds 	1 May Day 	2 Last Quarter 	3 Garden Meditation Day 	4 Star Wars Day "May the Fourth Be With You"
5 Cinco De Mayo Kentucky Derby 		7 National Teacher's Day 	8 V.E. Day WWII (Victory in Europe)	9 Ascension Day	10	11 International Migratory Birds' Day 
Be Kind to Animals Week 5-11		National Wildflower Week 6-12				
Drinking Water Week 5-11		National Family Week 5-11				
12 Mother's Day International Nurses' Day 	13	14 	15 Celebrate Inner Beauty Day	16 	17 New Moon  National Endangered Species Day 	18 Armed Forces Day First Quarter 
19 National Good Neighbor Day 	20 	21 National Wait Staff Day 	22 	23 World Turtle Day 	24 Brother's Day 	25 Towel Day! Full Moon  
26 Indy 500 	27 Memorial Day	28 	29 National Learn About Composting Day 	30 What You Think Upon Grows Day	31 World 'No Tobacco' Day Last Quarter 	June 1
Hurricane Preparedness Week 5/26-6/1						