Berry/Vegetable Times

August 2008

Calendar of Events

Aug. 12 & Sept. 9 Pesticide License Testing. Hillsborough County Extension Office, Seffner. 9 am. For more information call Mary Beth Henry, 813-744-5519, ext 103.

Aug. 26-27 FSGA Agritech Educational Session & Trade Show. Trinkle Building, Hillsborough Community College, Plant City. For registration and more information contact FSGA. 813-752-6822.

Sept. 3 2008 Tomato Institute, Ritz -Carlton Hotel, Naples, Fl. For more information contact the Florida Tomato Committee, 407-660-1949 or www.floridatomatoes.org.

FLORIDA AG EXPO

Wednesday, November 5th Call (813) 634-0000 or visit http://flagexpo.ifas.ufl.edu for details. Check out the highlights for this years event—Page 7.

A University of Florida/IFAS and Florida Cooperative Extension Service newsletter
Hillsborough County, 5339 CR 579,
Seffner, FL 33584
(813) 744-5519 SC 541-5772
Joe Pergola, County Extension Director
Alicia Whidden, Editor
Gulf Coast Research & Education Center
14625 County Road 672,
Wimauma, FL 33598
(813) 634-0000 SC514-6890
Christine Cooley, Layout and Design
Craig K. Chandler, Co-Editor
Jack Rechcigl, GCREC Center Director
http://gcrec.ifas.ufl.edu

From Your Agent
Start of a New Season

Here we are at the beginning of a new strawberry season again- time is flying by! Before you have employees working there are a few things to take care of to get your season off on the right foot. Remember that all new employees need to have Worker Protection Standards (WPS) training before the end of the fifth day of work and before they have been exposed to pesticides (which includes fumigants). Also check your central posting site and make sure all posters are not faded and can be easily read. Make sure the nearest emergency medical facility name and address is clearly written on the WPS poster. Also make sure that any employees who will be handling pesticides receive the extra training that is required for handlers. Remember not just anyone in your organization can give WPS training to workers and handlers; the trainer must have a restricted use pesticide license or have attended a WPS Train-the-trainer Workshop and have received a trainer certificate. I will be holding a Workshop in the near future so if you have someone

Control of Colletotrichum Diseases in the Strawberry Nursery

Steven MacKenzie

Although most transplants for the Florida production season are imported from high latitude or altitude nurseries outside the state, disease control in the nursery can dramatically impact disease incidences later on when transplants are established in fields for the winter production season. For this reason, it is critical that growers understand disease control procedures in the nursery. Fungal diseases in which early nursery control is very important include anthracnose fruit rot and Colletotrichum crown rot (anthracnose crown rot). Anthracnose fruit rot and

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Colletotrichum crown rot are caused by distinct fungi and their control in nurseries is not the same.

Colletotrichum acutatum, the cause of anthracnose fruit rot, could potentially be imported on transplants from nurseries located anywhere. It does not appear to oversummer in Florida on residual debris from past seasons or on hosts other than strawberry. Thus, if it is not present on transplants, it is a good bet that the disease will not appear during the harvest season unless it is imported from an infected field by pickers or on equipment. The foundation stock used by nurseries to produce transplants is likely to be free of *C. acutatum*. In temperate regions, studies suggest that *C. acutatum* may persist in the soil. However, in nurseries where the soil is fumigated inoculum from soil is not likely to be a source for infections. Some strawberry plants may survive between seasons and it is likely that the fungus survives on these plants. Therefore, effective elimination of all strawberry plants in the nursery between seasons is a good step to guarantee that transplants sent to Florida will be free of disease. *C. acutatum* infects leaves and roots of strawberry in addition to fruit and it is dispersed by rain drops, movement on dew or by sprinkler irrigation. The heaviest source of inoculum comes from lesions on fruit, and thus, if flowers are removed from plants, the probability of a disease epidemic developing in the nursery is greatly reduced. Also, nursery stock that has been drip irrigated as opposed to sprinkler irrigated will be less likely to have infections. Regular applications of Captan will inhibit the introduction of *C. acutatum* into a nursery, but once introduced it will not erradicate the disease.

Colletotrichum crown rot is caused by *Colletotrichum gloeosporioides* or *Colletotrichum fragariae*. Symptoms include plant wilt and lesions on runners. These two fungi do not grow well at cooler temperatures and as a result Colletotrichum crown rot does not appear to be much of a problem in nurseries in the northern United States and Canada. It sporadically is a problem at high elevation nurseries in the Southeastern United States. *C. gloeosporioides* and potentially *C. fragariae* are common on noncultivated plants in this region and spores from these hosts can initiate epidemics on strawberry. In Florida, weekly applications of Captan during the growing season greatly reduces the spread of this disease from already infected strawberry plants. However, it is not clear if it effectively inhibits infections from noncultivated hosts. This is because it is not clear how much inoculum is coming from these hosts and, unlike in a strawberry field, the source of the inoculum is not being treated with the fungicide. In essence, at locations where *C. gloeosporoides* might be widespread on numerous hosts, controlling crown rot in the nursery is not straight forward. Therefore, it is important that if a grower chooses to purchase plants from the southeast, that nurseries are located in areas that are not subjected to high temperatures common at lower altitudes. It is also important that foundation stock be clean and that it has been excluded from areas where *C. gloeosporioides* might be present. *C. gloeosporioides* and *C. fragariae* are also spread by splashing water and drip irrigated plants would be less likely to have disease. It is also important to note that cultivars display different levels of resistance to Colletotrichum crown rot. Resistant cultivars show delayed symptoms, but eventually succumb to the disease. Cultivars such as 'Strawberry Festival' and 'Camarosa' will develop symptoms sooner than a cultivar such as 'Treasure'. It is important that growers know if any cultivars at a nursery have crown rot symptoms, not just the ones they are purchasing, because it is possible that they

might have a more resistant cultivar that will eventually succumb to disease after transplantation.

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in your organization who needs to attend give me a call at the number below to get on the contact list for notification of the meeting. Don't think your farm will not be inspected- it will! It will be much easier when you are inspected if you start your season out with your workers trained and your paperwork and central posting all in order.

This spring and summer we have watched the food safety scare involving tomatoes and hot peppers unfold across the nation. We have seen how devastating this was to the Florida tomato industry. Safety of our food supply is of paramount importance. When you are giving WPS training to your workers emphasize proper hand washing and the importance of good personal hygiene to your workers. Document what you teach. Remember it only takes one mistake for the whole industry to be put in jeopardy. Every farm and packinghouse needs to enforce good sanitary practices in their operation!

Update on the MiniFarms Cost Share Program (which is back in action again). The program is for Hillsborough, Hernando, Citrus, and Pinellas County growers. It is provided by FDCAS and is facilitated through the Hillsborough Soil & Water Conservation District (HSWCD). The program has $40,000 and applications are taken on a first come basis. Contact Jessica McCoy at 813-985-7481 ext. 2125 for an application. Growers must have been in production for at least 2 years and have 100 irrigated acres or less. Growers must first sign up with FDCAS BMP program to be eligible for cost share money. To sign up for the BMP program contact Jemy Hinton, BMP Implementation Team, at 813-478-6630. The HSWCD has the Mobile Irrigation Lab that at no charge can determine the efficiency of your irrigation system and improvements can be made with cost share money from the MiniFarms program. Reimbursement has been 85% up to a maximum of $8,000. This reimbursement rate can be lowered by the HSWCD's Board but currently it has been 85%. Some items that qualify for the program are soil moisture probes, weather stations, conversion from overhead to low volume irrigation and any projects that improve water conservation and water quality of off-site discharge. Thank you to Jessica McCoy for providing this information.

Where can you go to learn all the latest on food safety, labor issues, the newest fumigant information from Washington, what is going on in the world of research on strawberries and also get pesticide license CEUS, including the hard to get but oh so necessary CORE, and visit a great Trade Show with lots of vendors and get served great food? The answer, if you had not guessed, is the 2008 Strawberry Agritech on Aug. 26 and 27 . It will be held at the Trinkle Building on the HCC campus in Plant City. Come get the latest information at the meeting! See the calendar of events for contact information.

A note about restricted use pesticide licenses: Bureau of Compliance Monitoring has announced that license fees will be increasing starting Sept. 1, 2008. The cost for a Private Applicator license will go from $60 to $100. Public license will increase from $60 to $100. Commercial licenses will go from $160 to $250.

From your agent,

Alicia Whidden

813-744-5519 ext.134
awhidden@ufl.edu

Prepare for Initial Insect and Mite Management as Transplants Arrive

James F. Price and Curtis Nagle

Transplants will begin arriving soon and characteristics of new strawberry fields will be determined by the quality of those transplants. As the transplants arrive, growers have a chance to discover problems, alter characteristics in their favor, and avoid some serious pest problems on down the road.

Spider mites, aphids, and, more rarely, cyclamen mites easily can accompany transplants from nurseries and establish as problems for the early season or much longer. But early inspections and corrective measures by growers can unnecessary trouble.

As transplants arrive growers should select one transplant from as many crates and bundles as practical from each homogeneous planting unit. A homogeneous planting unit is composed of the transplants that most likely share pest-related characteristics and normally is the area planted during 1 week of transplanting of one cultivar from one nursery location. Both surfaces of fully expanded leaves of each selected transplant should be examined with a 5X hand lens for spider mites and aphids and the still-folded leaves and the surfaces of tissues within the crown should be examined with a 14X hand lens for cyclamen mites.

If insects or mites are found, then plans should be developed to treat the plants early with pesticides or to watch the pests especially close for quick reaction once thresholds are reached. Since at transplanting, little of the plant mass is present that would be present at time of release of any predatory mites and since at transplanting, few beneficials are established in the field and there are fewer problems associated with applying pyrethroids as well as other harsh pesticides at that time. This opens opportunities for a wider array of pesticides to "clean up" infested transplants and get the season off to a good start.

Hires New Executive Director

Dover, FL— Press Release from FSGA

Following a nationwide search, the Florida Strawberry Growers Association has named Ted Campbell as its new executive director. Ted's deep experience in the produce industry includes retail and wholesale from both a procurement and sales prospective. He is the former Director of Produce for SUPERVALU INC. in Minneapolis, MN, and was previously V.P. of Sales and Marketing for Kerry's Nursery headquartered in Homestead, FL.

Ted has a strong history of industry service and is a past chairman of both the Produce Marketing Association and the Produce for Better Health Foundation (5-A-Day). He commented, "I am honored to be selected for this position and excited to be working with such a dynamic group of growers and handlers. The people in the produce business make it wonderfully unique, as we enter an era of escalating challenges I look forward to helping our membership succeed and prosper."

Formed in 1982, the Florida Strawberry Growers Association (FSGA) is based in Dover, FL and also oversees the Florida Strawberry Patent Service Corp. (FSPS) and the Florida Strawberry Research and Education Foundation (FSFEF).

'Festival' Strawberry Report

Christine Cooley

I recently received some wonderful photos of organic 'Festival' strawberries growing in Guatemala from **Bill and Giannina Thorton of Mayan Gourmet**. As you can see, the 'Festival' variety is doing well in this mountainous county.

Guatemala is a country in Central America bordered by Mexico to the north and west, the Pacific Ocean to the southwest, Belize and the Caribbean Sea to the northeast, and Honduras and El Salvador to the southeast. Guatemala is mountainous, except for the south coastal area and a vast rolling limestone plateau (Petén). Two mountain chains enter Guatemala from west to east, dividing the country into three major regions: the highlands, where the mountains are located; the Pacific coast, south of the mountains; and the Petén region, north of the mountains. Although Guatemala is trying to expand its manufacturing activities to reduce economic dependence on agriculture, the agricultural sector is a crucial component of Guatemala's export and domestic economies, accounting for 23 percent of GDP (US$11 billion) in 1999 and employing 50 percent of the labor force (1.7 million workers). Coffee production, one of Guatemala's original commercial developments in the 19th century, is still of vital importance to the national economy. In 1998, coffee exports brought in US$586.3 million, almost double the amount of sugar, the next most profitable agricultural export. Sugar has also shown promise as an expanding industry in Guatemala, particularly because it can be produced in raw form or processed within the country prior to export, augmenting its value. Bananas remain one of Guatemala's top agricultural exports, grabbing US$190.4 million in revenue in 1998.

Photos compliments of Bill and Giannina Thorton of Mayan Gourmet.

The Times They are a Changing

Joe Noling[1] and Alicia Whidden[2]
[1]Professor, University of Florida IFAS Citrus REC
[2]Extension Agent II, Hillsborough County Extension

For 2 years we have been discussing EPA's reassessment of the soil fumigants and the likely impact that fumigant relabeling would have on Florida strawberry growers. These have included among other issues, buffer zone and new personal protective equipment requirements for field workers. Well, it has finally arrived. EPA fumigant reassessments were finally published the first week of July 2008. The purpose of this newsletter document is not to comprehensively distill the contents of those documents but to provide a brief overview of important new requirements and potential ramifications to the industry. Growers are also strongly encouraged to read and review the documents at the follow web site address: http://www.epa.gov/pesticides/reregistration/soil_fumigants/index.htm#more .

Based on release of a preliminary report in November 2006, we have been very concerned about new requirements for extensive fumigant buffer zones surrounding fumigant treated fields. It would appear that EPA, in its latest reevaluation, has backed off significantly in its initial lengthy requirements. Based on newly released reassessments for chloropicrin, buffer zone distances from treated field to occupied structure will be in the neighborhood of 100 to 300 feet depending on treated acre rates of application, the number of acres treated per day, shank application, and whether high barrier, gas impermeable (VIF) plastic mulch films will be used. As predicted, buffer zone distances are minimized for use of any soil fumigant when applications are made through the drip irrigation system. For example, a maximum buffer zone of 25 feet is required when chloropicrin is drip applied at typical rates of application. This drip maximum is not particularly affected by increasing broadcast equivalent application rates up to 300 pounds per treated acre, while treating less than 20 acres per day. It also does not even demand use of high barrier/ VIF mulch. Clearly, EPA analysis shows lowest soil emissions, and hence lowest buffer zone requirement, when fumigants are applied under plastic through the drip system. For strawberry growers farming land bounded by residential occupied structure, the future appears to point towards drip fumigation rather than shank application for fumigant use. This will involve a new order of thinking and application to insure uniform distribution and dosage throughout the raised bed and field.

With regard to PPE, EPA does not appear to have changed preexisting label requirements for use and need for respirators for fumigants like Telone or Methyl iodide (Midas). As for new label requirements for chloropicrin, it has not mandated respirator use for field workers. As a new provision however, EPA will require in addition to formulating a Fumigant Management Plan (FMP), grower monitoring and recording of fumigant gas concentrations within the field during application but also around the perimeter of the field buffer zone. If measured chloropicrin concentration exceeds a specified level, growers will then be obligated to remove workers from the field or to enforce the use of respirators provided to each worker in the field. New label language will also indicate that before field workers can be permitted to wear the respirator, they must be safety trained by OSHA approved standard, fit tested, and medically certified to be able to wear and use a respirator. Unless drip applications are used where fewer workers are involved, these new requirements are expected to add significant cost to overall soil fumigation costs when shank applications are made with many people in the field. Purchase of the gas monitoring devises must also be considered.

As mentioned previously, another major change to standard operating procedure will involve the development and submission of a for-

mal field site specific Fumigant Management Plan. A future newsletter article will describe the new requirement in much more detail. In general, it is a detailed, site-specific plan developed for each application block which includes site information, a map of the treated field, authorized personnel, application rates and procedures, posting plans, and emergency procedures. This will represent a new order of business and record keeping. After review of all of the reassessment documents that EPA has just published, I think it is impossible not to conclude that the times they are a changing for Florida strawberry growers and their use of soil fumigants.

Chemically Speaking Pesticide Registrations and Actions

Based on a request by IR-4, the EPA has approved tolerances for the insecticide bifenthrin (Discipline®). Tolerances of importance in Florida include blueberry (bushberry subgroup 13B) and leafy petiole (subgroup 4B). (Federal Register, 6/11/08).

Pesticide Potpourri

- The 2008 Peanut Field Day will be held on August 21 at the North Florida Research and Education Center near Marianna, FL. Registration is at 8 AM and tours start at 9 AM. Topics include pest control, new varieties, and pesticide safety. CEUs will be available and a complimentary lunch will be served at noon. For more information contact Dr. Barry Tillman at 850-482-9904.
- In June, a spokesman for the European Commission, Johannes Laitenberger, expressed regret that many EU nations are still refusing to allow bent and deformed fruit and vegetables onto the market as food prices continue to rise. The EC has maintained that 26 market standards are not helpful and could be removed. This would allow misshapen fruit to be sold in supermarkets, with special labeling, for use in cooking. He said that the EC's Agricultural Commissioner Mariann Fischer Boel is determined that this should go forward and is surprised by the resistance to such a practical example of simplification. (EUBusiness, 6/16/08).

FLORIDA AG EXPO

2008 Highlights

- Food Safety Update: Salmonella and Tomatoes: Lessons Learned and Lessons We Need to Learn
- Alternatives to Methyl Bromide
- Vegetable Session
- Strawberry Session
- Blueberry Session
- Field Tours
- Vendor Displays
- Complimentary Breakfast and Lunch
- FREE ADMISSION

Wednesday, November 5th
Bring your entire team to the Florida Ag Expo!