

Bradford County
Extension Service
2266 N. Temple Ave.
Starke, FL, 32091

The Cutting Edge

904.966.6299
E-mail:
lcompton@ufl.edu

Bradford County Extension Service Master Gardener Newsletter



Date

Inside this issue:

Fall Garden & Japanese Climbing Fern.....	1
Plant & Wildlife Calendars.....	2,3,4
Whats Buggin You.....	5
Deer Fly Trap.....	6 ,7
Japanese Climbing Fern.....	8

I'm Planning My Fall Garden

I sure have enjoyed my spring garden this year. I experimented with “bought” potting soil versus a homemade mix for my raised bed gardens, I planted potatoes for the first time ever, and I even had good luck with Solar Set and Florida 47 tomatoes! Most of it is gone now, with the exception of a few weary looking tomato plants, and I am turning my attention toward my fall garden. I’m thinking beets, beans and squash for starters. If you need ideas on what you can plant between now and September, look at pages 2, 3 and 4. Wendy has a great article for you on cicadas; check it out on page 5. Our own Ag Agent, Jim DeValerio, has written a great article on how to handle those darn yellow flies– about the only thing that took some of the fun out my garden this spring! See the article on pages 6 and 7. Also, be sure to check out the article on this page about the Japanese Climbing Fern. This is one bad fern, and we all need to check our gardens and yards and make sure we are not harboring this weed. There are so many beautiful plants that are available and sustainable – why have something that is invasive? So, anyway, back to my fall garden list ..lets see- definitely broccoli, maybe I’ll try some Chinese cabbage this year.....By: Laurie Compton

Japanese Climbing Fern: An Invasive Weed

Japanese climbing fern (*Lygodium japonicum*) is a non-native, invasive vine that has invaded Florida, Georgia, Alabama, Mississippi and Louisiana. Introduced into Florida as an ornamental plant in the 1930’s, climbing fern is widespread in north and west Florida and ranges into the south-central part of the Florida peninsula. It occurs in sunny or shady locations, usually in damp areas such as the edges of swamps, marshes, lakes, creeks, hammocks, and upland woodlands.

Japanese climbing fern has climbing, twining fronds, can reach lengths of 90 feet and is closely related to the Old World climbing fern (*Lygodium microphyllum*), another non-native invasive species in the United States. Both species are listed as Category I noxious weeds by the Florida Exotic Pest Plant Council, (FLEPPC), with the ability to "alter native plant communities, change community structures and ecosystem function". While Old World climbing fern is limited in its northern range due to a lack of frost tolerance, Japanese climbing fern is not.



Continued on page 8

In the Garden: What to Plant in July

Annuals offer an almost infinite variety of flower color and plant form. They brighten landscape beds and add a splash of color to a porch, deck, or patio when placed in containers. Some also make good cut flowers. Coleus, crossandra, ornamental pepper, and tropical milkweed planted now should last until November. As the heat continues, keep annuals evenly moist. Butterfly lily, gladiolus, and society garlic are **Bulbs** that can be planted during the middle of summer. Watermelon, pepper, okra, southern pea, and eggplant are **Vegetables** that can be planted now as long as water is provided during dry spells. Scout for caterpillars and aphids on leaves and fruit. Continue planting **Palms** while the rainy season is in full swing.



Gladiolus

In the Garden: What to Do in July

Before treating for lawn pests, rule out disease or sprinkler malfunction and treat only the affected area. **Solarize Your Garden:** Use summer heat as a tool in preparing the vegetable garden for fall planting. It takes four to six weeks to kill weeds, disease and nematodes, so start now. Any pruning on azaleas should be done by mid-July to protect developing buds for next spring's bloom. Prepare for hurricane season by checking **trees** for damaged or weak branches and prune if needed. **Pests on Ornamental Plants:** Caterpillars may be present on trees and shrubs. Large trees can normally withstand caterpillar feeding but specimen shrubs may need treatment if damage is extensive.



Garden plots covered with plastic can cook out weeds, bugs and nematodes. Photo: [UF/IFAS](#)

Source: http://solutionsforyourlife.ufl.edu/lawn_and_garden/calendar/

July Wildlife Calendar

- Young alligators and crocodiles will begin to hatch.
- Baby raccoons, foxes, armadillos, possums, and bobcats leave dens and begin following parents.
- Deer mating season in the everglades.
- Scrub morning glory and butterfly weed begin to bloom.



Florida Bobcat

Did You Know?

Bobcats (*Felis reflexus*) are territorial, but because they are smaller and hunt prey that is more abundant, they require less land area than larger carnivores. Home ranges vary from 5-15 square miles, with male home ranges being larger and overlapping with home ranges of several females. Bobcats are found throughout Florida and use a variety of habitats. Bobcat populations are not listed at the state or federal level as threatened or endangered.

Source: <http://edis.ifas.ufl.edu/uw201>

In the Garden: What to Plant in August

Bedding Plants: Planting in the summer heat is limited now to heat tolerant vinca, gaillardia, bulbine, and coleus. Aztec lily, butterfly lily, walking iris, and spider lily **Bulbs** can be planted any time of the year, even late summer. **Herbs** that can be planted from plants (not seeds) include bay laurel, ginger, Mexican tarragon, and rosemary. **Vegetables:** This month starts the fall planting season. Many cool season crops can be planted now, including a final crop of warm-season vegetables such as pepper. Tomatoes can be planted for the fall garden.



Gaillardia

In the Garden: What to Do in August

Mowing Lawns: Use a sharp mower blade and only remove 1/3 of grass blade to reduce stress on the lawn. If older **Palm** fronds are yellowing, you may have a magnesium or potassium deficiency. Apply an appropriate palm fertilizer. Pinch back **Poinsettias** and **Mums** before the end of the month to allow time for buds to form for winter bloom. Rapid growth and leaching rains may result in nutrient deficiencies in some **Ornamental Plants**. Fertilize those plants that show signs of deficiencies. **Bedding Plants:** Remove spent blooms, cut back, and fertilize flowering annuals and perennials to extend the bloom season into the fall months.



Black Krim Tomatoes

Source: http://solutionsforyourlife.ufl.edu/lawn_and_garden/calendar/

August Wildlife Calendar

- First flocks of blue-winged and green-winged teal arrive to winter on Florida lakes and wetlands.
- Yellow warbler migration begins.
- Two-year old black bear cubs will wean from their mothers.
- Young sea turtles are hatching— be careful where you're walking on the beach.
- Thousands of great southern white butterflies can be seen migrating through coastal areas.



Great Southern White Butterfly

Did You Know? Great Southern White butterflies (*Ascia monuste*) are one of five white butterflies commonly found in Florida. Spanish needles, a weedy wildflower, is a favorite nectar plant as are lantanas and verbenas. The average lifespan of males is 5 days; of females, 8-10 days. Typical migrations are 20-40 miles and last two days or less.

Source: <http://www.nsis.org/butterfly/butterfly-sp-white-gs.html>

In the Garden: What to Plant in September

Bedding Plants: If summer beds need refreshing, try ageratum, celosia, zinnia, and wax begonia for color into fall. Add color, texture, and pattern to the garden with the many varieties of **Bulbs** like Elephant's Ear (*Alocasia*) available now. Others to plant now include calla, narcissus, and zephyr lily. Plant **Herbs** that tolerate the warm temperatures of early fall, such as Mexican tarragon, mint, rosemary, and basil. Plant cool season **Vegetable** crops such as radish, carrot, cabbage, and lettuce.



Mexican Tarragon

In the Garden: What to Do in September

Lawn Problems: Continue to monitor the lawn for signs of insect damage. Fall armyworms, chinch bugs, mole crickets, and sod webworms are still active this month. **Divide Perennials and Bulbs** that have grown too large or need rejuvenation. Add organic matter to new planting areas and monitor water needs during establishment. Bahia, Bermudagrass, Zoysia, and St. Augustine lawns should be **Fertilized** this month. Choose one with no or very little phosphorus unless a soil test indicates a need for it. A fertilizer containing controlled-release nitrogen will give longer lasting results. Healthy grass is the best defense against **Lawn Weeds**. Avoid "weed and feed" products; only apply herbicides to areas with weed infestations. If not done in August, prepare the fall **Vegetable** garden. Using transplants from your local garden center will get the garden off to a fast start, but seeds provide a wider variety from which to choose.



Avoid Weed and Feed Products

Source: http://solutionsforyourlife.ufl.edu/lawn_and_garden/calendar/

September Wildlife Calendar

- Get feeders ready for returning birds.
- Bald eagles return to nest sites and begin courtship.
- Start looking for manatees concentrated in rivers, bays, and near power plants.
- Deer breeding begins in south Florida flatwoods.
- Start listening for Spadefoot toads after heavy rains.

Did You Know?

On August 9, 2007, the bald eagle was removed from the federal list of threatened and endangered species. After nearly disappearing from most of the United States decades ago, the bald eagle is now flourishing across the nation and no longer needs the protection of the Endangered Species Act.



Bald Eagle

Source: <http://www.fws.gov/midwest/eagle/>

What's Buggin' You

By: Wendy Helmey-Hartman

In Florida, the loud calls of cicadas are commonly heard during the daylight hours. We have 19 species of cicadas that live in Florida; these species are grouped by their physical size. Although adult cicadas typically hang out on trees and thus are often heard rather than seen, they can be easily identified by their songs (see this website for recordings of cicada songs - <http://entomology.ifas.ufl.edu/walker/buzz/c700fl1.htm>). Other than their songs, cicadas also advertise their presence by the nymphal exoskeletons that they often leave on tree trunks, shrubs, and fence posts.



Little Green Cicada



Hieroglyphic Cicada

In many parts of the eastern United States, cicadas have a periodical life cycle in which they emerge in overwhelming numbers every 13 or 17 years. However, we do not have periodical cicadas in Florida. In Florida, cicada populations produce adults every year although these adults likely require more than one year to develop.

Cicadas begin their life cycle as eggs that their mothers have inserted into the woody tissue of small branches. Once the eggs hatch, the nymph falls to the ground and lives in an underground burrow, where it feeds on the xylem sap of plants. Since this sap is low in nutrients, nymphs require several years to develop. They molt four times while they are underground. When they are ready to molt for the final time, the nymphs crawl to the surface and climb up the trunk of a tree or other vertical surface. They then anchor themselves with their tarsal claws and shed their exoskeletons one final time to become adults. As adults, cicadas fly well and typically spend their lives in trees. Most adults live only a few weeks while they feed on xylem sap.

Cicadas rarely cause economic problems in Florida. They do not sting or bite and are not carriers for any organisms known to harm vertebrates. On a positive note, they are a food source for many species of wildlife. Humans have also been known to eat newly emerged adults (both raw and cooked).

Sources: EDIS Publication #EENY-327, cicadas (of Florida), *Neocicada hieroglyphica* (Say), *Tibicen*, *Diceroprocta* and *Melampsalta* spp. (Insecta: Hemiptera: Cicadidae) by Thomas J. Walker and Thomas E. Moore. Retrieved from <http://entnemdept.ufl.edu/creatures/misc/bugs/cicadas.htm> .

The Trolling Deer Fly Trap

The Problem: Insects in the horse fly family Tabanidae suck blood and are very important nuisance pests of man and livestock as well as wildlife. As blood suckers their bites can be very painful and when large numbers are present they can be extremely annoying. Some people develop allergic reactions to the bites which often swell and turn into nasty red sores. There are approximately 4300 species of Tabanids in the world and over 300 in North America. At least two major groups of Tabanids are commonly recognized by most people: the horse flies and the deer flies - sometimes called "yellow" or "pine" flies. Different deer fly species occur at different times during the year and often are found in high populations in local areas. When this is a back yard or favorite fishing spot, deer flies can become a real problem for people and pets.



What The Trap Does: When used properly the deer fly traps discussed here are highly attractive to deer flies or pine flies in the genus *Chrysops*, which are most of the species that readily attack people. Most deer flies attack people and pets around the head, neck and shoulders. Yellow flies usually attack the legs. The trap does not catch horse flies or yellow flies very often. The trap is effective because the flies respond to the trap's motion, color and size. The trap is covered with a special sticky material which catches the flies when they land.

How Do You Make The Trap: What trap you make and the materials you use depends on trap placement and what you wish to do with the trap. Through careful experimentation we have determined that a 6-inch plastic nursery pot painted a bright blue is the optimum size and color. Placed on a rod (as in the figure below) upside down, it will rotate and shake which enhances the trap's attraction to deer flies.

Mounted on a vehicle, tractor or front or back (front is best) of a lawnmower or four-wheeler, the 6-inch blue pot will catch large numbers of deer flies. Driving around an area several times slowly (<7mi/hr, we call this "Trolling") will reduce the deer fly populations considerably until new flies arrive.

However, if you want to reduce the number of deer flies landing on your body, a smaller trap on your head is more practical (if you don't mind the embarrassment). Except when they are on people, traps only work well if they are in motion.



The motion must have angular displacement, i.e. movement through space. Deer flies are mostly ambush predators, they sit and wait for their prey to come to them. Thus, the trap will not work if it sits in one place even if it is rotating or shaking. Traps must be moved through space. Deer flies usually fly at heights lower than 10 feet and usually attack the highest available area on the human body first. Walking with a trap mounted on a pole and shaken overhead can be effective.



Clean up: Traps must be covered with a sticky material, Tanglefoot, (available at many garden centers) to catch and remove the flies. Tanglefoot can be a problem to use but can be readily removed with hand cleaners that contain citrus extracts like d-limonene. GoJo Natural Orange Pumice Hand Cleaner works very well.

Black and red colored traps will also catch deer flies but in lesser numbers.

During our experiments we caught thousands of deer flies by trolling traps slowly on vehicles in different habitats. A truck-mounted apparatus was used to develop the Trolling Deer Fly trap.



Some other important facts about deer fly biology and behavior. Deer flies are active for the most part during daylight hours but a few feed after dark. Some are more active in the morning or evening. Adult deer flies spend a large portion of their time resting on vegetation. Different species are found in different habitats. Adults of some species are found exclusively along hedge rows and edges of woods or in the forests. Other species prefer more open areas with sparse vegetation such as old fields. Adult deer flies are present from early Spring to late Fall but each species has its own period. Adult deer flies are swift, strong fliers and may fly more than a mile from their breeding areas. Most deer flies require a blood meal to develop eggs. However, they also feed on pollen, nectar and perhaps insect excreta, honeydew.

Eggs of most deer flies are placed on vegetation in moist areas. Most of the immatures or larvae are found in water or wetlands and are predacious on other organisms or eat vegetable matter. Tabanids as a group can mechanically transmit (on their mouthparts) disease organisms such as bacteria, viruses, trypanosomes and rickettsia. They also have their own natural enemies such as dragonflies, wasp, spiders and birds.

For additional information about deer, yellow and horse flies (distribution, life cycle, description, damage, biological control, management and selected references) see the University of Florida [Featured Creatures publication](http://nfrec.ifas.ufl.edu/MizellRF/deerfly_trap.htm) on these flies. *Source: Dr. Russell F. Mizell, III, Professor of Entomology NFREC-Quincy, 155 Research Road, Quincy, FL 32351* http://nfrec.ifas.ufl.edu/MizellRF/deerfly_trap.htm

Japanese Climbing Fern

Frost will kill back above-ground portions of Japanese climbing fern but does not necessarily kill the below-ground portion. As a fern, it reproduces by numerous and long-lived wind blown spores. In Florida, peak spore release occurs in October. Japanese climbing fern poses economic and ecological threats to forests in Florida and is especially problematic in pine plantations managed for pine straw production. Because of its ability to engulf and out-compete native vegetation, Japanese climbing fern can be of particular concern in natural and disturbed areas where restoration of remnant populations of native species is critical. Since the spores are easily transported via clothing, wind and possibly water, contamination is a constant threat. Control measures should be employed when the fern is not producing spores. Hand pulling is one mechanical strategy for the removal of small patches of these climbing ferns, however it will regrow from roots systems left below



Japanese Climbing Fern that has taken over a natural area



Japanese Climbing Fern (*Lygodium japonicum*) has two distinct leaf shapes

ground. Machinery can be used to remove the large mats of foliage that form over vegetation in areas where compaction is not a concern. Fire will kill it back, but regrowth occurs. Fire also causes major damage to the native vegetation as the fire climbs up the vines into the canopy of the trees and shrubs. Some research has been conducted on both Japanese and Old World climbing ferns, and it appears a 2 to 3 % solution of glyphosate (Roundup, etc.) is effective. Another herbicide, metsulfuron (Escort), has been shown to provide excellent control at rates of 0.5 to 1 oz. per acre. Be sure to include a non-ionic surfactant at 0.25% (2 teaspoons per gallon of spray solution). A combination of these herbicides has provided good control when applied in the fall of the year before a killing frost.

Be on the lookout for 4 to 6 inch juvenile Japanese Climbing Ferns in your landscape. Perhaps our rainy spring has caused more spores to germinate than in previous years. Pull them up with the roots intact and be sure to discard them in the landfill.

Source: <http://plants.ifas.ufl.edu/node/639>