

Environmental Horticulture Production Newsletter

FALL EDITION

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INSIDE THIS ISSUE:

**FNGLA Auc-
tion** 2

**Extension
High-tech** 2

**USDA
Grants** 3

**Taxes
Patents** 3

**Plant De-
fenses** 4

**Calender
Relieve Stess** 4

**Freeze
WPS Class** 5

**Lightning
Protection** 5

**La Nina
USDA** 6
7

Keep up with
the latest infor-
mation from
Extension by
following the
blog Agent
Update:
[www.hortagent
.blogspot.com](http://www.hortagent.blogspot.com)

Grasshoppers Abound

As you may have noticed lately, grasshoppers populations have increased substantially. They may have even increased to an economically damaging level at your nursery. The eastern lubber grasshopper is especially prevalent during this time of the year. These are the large ones that practically knock you down when they bump into you. I have scanned through some of the fact sheets on the IFAS EDIS (Electronic Data Information Source) to find some information on what you can do to prevent lubber grasshopper damage to your plants. The following paragraphs are taken directly from (EENY-006 Eastern Lubber Grasshopper, *Romalea microptera* (Beauvois) (= *guttata*

(Houttuyn)) (Insecta: Orthoptera: Acrididae) C. W. Scherer and J. L. Capinera, originally published 1996, revised 2008).



Eastern Lubber Grasshopper
Picture from [http://
edis.ifas.ufl.edu/in132](http://edis.ifas.ufl.edu/in132)

Here is the factsheet if you can click on if you would like further information [http://
edis.ifas.ufl.edu/in132](http://edis.ifas.ufl.edu/in132)

“Adults of *Romalea microptera* exist nearly throughout the year in Florida with their numbers dwindling during the fall and winter period. They have one generation per year, with eggs beginning to hatch in February in South Florida while the rest of the state usually doesn't see this species until March. Eastern lubbers, like all grasshoppers, grow through successive stages after molting. These stages (instars) are referred to as nymphs. Lubbers have a total of five instars before molting into the adult stage. The length of these instars vary slightly but average 15 to 20 days each. The highest number of adults can be observed during the months of July and August. Continued on pg 2

Newsletter Reformatted

Greetings from extension. I hope this summer has been kind to you. I know sales are still struggling with some glimmers of hope here and there. We'll all keep struggling through it together.

Our office will be getting a new County Extension Direc-

tor. We look forward to welcoming and working with Debra Jo Kinsella.

I also hope you like the new format and the look of the Environmental Horticulture Production Newsletter. Due to budget cuts we have been asked to deliver this newsletter electronically. This can be

good or bad depending on how you look at it. It allows me to put active links in the newsletter so that you can click on them for more information. It will save us postage, paper, labor, and printing costs. So I'm choosing to look at it as a good thing. I hope you will too!

FNGLA's Annual Plant Auction



The man who worries morning and night about the dandelion in the lawn will find great relief in loving the dandelions"

Liberty Hyde Bailey, Manual of Gardening, 1910



Check out the video of new grape varieties on the blog.

<http://hortagent.blogspot.com/2010/08/>

On October 16, 2010 The Tampa Chapter of the Florida Nursery, Growers & Landscape Association had their annual plant auction. This year was another success with the Chapter raising over \$6600 in auction proceeds. This year the Chapter also tried a new format to the auction by inviting producers who donate goods to a 4-H hosted Bar B-Que. Those same invitees were able to bid on

items in a silent auction that would pertain exclusively to producers and not the general public. There were some great deals for those growers such as 2.5 gal of glyphosate for \$24 bucks. Extension Agents volunteered to provide auction support, advertising, and manpower to help out with the fundraising. It was also a win, win partnership with the 4-H Foundation by sharing a tent and selling food

to invitees. Past auction buyers were given free tickets to attend. The monies raised will be used to support youth events such as the Florida Strawberry Festival Youth Plant Show and Sale, The Nursery Landscape, and Floriculture Career Development Event and the Carl Cowgill Horticulture Scholarships.

Grasshoppers Abound Continued

Populations cycle up and down, possibly due to the action of parasites. The tachinid fly *Anisia serotina* (Reinhard) attains high levels of parasitism, sometimes 60-90%.

Grasshopper abundance can be regulated through management of the vegetation. If you deprive grasshoppers

of their favored food, often they will leave or perish.

Keeping the vegetation mowed is very helpful, as short vegetation does not often support grasshoppers.

Grasshoppers are not easy to kill, even with insecticides, once they become large. Among the insecticides that will kill lubber grasshoppers are carbaryl, bifenthrin, cyhalothrin, per-

methrin, and esfenvalerate (note: these are the technical names, which appear in the 'ingredients' section on the label). You likely will have to apply the insecticide directly to the insects; the small amount of insecticide residue remaining on sprayed plants may not adequate to kill the grasshoppers."

Continued on page 6.

Extension Goes High Tech

UF/IFAS Extension continually delivers research-based science in the most up to date manner possible. In a world of changing technology and diminishing budgets, I have been trying to deliver information that I think is pertinent to growers in the most timely manner possible. When I started a year and a half ago, I felt that a blog was the fastest way to get information to

those interested. The University of Florida is an organization on the forefront of the leading edge of new knowledge. I feel it is my role to deliver that information as fast as possible. In the near future I will be putting my blog posts in a weekly e-mail to my clientele list. If you don't want to receive information that way please let me know and we will remove you from

the list. Part of a good Extension agent's job is information delivery. Information now moves at the speed of light. I will be experimenting with some new technologies such as video blog posts, webinars, and Polycorn conferences. Please feel free to let me know what you think of these technologies in Extension. I still make farm visits to those without email!

USDA Value Added Producer Grant Winners

The five Florida agribusinesses awarded USDA Rural Development Value Added Producer Grants include:

Lake County: Containerized tree farm will receive \$300,000 to use as working capital to market woody ornamentals grown with a system that helps plants rapidly develop a mass of outward pointing fibrous roots allowing the plant to absorb more nutrients and water which stimulates faster growth;

DeSoto County: High-quality sod producer will receive \$300,000 for working capital to market environmentally friendly sod that is grown using less synthetic fertilizers and water;

Marion County: Milk-producer cooperative will receive \$150,000 for working capital to process raw product into pasteurized and flavored milk for local school districts;

Columbia County: Black angus cattle ranch will receive

\$197,560 to develop an accounting system, conduct a marketing campaign and process and sell locally-grown antibiotic/hormone free beef; and,

Alachua County: Blueberry farm will use \$36,500 in grant funds to perform market and feasibility studies to launch a highly concentrated, sugar-free and calorie-free dry blueberry extract tailored for special needs populations.

Start thinking about grant possibilities for next time.

Save Money on Taxes!!!

DEFERRED SOCIAL SECURITY--Are you aware you don't have to pay the employer-matching share of the social security taxes on new hires that haven't worked more than 40 hours in the previous 60 days. This applies to anyone hired on or after 3/18/2010. This is applicable for the calendar year. For

more information, contact your CPA.

TAX CREDITS FOR PROVIDING HEALTH INSURANCE—

The recently enacted Patient Protection and Affordable Care Act could earn you a new tax credit this year for providing health insurance for your employees. If your business

employs less than 25 and have less than \$50,000 in average wages you may be eligible for a credit up to 35% of the premiums paid in 2010. Again ask your CPA or contact the IRS at www.irs.gov.

“Protect your operation and don't infringe on plant patents.”

Knock Outs, Knocked Out

Greenhouse Grower published a story about an unnamed illegal propagator of knock out roses being caught and fined. The nursery was in Central Florida but will remain unnamed due to the clauses of the settlement. Any plants that are patented are the property of the patent holder and the propagation of those

plants will need to be allowed or permission given from the patent holder. This is an easy financial risk to eliminate from your business operation. I have seen people inspecting large nurseries for the potential of illegal propagation. Here is the link to the rest of the story.

www.greenhousegrower.com/news/?storyid=3439

Protect your operation and don't infringe on plant patents.



Knock Outs at the Bette Walker Discovery Garden here at the Extension Office

“Plants can either protect themselves or grow fast; but not both.”

Let Plants Help Themselves

It seems that nursery growers are in losing battle with insect pest and a rapid turn of plant crops. Here are the summaries of two articles I've come across recently.

Plants can either protect themselves or grow fast; but not both.

A recent published article in Science magazine by UC Irvine's Kailen Mooney et. al. came to the research conclusion that when plants have traits to grow fast, they are more prone to attack and need outside help from the attack of pests. The converse is true as well. A plant with slower growing traits favor more protection from insects that feed on them. It seems that faster growing plants are more tasty and preferred by

plant eating insects. Here is a link to a brief from the research from Science Daily: <http://www.sciencedaily.com/releases/2010/03/100325143051.htm>

Reduce fertilizer amount and reduce pest pressure.

This article was in NM Pro, March Issue. It was a summary of the researcher Andrew Chow and his colleagues work. They looked at reducing fertilizer inputs in rose crops and the pest status of introduced two spotted spider mites. They used 100, 50, and 33% of the recommended 15-5-15 Cal-Mag fertilizer and placed the same number of female mites on each plants and then grew them out. Mite egg count was 2 times higher with 100% fertilizer

compared to the 50 or 33% fertilizer rate. Flowering shoots and quality was not compromised at the 50% fertility rate. This study showed that reducing fertilizer reduced the pest numbers and had positive monetary savings in sprays, labor, and fertilizer. The complete article was in Journal of Economic Entomology Vol. 102, Issue 5.

Plants that are insect magnets and not produced for a market window, you might reduce the amount of fertilizer or spread out the production of this plant over the year and reduce the amount of fertilizer so that the slower growing plants would be reaching maturity throughout the year.

Extension Calendar

**November 8, 2010-
WPS Train-the-
Trainer Class**

**January 25, 2010-
Integrated Pest Man-
agement Update-**

**January 27, 2010-
Youth Nursery, Land-
scape, and Floricul-
ture Career Develop-
ment Event**

**February 25-26, 2010-
TBWG Spring Expo**

**March 6, 2010-Florida
Strawberry Festival
Youth Plant Show
and Sale**

View Nature, Ease the Mind

This article was posted on Science Daily. "Tranquil Scenes Have Positive Impact on Brain" Brain imaging software was used to look at the brain when shown environmental scenes such as the sea and man-made images such as roadways. Imaging showed that natural scenes induced feelings of tranquility and brain har-

mony. That might be one of the reasons why I like eat my lunch in the gardens. To read more here is the link to the Science-Daily article:

<http://www.sciencedaily.com/releases/2010/09/100914095932.htm>



SWFWMD Plant City Freeze Management Plan

To minimize the potential harmful affects of pumping too much water during freeze events in the Plant City/Dover area SWFWMD has proposed new rules. Here is a list of the proposals for this area.

1. The management district will create a new water use caution area (WUCA) in the Dover/Plant City area. It will encompass a 256 sq. mile water use caution area from McIntosh east to the county line and bounded on the North at Knights Griffin and continue south to Keysville

road. SWFWMD will put limitations on new ground water requests, and implement a strategy to minimize loss of the aquifer during a freeze event.

2. All new residential well construction within the WUCA will need to be dug deeper and have a greater casing depth.

3. SWFWMD will communicate to residents before a freeze event using media, letters, and phone calls to alert residents to turn off their pumps.

4. SWFWMD will allocate dry well repairs in a more equitable fashion.

5. SWFWMD will expanding the FARMS Program and increasing incentives for alternative frost/freeze protection methods.

6. SWFWMD will increased groundwater monitoring through drilling new monitoring wells and putting meters on all existing wells in the area to record water use and temperatures during a freeze event.

WPS Train-the-Trainer Class

.We will be having a WPS Train-the-Trainer Class in Bartow on at the Extension office November 8, 2010 starting at 10:00 AM until 1:00 PM. If you have employees that need to be trained for the Worker Protection Standards then you will either need to be a licensed pesticide applicator

or you will need to have a WPS Train-the-Trainer certificate. You can sign up for this class by clicking the link and registering online.

<http://tiny.cc/wpsblogclass>

If you have trouble or cannot register online please call me at the office 813-744-5519 ext. 147.

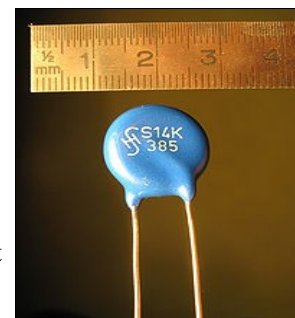
For a WPS Inspection Checklist Click on this link. <http://tiny.cc/wpslist>

Lightning Protection

I spoke with Dr. Richard Beeson about lightning protection at his site with all his solenoids and data collection devices going out to his field. He explained he uses a small device that is wired from any wires or controllers coming from the field. The component is called a varistor. It is similar to a fuse and is wired to a grounding

strip. If a lightning bolt is nearby and there is a voltage spike traveling back from the field the voltage spike will encounter the varistor. If the voltage spike is higher than the rating on the varistor it will automatically shunt the power to the grounding strip. In a direct lightning strike it probably will not protect you. But from a

nearby lightening strike and power surge it would probably do the job of protecting your equipment. Here is a link about varistors and their use <http://en.wikipedia.org/wiki/Varistor> they cost about \$0.05-\$0.10 each and you will need one for each wire coming back from the solenoids in your field.



Varistor picture from Wikipedia. Click on this link to see the video of Dr. Beeson's lightning protection. <http://tiny.cc/varistors>

Grasshoppers Abound Continued

Continued from page 2.

Along with chemical control there are a few biological control options that can be used. *Nosema locustae*, a naturally occurring protozoan that causes disease and death in crickets and grasshoppers and sold under the trade name Nolo Bait® and Grasshopper Attack®. This biological control is best used when grasshoppers are in the younger stages of maturation. With ingestion

of the protozoan, the grasshopper reduces feeding activity and egg laying and between 60 to 90% will die. The next generation of grasshoppers can become infected with egg contamination from adult female grasshoppers. Derived from *Eny-275*. Microbial Insecticides. R. Weinzierl, T. Henn, P. G. Koehler and C. L. Tucker. <http://edis.ifas.ufl.edu/pdffiles/IN/IN08100.pdf>
The fungus *Beauveria bas-*

siana is yet another biopesticide registered for grasshopper control. This is a soil fungus that has a broad spectrum of insect control. It is sold under the trade name BotaniGard®. The spores of this fungus penetrates the insects cuticle and consumes it from the inside

“The only thing constant is change.”

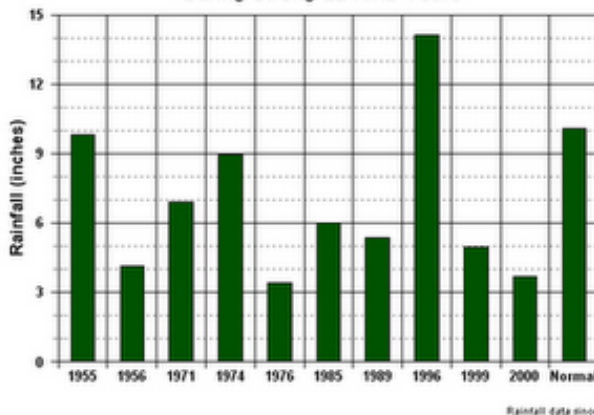
La Nina Pays a Visit

When I start to think about our climate a familiar quote comes to mind, “The only thing constant is change.” It looks like we are in the La Nina climate cycle of the El Nino-Southern Oscillation (ENSO) this winter and predictions are that it will extend into the spring. This means that we are generally going to experience a warmer and drier than average winter. How does this affect production? If

you are scheduling plants for a particular week remember the growing degree days will be higher and therefore development of plants will be more rapid. It means that you will probably use more water as water loss from the plants is a function of temperature. That might mean that your costs might be slightly higher for production. It means that you will more rapidly use fertilizer if you are using controlled release fertilizers. It means that

spring sales will probably start a little earlier and you should have your labor lined up for production, shipping, and delivery. It means pests may stick around longer and start earlier and you will need to be vigilant. It means you shouldn't think that freezes won't be a problem this winter. They might and you will need to keep an eye on the forecast.

Dec - Mar Rain Total at Tampa
During Strong La Niña Years



Graph of Total Rainfall averages during La Niña Cycles from the NWS



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Solutions for Your Life.

USDA Money For Conservation

Gainesville, FL., November 4, 2010 – The USDA Natural Resources Conservation Service (NRCS) has extended the ranking period cut-off date for their Conservation Stewardship Program (CSP). Producers now have until January 7, 2011, to finalize their applications; but are encouraged to apply as soon as possible.

The CSP program, authorized in the 2008 Farm Bill, offers payments to producers who maintain a high level of conservation on their land and who agree to adopt higher levels of stewardship. Eligible lands include cropland, pastureland, rangeland and nonindustrial forestland.

“We’re extending the deadline for applications to CSP to provide agricultural producers more time to complete their applications,”

said Acting State Conservationist Jeffrey Woods. “This will help farmers, ranchers and forestry producers by giving them more time and hopefully allow even more producers to participate in this program.”

CSP is offered in all 50 states, District of Columbia, and the Pacific and Caribbean areas through continuous sign-ups with announced cut-off dates for ranking periods. The program provides many conservation benefits including improvement of water and soil quality, wildlife habitat enhancement and adoption of conservation activities that address the effects of climate change. A CSP self-screening checklist is available to help producers determine if CSP is suitable for their operation. The checklist high-

lights basic information about CSP eligibility requirements, contract obligations and potential payments. It is available from local NRCS offices or online at http://www.nrcs.usda.gov/programs/new_csp/csp.html.

For information about CSP or other NRCS conservation programs, visit: www.fl.nrcs.usda.gov/programs or the USDA-NRCS Service Center nearest you, <http://offices.sc.egov.usda.gov/locator/app>.

NRCS is celebrating 75 years helping people help the land.