



NURSERY • CITRUS • GOLF COURSE

# GREEN-UP NEWS



By Dana Venrick, Commercial Horticulture Agent II

Bi-Monthly Newsletter

Vol. 6, Issue 1 ? January/February 2006

## **CORE & O&T AND PRIVATE APPLICATOR TRAINING AND TESTING**

**(UP TO 5 CEUs)**

**Where:** Volusia County Extension Service – Auditorium  
3100 E. New York Ave.  
DeLand, FL 32724

**When:** Tuesday, February 7, 2006

**Time:** 8:00 a.m.– 4:00 p.m.

**Instructors:** Dana Venrick, M.S. and Dr. Juanita Popenoe, Commercial Horticulture Agent, Lake County

**Ornamental & Turf** – This certification is good for persons applying pesticides on a golf course, park, athletic field or cemetery. You will need to take **both** the General Standards (Core) exam and the Ornamental & Turf exam. The pesticide classes are Commercial and Public and permits supervision of up to 15 employees using restricted use pesticides (RUPs).

**Private Applicator Agricultural** – This certification is issued to applicators or supervisors of up to 15 applicators who apply RUPs for agricultural production such as (nursery, greenhouse, sod farm, cattle farm, fruit and vegetable). **Both** the Core and Private Agricultural Applicator exam are required.

**Cost:** A fee of \$20.00 is required which includes lunch, training materials and testing. FDACS will charge a license fee for those who pass the exam.

**For licensed applicators needing CEUs for certification, 3.0 in Core and  
2.0 in Private or O&T are available.**

Order your study manuals from the University of Florida/IFAS –Publications Dept. by calling 1-800-226-1764. Study these books prior to the class to help ensure your success.

**Pre-registration is required. Send in the enclosed registration form to ensure your spot in the class or call Dana Venrick or Jeanne Blanchard at 386-822-5778.**

## **NEW CEU REQUIREMENTS**

Thanks to Fred Fishel, Ph.D.,  
Pesticide Information Officer, UF Gainesville

Effective January 1, 2005 pesticide applicators licensed under Chapter 487 F.S. who renew their licenses with CEUs are required to have 4 Core CEUs in addition to the number of CEUs required for their category. Applicators certified in more than one category need a total of 4 Core CEUs. Examples: an applicator with an O&T license needs 12 O&T CEUs plus 4 Core CEUs to renew his/her license. An applicator with O&T, right-of-way, and natural areas licenses needs 12 O&T, 8 right-of-way, 16 natural areas CEUs plus 4 Core CEUs to renew. **The private applicator needs a total of 8 CEUs (4 private applicator agricultural pest control plus 4 Core).**

## **WORKER PROTECTION STANDARDS**

Nursery and greenhouse operations are required to implement ongoing actions to protect workers from pesticide-related activities. Among their requirements, nursery and greenhouse operations must provide employee training and visibly post certain WPS materials. The three leading violations are central posting, safety training and decontamination sites. Penalties and fines can be steep. For WPS compliance information, go to FDACS website: [www.flaes.org](http://www.flaes.org)

## **POTASSIUM AND CALCIUM IMPROVE NUTRITION AND DISEASE RESISTANCE**

According to the Agricultural research Service (ARS) of the USDA, in a study of melons, potassium boosted beta carotene and Vitamin C levels. Spraying potassium on growing vines is simple, inexpensive, safe and can be combined with sprays for insects and diseases.

In field studies, applying potassium during fruit development greatly increased the fruit's level of beta carotene. Foliar application of potassium also aided the plants photosynthesis, thus increasing the fruit's sugar content. This, in turn, raised levels of vitamin C and produced a better-tasting and sweeter melon.

Studies with calcium applications on cucurbit vines, as an alternative to post harvest treatments, improved disease resistance, preserved quality and increased shelf-life. Potassium and calcium applied together produced a

firmer, more nutritious melon that could tolerate longer storage.

See: <http://www.ars.usda.gov/research/projects.htm>

## **WHEN A PLANT GROWS, WHAT MINERALS ARE NEEDED MOST?**

According to the Agricultural Research Service (ARS) of the USDA, certain minerals are needed in higher amounts when a plant is in a spurt of growth. In a study of shoot and root growth, uptake of the macro nutrients calcium, magnesium, potassium and phosphorus increased with shoot growth. For the micronutrients iron, manganese, zinc and copper, uptake increased with shoot growth, and manganese (Mn) uptake was significantly greater than for the other micronutrients during shoot growth. Interestingly, no mention was made of any increased nitrogen uptake during shoot growth.

## **DOWN CITRUS LANE**



## **CITRUS NEEDS SILICON**

According to a University of Florida study, adding silicon (Si) soil amendments to citrus increases root and top growth. The study also determined that sandy soils are low in biogeochemically active (bio-active) Si. A positive relationship was established between higher bio-active Si levels in the soil and the leaf Si content and also the tree vigor of Valencia oranges. Optimizaton of Si nutrition was responsible for a significant increase in the mass of roots and green mass of 'Marsh' grapefruit seedlings. The most significantly positive response for grapefruit seedlings for growth of both roots and tops was for low temperature stress and the addition of pro-sil silica slag at the rate of 3.2 tons per acre. Rates of 0.8 and 1.6 tons per acre also resulted in better tree growth at low temperatures than any other treatment (other than the 3.2 tons of Pro-sil).

The application of Si to young 'Valencia' orange trees significantly increased both the total tree height and the length of tree branches. The silicon application increased tree height from 14 to 41% and accelerated branch growth from 31 to 48% over

a 6-month period. Similar results were observed by two different studies (studies are cited at the end of this article).

ProSil, the product used to supply Si, is a complex product containing 35% Si, 27% Ca, 21%, Mg and several micronutrients. Therefore, it is possible that the application of this product optimized other plant micronutrient needs. However, other studies have suggested that chemically activated Si compounds may have played a more dominant role and were responsible for the main plant responses obtained from Ca-Mg silica slag.

Silicon is available as liquid Potassium silicate (“Stimp-Up”) from the Central Florida Fern Co-op or as “Pro-Sil” from ProChem in West Palm Beach as a dry prilled form. Contact the Co-op at 386-749-4911 or Pro-Chem at 561-833-0125.

Information for this report was adapted from *Response of Citrus to Silicon Soil Amendments* by David Calvert of the University of Florida and two other authors and *Growth and Mineral Nutrition of Young Orange Trees Grown with High Levels of Silicon* by H.K. Wutscher.

## **GREEN TURF**



### **CELEBRATION, TIFSPORT EXCEL IN WEAR TOLERANCE IN NC TURF STUDY**

Preliminary results from a four-year bermudagrass study being conducted by researchers at North Carolina State University have yielded high marks for wear tolerance for both Celebration and TifSport bermudagrass.

In a recent article in *North Carolina Turfgrass* magazine, James M. Rutledge and Dr. Charles Peacock shared 2004 results from the study, which has compared eight bermudagrass cultivars for several factors. Cultivars included in the study were Navy Blue, GN-1, Tifton 10, Quicksand, Celebration and Patriot, as well as Tifway and TifSport.

Two areas of this report – wear tolerance and overall turf quality performance, will be of particular interest to Florida growers and those whose job it is to select the best bermudagrass cultivar for a particular turf situation. The following information is taken from an article published in the March/April 2005 issue of *North Carolina Turfgrass* magazine.

Celebration and TifSport led the way, followed closely by Tifway and Patriot by having the highest average turf quality ratings at the end of the trial. Although TifSport is known to have a relatively slow establishment rate, its ability to withstand the applied stress with very minimal tissue damage proved to be a greater asset than the ability to recover quickly after damage was incurred.

When selecting a turfgrass cultivar, overall turf quality is a primary performance characteristic that is taken into consideration. Turf quality ratings were recorded biweekly throughout the growing season to reflect performance differences among cultivars. TifSport, Celebration, Patriot and Tifway performed equally well, above other cultivars. These cultivars had a higher mean turf-quality rating averaged over the entire 2004 growing season than did Tifton 10, Quickstand, GN-1 and Navy Blue.

### **NEW O & T MANUAL!!!**

A new UF/IFA Extension Publication SM 7, *Ornamental and Turf Pest Control* will be the study material for O&T testing effective Monday, February 20, 2006. The new manual will be used for study material for pesticide applicators in the following categories.

- 1) Ornamental & Turf (O&T)
- 2) Pest Control Operator – Lawn & Ornamental (L&O)
- 3) Limited Lawn & Ornamental (Limited L&O)
- 4) Limited Commercial Landscape Maintenance (LLM)

All categories except for the Limited commercial Landscape Maintenance (LLM) will require study of the entire manual. Those seeking the LLM certification are responsible for material from chapters 1-12 and chapter 22-24 only. To order the new manual, call IFAS Publications at 1-800-226-1764.

## **GROWING WILDFLOWERS FOR FUN AND PROFIT**

Wildflower seed production is one of the newest small farm/alternative enterprises and can be quite profitable. Of course, starting any new enterprise involves a number of obstacles. Finding starter seeds, for example, can be a difficult challenge. Fortunately, wildflower seeds produced in Florida are now available from the Florida Wildflower Co-op as standard and/or yellow tag. Species available are: *Ageratina jacunda*, *Coreopsis basalis*, *Coreopsis lanceolata*, *Coreopsis leavenworthii*, *Rudbeckia mollis* and *Vernonia Gigantea* (Iron Weed). For more information on availability, grades and pricing call the Co-op at (850) 445-9714 or e-mail [floridawildflowers@att.net](mailto:floridawildflowers@att.net).

If you are interested in growing wildflowers for seed production, you should know that support is available locally. The River of Lakes Heritage Corridor is giving major emphasis to their increased use to help beautify the area. A Wildflower festival is planned for March of 2007 at the Volusia County Agricultural Center. The District Florida Department of Transportation has promised to buy locally produced seed and to expand their roadside planting program. The Florida Wildflower Co-op buys seeds. Start-up money is available through the FDACS Florida Agricultural Promotion Program after paying a \$50.00 membership fee. A CD is available from the Ag Center with complete growing instructions and how to harvest the seeds and get them certified. Call me and I will help you with information and answer your questions with the help of Jeff Norcini, UF Wildflower Seed Specialist with the North Florida Research and Education Center in Quincy.

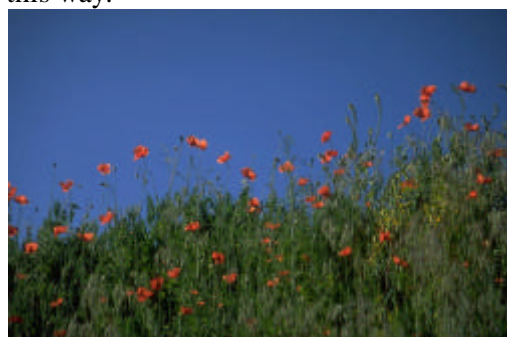
Growers in Florida are producing seed of native herbaceous annual and perennial wildflowers. Not only are these wildflowers native but they are derived from naturally occurring populations in Florida. Therefore, they are already adapted to Florida's conditions in meadows, roadsides, natural areas and other noncultivated sites.

Florida's wildflower seed producers are currently focusing on spring and summer flowering species including our state wildflower, *Coreopsis* (tickseed). There are 13 species of *Coreopsis* in Florida, four of which are in production. Lanceleaf Tickseed (*Coreopsis lanceolata*) and Goldenmane Tickseed (*Coreopsis basalis*) flower in the spring. Leavenworth's Tickseed (*Coreopsis leavenworthii*) flowers from the spring to fall in northern Florida but all year round in southern Florida. Florida Tickseed (*Coreopsis floridiana*) which flowers in the fall, is expected to be available for sale in

2006. The latter two species are only found in Florida. Other species include the popular Drummond's Phlox (*Phlox drummondii*), which carpets our roadsides in the spring with mainly pink and purple flowers, Blanketflower (*Gaillardia pulchella*), which thrives in dry sandy soils, and the ever popular Black-eyed Susan (*Rudbeckia hirta*).

Growers are beginning to increase seed of fall flowering species, such as Blazing Star (*Liatris spp.*). Limited quantities of these wildflowers should be available for sale by 2006.

Seed in Florida is being produced in two types of cropping systems. Some growers are producing crops in a traditional field planting. Most wildflowers can be grown this way.



The one known exception is Drummond's Phlox, which should be grown in a landscape fabric production system. In this system, wildflowers are grown in narrow rows between parallel strips of woven landscape fabric to minimize weed problems and facilitate harvesting. Rows are typically one to three inches wide. Ripe seed falls to the fabric between the rows where it is harvested by vacuum. Since the harvest mostly consists of mature seed, the cleaning process is simpler and less costly than if a crop is harvested by combining as in field plantings. Yields tend to be greater with the landscape fabric system. Many producers are utilizing this system for Phlox as well as for species that flower for several months. A "fence" of landscape fabric around the perimeter is also a good idea to keep wind from blowing seeds out and trash into the production area.

Wildflower seed production is ideal for those that already produce crops – from agronomic crops to vegetable crops to ornamental crops. In many cases, existing equipment and facilities can be adapted for wildflower seed production. For production details go to: <http://nfrec.ifas.ufl.edu/norcini/publications.htm> For the complete article "Native Wildflower Seed Production in Florida" go to [http://www.florida-agriculture.com/pubs/pubform/pdf/Native\\_Wildflower\\_Seed\\_Production\\_In\\_Florida.pdf](http://www.florida-agriculture.com/pubs/pubform/pdf/Native_Wildflower_Seed_Production_In_Florida.pdf)

# ATTENTION: Commercial/Public/Private Pesticide Applicators

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**Cost:** A fee of \$20.00 is required which includes lunch, training materials and testing. FDACS will charge a license fee for those who pass the exam. **For licensed applicators needing CEUs for certification, 3.0 in Core and 2.0 in Private or O&T are available.**

### What You Need:

General Certification Standards Manual (CORE) SM 1 \$7.00

Ornamental and Turf Pest Control Manual SM 7 \$4.00

Private Applicator – Agricultural Pest Control SM 53 \$7.00

Order your study manuals from the University of Florida/IFAS –Publications Dept. by calling 1-800-226-1764. Study these books prior to the class to help ensure your success.

**Pre-registration is required.** Please call Dana Venrick or Jeanne Blanchard today to ensure your spot in this class. Phone numbers are located above.

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### ✍ REGISTRATION FORM ✍ ✍

**Name** \_\_\_\_\_ **Affiliation** \_\_\_\_\_

**Address** \_\_\_\_\_  
\_\_\_\_\_

**Phone** \_\_\_\_\_ **Fax** \_\_\_\_\_

**e-mail address** \_\_\_\_\_

\_\_\_\_\_ I will attend the **all day** class for \$20.00 and take Core and O&T or Private Applicator exam.

Make your check payable to: **Volusia County Extension Fund** and mail it along with this form to the address above **before February 1st** to reserve your spot.



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## DATES TO REMEMBER

### JANUARY

- 10** Florida Turfgrass Association Regional Conference, Winderemere, Contact FTGA (407) 291-9415.  
**10** OJ Meeting – “Current Rules and Regulations” 9:30 a.m. Mid-FL Research and Education Center Apopka. Call John Jackson or Kay Shields 352-343-4101  
**19-21** Tropical Plant Industry Exhibition(TPIE) Ft. Lauderdale Contact FNGLA, 800-375-3642 [www.tpie.org](http://www.tpie.org).

### FEBRUARY

- 1** FNGLA Meeting at Albin Hagstrom Fernery, 135 Hagstrom Rd. (first hard road south of Pierson Supply) Greet at 6 p.m. dinner at 7:00 RSVP Kurt Davis 407-322-5133  
**7** Core & O&T and Private Applicator Training & Testing 8 a.m. See details on front page.  
**14** Foliage Forum – Core and Private Applicator and Train the Trainer 9a.m. – 3 p.m. Pierson Lions Club, Pierson. Call Dana Venrick 386-822-5778.

### MAY

- 2** Small Farm Conference –How to Start Eight Small Farm Enterprises, 9:00 a.m Volusia County Extension Auditorium Lunch will be provided. Call Dana Venrick

If you would like more information on upcoming programs or want to receive publications please call, fax, or e-mail me. All Extension Service programs and information are free and open to the public regardless of race, color, sex, age, disability, religion, or national origin.

Sincerely,

Dana Venrick

Extension Agent II – Commercial Horticulture