



SOUTH FLORIDA VEGETABLE PEST AND DISEASE HOTLINE

November 22, 2016

Monday morning saw the coldest morning of the season so far with temperatures reaching into the mid - upper 30's and low 40's over much of interior Central and Southwest Florida and the 40's and 50's over much of inland South Florida. For the past few weeks, warm days and cool nights have prevailed with daytime highs mostly in the low to mid 80's and nights dipping into the mid- low 60's.

It has been dry across South Florida since the passage of Hurricane Matthew over the past few weeks with most areas reporting only trace amounts of rainfall and water levels dropping in ponds and wetland areas. Despite dry weather, some patchy fog and heavy dewfall has kept some diseases active.

Crops are looking good but prices have been soft for some items. Some wind scarring has been reported on tomato, pepper and eggplant. Growers are busy harvesting cucumbers, green beans, eggplant, herbs, peppers, squash, sweet corn, tomato, watermelon and specialty items for the Thanksgiving market.

FAWN Weather Summary

Date	Air Temp °F		Rainfall (Inches)	Ave Relative Humidity (Percent)	ET (Inches/Day) (Average)
	Min	Max			
Balm					
11/1 – 11/22/16	37.97	84.94	0.02	74	0.08
Belle Glade					
11/1 – 11/22/16	43.06	85.71	0.02	81	0.08
Clewiston					
11/1 – 11/22/16	42.00	83.93	0.03	79	0.08
Ft Lauderdale					
11/1 – 11/22/16	55.38	83.86	0.97	74	0.09
Homestead					
11/1 – 11/22/16	50.16	83.86	0.46	57	0.08
Immokalee					
11/1 – 11/22/16	36.27	88.41	0.00	78	0.08
Okeechobee					
11/1 – 11/22/16	34.19	85.66	0.07	81	0.08
Wellington					
11/1 – 11/22/16	43.9	87.49	0.03	75	0.08

The National Weather Service forecast indicates cooler, drier air will be the major player for weather in South Florida through much of the coming week. Temperatures will moderate over the next few days, but not much in the way of rain chances appears imminent in the forecast.

As we move closer to the Thanksgiving holiday, the next frontal system will begin to emerge over the central United States. Little in the way of moisture is expected ahead of this front as it nears the southeast Thursday into Friday. As the mid and upper level support pushes out, the surface boundary weakens and stalls over northern Florida by Friday. A second mid-level impulse comes late Friday into Saturday, helping push the remnant frontal boundary southward towards our region by Sunday. Some showers may be possibly with this frontal system to close out the weekend, though nothing widespread is expected at this point.

For additional information, visit the National Weather Service in Miami website at <http://www.srh.noaa.gov/mfl/newpage/index.html>

Insects

Leafminer

Growers and scouts in the Manatee Ruskin area report that leafminer pressure has been very high and note that most growers are spraying for leafminer every 7-10 days.

On the East Coast, respondents indicate that leafminer pressure is moderate in tomato and eggplant.

Around SW Florida, leafminer pressure has picked up as the weather cools and has reached moderate to high levels in many places.

Leafminer are also becoming problematic in the Homestead area.

Leafminers are particularly damaging on celery, crucifers, cucurbits, okra, potato and tomato. In south Florida, populations peak between October and March while in central Florida they are a problem in both spring and fall.

The adults are small yellow and black flies about the size of a gnat. The female punctures or "stipples" the leaves with her ovipositor to lay eggs in the leaf tissue or to feed on sap.

Leafminer damage is easily recognized by the irregular serpentine mines in leaves. The tunnel is clear with a trail of black fecal material left behind as the maggot feeds.

Scouts report seeing elevated disease problems in some fields where leafminer control has been neglected and bacterial spot and Alternaria are getting a start on damaged tissue around mines.

Certain insecticides may decimate beneficial insects including those that attack leafminer. This often results in a larger leafminer problem if the pesticide reduces numbers of leafminer parasites.

Several parasites for this insect have been recorded in Florida, but parasitic wasps are most common. Up to 90% parasitism in non-sprayed tomatoes has been observed in Florida.

To determine whether leafminer larvae are dead or alive, leaflets can be held up to the sun and examined with a hand lens. Living larvae are a pale yellow and flush with the end of the mine. The back and forth feeding movements are readily visible, although movement may cease when larvae are disturbed or molting. Dead larvae do not show movement and are usually discolored and removed from the ends of mines.

It is important that the scouting program include not only an assessment of the number of leafminers present but also the natural enemies.

Vegetable growers should scout for this pest from the beginning of their crop. Growers can use SpinTor, Radiant, Coragen, Durivo, neonicotinoids, Agrimek, and Neemix for leafminers.

Worms

Around SW Florida, growers and scouts report that worm pressure has been moderate to high depending on locations but note that growers have been getting good control. Respondents note that pressure increased about 10 days before the full moon and hasn't slowed yet.

On the East Coast and down in Homestead, worm pressure is mostly low.

In the Glades, respondents note that worm pressure seems to be related to soil moisture, with fair moisture resulting in lower more normal fall armyworm pressure. Dry soils seem to be attracting a much higher amount of activity and possibly interfering with controls too.

Growers and scouts in the Manatee Ruskin report that worm pressure is steady at mostly low levels.

Depending on location, growers are finding a mixed bag of beet, southern and fall armyworms as well as loopers and a few tomato fruitworms. Melonworms are still active in cucurbits. Some diamondback moths are beginning to show up in crucifers. Diamondbacks are prone to resistance problems and products such as Coragen, Radiant, Rimon, Avaunt, and Exirel have given good results.

Fall means worm time in Florida. Fortunately, growers have a wide array of excellent worm control materials at their disposal these days.

Scouting is extremely important in detecting worms early before they can do significant damage. The Florida Tomato Scouting Guide indicates a pre-bloom threshold of 1 larva/6plants and post-bloom threshold of 1 egg mass or larva/field.

The Florida Tomato Scouting Guide has excellent color photographs to help you identify different lep species as well as other common tomato pests. It can be found on the web at <http://erec.ifas.ufl.edu/tomato-scouting-guide/>

Lesser cornstalk borer

Around the Glades, lesser cornstalk borer trap counts are very high, especially in the northern and southern sand land areas. Scouts report that they are beginning to see the first signs of lesser cornstalk borer adult activity in newly emerged corn.

Whiteflies

In the Manatee Ruskin area, whitefly numbers have been high and pressure has been relentless in many places. Reports indicate that Sivanto is providing good control and that some growers have started to apply growth regulators like Courier to combat pupae.

Around Immokalee, whitefly numbers are building and adults are moving around. Growers have reported control issues in some areas but sampling has revealed no Q-biotype to date. Whitefly nymphs are building in several older crops. High whitefly numbers have been reported in some eggplant as well as silverleaf in some zucchini.

On the East Coast and in Miami Dade County whitefly pressure remains mostly low but is beginning to increase in many places.

Proper scouting is essential to combat this pest. Over the years, UF entomologists have developed usable action thresholds that have been successful for many tomato farmers. However, these thresholds are only guidelines. Farm managers may modify them to fit their particular situations and expectations. *

Silverleaf whitefly thresholds

0-3 true leaves 10 adults/plant*

3-7 true leaves 1 adult/leaflet

NOTE - *If the source of whiteflies is believed to be tomato, especially if infected with tomato yellow leaf curl virus, the threshold will be lower!

Growers are reporting good whitefly control with Verimark, Sivanto, and Venom applied in transplant water.

Dak Seal notes that neonics applied at planting followed by drip application of Verimark (28 DAP) and then foliar application of Venom, Knack, Requiem and fungus based insecticides (PFR) applied in a program will provide significant suppression of whiteflies and whitefly vectored TYLCV. This program will also reduce tospoviruses. Sivanto has performed well in controlling whitefly. If labeled, it can be used in a program with Movento and other insecticides.

Since initial finds of the Q biotype whitefly *Bemisia tabaci* in Palm Beach County, Q-biotype has been detected in 13 counties including Broward, Duval, Highlands, Hillsborough, Martin, Miami-Dade, Palm Beach, Pinellas, Seminole, St. Johns, St. Lucie, Pasco, Orange counties, primarily on landscape and nursery crops. It has been found in field grown vegetables in Palm Beach and St. Johns counties (1 detection in each location).

Growers should be aware of this especially if they encounter control issues as populations are prone to develop resistance to insect growth regulators (IGRs) and neonicotinoid insecticides.

Dr Cindy McKenzie, Ph.D., Research Entomologist, USDA, ARS, US Horticultural Research Laboratory has offered to test whitefly samples for growers.

Pepper Weevil

Some pepper weevils are being reported in a number of fields around Southwest Florida.

Pepper weevils are also beginning to show up in some older pepper fields on the East Coast.

In the Manatee Ruskin area, pepper weevil numbers continue to increase.

Scouting is important as with other pests to detect infestations at an early stage. In the absence of Vydate, growers may want to look at Exirel, Actara, Rimon, Dimilin and the pyrethroids to knock down adults.

Thrips

Thrips have been mostly low in South Florida but scouts continue to report finding a few thrips vectored Groundnut Ringspot Virus and Tomato Chlorotic Spot Virus infected plants here and there.

Around Southwest Florida, thrips activity is increasing and a few locations have both flower thrips (*F bispinosa*) and melon thrips (*T palmi*).

On the East Coast, thrips are starting to show up some in older pepper with a few larvae present in blooms and on fruit.

Thrips are also showing up early this season in pepper around Hillsborough County.

Around Homestead, common blossom thrips and western flower thrips, vector of TCSV and other tospoviruses are a constant threat. Growers should scout fields carefully to detect their presence in tomato. Reflective plastic mulch may be useful to repel thrips early in the cropping cycle.

Melon thrips are also causing problems around Miami Dade County.

Melon thrips abundance is high on eggplants planted earlier. Adults are being found in squash, cucumber, beans and okra, but the numbers remain mostly low. At low population levels, growers should apply soft chemistry to try and hold populations down and use a non-ionic surfactant in the tank mix to improve control.

Broad Mites

Respondents report that broad mites remain common in pepper and eggplant fields around SW Florida.

Growers and scouts in East Coast pepper production areas indicate that broad mites are widely present at mostly low levels.

Broad mites have also been reported from several locations in the Manatee Ruskin area.

Spider mites

With drier weather, a few two-spotted spider mites have been showing up on eggplants and several other crops.

Aphids

Cooler drier conditions have spurred an increase in aphid activity around the area.

In the Glades, aphids have recently started to show up on silks in low numbers.

Around Hillsborough and Manatee Counties, respondents report big flights of aphids coming in but note they have been easy to kill.

Winged aphids have been showing up on a variety of susceptible crops around Palm Beach County.

Aphid activity is increasing around Southwest Florida.

Aphids have also been problematic around Miami Dade County.

Silkfly

Silk fly adults are scattered around in corn but no problems with maggot infestations of ears have been reported.

Diseases

Bacterial Spot

Around Southwest Florida, bacterial spot has slowed down and but is still a concern in some fields and continues to spread with heavy dews. In some hotspots, where it came in early, it has moved to the tops of plants in a few heavily affected plantings.

In Manatee and Hillsborough County, bacterial spot continues to creep along in fields where it is present.

On the East Coast, bacterial spot in tomato varies from moderate in oldest plantings to just starting to show up on some farms that have been clean. Wetter nights are helping it move. It is also a bit more active in none-resistant pepper plantings.

Some bacterial leaf spot is present in tomato plantings in Homestead which saw considerable rainfall at the end of October.

The traditional recommendation for bacterial spot control consists of copper and maneb or mancozeb. Attention to application techniques is as important as choice of material in achieving adequate control. The effectiveness of copper is limited, because of the widespread occurrence of copper tolerance among strains of *Xanthomonas*.

In the past few years, a number of products have come on the market that have given good results in research trials when used in rotation or together with traditional controls such as copper. These include Tanos (DuPont) as well as the SAR elicitor Actigard (Syngenta), Double Nickel 55 (Certis), Regalia (Maronne Bioinnovations) and Serenade and Sonata (AgraQuest). Note Actigard applications should start at transplant and continue weekly.

Growers should also avoid working in wet plants (staking, tying, harvesting). Spraying wet plants can also spread bacteria if the disease is present.

Target Spot

Around Immokalee, target spot remains a concern in tomato as fields approach maturity but overall is mostly low.

Target spot activity is also increasing in the Ruskin area with higher dew points and fields staying wet longer in the mornings.

Target spot remains very low in most East Coast plantings.

Growers and scouts should be on alert for the presence of target spot as the weather changes seasonally and canopies begin to close in early tomato plantings.

Foliar symptoms of target spot caused by *Corynespora cassiicola* consist of brown black lesions with subtle concentric rings giving them a target-like appearance. Lesions can be confused with early blight. Foliar symptoms of early blight caused by *Alternaria solani* also consist of brown black lesions with conspicuous concentric rings and but are often associated with a general chlorosis (yellowing) of the leaf.

Disease development is favored by periods of high humidity and free moisture (rain or dew) and temperatures between 70 - 94°F. *Corynespora cassiicola* has a broad host range, while *Alternaria solani* is limited to specific solanaceous hosts (tomato, potato, eggplant, and nightshade).

Disease Management: Strategies for early blight and target spot are very similar, and require an integrated approach for best results.

- 1. Rotate tomato fields to avoid carryover on crop residue. Avoid rotations among solanaceous crops.**
- 2. Eliminate any volunteers and weed species (especially solanaceous weeds) that can act as a reservoir.**
- 3. Start with clean, healthy transplants preferably produced in facilities removed from tomato production.**
- 4. Maintain proper fertility, nitrogen deficiencies favor the development of early blight.**
- 5. Apply fungicides in a preventive manner when conditions favor disease development**

Dr Gary Vallad, Plant Pathologist at GCREC has documented extensive resistance to strobilurin fungicides

Target spot has become one of the hardest to control pathogens in tomato. Good rotations and tank mixes are the best option.

Newer fungicides such as Endura, Scala, Inspire Super, Reason, Luna, Tanos and Fontelis have provided growers with new tools to manage this disease. Consult UF/IFAS recommendations for currently labeled fungicides for target spot control in Florida tomatoes. <http://edis.ifas.ufl.edu/pdffiles/cv/cv13700.pdf>

Early Blight

A few reports of *Alternaria* on tomato are starting to come in from several locations around south Florida. Some of this is associated with leafminer damage.

Phytophthora

Some scattered problems with *Phytophthora* in squash have been reported in Homestead following rains at the end of October.

Powdery Mildew

Respondents are seeing a lot of powdery mildew in squash and other cucurbits around Hillsborough and Manatee Counties.

Growers and scouts report that powdery mildew is active in cucurbits around SW Florida, mostly squash but also a few watermelons.

Powdery mildew has jumped on some cucumber around Palm Beach County.

Growers are getting good control with products like Fontelis, Quintec, Torino, and Rally.

Downy Mildew

Downy mildew remains present on squash and cucumber around the Manatee Ruskin area.

On the East Coast, downy mildew has jumped on mature squash in recent days.

Around Immokalee, downy mildew continues to cause some problems in cucurbits.

Downy mildew is also present on squash in Homestead.

Anthracnose of cucurbits

Anthracnose remains common in watermelons around Southwest Florida.

Anthracnose of pepper

Anthracnose is in decline or stable where it was reported pepper on the East Coast.

Growers are also seeing a little anthracnose on pepper around Southwest Florida.

Tomato Chlorotic Spot Virus

Around Southwest Florida, scouts have found a few scattered single TCSV infected plants here and there in a few tomato fields.

Tospoviruses are also starting to show up on tomato around Homestead and Palm Beach County.

Tomato Yellow Leaf Curl

A few scattered TYLCV infected plants have been reported in tomatoes in all production areas around South Florida.

TYLCV incidence continues to creep upwards in the Manatee Ruskin area.

Around SW Florida TYLCV is increasing in some younger fields but is still not bad.

Cucurbit leaf crumple virus

Around Homestead, cucurbit leaf crumple virus is widely present in squash

In Southwest Florida, cucurbit crumple leaf virus is very common in watermelons now.

Watermelon mosaic virus

Growers in few locations around Southwest Florida are experiencing problems with mosaic in melons and squash.

Black Rot

Respondents report that black rot is showing up on some early plantings of cabbage and broccoli. Black rot is caused by the bacterium, *Xanthomonas campestris pv. campestris*. Cabbage, broccoli, cauliflower, kale, collards, radish, and other members of the cabbage family are susceptible.

In the field, the disease is easily recognized by the presence of large yellow "V"-shaped areas extending inward from the margin of a leaf, and by black veins in the infected area. Usually only a few of the outer leaves are involved.

Halo blight

Due to cool temperatures and several rainy days a couple of weeks ago, outbreaks of halo blight on beans have been reported in some fields in Homestead, and some plantings were disked with attempts to reduce the bacterial inoculum (*Pseudomonas syringae* pv. *phaseolicola*).

Northern corn leaf spot

Around the Glades, low levels of Northern corn leaf spot, *Cochliobolus carbonum* (syn. *Helminthosporium carbonum*) have been reported in sweet corn. This disease is favored by moderate temperature and high relative humidity. Sometimes mistaken for northern corn leaf blight, northern corn leaf spot typically exhibits narrow linear lesions up to 1/8 to 1/2 inch long running in a line along leaf vein resembling a “string of pearls.”

News You Can Use News You Can Use

USCIS Revises Form I-9, Used for All New Hires in U.S.

Release Date: November 14, 2016

Changes are designed to reduce errors and enhance form completion using a computer

WASHINGTON -- U.S. Citizenship and Immigration Services (USCIS) today published a revised version of Form I-9, Employment Eligibility Verification.

By Jan. 22, 2017, employers must use only the new version, dated 11/14/2016. Until then, they can continue to use the version dated 03/08/2013 or the new version.

Among the changes in the new version, Section 1 asks for “other last names used” rather than “other names used,” and streamlines certification for certain foreign nationals.

Other changes include:

- The addition of prompts to ensure information is entered correctly.
- The ability to enter multiple preparers and translators.
- A dedicated area for including additional information rather than having to add it in the margins.
- A supplemental page for the preparer/translator.

The instructions have been separated from the form, in line with other USCIS forms, and include specific instructions for completing each field.

The revised Form I-9 is also easier to complete on a computer. Enhancements include drop-down lists and calendars for filling in dates, on-screen instructions for each field, easy access to the full instructions, and an option to clear the form and start over. When the employer prints the completed form, a quick response (QR) code is automatically generated, which can be read by most QR readers.

Form I-9 requirements were established in November 1986 when Congress passed the Immigration Reform and Control Act (IRCA). IRCA prohibits employers from hiring people, including U.S. citizens, for employment in the United States without verifying their identity and employment authorization on Form I-9.

Find form here - <https://www.uscis.gov/i-9>

PUBLIC COMMENT ON EPA'S PROPOSAL TO REVOKE CHLORPYRIFOS TOLERANCES

EPA has opened a 60-day public comment period (Docket EPA-HQ-OPP-2015-0653; closing date January 17, 2017). EPA currently indicates it plans for this public comment for the NODA to be the last opportunity for stakeholders to express their critical need for chlorpyrifos.

The public comment period for this NODA will likely be the last opportunity for stakeholders to weigh in on the cost-benefit analysis by expressing the critical need for chlorpyrifos, and to call for the EPA to rely on sound and transparent science and a reliable regulatory process.

<http://www.dowagro.com/en-US/usag/Chlorpyrifos%20Petition>

EPA Worker Protection Standard (WPS) Revision

As you may know the EPA Worker Protection Standard (WPS) was revised in 2015 and it became effective on Jan 2, 2016.

There are a number of changes and the majority of the rule revisions will be effective on January 2, 2017. This will give farmers and states time to adjust to the new requirements, as well as time for EPA and states to develop updated materials for training and other purposes.

Here are some references to help

Quick Reference Guide to The Worker Protection Standard (WPS) Revised in 2015

<http://pesticideresources.org/wps/hosted/quickrefguide.pdf>

AGRICULTURAL WORKER PROTECTION STANDARD (WPS) - COMPARISON OF THE NEW PROTECTIONS TO THE EXISTING PROTECTIONS – October 2015

This table summarizes key provisions in the EPA's current WPS regulation and the 2015 revisions. It does not cover all of the details in the rule nor does it include all of the information needed to comply with the regulation.

<https://www.epa.gov/sites/production/files/2015-09/documents/comparison-chart-wps.pdf>

Pesticides; Agricultural Worker Protection Standard Revisions - A Rule by the Environmental Protection Agency on 11/02/2015

The text of the revised WPS

<https://www.federalregister.gov/documents/2015/11/02/2015-25970/pesticides-agricultural-worker-protection-standard-revisions>

EPA Pesticide Safety website

<https://www.epa.gov/pesticide-worker-safety/revisions-worker-protection-standard#when>

All workers will have to be trained annually beginning in 2017 and all persons holding a Train the Trainer Certificate will have to be retrained.

Produce Safety Alliance Grower Training

(PSA, for those who fall under the Produce Safety Rule – most commercial farms and some packing houses)

November 30, Balm <https://psa113016.eventbrite.com>

December 9, Homestead <https://psa120916.eventbrite.com>

Who Should Attend - Fruit and vegetable growers and others interested in learning about produce safety, the Food Safety Modernization Act (FSMA) Produce Safety Rule, Good Agricultural Practices (GAPs), and co-management of natural resources and food safety. The PSA Grower Training Course is one way to satisfy the FSMA Produce Safety Rule requirement.

What to Expect

The trainers will spend approximately seven hours of instruction time covering content contained in these seven modules:

- Introduction to Produce Safety
- Worker Health, Hygiene, and Training
- Soil Amendments
- Wildlife, Domesticated Animals, and Land Use
- Agricultural Water (Part I: Production Water; Part II: Postharvest Water)
- Postharvest Handling and Sanitation
- How to Develop a Farm Food Safety Plan

In addition to learning about produce safety best practices, key parts of the FSMA Produce Safety Rule requirements are outlined within each module. There will be time for questions and discussion, so participants should come prepared to share their experiences and produce safety questions.

Benefits of Attending

The course will provide a foundation of Good Agricultural Practices (GAPs) and co-management information, FSMA Produce Safety Rule requirements, and details on how to develop a farm food safety plan. After attending the entire course, participants will be eligible to receive a certificate from the Association of Food and Drug Officials (AFDO) that verifies they have completed the training course.

PSA TRAINING AGENDA

8:30	Registration and Refreshments	1:30	Module 5: Agricultural Water
9:00	Welcome and Introductions		Part 1: Production Water
9:15	Module 1: Introduction to Produce Safety	2:15	Part 2: Postharvest Water
10:00	Module 2: Worker Health, Hygiene, and Training	3:15	Break
11:00	Break	3:30	Module 6: Postharvest Handling and Sanitation
11:15	Module 3: Soil Amendments	4:30	Module 7: How to Develop a Farm Food Safety Plan
12:00	Module 4: Wildlife, Domesticated Animals, and Land Use	5:00	Final Questions and Evaluations
12:45	Lunch		

Up Coming Meetings

Up Coming Meetings

- **November 23, 2016** **WPS Train the Trainer class** **9:00 AM – 2:30 PM**

Hendry County Extension Office
1085 Pratt Boulevard
LaBelle, Florida

Cost is \$20 – contact Debra at 863-674-4092 or dcabrera@ufl.edu to reserve a place.

- **November 30, 2016** **Produce Safety Alliance Grower Training**

November 30, Balm - <https://psa113016.eventbrite.com>

***December 9, Homestead** - <https://psa120916.eventbrite.com>

(PSA, for those who fall under the Produce Safety Rule – most commercial farms and some packing houses)

The PSA Grower Training Course is one way to satisfy the FSMA Produce Safety Rule requirement.

- **December 1, 2016** **Fall Vegetable Field Day** **3:00 to 6:00 PM**

UF/IFAS Southwest FL Research and Education Center
2685 State Rd 29 North
Immokalee FL

To register or for additional information, please contact Jennifer Derleth at jderleth@ufl.edu

- **December 5, 2016** **WPS Train the Trainer class** **9:00 AM – 2:30 PM**

Hendry County Extension Office
1085 Pratt Boulevard
LaBelle, Florida

Cost is \$20 – contact Debra at 863-674-4092 or dcabrera@ufl.edu to reserve a place.

- **December 9, 2016** **Fumigant Field Day** **8:00 AM – 10:30 AM**

Thomas Produce 'Midway Farm'
10741 W Midway Rd
Ft. Pierce, FL 34945

Approved for 1.5 CEUs 1.0 CORE (487) & 0.5 Private Applicator, 0.5 Ag Row, or 0.5 Demo/Research

Thomas Produce Farms applied different herbicides and fumigants during the preparation of raised beds this Fall, before planting. You are invited attend the field evaluation of Arkema (Paladin) compared to the growers standard of PIC-60 K-Pam under plastic mulch for weed control. Different combinations of fumigant-herbicide were applied in different block trials. Paladin was applied in combination with four different herbicides (Dual Magnum, Devrinol, Goal and K-Pam) in certain blocks of the field. Pic-Clor 60 was applied with the same four herbicides mentioned above in other field sections. **Please direct questions to Ray Austin (cell) 561.254.8061**

AGENDA

8:00 AM – Sign In & Welcome

8:30 – Introduction to soilborne pests and their damage to south Florida vegetable crops
Dr. Christian Miller, UF/IFAS PBC Extension Commercial Fruit & Vegetable Agent

8:45 – Pest management with Arkema (Paladin)
Ray Austin - WinField United, MAA/ District Sales Manager

9:00 – Toxicity when handling fumigants and herbicides
Ralph Allen - Field Development Agronomist, M.S. - Weed Science and CCA Paladin

9:25 – Applying pesticides safely
Dr. Cathy Fleming-Wimer, CCA - Market Development Agronomist, Paladin

9:50 – Field Trial Review, walk-thru and discussion of results
Dr. Christian Miller, UF/IFAS PBC Extension Commercial Fruit & Vegetables

10:30 – ADJOURN & CEU Distribution

Websites

Check out Southwest Florida Vegetable Grower on Facebook
<https://www.facebook.com/pages/South-Florida-Vegetable-Grower/149291468443385> and **Palm Beach County Extension Fruit & Vegetables** at www.facebook.com/vegetableandtropicalfruituf.ifas.extpbcc
or follow **Gene McAvoy on Twitter @SWFLVegMan** -
<https://twitter.com/SWFLVegMan>

Frequently Asked Questions on FSMA - Questions & Answers on the Food Safety Modernization Act -
<http://www.fda.gov/Food/GuidanceRegulation/FSMA/ucm247559.htm>

2016-2017 UF/IFAS Vegetable Production Handbook of Florida - This handbook is designed to provide Florida growers with the latest information on crop cultivars, cultural practices, and pest management. Free hard copies of the handbook are available at UF/IFAS research and education centers and county extension offices. It can be viewed or downloaded at http://edis.ifas.ufl.edu/topic_vph

Happy Thanksgiving to all our family and friends

We truly have a lot to be thankful for!

Contributors include: Joel Allingham/AgriCare, Inc, Bruce Corbitt/West Coast Tomato Growers, Gordon DeCou/Agri Tech Services of Bradenton, Dr Nick Dufault/ UF/IFAS, Carrie Harmon/UF/IFAS Plant Disease Clinic, Sarah Hornsby/AgCropCon, , Bruce Johnson/General Crop Management, Barry Kostyk/SWFREC, Leon Lucas/Glades Crop Care, Chris Miller/Palm Beach County Extension, Gene McAvoy/Hendry County Extension, Alice McGhee/Thomas Produce, Dr.Gregg Nuessly/EREC Chuck Obern/C&B Farm, Dr. Monica Ozores-Hampton/SWFREC, Dr. Rick Raid/ EREC, Ryan Richards/The Andersons, Dr Pam Roberts/SWFREC, Dr. Nancy Roe/Farming Systems Research, Wes Roan/6 L's, Dr. Dak Seal/ TREC, Kevin Seitzinger/Gargiulo, Crystal Snodgrass/Manatee County Extension, Dr. Phil Stansly/SWFREC, Dr. Josh Temple, DuPont Crop Protection, Dr Gary Vallad/GCREC , Mark Verbeck/GulfCoast Ag, Dr. Qingren Wang/Miami-Dade County Extension, Alicia Whidden/Hillsborough County Extension, Dr Henry Yonce/KAC Ag Research and Dr. Shouan Zhang/TREC.

The **South Florida Pest and Disease Hotline** is compiled by **Gene McAvoy** and is issued on a biweekly basis by the **Hendry County Cooperative Extension Office** as a service to the vegetable industry.

Gene McAvoy

Gene McAvoy
County Extension Director / Extension Agent IV
Regional Specialized Agent - Vegetables/Ornamental Horticulture

Hendry County Extension Office
PO Box 68
LaBelle, Florida 33975
Web: <http://hendry.ifas.ufl.edu/>

863-674-4092 phone
863-673-5939 mobile
863-674-4637 fax
GMcAvoy@ifas.ufl.edu

Chris Miller

Christian Miller
Extension Agent II – Vegetable Production & Tropical Fruits
Palm Beach County Extension
559 North Military Trail, West Palm Beach, FL 33415
Web: www.pbcgov.org

561-233-1718 phone
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Shawn Barley
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Carol Howard
Mobley Plant World
1351 W Cowboy Way
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Phone 863-675 -2020

Fred Heald
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Dr. Nancy Roe

Farming Systems Research

5609 Lakeview Mews Drive
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Phone 561-638-2755

Ed Early

DuPont Crop Protection

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Phone 561-746-3740 Fax 561-746-3775

Stacey Howell

Bayer CropScience

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Phone (239) 353-6491 Cell (239) 272-8575

Justin Powell

Southeast Business Leader

Adama

229 881 9757 cell
justin.powell@adama.com

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Joe Craig - 863-291-9203
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Scott Houk
Dow AgroSciences LLC

Phone 239-948-3999
Email sehok@dow.com

FMC
FMC Corporation APG
Ron Palumbo
Cell 305-304- 7941

[Ronald Palumbo@fmc.com](mailto:Ronald.Palumbo@fmc.com) www.fmccrop.com

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Sarah Hornsby, CCA
Agricultural Crop Consulting, Inc
Scouting: Manatee, Hillsborough, Collier
Office/Fax 941-776-1122
Cell 941-713-6116
Email: AgCropCon@aol.com

Donald Allen
AGLIME SALES INC
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Garry Gibson
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1502 53rd Avenue
Vero Beach, Florida 32966
Office 772-778-4646 AGNET 21726
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Chuck Obern
C & B Farm
CR 835
Clewiston, FL 33440
Office 863-983-8269 Fax 863-983-8030
Cell 239-250-0551

Scott Allison
Diamond R Fertilizer
PO Box 1898
LaBelle, FL 33975
(863) 675-3700
sagator@aol.com

Arysta Life Science
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