Welcome to the first edition of the *Gardening in the Panhandle Newsletter* developed by UF/IFAS horticulture and Florida Yards and Neighborhoods (FYN) extension agents to better serve Bay, Calhoun, Escambia, Franklin, Gadsden, Gulf, Holmes, Jackson, Jefferson, Leon, Liberty, Okaloosa, Santa Rosa, Wakulla, Walton, and Washington counties.

This newsletter will feature articles pertaining to lawn care, fruits, vegetables, ornamentals, insects, disease and upcoming events in the district.

In our current issue you will find information on controlling the ever-so-pesky chamberbitter weed; growing peaches in north Florida; growing one of my favorite plants—rose moss; the benefits of the potter wasp; preventing polluted stormwater runoff; and dealing with stink bugs.

We hope you enjoy this new publication and we welcome your feedback.

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**July-August 2007**

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Help Prevent Contaminated Stormwater Runoff

Hurricane season is underway. If you haven’t done so already, now is a great time to make two simple additions to your hurricane preparedness list, “reduce fertilizer use” and “put the sprinkler system on manual.” These two actions can greatly reduce the amount of contaminated stormwater runoff that flows from our homes. While we all appreciate an attractive lawn, frequent fertilizing and watering can be detrimental to the overall health of the lawn as well as to the environment.

Overloading fertilizer onto a yard increases the likelihood of excess fertilizer running into and polluting water bodies during a storm as well as increased weed growth. The runoff often includes nitrogen and phosphorus which in high concentrations can lead to fish kills. Over-fertilizing may also increase weed growth, because turf grass can only absorb a certain amount of nutrients, and once saturated, weeds may take up the excess and thrive. Please visit www.solutionsforyourlife.com for information on fertilization needs of various turfgrasses from St. Augustine to Zoysia.

By switching automatic sprinkler systems to manual control, home and property owners can conserve water, save money and reduce runoff. Rainwater cannot seep into ground that is already saturated from irrigation, so instead, all of it runs off, taking pollutants with it. Ideally, an established lawn should thrive on rainfall and occasional supplemental watering as needed. Grass that relies primarily on rainwater has fewer fungus problems, and will grow stronger, deeper roots, allowing it to survive in drought conditions and better resist disease. Lawns watered too often only grow short roots and become dependent upon frequent watering from the surface. Turf grass may need watering when its blades begin to fold and footprints remain in the grass.

Fertilizer 101

Is it too late to fertilize my garden? There is no simple answer to this question. Since the dawn of time, many plants have done just fine on their own and are continuing to do so without our help. But with cultivated plants, we’ve learned that the addition of certain materials applied to the soil or to water solutions can create faster growth, bigger fruit, better color, and more attractive flowers.

Perhaps a more appropriate question is, What do I want out of my plants and can this be done by fertilizing them? What your plant needs to show a desired response is determined by what that plant already has—water, light, temperature, pests, and most importantly, the soil condition. The current condition of the soil is best determined by a relatively simple and inexpensive soil test through your county extension office. Once the soil tests are complete, the lacking soil nutrients may be applied to affect the desired response.

The science of fertilizer is knowing what each fertilizer element helps promote. Generally speaking:

- Calcium, magnesium and sulfur affect cell structure formation and plant rigidity.

Individual plant requirements are also a factor as is soil pH. For more detailed information read “Plant Nutrients and Fertilizers for the Non-Farmer,” (EDIS SL60, at http://edis.ifas.ufl.edu) or stopping by your local Extension Office for a copy.

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The science of fertilizer is knowing what each fertilizer element helps promote. Generally speaking:

- Nitrogen (N) effects top growth,
- Phosphorus (P) helps root growth,
- Potassium (K) generates additional fruit production,
Moss Rose
(\textit{Portulaca grandiflora})

\textbf{Description}

Moss rose is a trailing summer annual with semi-succulent reddish stems and thick, inch long, cylindrical green leaves. It reaches about 6 inches tall with a spread of 12 inches. The rose like flowers are about an inch across and come in bright colors like rose pink, red, yellow, white, and orange. Some are striped or spotted with contrasting colors. The flowers open only during bright sunlight, closing at night and on cloudy days.

There are several strains, cultivars and mixes available. Many have double flowers and some are up to 3 inches across. ‘Sundance’ has double flowers to 2 inches across. The Sundial series cultivars bloom in cooler and cloudier weather with double flowers in a wide variety of colors.

\textbf{Culture}

Originally from the hot, dry plains of southern Brazil, Uruguay and northern Argentina, moss rose grows well in poor, sandy or gravelly soils.

\textit{Light}: Needs full sun to flower.
\textit{Moisture}: Drought tolerant, but flowers best with regular watering.

\textbf{Usage}

Moss rose makes a beautiful ground cover in a dry or rocky area, although it cannot be walked on. Use moss rose as edging at the front of borders or in the cracks in a rock wall, or the spaces between stepping stones. It’s perfect for a hot, dry, south facing slope. Plant moss rose in a container or hanging basket and let it spill over like a sedum.

\textbf{Hardiness}: USDA Zones 5-11. Plant seeds or set out plants after all danger of frost has passed.
\textbf{Propagation}: Sow seeds in place. They are as tiny as dust, so mix them with sand before sowing to make them easier to scatter. In warm climates, moss rose may self-seed.

\textbf{Potter Wasps}

The sight of a wasp around the house often causes alarm, but with a little knowledge people can learn to appreciate this important group of insects. One recognizable and beneficial wasp which is common to many landscapes is the potter wasp.

Members of the family Vespidae, potter wasps are one of the many wasps that make a mud nest attached to a structure or shrub. Their nest is unique in appearance and resembles a small vase or jug-like pot. Female wasps mix water with sand and carry the ‘mud’ to a suitable nesting area. The female will make hundreds of trips back and forth over the course of several hours. Once the small nest is completed, the wasp will lay a single egg in the ‘jug’ and then add captured caterpillars or beetle larvae for the emerging wasp young to eat. After the mud nest is closed over, the female will begin constructing another nest elsewhere.

Even though potter wasps are capable of stinging, they are rarely aggressive and should be welcomed in the garden. Although they will not stop all caterpillar outbreaks, they play an important role in maintaining the balance between good and nuisance garden insects.

To view the potter wasp and her nest visit the University of Florida Featured Creatures Web site at http://creatures.ifas.ufl.edu/misc/wasps/potter_wasp01.htm

\textbf{Gardening requires lots of water—most of it in the form of perspiration.}

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Garden Tips for July and August

**Flowers**
- Plant heat-tolerant annuals such as: celosia, coleus, crossandra, impatiens, kalanchoe, nicotiana, ornamental pepper, portulaca, salvia, and vinca.
- Lightly re-fertilize to enhance color and vigor.
- Deadhead, or pinch off, spent flowers to stimulate more flowering.
- Pinch back leggy growth.
- Check roses for black spot fungus and apply a fungicide if necessary.
- Mulch beds to 3-inches deep to help control weeds.
- Monitor weekly for insect or disease problems.
- Increase air circulation between plants. This helps prevent formation of fungal diseases such as leaf and stem blights.

**Trees and Shrubs**
- Crape myrtles are blooming, so it’s an excellent time to select them for your landscape. Choose cultivars with the appropriate mature size for your site.
- Deadhead crape myrtles to extend bloom time.
- Check azaleas for the large, black azalea defoliator caterpillars. Control by hand picking or use an approved insecticide.
- Watch for spider mites on shrubs and flowers; lacebugs on azaleas and pyracantha; flower thrips on roses, gardenias and other blooming plants; and oleander caterpillars on oleanders.
- Prune hydrangeas and gardenias when flowering stops.
- Do not heavily prune any of the spring flowering shrubs such as azaleas, camellias or spiraea.
- Give trees a pre-hurricane check. Look for limbs that might snap and trunks that could split. Prune immediately.
- Psocids (tree cattle) create the white webbing covering the branches and trunks of some trees. They feed on surface debris and do not injury the trees.

**Fruits and Nuts**
- Prune blueberry bushes after harvest is completed.

**Vegetable Garden**
- Plant eggplant, lima beans, okra, southern peas, peppers and watermelon.
- Remove spring-planted tomato plants from the garden once harvesting is complete.
- Burn or remove diseased plants from your property. Don’t place them in the compost pile.
- Set out new tomato plants by late July. Try the “hot set” varieties.
- Control tomato hornworm and fruitworms.
- Establish a compost pile; high temperatures and frequent showers speed the breakdown process.
- Solarize the soil to reduce nematode population in the vegetable garden. Remove old plant debris, till the area thoroughly, moisten well and cover with clear plastic film. Seal the edges with soil. Leave the cover on for 6 weeks.

**Lawns**
- Monitor for sod webworms, spittlebugs, chinch bugs, caterpillars and mole crickets.
- Use a soap drench to irritate insect pests into moving, making them easier to see. Mix 1 ½ oz of liquid dishwashing soap and 2 gal of water in a sprinkling can, then equally distribute the solution in over a 2 X 2 foot area.
- To reduce stress on the lawn: mow before it is too high, keep mower blades sharp and raise the mowing height by ½ inch when the weather is hot.

Contact your local Extension Office for detailed instructions on these recommendations.

**Drought Tolerant Trees and Shrubs**
In these times of drought and water restrictions many people are looking for better ways to conserve water and keep their landscapes looking healthy. One solution is xeriscaping.

Xeriscaping is a landscaping technique that does not require supplemental irrigation. One example of this technique would be choosing drought tolerant plants for the sandy loam area that we live in. Choose shrubs or trees that are drought tolerant, take full sun and thrive in sandy areas. Hollies, glossy abelia and most native shrubs are drought tolerant. Oaks, hickories and our state tree, the cabbage palm, are trees that do well in the sandy soils of north Florida.

For more information, see IFAS Circular 807, Drought Tolerant Plants for North and Central Florida, online at http://edis.ifas.ufl.edu/EP022

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Powdery Mildew and Crape Myrtles

The red, pink, white, lavender or purple flowers and cinnamon-brown bark of the crape myrtle make it a popular ornamental plant in the north Florida landscape.

One of the few problems crape myrtles have is powdery mildew, a fungal disease caused by Erysiphe lagerstroemiae. The fungus first appears on new shoots as a white powder resembling powdered sugar. It grows in thin layers on the leaf surface and spreads to stems and flowers absorbing water and nutrients, and causing the plant to become distorted and stunted. In severe cases leaves may drop prematurely and flower buds may fail to open properly.

Powdery mildew is more prevalent in spring and fall when the cool nighttime air increases the relative humidity and encourages the growth of the spores. The spores act like seeds—they absorb moisture, germinate, and grow.

To manage powdery mildew on your crape myrtles, plant cultivars that are bred and selected for powdery mildew resistance. These include: Acoma, Caddo, Hope Pacos, Tonto, Apache, Centennial Spirit, Christiana, Comanche, Hopi, Kiowa, Osage, Biloxi, Muskogee, Natchez, and Tuscarora. Plant them in sunny, open locations that will allow for good air circulation to aid in quickly drying the foliage.

If, despite your best efforts, you find this disease on your crape myrtles, contact your local county extension office for recommendations on fungicide use.


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Peaches in Your North Florida Garden

North Florida’s mild winters and early spring season provide an exceptional opportunity for growing peaches. Several new cultivars released by the University of Florida expand on the peach tree options available for much of north Florida and the Gulf Coast area. When selecting the appropriate cultivar for your yard there are several factors to keep in mind:

• Chilling Hours. Peach trees are a temperate fruit tree that, in order to continue normal growth and fruit set in the spring and summer, require a certain number of winter hours below 45°F. Chilling hours in north Florida average between 500 and 700 hours each year, so select a cultivar that falls in that range.

• Site Selection. Freezes and frosts damage more peaches in the Southeast than any other factor. To help reduce the chances of a late freeze hurting your peach trees avoid planting trees in low areas where cold air may settle. Instead, choose a high site with good air flow. A well-designed overhead irrigation system may help prevent cold damage.

continued next page
• **Irrigation.** Irrigation during the later part of fruit development is crucial to obtaining adequate fruit sizes and yields.

• **Fertilization.** Apply a slow-release, balanced fertilizer like a 10-10-10 three times a year once in February, April, and July. Use approximately one cup of fertilizer per application for every year of the tree's age (i.e., two cups per application for a two-year-old tree). Spread the fertilizer evenly over the root zone, avoiding a five- to six-inch area around the trunk and then water it well.

• **Pest control.** Peaches are susceptible to a wide range of pests, including diseases, insects and nematodes. Follow a routine pest control program to ensure a quality crop.

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## Controlling Chamberbitter

Chamberbitter (*Phyllanthus urinaria*), also known as gripeweed and leaflower, is native to Asia but can be found throughout Florida, Georgia, Alabama, South Carolina, New Mexico and Texas. Chamberbitter is a summer annual that requires warm soil conditions to germinate. In lawns, it takes very well to mowing and has an extensive fibrous root system, which combined with its ability to produce a great number of viable seed, make it an excellent competitor. It prefers wet conditions, but once established it can tolerate drought just as well.

Early detection and action is critical for controlling chamberbitter and it's important that it not be allowed to set seed. Begin the battle against chamberbitter in your lawn by applying a preemergence herbicide when the soil starts warming up, usually around May 1st. Atrazine or isoxaben (Gallery) provides good control (80-90% efficacy). Isoxaben (Gallery) is safe for all warm-season grasses. Atrazine is safe to use on centipedegrass and St. Augustinegrass when used according to label directions; however, it is not registered for use on bahia-grass or bermudagrass. Atrazine can only be used twice in a year and should never be applied in the root zone of any ornamental plant.

Once the weeds have germinated, a postemergence herbicide may be necessary. You can apply a non-selective herbicide containing glyphosate, such as Roundup, only when the weed is isolated and you aren’t concerned about killing surrounding plants. According to information from the University of Georgia, the following preemergence herbicides are useful in controlling chamberbitter in ornamental plantings: trifluralin + isoxaben (Snapshot TG), prodimine (Barricade) and isoxaben (Gallery). If you need to use a non-selective postemergent herbicide near other plants one method that works well is to use an empty coffee can. Remove both ends so that you have a hollow tube. Place the can over the chamberbitter and spray your herbicide into the can. This directs the spray to the weed and prevents it from drifting onto your ornamentals.

Selective postemergence herbicides can be used when the weed is growing among the grass. In lawn settings, Dr. Barry Brecke, Extension Weed Scientist, recommends atrazine/simazine applied twice spaced approximately 3 weeks apart. Atrazine + bentazon (Prompt) may be used at recommended rates—plan on two applications spaced approximately 3 weeks apart. Products containing mixtures of 2, 4-D, dicamba, MCPP or MCPA (Weed-B-Gon, Weed Stop, etc.) applied twice, 7 days apart may also be used at recommended rates. Postemergence treatments typically are more effective on younger weeds; therefore, begin treatment in the spring when weeds are small.

Mechanical pulling is an option, however, be sure not to shake the dirt from the root system—this will just spread the seeds.

Information in this article comes from sources including: Theresa Friday, UF/IFAS Extension Agent in Santa Rosa County and Dr. Barry Brecke, UF/IFAS Weed Scientist and University of Georgia Extension.

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Stink Bug Control

Once considered a minor pest, stink bug populations are increasing and they are causing serious damage to vegetable, fruit and nut crops. Stink bugs like to feed on the fruit and seeds of plants. When stink bugs pierce plants and suck their juices they cause damage ranging from drop to depressed spots on the affected fruit. A common sign of stink bug feeding is a disorder known as “catfacing,” which results in scarred and deformed fruit. Some of their favorite host plants include okra, tomatoes, peaches, squash and peas, but their wide host range includes cotton and other field crops. Stink bugs are very mobile, with adults flying from crop to crop as the growing season progresses.

There are several theories as to why stink bug populations have increased. One theory is that the farming and residential environment has changed, resulting in less diverse populations of host plants. “Cleaner” fields, borders and landscapes with fewer native weeds and other herbaceous plants cause stink bugs to home in on whatever is available—often a single crop. Another theory is the decreased use of insecticides and the increased use of genetically modified crops.

In cotton production for example, due to the boll weevil eradication in our area and the use of genetically modified varieties of cotton, little insecticide is applied. The stink bug was considered a pest of minor importance in cotton production until insecticidal spray applications decreased or ceased.

Like most insects, stink bugs are creatures of habit, and these habits are leading to a unique approach to controlling them in vegetable fields, peach orchards, pecan orchards and nurseries. Russ Mizell, an IFAS Entomologist at the North Florida Research and Education Center in Quincy, has developed a method called trap cropping, which involves planting strips of stink bug host plants around the edges of crop fields to be protected. For example, a field of tomatoes might be protected by growing a few rows of okra, buckwheat, sunflowers or sorghum on the outskirts. The idea is to provide something for the stink bugs to feed on instead of the crop.

Trials using trap cropping will be underway in our area soon. Studies will include the best trap crops to use, how to maintain them at a constant desirable growth stage for stink bug feeding, width of the planted strips and other details. Our experiences with this method of stink bug control will be provided in the future.

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