

Manatee Vegetable Newsletter

March/April 2007

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June 3-5 Annual Meeting: The Florida State Horticultural Society. PGA National Resort & Spa in Palm Beach Gardens, FL. <http://www.fshs.org/default.htm>

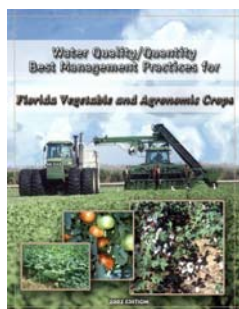
June 12 Private Pesticide Applicator Training and Testing. 9 AM. Manatee County Extension Service, Palmetto. 2 CORE CEUs offered for those who have a current license. (Note: we also provide testing for all categories by appointment. Please call Linda Means at 722-4524 to schedule an exam.)

The Manatee County Extension Service has many of the **pesticide study manuals** in stock for sale as a convenience to producers. We also have a limited number of the new **Citrus Pest Management Guides**. The Guides are \$15. (Check or cash only, please.)

"There is no point in being grown up if you can't be childish sometimes."

- Dr. Who

Vegetable BMP Program Signup



Working with Jemy Hinton, a member of the local FDACS BMP Implementation Team, we have begun signing up local vegetable farms under the Vegetable BMP program. Probably the best incentive for a grower to sign up is to receive the presumption of compliance with water quality standards. The recordkeeping and documentation regarding implementation of BMPs is something most of you already do. To date, nearly 3500 ag

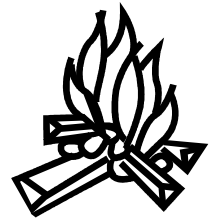
operations totaling about 615,000 acres have enrolled in the citrus, container nursery, and vegetable and agronomic crop BMP programs around the state.

In about 2 years, the legislature will revisit the 1999 Florida Watershed Restoration Act (FWRA) which includes the BMP programs. At that time they will look at the progress of the voluntary BMP programs and make a decision on the future direction of the programs. Because it often takes a long time to see measurable differences in water quality, the measure of success will be the enrollment rate of ag operations. The best message producers can send to the legislature is that they support the existing voluntary BMP method of addressing total maximum daily loads (TMDLs) and water quality issues. This means enrolling in the program and encouraging your neighbors to enroll and become active locally in helping educate county government and the general public about the positive things agriculture is doing for the environment. (Excerpted from "The Clock is Ticking", Brian Boman, UF, Florida Grower Magazine, March 2007).

Note: Give me a call if you would like to discuss what is involved in signing up your operation.

High Wildfire Danger

The local Division of Forestry would like to stress to all agricultural landowners the high fire danger that we are experiencing and the need to be extremely careful when using fire. Due to the current drought conditions, areas that traditionally would not burn, ie. wetlands, swamps and bottomland, **will** burn and **can not** be used as natural fire breaks. Contact the local Division of Forestry for information about open burning restrictions and burn authorizations at 941 751-7629. Please note that farmers burning plastic or tomato stakes need to get an authorization from the Division of Forestry. This has often been a gray area but it is extremely helpful to the Division to know where legal burns are when they get reports of possible illegal burning.



Manatee County is still in the process of revising their burning regulations. It is my understanding that the current revision will have some impacts on farmers operating west of CR675 (County permits will be required.). I will keep you posted on the date(s) of public hearings on this issue. (Pers. Com. Ed Flowers, Mike Keegan, Division of Forestry)

The Keetch-Byram Drought Index (KBDI) is used by the Florida Division of Forestry to indicate the dryness of the soil and surface fuels. The index increases for each day without rain (the amount of increase depends on the daily high temperature) and decreases when it rains. The scale ranges from 0 (no moisture deficit) to 800. High values of the drought index are associated with severe wildfire outbreaks such as occurred during 1998. However, no threshold point has previously been determined to indicate that conditions are far above normal and warrant concern. Keeping that in mind, as of March 14, Manatee County was

running in the 450-499 range and Sarasota was in the 500-549 range on the KBDI index, a level that we traditionally do not see until May or June, the peak KBDI period. (FDACS Division of Florida, <http://www.fl-dof.com/index.html>)

Publications/Websites of Interest

► **Worker Protection Standard (WPS) Inspection Form.** This form is very useful as a checklist to make sure that you have addressed all the topics that would be covered in a WPS inspection. If you can go through this list and answer yes to most of these questions, or at least know what they are talking about, you will likely be in pretty good shape. You can access this form in pdf format at my website at <http://manatee.ifas.ufl.edu/vegetable.htm> or give me a call and I can fax or mail you a copy.

► <http://www.manatee.wateratlas.usf.edu/> The Manatee County Water Atlas is designed to provide citizens, scientists, professionals, and planners with comprehensive and current water quality, hydrologic, and ecological data, as well as information about recreational opportunities and a library of scientific and educational materials on water resource issues.

► **Handbook of Florida Fence and Property Law**

http://edis.ifas.ufl.edu/TOPIC_BOOK_Florida_Fence_and_Property_Law Revised! Circular 1242, by Michael T. Olexa and Joshua A. Cossey, provides a basic overview of many rights and responsibilities that farmers and landowners have under Florida's fencing and property law. Published by the UF Department of Food and Resource Economics, December 2006.

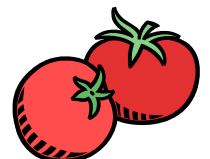
- New! [FE677](#): Table of Contents
- New! [FE678](#): Adverse Possession
- New! [FE679](#): Eminent Domain

► **ENH1035/EP303: Native Wildflower Seed Production in Florida**

ENH-1035, a 20 page full-color brochure written by Jeffrey G. Norcini and designed by Florida Department of Agriculture and Consumer Services, provides information to growers interested in becoming wildflower seed producers. It describes the species, production practices, facilities and equipment needs and costs, seed testing and certification, memberships, markets and resources available. Published online by the UF Department of Environmental Horticulture, August 2006. <http://edis.ifas.ufl.edu/EP303>

► **The 2006-07 Florida Vegetable Production Handbook** is available online at http://edis.ifas.ufl.edu/TOPIC_VPH You can also check with your county extension agent about the availability of hard copies.

► "Series del Manejo de Vegetales en Florida - Tipos de Tomate Roma y Redondo" was released by EDIS <http://edis.ifas.ufl.edu/HS329>. This publication is a Spanish version of VHO79 (Handling Florida Vegetable Series:



Round and Roma Tomato Types <http://edis.ifas.ufl.edu/VH079>.) The publication features valuable information on Nutritional Value, Cultivar Selection and much more.

► The fifth edition of "**Knott's Handbook for Vegetable Growers**" is now available. For ordering information, contact John Wiley & Sons, Inc. at (800) 225-5945 or go to <http://www.wiley.com/WileyCDA/WileyTitle/productCd-047173828X.html>

► In fall of 2004, a group of agricultural leaders joined forces to discuss how they could proactively address the growing challenges associated with energy prices. The result was a bold new initiative called **25X25**. Their goal: by 2025, America's farms, forests and ranches will provide 25 percent of the total energy consumed in the United States, while continuing to produce safe, abundant, and affordable food, feed and fiber. For information on this program go to <http://www.25x25.org/>

Pest/Pesticide Update

● I was alerted to a situation recently where a tomato grower was questioned about a third party audit and threatened with crop rejection because he did not have the correct label. In this case, it happened to be Monitor. The primary Monitor label does not have tomatoes on the label. The label which does include Monitor for tomatoes is a Section 24C label which is issued as a supplemental label based on a special local needs registration. You **MUST** have this supplemental label in your possession to be legal! This warning is not meant to 'pick on' this product as it may also be pertinent for other crops and other materials. This is true for both 24C and Section 18 labels. Make sure your pesticide distributor provides you with any supplemental labeling that you will need. Sometimes if you buy jugs that come in a carton, look in the bottom of the carton before you discard it. The supplemental label may be there. In today's world of extreme scrutiny, especially in food safety issues, you can't overlook anything. Growers - make sure you ask for supplemental labeling. Suppliers - make sure you give your customers supplemental labeling when required. If you are ever unsure - READ THE LABEL.



● **FLumioxazin (Chateau Herbicide) Labeled for Strawberry Row Middles** Chateau Herbicide WDG (Valent) has received a supplemental label for use in strawberry row middles. Chateau may be applied at 3 oz per acre with a shielded or hooded sprayer for the pre-emergence control of a large number of broadleaf weeds. Apply prior to weed emergence. Do not apply after fruit set. Do not allow spray or spray drift to come in contact with the foliage. (Bill Stall, Vegetarian, Feb 2007)

● On January 12, the Florida Department of Agriculture and Consumer Services (FDACS) registered the biofungicide *Gliocladium catenulatum* strain J1446 (Prestop®) for control of

diseases on food crops, turf, and ornamental plants. The EPA Reg. No. for the Verdera Oy product is 64137-11. (PREC Agenda, 2/1/07).

- Scientists are trying to determine the cause of **Colony Collapse Disorder** that's killing thousands of honeybee colonies across the U.S. while some commercial beekeepers have reported losing the majority of their bees. The problem could affect not only domestic honey producers but also fruit growers and other farmers who rely on bees to pollinate their crops. One expert at Penn State University says dissected bees have shown alarmingly high levels of foreign fungi, bacteria and other organisms as well as weakened immune systems. (*AP*, 2/11/07).



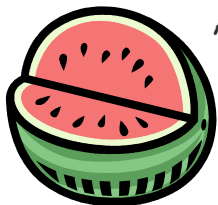
Is The "Hot Mix" Too Cold For Controlled-Release Nitrogen Products?

Increased environmental concerns and the development of Best Management Practices for vegetable crops have emphasized the need to better manage fertilizer, increase fertilizer efficiency, and reduce N loss to the environment. Slow-release and controlled-release fertilizers (CRF) are recognized in the BMP manual for vegetables (www.floridaagwaterpolicy.com) as one of the main nutrient BMPs for crops grown with seepage irrigation. However, little experimental work has been published on rates of CRF on seepage-irrigated tomato crops in south Florida.

A controlled-release nitrogen (CRN) fertilizer experiment was conducted at the Southwest Florida Research and Education Center in Immokalee during the 2006 winter-to-spring growing season. Four nitrogen (N) products were tested at three rates for seepage-irrigated tomato. The products were one soluble source (mostly ammonium nitrate, considered the grower standard) and three controlled-release N (CRN) sources: Nitamin®, Multicote®, and Agrocote®. Rates were 200, 270, and 340 lb/acre N. Product had a significant effect on plant biomass and yield in all size categories. Although leaf N concentrations were at or above sufficiency levels throughout the duration of the experiment in all treatments, ammonium nitrate produced more plant biomass and higher yields than any of the CRN treatments. N rate had little effect on plant growth, yield, or leaf N concentration. It can be concluded that plant biomass and yield data were evidence that CRN fertilizers were not well suited to the type of application used in this study, even when applied at a relatively high rate. CRN products appeared to be less effective compared to ammonium nitrate when applied in the 'hot mix'. However, leaf tissue data provided evidence that CRN products released N in sufficient amounts to support plant growth and productivity. It is possible that CRN products would perform better if placed in the bed, mixed with soil in the crop's root zone and in close contact with soil and soil solution. Preliminary results from another experiment with seepage-irrigated tomato suggest that CRN products can be as productive, or more so, than ammonium nitrate when incorporated in the bed. (K. Cushman et.al.,

Vegetarian Newsletter, February 2007) For a copy of the complete report, go to <http://www.hos.ufl.edu/vegetarian/07/Feb%2007/Is%20The%20Hot%20Mix%20Too%20Cold%20For%20Controlled%20Release%20Nitrogen%20Products.htm>

American Black Nightshade Interference in Watermelon



American black nightshade is a problematic weed in watermelon production, especially in south Florida. When watermelon production follows tomato or pepper, the 3 major weeds are nutsedge, nightshade, and pigweeds (Amaranths). In 1997, Terry et al. found that 6 smooth amaranth (pigweed) per meter, competing season-long in watermelon, reduced yield 100%. Buker et al. (2003) found that 2 yellow nutsedge plants per square meter reduced watermelon yield 10% while 25 plants/m² reduced yield 50%. Until this past year, there was no herbicide to control nightshade in watermelon beds other than methyl bromide.

Celeste Gilbert, a graduate student, has completed a 2-year study, at 2 locations looking at the competition of American black nightshade in watermelon. Nightshade was planted in watermelons at 2, 4, 6, and 8 plants/m². Reduction in yield was calculated against a nightshade-free check. She ran 2 experiments, 1 with open culture (non-mulched) produced melons, and another with watermelons grown on polyethylene mulch. In both years, watermelon grown on mulch had higher yields than those grown on open culture. Yields were also greater for melons grown in 2006 than 2005. 2005 was a cooler, wetter year and watermelons did not produce as well. Percent yield loss of watermelon at 2 nightshade/m² was 100% in 2005 on non-mulched produced watermelons. In 2006, the yield loss was 68% at 2 nightshade/m² and up to 93% at 8 nightshade/m² competing with the watermelon. When watermelon was produced on mulch, the yield loss in 2005 was 80 to 98% at 2 to 8 nightshade/m², and in 2006 the yield loss was 54 to 88% at 2 to 8 nightshade/m².

The bottom line is that watermelon is a poor competitor with weeds. In these studies as with the others, the number of melons produced followed the same trend as the yield. The size and quality of the melons were not affected by the weed competition. Weeds seem to impact fruit set more than fruit quality.

Sinbar now (2006) has received labeling for use in watermelon. Sinbar controls both nightshade and amaranth. If nightshade is a problem in the fields to be planted to watermelon, it would be advisable to consider its use. (B. Stall, Vegetarian Newsletter, February 2007)

Nutsedge - Can't Keep it Down?

Have you noticed nutsedge coming through the plastic at the ends of some rows, or maybe on the shoulders of some beds? There seems to be more of this going on than in the past. What's happening? There are a number of factors that could be causing this.

- While most growers do a good job of keeping the plastic rig close behind the gas rig, this is still the easiest thing you can control to do a good gas job.
- If the soil is too wet, fumigants will generally not move as well and thus may be less effective. If the soil is too dry, the fumigant comes out of the soil about as fast as you put it in so poor pest control results.
- If you are using a Raven or some other radar controlled unit on your fumigation rig, keep in mind that there is a delay such that the unit has to sense movement before fumigant delivery begins. Thus, there may be a lower dose injected at the beginning of the row before the rig gets going.
- If you are using lower rates of fumigants in combination with high barrier films, remember that you **MUST** replace the tubing from the manifold to the chisels with smaller diameter poly tubing to compensate for the reduced flow capacity and to increase line back pressure needed to insure accurate, uniform flow. (i.e., yellow or red poly tubing). It is also helpful to install individual sight gauges to observe uniformity of fumigant liquid flow to each chisel outlet. Install a low pressure gauge (0-30 psi) immediately upstream of the manifold or flow divider to insure at least 15 psi of backpressure.



Old age is like everything else. To make a success of it, you've got to start young.
(Theodore Roosevelt)

Politics is not the art of the possible. It consists in choosing between the disastrous and the unpalatable.
(John Kenneth Galbraith)

NOAA scientists warn of a possible transition to La Niña conditions, bringing with it drier and warmer-than-normal average conditions over the southern U.S. and a greater-than-normal number of Atlantic hurricanes. La Niña events often follow El Niño conditions and can last up to three years, the last lengthy one being in 1998-2001 when the western U.S. saw serious drought conditions.

<http://www.cpc.ncep.noaa.gov/>

