



Berry/Vegetable Times

March 2011



Calendar of Events

March 24 Fumigation Meeting,
Trinkle Center, Plant City. Please
contact Alicia Whidden at 813-744-
5519 ext. 134 for more information
see Page 9 of this newsletter.

March 28 Worker Protection
Standards Train the Trainer Program,
Polk County Extension Office,
Bartow, Fl. 10:00-1:00. Register at
<http://polksmallfarms.com>.

April 5 Renewable Energy and
Energy Efficiency Program
Workshop, Hillsborough County
Extension Office, 1:00-5:00. See
article in newsletter.

April 12 Pesticide Testing at
Hillsborough Co. Extension office.
9:00 am. For more information
contact Susan Haddock at 813-744-
5519 ext. 103.

June 5-7 2011 Florida State
Horticulture Society Meeting, The
Renaissance Vinoy, St. Pete. For
more information go to
www.fshs.org/.

Important Changes in New Fumigation Rules and Restricted Pesticide License Holders

Alicia Whidden and Dr. Joe Noling

There is a very important point that is being repeatedly emphasized at the fumigation meetings and that we are sure will be pointed out again and again at upcoming meetings. The point that we would like to bring to your attention, and that is printed on each and every new fumigant product label, defines a new requirement and responsibility of the certified applicator of soil fumigants. From ordering to receiving delivery of the fumigant, from the beginning to the end of applying the product in the field, to signing off on the Fumigation Management Plan, it all falls on the restricted pesticide license holder/certified applicator to be at the field application site for each day's fumigation activity. What this means in practical terms for our farming operations is that the

Two Applications of Assail® Permitted on Strawberry

James F. Price and Curtis A. Nagle

Note: The maximum number of applications of Assail® in strawberries is two per growing season regardless of the rate per acre used. A different number of applications was reported in the February Berry/Vegetable Times.

Reduce Spotted Wing Drosophila from Strawberries to Blueberries

James F. Price and Curtis A. Nagle

Strawberry farmers should destroy all fruit, both on and off the plant, as soon as possible, following the end of the season in order to reduce spotted wing drosophila (*Drosophila suzukii*) movement from strawberries to blueberries.



**Mark your calendar for the 2011
Florida Ag Expo
Wednesday, November 9, 2011**

A University of Florida/IFAS and Florida Cooperative
Extension Service Newsletter
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<http://grec.ifas.ufl.edu>

pesticide license holder or another designated pesticide license holder / certified applicator must be at the field site at all times, i.e., in the line of sight of the application and providing direct supervision of all persons performing handling activities from the very beginning to the very end of dispensing the fumigant in the field.

This is a very important point for some of our farm operations to consider how they will satisfy this new fumigant label requirement. This can be a problem if the operation has multiple locations with multiple fumigation crews making daily applications and having only one person holding a pesticide license or the person that holds the license is not dedicated to being on the farm at all times. Clearly, to resolve such a problem will require licensing of new certified applicators to assume responsibilities for fumigant applications when either the primary applicator cannot remain at the site, or when fumigations are proceeding concurrently at multiple sites.

There will be a fumigation meeting for strawberry growers on March 24 at the Trinkle Center at HCC from 5:30 p.m. to 8:30 p.m. Dinner will be provided. See page 9 of this newsletter for all the details.

Cultural Practices for Vegetable and Small Fruit Crops: Characterization of the “Strawberry Dried Calyx Disorder” in Florida and Spain

Bielinski M. Santos, Craig K. Chandler, Alicia J. Whidden, and María del Carmen Sánchez

The strawberry dried calyx disorder (SDCD) has been observed since 2005 in farms around Plant City, Florida and Huelva, Spain. This disorder starts as a slight darkening of newly-opened and already formed flowers (Figure 1), resembling salt injury and progressing towards calyx

burning, and fruit discoloration and deformation (Figure 2). Field surveys performed in both locations during the 2005-06, 2006-07 and 2007-08 seasons suggest that certain strawberry cultivars are more susceptible than others to the appearance of SDCD.



Figure 1. Strawberry dried calyx disorder in immature fruit and flower. Huelva, Spain, 2008 (Picture by B.M. Santos).



Figure 2. Strawberry dried calyx disorder in mature fruit. Huelva, Spain, 2008 (Pictures by B.M. Santos).

In Florida, strawberries are planted in open fields, while in Spain, they are produced exclusively under high tunnels, mini-tunnels, and passively-ventilated greenhouses. At both locations, growers plant several cultivars concurrently to achieve continuous fruit production by overlapping each cultivar production peaks. Cultivars undergo equal irrigation, fertilization and pest management programs all season long. Field observations indicated the cultivars Strawberry Festival, Camino Real, and Palomar showed the SDCD earlier and more severely than others.

More detailed surveys conducted in Spain during the 2007-08 season confirmed that out of the 16 farms visited, representing about 2500 ha (6,718 acres) (38% of all the planted area in Spain), 15 experienced

moderate to severe SDCD symptoms. These symptoms consistently developed after exposure to stressful conditions, such as low temperatures and/or low light. Regardless of the production system, the symptoms appeared to be associated with high electric conductivity (EC; salt concentration) of hydroponic (perlite or coconut fiber mix) or soil. In those farms with the highest incidence of SDCD, it was common to find soil EC values at or higher than 0.3 mS/cm and as high as 0.75 mS/cm. Only moderate SDCD was associated with EC soil values below 0.2 mS/cm. As expected, soil texture also plays a major role in allowing salt “washing” away from the root zone. At one farm with both sandy and loamy soils and under the same fertigation programs, the cultivars planted in sandy soil had about 30% less affected plants than those planted in heavier soils.

In Florida, the SDCD has been observed mainly in ‘Strawberry Festival’ fields within 10 days after a freeze or after nights with very low temperatures (36°F = 3°C or less) and where very aggressive fertilization programs with poor irrigation and drainage are used. Growers with farms affected with SDCD have reduced the incidence of the disorder by providing only irrigation water or reducing fertilizer use during the 3 or 4 days before and after a stressful event (e.g. a freeze).

The effect of the type of protective structure was assessed in 2007 on a strawberry farm in Huelva, Spain. Plants of ‘Strawberry Festival’ were set between October 4 and 6 under three types of protective structures: a) low tunnels (9.5 ft high = 2.85 m), b) high tunnels (11 ft high = 3.30 m), and c) passively-ventilated greenhouses (16 ft high = 4.80 m). These structures were covered with the same polyethylene plastic covers, which reduced photosynthetic active radiation by 40%. Plants in all three structures had the same

growing substrate (perlite), received the same fertilization and irrigation programs, and crop management throughout the season. The EC of the nutritional solution at the injection points was 1.6 mS/cm, while it was 1.7 mS/cm at the drainage points.

The temperatures at the center of each structure measured at 3 pm were 77, 72.5, and 67°F (25.0, 22.5, 19.5°C), respectively. However, approximately 13 weeks after transplanting, six samples of 75 plants within each structure (450 plants per structure) were randomly assessed for SDCD incidence, regardless of the severity of the damage. The data revealed that there were significant differences on the number of plants with SDCD. Strawberries in low tunnels had the lowest number of plants with SDCD symptoms (8.9%), followed by those in the high tunnels (14.5%), and by those in the greenhouses (23.2%). Therefore, it appears that SDCD problems increased as the temperature decreased.

Another test was conducted in 2006 at the Gulf Coast Research and Education Center, IFAS, University of Florida under greenhouse conditions using six strawberry cultivars. Mature plants of ‘Strawberry Festival’, ‘Winter Dawn’, ‘Camarosa’, ‘Camino Real’, ‘Treasure’, and ‘00-51’ were transplanted in sand culture under greenhouse conditions to determine whether the SDCD could be reproduced in isolated conditions. Plants were irrigated three times per week with nutritive solutions containing 0, 0.6, 1.2, 2.4, and 4.8 mS/cm and the incidence of SDCD was monitored twice weekly by counting the number of affected plants. Symptoms of salt injury (similar to those observed in farms) developed at 30 days in ‘Strawberry Festival’ and ‘Camino Real’ with the 1.2 mS/cm solution (Figure 3), whereas the other cultivars did not show visible injury. The remaining cultivars developed salt damage at 45 and 55 days after initial treatment of 1.2 and 2.4 mS/cm solutions. These preliminary observations

indicated that both ‘Strawberry Festival’ and ‘Camino Real’ appeared to be more sensitive to high-EC fertilizer solutions than the others.

Circumstantial evidence seems to eliminate biotic entities (i.e. fungi, bacteria, viruses and nematodes) as the causal agents of SDCD because: a) symptoms comparable to SDCD were developed under pathogen-free greenhouse conditions; b) none of analyzed calyx samples from Florida and Spain with SDCD has yielded positive pathogen results; c) SDCD tends to disappear during the growing season when either fertigation practices are modified and/or stressful conditions disappear; and d) SDCD distribution in high tunnels and fields seems to be more accentuated in rows closer to entrances and at the end of drip lines.



Figure 3. Strawberry dried calyx disorder reproduced under greenhouse conditions. Balm, Florida, 2007 (Picture by B.M. Santos).

Until the nature of this disorder is fully understood, strawberry growers should exercise caution on their fertilization and irrigation programs during stressful environmental conditions for susceptible cultivars. Reducing the fertilization rates during the days before an expected freeze, while maintaining regular irrigation programs, appears to help to minimize the incidence of SDCD.

Please remember...

The use of trade names in this publication is solely for the purpose of providing specific information. It is not a guarantee or warranty of the products named and does not signify that they are approved to the exclusion of others of suitable composition. Use pesticides safely. Read and follow directions on the manufacturer’s label.

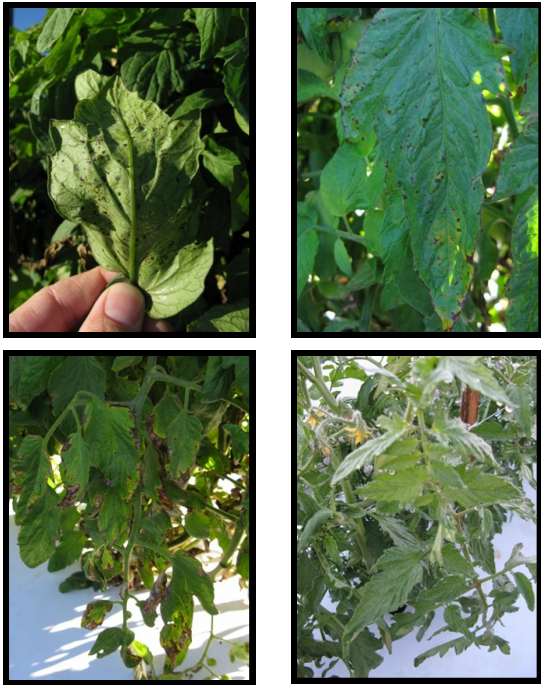
Summary of Fall 2010 Tomato Bacterial Spot Trials

Gary Vallad

Two tomato trials were conducted in the fall of 2010 to evaluate Actigard, bactericides and biopesticides for activity against bacterial spot. Both trials were planted on 3 Sept and consisted of 25 ft-long plots within 300 ft-long, raised beds with 5 ft center-to-center bed spacing. Beds were covered with black virtually impermeable mulch and irrigated with a drip system. Tomato cv. SecuriTY 28 seedlings were transplanted at 18-in spacing along beds skipping a 4 ft alley between plots as a buffer. Treatments, including a non-treated control (sprayed with water only to eliminate differences in leaf wetness between treatments), were arranged in a randomized complete block design with each treatment repeated six times. For both trials, treatments were applied weekly using a CO₂ back pack sprayer calibrated to deliver 60, 90, and 120 gal/A at 40 psi. Each plot was inoculated on 14 and 23 Oct with a suspension (10⁶ cfu/ml) of *Xanthomonas perforans* race 4 using a backpack sprayer. Plots were monitored regularly for bacterial spot, and rated after disease reached appreciable levels. Marketable yield was assessed from two harvests on 22 Nov and 7 Dec in the first trial, and a single hand harvest on 29 Nov in the second trial. Alternating applications of Revus Top (7.7 fl oz/A) and Quadris (16.4 fl oz/A) was included to minimize the impact of early blight and target spot when conducive conditions occurred in the latter half of Oct through November. Although last fall was quite dry, high dew points and scattered showers in the latter half of Oct through November were sufficient for moderate to severe disease development. The percent of foliage exhibiting bacterial spot over a two week period increased from 1.5% to 81% in Trial 1 and from 4.5% to 95% in Trial 2.

TRIAL 1: Evaluation of bactericides and biopesticides for bacterial spot management.

The first trial assessed several bactericides (Kasumin, Cuprofix 40D + Penncozeb, and Kocide 3000), several biopesticides (DT-9, Actinovate, and Vacciplant), Actigard, applied individually or in an integrated system for the management of bacterial spot. All treatments, with the exception of Actinovate alone and Actinovate with DT-9, significantly reduced disease severity by 39.6–83.9% on the first rating compared to the non-treated control. However, as disease pressure increased only Actigard and Actinovate-Actigard maintained a significant reduction in disease severity. Neither Cuprofix-Penncozeb nor Kocide 3000 provided a significant reduction in disease severity compared to the non-treated control beyond the first disease evaluation on 11



Figures (Top, left to right). Leaf symptoms of bacterial spot of tomato caused by *Xanthomonas perforans*. (Bottom, left to right). Blighting of leaf margins caused by *Xanthomonas perforans* infecting hydathodes often associated with conditions that promote heavy dew formation.

Nov. Overall, Actigard alone (0.33 oz/A) and Actinovate-Actigard significantly performed better than the copper-based in this study. Treatments had no statistical effect on fruit yields.

TRIAL 2: Evaluation of bactericides and Actigard for bacterial spot management.

The second trial assessed the effect of Actigard rate, frequency, and two application strategies [foliar and chemigation (through drip irrigation)], in addition to several copper formulations (EXPERIMENTAL 1, Kocide 3000, and Nordox 75WG), Firewall (streptomycin sulfate), Agriphage, and three integrated programs for the management of bacterial spot. Significant difference in disease severity among treatments was detected on three rating dates. Most treatments, except Kocide 3000-Penncozeb, Kocide 3000-Penncozeb-Quintec[®], EXPERIMENTAL 1 (rates of 1.14 to 6.90 pt/100 gal), and Agriphage, significantly reduced the final disease severity by 15.6–54.0% in comparison to the non-treated control. Firewall (streptomycin sulfate) applied alone or as part of a spray program provided the greatest level of disease control in Trial 2. Bactericides that significantly reduced disease severity did not statistically improve marketable fruit yield or the numbers of extra large fruits when compared to the non-treated control.

Similar to previous trials, weekly foliar applications of Actigard were superior to biweekly (14 day) foliar applications. The biweekly application of Actigard through the drip irrigation provided the same level of control as foliar applications ($P = 0.9066$, based on final disease severity). The weekly 0.75 oz/A drip application rate reduced plant height by 7.3% compared to the 0.25 oz/A rate. However, such a difference was not at the 14 day drip application interval (data not shown). Drip applications of Actigard successfully reduced the seasonal progress of bacterial spot on tomato, but the 0.75 oz/A rate caused a

significant reduction in yields relative to 0.75 oz foliar rate ($P = 0.0164$ for contrasting drip and foliar applications at 0.75 oz/A). Additional research is underway to better define appropriate chemigation rates with the goal of balancing disease suppression with improved yields. In the end, this goal will probably be accomplished by integrating Actigard with bactericides like Firewall, as was accomplished in two of the integrated programs. Actigard is not currently labeled for chemigation. The current Actigard label recommends weekly applications at 0.33 to 0.75 oz/A. Recent work at GCREC found that the lower rates of 0.33 to 0.50 oz/A were sufficient for disease control.

Firewall (streptomycin sulfate) is not labeled for field use, only for transplant production. However, efforts are being made to expand the label. Developing effective resistance management strategies will be critical to prevent an increase resistant to streptomycin sulfate among *Xanthomonas perforans* strains (the predominant cause of bacterial spot on tomato in Florida). It is unlikely that rotations with copper-based bactericides will be sufficient for resistance management, since copper-resistance is prevalent among *Xanthomonas* strains in Florida. Rotations with other products like Quintec® (also not labeled for tomato, but has a supplemental label for bacterial spot of pepper) may also be ideal.

Table 1: Evaluation of bactericides and biopesticides for management of bacterial spot of tomato, fall 2010.

Treatment, rate/A (application) ^z	Disease severity (%) ^x				Marketable fruit yield ^y	
	15 Nov	22 Nov	29 Nov	AUDPC ^w	Weight (boxes/A)	Extra large (numbers/A)
Cuprofix 40D, 3 lb (1-5); Penncozeb 75DF, 1 lb (1-5)	12.2 cd ^y	83.1 a	92.5 ab	781 c	2184	47844
Actigard 50WG, 0.33 oz (1-5)	11.4 cde	65.7 c	90.2 b	680 d	2050	45593
DT-9, 2 oz (1-5)	13.8 cd	91.0 a	94.0 a	831 ab	2221	48352
Actinovate, 3 oz (1-5) DT-9, 1 oz (1-5)	21.7 ab	84.7 ab	94.0 a	811 bc	2223	51256
Serenade Max, 1 lb (1-5) Actinovate, 3 oz (1-5)	8.25 de	84.7 ab	93.3 ab	785 c	2034	45811
Actinovate, 3 oz (1-5) Actigard 50WG, 0.33 oz (1-5)	4.50 e	61.5 c	86.3 c	633 e	2058	46972
Actinovate, 6 oz (1-5)	24.8 a	84.7 ab	93.3 ab	814 bc	1938	40511
Kasumin 2L, 32 fl oz/50 gal (1-3); Cuprofix 40D, 3 lb (4-5); Penncozeb 75DF, 1 lb (4-5)	12.2 cd	87.8 ab	93.3 ab	809 bc	2108	46969
Kasumin 2L, 16 fl oz/50 gal (1-3); Cuprofix 40D, 3 lb (4-5); Penncozeb 75DF, 1 lb (4-5)	16.9 bc	89.4 ab	94.8 a	831 ab	2120	45375
Vacciplant, 14 fl oz (1-5)	15.3 bcd	89.4 ab	93.3 ab	823 abc	1987	43197
Kocide 3000, 1.75 lb (1-5)	12.2 cd	87.8 ab	94.0 a	811 bc	2191	45811
Non-treated control	28.0 a	91.0 a	95.3 a	860 a	2046	44504
<i>P</i> > <i>F</i>	< 0.0001	< 0.0001	0.0002	< 0.0001	0.8159	0.6508

^z Listed treatment rates are on a per acre basis unless noted otherwise. biopesticide treatments were applied on 6 Oct, 19 Oct, 26 Oct, 2 Nov, and 8 Nov (corresponding with applications 1 to 5 above)

^y Values followed by the same letter are not statistically significantly different ($P = 0.05$) according to Fisher's LSD test.

^x The severity of bacterial spot was assessed as the percentage of canopy affected. The Horsfall-Barratt scale was used for all ratings, but values were converted to mid-percentages prior to statistical analyses.

^w Area under the disease progress curves (AUDPC) was calculated using the formula: $\sum[(x_i + x_{i-1})/2](t_i - t_{i-1})$ where x_i is the rating at each evaluation time and $(t_i - t_{i-1})$ is the time between evaluations.

^y Marketable yield is based on two single harvests on 22 Nov and 7 Dec, assumes 4356 plants/A and 20 lb/box, and includes medium, large, and extra-large fruits.

Table 2: Evaluation of bactericides and Actigard for management of bacterial spot of tomato, fall 2010.

Treatment, rate/A (application) ^z	Disease severity (%) ^x				Marketable fruit yield ^y	
	11 Nov	22 Nov	29 Nov	AUDPC ^w	Weight (boxes/A)	Extra large (numbers/A)
Actigard 50WG, 0.25 oz (Drip; 1-8)	2.50 cde ^y	28.0 efg	65.7 cde	404 def	1393 ab	33469 ab
Actigard 50WG, 0.75 oz (Drip; 1-8)	4.00 abc	30.6 def	57.3 defg	394 ef	875 d	19384 d
Actigard 50WG, 0.25 oz (Drip; 1,3,5,7)	4.00 abc	21.7 fgh	65.7 cde	370 fg	1076 cd	26354 bcd
Actigard 50WG, 0.75 oz (Drip; 1,3,5,7)	5.25 a	32.2 def	58.3 def	410 def	1082 cd	28459 bc
Actigard 50WG, 0.75 oz (Foliar spray; 1-8)	2.50 cde	27.4 efg	50.0 fgh	346 fgh	1248 abc	27370 bc
Actigard 50WG, 0.75 oz (Foliar spray; 1,3,5,7)	2.50 cde	38.5 cde	68.8 bcd	478 cde	1183 abc	25918 cd
Kocide 3000, 0.5 lb/100gal (1-8); Penncozeb 75DF, 2 lb (1-8)	3.75 abcd	45.8 abc	73.6 abc	542 abc	1422 a	36373 a
Nordox, 2 lb (1-8); Penncozeb 75DF, 2 lb (1-8)	2.00 de	16.9 gh	45.8 ghi	267 ghi	1197 abc	31944 abc
EXPERIMENTAL 1, 1.14 pt/100 gal (1-8).	2.00 de	42.7 bcd	78.3 ab	535 bc	1220 abc	29330 abc
EXPERIMENTAL 1, 2.32 pt/100 gal (1-8).	2.00 de	54.2 ab	79.9 ab	610 ab	1359 ab	32670 abc
EXPERIMENTAL 1, 6.90 pt/100 gal (1-8)	2.00 de	39.5 cde	76.8 abc	511 bcd	1291 abc	31871 abc
EXPERIMENTAL 1, 17.0 pt/100 gal (1-8).	1.50 e	28.0 efg	54.3 efg	361 fg	1355 ab	32743 abc
Firewall, 16 oz/100 gal (1-8)	2.00 de 3.00	9.83 h	38.5 hi	199 i	1186 abc	31509 abc
Agriphage, 2 pt/100gal (1-8)	bede	46.8 abc	76.8 abc	557 abc	1201 abc	30592 abc
Kocide 3000, 0.5 lb/100 gal (1-8); Penncozeb 75DF, 2 lb (1-8) Quintec [®] , 6 fl oz (4,5,6,7)	2.00 de	42.1 bcd	76.8 abc	528 bc	1335 abc	31436 abc
Firewall, 16 oz/100 gal (1,3,5,7) Agriphage 2 pt/100gal (2X per week; 2,4,6,8) Actigard 50WG, 0.75 oz (Drip; 1- 8)	3.50 abcd	15.3 gh	41.7 hi	247 hi	1197 abc	28459 bc
Firewall, 16 oz/100 gal (1,3,5,7) Agriphage 2 pt/100gal (2X per week; 2,4,6,8) Actigard 50WG, 0.75 oz (Drip; 1,3,5,7)	3.00 bede	10.6 h	37.5 i	202 i	1132 bcd	25555 cd
Non-treated control	4.75 ab	58.3 a	81.5 a	647 a	1196 abc	26499 bcd
<i>P > F</i>	0.0010	< 0.0001	< 0.0001	< 0.0001	0.0316	0.0059

^z Listed treatment rates are on a per acre basis unless noted otherwise. The treatments were applied on 29 Sep, 6 Oct, 13 Oct, 20 Oct, 26 Oct, 5 Nov, 12 Nov, and 19 Nov (corresponding with applications 1 to 8 above).

^y Values followed by the same letter are not statistically significantly different ($P = 0.05$) according to Fisher's LSD test.

^x The severity of bacterial spot was assessed as the percentage of canopy affected. The Horsfall-Barratt scale was used for all ratings, but values were converted to mid-percentages prior to statistical analyses.

^w Area under the disease progress curves (AUDPC) was calculated using the formula: $\Sigma[(x_i + x_{i-1})/2](t_i - t_{i-1})$ where x_i is the rating at each evaluation time and $(t_i - t_{i-1})$ is the time between evaluations.

^y Marketable yield is based on one single harvest on 29 Nov, assumes 4356 plants/A and 20 lb/box, and includes medium, large, and extra-large fruits.



BOARD OF COUNTY COMMISSIONERS

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HILLSBOROUGH COUNTY NEWS
March 1, 2011

For more information, contact:
Stephen Gran, Agriculture Industry Development Manager
Economic Development Department
Telephone: (813) 272-5506

**County Teaming with USDA to Teach Local Farmers and Rural
Businesses How to Fund "Green" Energy Projects**

What: USDA Renewable Energy and Energy Efficiency Program Workshop for Local Farmers, Ranchers and Rural Businesses
Date: Tuesday, April 5, 2011
Time: 1 pm – 5 pm
Where: Hillsborough County Extension Office Auditorium,
5339 County Road 579, Seffner
FREE

Hillsborough County's Agriculture Industry Development Program and Extension Service are partnering with the U.S. Department of Agriculture Rural Development Office to provide a workshop on government programs available to assist farmers, ranchers and rural businesses with renewable energy projects and energy efficiency improvements.

This workshop will help participants learn more about the programs available through the U.S. Department of Agriculture Rural Development Office.

Specific topics will include:

- Renewable Energy Program – Provides guaranteed loans and grants to help agricultural producers and rural small businesses purchase and install renewable energy systems and make energy efficiency improvements.
- Biomass Research & Development Initiative – Provides financial assistance for research and development of biomass based products, bioenergy, biofuels and related processes.

This workshop is **FREE**, but seating is limited. Please register by calling Alayna Shiver in the Hillsborough County Economic Development Department at (813) 272-5909.

For more information, contact Stephen Gran, Hillsborough County Agriculture Industry Development Manager, Economic Development Department, at (813) 272-5506.

Post Office Box 1110 • Tampa, Florida 33601
www.hillsboroughcounty.org
At Hillsborough, Every Day is Opportunity.

2011 Fumigation Management Meeting
March 24, 2011
John R. Trinkle Building
HCC Campus
1206 N. Park Rd.
Plant City, FL 33566
5:30-8:30

Agenda

5:30 - 6:15 p.m. Fumigant Management Plans and Post Application Summaries,
Required Handler Training Materials and Other Significant Label Changes-
Dr. Joe Noling, UF/CREC

6:15 - 7:00 p.m. Good Agricultural Practices (GAPs), Buffer Zones, Personal
Protective Equipment (PPE), Requirements for Air Monitoring-
Dr. Andrew MacRae, UF/GCREC

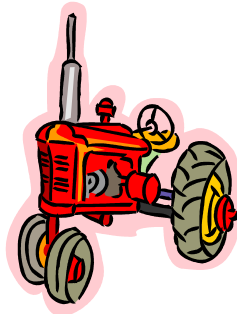
7:00 - 7:30 p.m. Dinner sponsored by AMVAC, DOW, TriEst

7:30 - 8:00 p.m. Vapam and K-Pam Required Training for 2011-
Mike Herrington, AMVAC

8:00 - 8:30 p.m. Telone Required Training for 2011- Jerry Nance, DOW

Please RSVP to Alicia Whidden at 813-744-5519 ext. 134 or
awhidden@ufl.edu. by March 23,2011.

If special accommodations are needed please call Alicia at 813-744-5519 ext.134.



Strawberry Expo - New Name and Major Success

Christine Cooley

With over 380 people in attendance the 2011 Florida Strawberry Expo was a big success this year. GCREC was pleased to be able to include the North American Strawberry Growers Association and despite the cooler temperature, the field tours were filled to capacity. This year's event included brief presentations with most of the information being offered in the field allowing guests a more hands-on examination of the research here at the center.

Thanks to the following vendors who donated funds towards the event and to *JayMar Farms* for providing the flats of berries.

Sponsors of the 2011 Florida Strawberry Expo

Syngenta

Chemtura

Marrone Bio Innovations

AMVAC

BASF

Isagro USA

Natural Industries



*Heartfelt Congratulations to
Dr. Natalia Peres and her husband,
Renato Lauretti, on the birth of their
precious baby boy,
Lucca Peres Lauretti.
Born Thursday, March 10.*