UF | IFAS Extension
UNIVERSITY of FLORIDA

Palm Beach County

Palm Beach County Extension 559 N. Military Trail WPB, Florida 3315 Phone (561) 233-1700

SOUTH FLORIDA VEGETABLE PEST AND DISEASE HOTLINE

October 10, 2016

Fortunately, despite grower concerns about the approach of Hurricane Matthew, the storm bought relatively little rain and windy conditions to most of South Florida and growers are reporting very few problems in most areas. There were some reports of small areas of plastic being blown up along with battered plants. Most of the issues occurred between Martin and St Lucie Counties where wind speeds were highest.

Cooler drier air moved in behind the storm possibly signaling the beginning of the end of the rainy season in South Florida. Over the past few mornings, temps in a number of locations have dipped into the mid to upper 60's for the first time in several months. Prior to Matthew, most locations were wet and receiving near daily rains. Some growers have reported problems with salts hurting young transplants.

FAWN Weather Summary

Date	Air Temp °F		Rainfall	Ave Relative Humidity	ET (Inches/Day)
	Min	Max	(Inches)	(Percent)	(Average)
Balm					
9/19 – 10/10/16	65.23	92.88	2.41	86	0.12
Belle Glade					
9/19 – 10/10/16	67.77	95.94	3.31	90	0.13
Clewiston					
9/19 – 10/10/16	70.54	94.84	6.42	87	0.12
Ft Lauderdale					
9/19 – 10/10/16	70.23	92.84	3.21	84	0.12
Homestead					
9/19 – 10/10/16	65.66	94.59	10.38	80	0.13
Immokalee					
9/19 – 10/10/16	69.10	97.23	4.38	88	0.13
Okeechobee					
9/19 – 10/10/16	67.51	95.41	6.78	89	0.13
Wellington					
9/19 – 10/10/16	66.97	97.90	3.32	87	0.13

The National Weather Service forecast indicates that drier air behind a frontal boundary sitting south of Florida will provide a dry start to the week with insufficient moisture or upper level support for thunderstorms over the next few days. The most likely culprit for rain this week will be a weak shower pushing ashore from the Atlantic. Otherwise, South Florida will enjoy this Summer-to-Fall transition pattern of little rain chances and still warm temperatures through much of the forecast period.

High pressure over the eastern third of the United States will hold through much of the week, before eroding late in the week heading into the weekend providing a possible return to more significant rain chances across South Florida over the weekend into next week.

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

Insects

Whiteflies

In the Manatee Ruskin area, respondent indicate that there is no shortage of whiteflies this season and TYLCV is present on some farms. Scouts report that whitefly counts are ranging from < 1/plant to 3 or 4 per plant depending on the farm and the day.

Around Immokalee, **whitefly numbers are still up and down, with some locations reporting significant pressure.**

On the East Coast, whitefly pressure remains mostly low.

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!

Since initial finds of the Q biotype whitefly *Bemisia tabaci* in Palm Beach County, Q-biotype has been detected in Duval, Broward, Highlands, Hillsborough, Martin, Pinellas and Seminole counties, primarily on landscape and nursery crops.

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.

Worms

Around SW Florida, worm pressure is starting to increase and scout report finding more southern and beet armyworm eggs recently along with loopers, hornworms and fruitworms. Melonworms have been very active in cucumber and squash.

Respondents in the Manatee Ruskin area continue to find a mixed bag of worms including beet and southern armyworms as well as some hornworms, melon worms, and a few loopers

Growers and scouts on the East Coast report that worm pressure is moderate in pepper and eggplant.

Melonworm feeds only on cucurbits and is one of the most important pests of vine crops in Florida. Summer squash and the winter squash species are favored hosts. Cucumbers and cantaloupe are attacked but not preferred.

Melonworm feeds principally on foliage, especially if foliage of a favored host plant such as summer or winter squash is available. Usually the leaf veins are left intact, resulting in a lace-like appearance.
If the available foliage is exhausted, or the plant is a less preferred species such as cantaloupe, the larva may feed on the surface of the fruit, or even burrow into the fruit. Growers sometimes refer to these insects as collectively as "rindworms".

The moths are relatively small with a wingspan of about 1 inch. The wings are white and edged with dark brown. The eggs are very small, and flattened ovals in shape. They are white or greenish initially but quickly turn yellow.

Newly hatched larvae are colorless but after molting become yellow-green. The last instar has two white stripes running the length of the body. The pupa is dark brown and often found in a loose cocoon in a fold of leaf.

Moths are active at night and rest under leaves during the day. They deposit their eggs in small clusters in buds, stems and leaves.

Check plants regularly for signs of feeding damage to leaves and for the presence of larvae.

Since pollinators, particularly honeybees, are very important for good fruit set in cucurbits, insecticides applied for melonworm control must be applied when bees are not actively foraging. Bacillus thuringiensis (Bt) can be very effective.

Many other excellent materials present on the market so growers have a number of options available.

Consult UF/IFAS recommendations for currently labeled insecticides for melonworm control.
http://edis.ifas.ufl.edu/pdffiles/cv/cv12300.pdf

Leafminer

Growers and scouts in the Manatee Ruskin area report that leafminer activity has picked up a bit with some stippling on leaves but note that most growers are not treating at this point.
Around SW Florida, some unusually early leafminer activity has been reported in a few locations.

Broad Mites

A few broad mites have been reported on young pepper around Immokalee.

Growers and scouts in East Coast pepper production areas indicate that broad mites are widely present in pepper fields.

The broad mite affects a large number of hosts including basil, eggplant, green beans, potato, and tomato as well as a variety of fruits and ornamental plants.

This destructive pest attacks terminal leaves and flower buds and causes them to become malformed. Broad mite feeding distorts plant tissue, causing leaves to become hardened, thickened and narrow, giving them a "strappy" appearance. The blooms abort and plant growth is stunted when heavy pressure is present.

Mites are usually seen on the newest leaves and small fruit. Leaves turn downward and turn coppery or purplish. Internodes shorten and the lateral buds break more than normal.

Malformed terminal buds and stunted growth is often a telltale sign that broad mites are present. Broad mites are extremely tiny and are difficult to see without a 10X or stronger hand lens. The mites may crowd into crevices and buds. Mites prefer the shaded side of fruit and the underside of leaves, which usually faces the plant, so scouts must be diligent and carefully inspect affected plants to detect these tiny creatures.

Broad mite injury can be confused with herbicide injury, nutritional (boron) deficiencies or physiological disorders.

Thrips

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

Pepper Weevil

There have been a few reports of a few pepper weevils showing up in a few fields around SW Florida.

Pepper weevils are also beginning to show up in older pepper planting on the east Coast.

Aphids

A few scattered aphids have been reported showing up on crops around South Florida.

Mole Crickets

Some mole cricket issues have been reported on new transplants in a few fields around the region.

Diseases

Bacterial Spot

Around Southwest Florida, bacterial spot has become serious in several tomato fields, starting to show up in a few pepper fields. Bacterial spot is most prevalent where infected plants came from the greenhouse and bacteria then went wild with all the rain. Where growers set clean plants most fields remain clean.

Mostly low levels of bacterial spot have been reported on tomato in the Manatee Ruskin area ranging from just a few spots to as high as 3% in a few fields.

Bacterial spot is showing up in some older tomato fields on the East Coast.

Bacterial spot is one of the most serious diseases of tomato in Florida because it can spread rapidly during warm periods with wind driven rains, and because fruit symptoms reduce marketability.

Bacterial spot is caused by several species of *Xanthomonas* spp. Four species have been identified on tomato: *X. euvesicatoria, X. vesicatoria, X. perforans, X. gardneri*. In Florida, the major species encountered is *X. perforans*.

Symptoms of bacterial spot appear as small, water-soaked, greasy spots on infected leaflets. On tomatoes, distinct spots with or without yellowing occur. Individual leaf spots may coalesce with each other, resulting in the browning of entire leaflets. Fruit spots often begin as dark specks with or without a white halo. As spots enlarge, they become raised and scab-like.

Entry into the plant occurs through stomata or wounds made by wind driven soil, insects, or cultural operations. Bacterial spot can be seed transmitted, but most inocula comes from volunteer plants or infected plant debris in the soil. Temperatures of 75-87°F are ideal for bacterial spot but infections can occur at higher or lower temperatures.

***Xanthomonas perforans* is seed-borne, which allows for the movement of strains on a global scale.**

An integrated approach is needed to manage this disease.

Exclusion is the best means of managing bacterial spot on tomato. Unfortunately, even the best bactericidal treatment offers only limited protection when environmental conditions are favorable for rapid disease development, especially during periods of heavy, wind-driven rains.

Sanitation is important. Pepper and tomato volunteers and solanaceous weeds should be destroyed between crops. Transplant houses should be located away from tomato or pepper fields. Purchase only certified disease-free transplants and seed.

Since water movement spreads the bacteria from diseased to healthy plants, workers and farm equipment should be kept out of fields when fields are wet because the disease will spread readily under wet conditions.

No resistant tomato varieties are available commercially. In pepper, varieties with resistance to races 1 -10 are available.

It is important to apply sprays before and during rainy periods. If conditions are favorable, frequent spraying may not be sufficient to maintain bacterial spot below damaging levels.

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 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).

Pythium

Growers and scouts continue to report problems with pythium in a number of places around South Florida particularly in low lying fields that have been impacted by heavy rains. Crops affected include tomato, pepper, watermelon and others.

Pythium is one of the Oomycetes or "water molds." It thrives in moist soils and multiplies and spreads rapidly under wet conditions. Although Pythium is capable of producing several spore types, zoospores and oospores are most important.

Zoospores are mobile. They are produced rapidly and in great numbers and contribute to the organism's ability to cause disease almost "over-night." Zoospores may be detected within half an hour after a site is flooded and can "swim" for up to 30 hours and move three or more inches through soil.

Oospores are extremely durable and can survive in soil and infected crop debris for more than 10 years. A number of broadleaf and grassy weeds may host Pythium spp. and serve as important sources of inocula.

Some growers report good success using Previcur Flex applied as a drench at transplanting.

Some aerial pythium has also been reported in a few places.

Target Spot

Very low target spot has been reported in some early tomatoes around Immokalee.

Growers and scouts should be 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 strobulurin fungicides

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

Choanephora blight

Choanephora blight or wet blight, caused by the fungus Choanephora sp., has been melting down some early pepper plantings around South Florida

Symptoms are visible on apical growing points, flowers and fruits. Initially, water-soaked areas develop on leaves and leaf margins, leaf tips and apical growing points become blighted. Older lesions appear necrotic and dried out. Later the fungus grows rapidly downward causing dieback. The dark-gray fungal growth is apparent on some lesions. Close inspection under magnification will reveal silvery, spine-like fungal structures and dark spores.

There are few management techniques available, but fungicidal sprays applied for the control of other diseases may provide some control of this disease also. Good spray coverage where dense foliage occurs is important.

Dense plantings can lead to poor air circulation and extended periods of leaf wetness. Well-drained production sites and the use of drip irrigation rather than overhead irrigation will help decrease relative humidity and leaf wetness within a dense plant canopy.

Cooler drier conditions should hold this in check.

Phytophthora

Some scattered problems with Phytophthora in pepper have been reported in East Coast growing areas.

Aerial Phytophthora has been reported in the Manatee Ruskin area.

Southern Blight

A few scattered reports of southern blight on tomato have been received from around South Florida.

Downy Mildew

Downy mildew has been reported on cucumbers in Hillsborough County.

Gummy stem blight

Gummy stem blight is increasing in some watermelon fields around South 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.

Tomato Yellow Leaf Curl

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

News You Can Use

October 4, 2016

September Rainfall Average Across South Florida
SFWMD preparing for Hurricane Matthew

West Palm Beach, FL - After a month of average rainfall throughout South Florida in September, water managers prepared for possible heavy rainfall this week as Hurricane Matthew approaches the region.

Water Managers placed the district's flood control canals into their low operating range in anticipation of rainfall associated with Hurricane Matthew. These operations were completed in the southern part of the system in the Homestead Miami-Dade area as well as in canals throughout Broward, Palm Beach, Martin and St. Lucie counties. Low range means water levels in the SFWMD canals are adjusted lower than would typically be maintained this time of year. This action creates more capacity to accept local stormwater runoff from local drainage districts and city or county drainage systems.

All of this comes after a September where most basins throughout South Florida experienced at or below average rainfall for the month. A total of 6.87 inches fell Districtwide in September, representing 99 percent of the average rainfall for September or just 0.10 of an inch below average.

Southeasterly steering winds directed most of the rainfall inland to the western and northern basins. The one region that saw above average rainfall for September was the Upper Kissimmee basin, which experienced 7.3 inches of rainfall for the month. That represents 123 percent of average or about 1.35 inches above average. The eastern-most basins of Palm Beach, Broward and Miami-Dade counties as well as the Big Cypress Preserve were all below average with eastern Palm Beach County being the driest. That region experienced 6.10 inches of rainfall, representing 76 percent of average or 1.97 inches below average.

Other rainfall totals included:

- Lake Okeechobee recorded 6.63 inches of direct rainfall, representing 117 percent of average, or 0.97 inches above average.
- Martin and St. Lucie counties received 6.72 inches of rain, representing 95 percent of average, or 0.35 inches below average.
- Water Conservation Area 3 received 5.97 inches of rain, representing 90 percent of average, or 0.33 inches below average.
- Eastern Broward County received 6.82 inches of rain, representing 87 percent of average, or 1.06 inches below average.
- Eastern Miami-Dade County received 7.30 inches of rain, representing 87 percent of average, or 1.06 inches above average.

South Florida Wet Season Facts

On average, South Florida's wet season begins around May 20 and ends around Oct. 13, lasting for about 21 weeks.

Typically, about two-thirds of annual rains fall during the wet season, or approximately 35 inches out of 52 inches.

- June is usually South Florida's wettest month.
- The wet season has three general phases:
    - Memorial Day weekend through July 4 weekend, which are typically the wettest six weeks of the year.

- Early July through mid-August, which are hotter and often drier.
- Late August through October, which are characterized by highly variable rainfall mainly due to tropical activity and cold fronts.

More information is available at: SFWMD Weather/Rainfall Data

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.

UF/IFAS Palm Beach County will conduct a Train the Trainer Workshop on November 9, 2016 at 559 N Military Trail in West Palm Beach. Check In begins at 8:30 AM and the class runs through 3:30PM. Cost: $25.00 with refreshments & lunch provided. RSVP is required, please contact Ethel Scott for registration instructions (eescott@pbcgov.org**)**

Produce Safety Alliance Grower Training

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

October 24, Immokalee https://psa102416.eventbrite.com

October 28, Live Oak https://psa102816.eventbrite.com
November 7, West Palm Beach https://psa110716.eventbrite.com
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
9:00 Welcome and Introductions
9:15 Module 1: Introduction to Produce Safety
10:00 Module 2: Worker Health, Hygiene, and Training
11:00 Break
11:15 Module 3: Soil Amendments
12:00 Module 4: Wildlife, Domesticated Animals, and Land Use
12:45 Lunch
1:30 Module 5: Agricultural Water
Part 1: Production Water
2:15 Part 2: Postharvest Water
3:15 Break
3:30 Module 6: Postharvest Handling and Sanitation
4:30 Module 7: How to Develop a Farm Food Safety Plan
5:00 Final Questions and Evaluations

Food Safety Preventive Controls Alliance

(FSPCA, those who fall under the Preventive Controls for Human Food Rule) – some packinghouses

November 16-18, West Palm Beach https://www.eventbrite.com/e/fspca-training-west-palm-beach-registration-26053345257

FDA has recognized this course as the "standardized curriculum" for the Preventive Controls for Human Foods Rule. Successfully completing this course is one way to meet the requirements to become a "Preventive Controls Qualified Individual."

Under the Preventive Controls for Human Foods Rule, the responsibilities of a preventive controls qualified individual include to perform or oversee:

1. Preparation of the Food Safety Plan
2. Validation of the Preventive Controls
3. Records Review
4. Reanalysis of the Food Safety Plan

HACCP for Packinghouses (not an FDA regulation, put possibly important for 3rd party audits).

October 19-20, Orlando https://www.eventbrite.com/e/haccp-for-florida-fresh-fruit-and-vegetable-packinghouses-orlando-registration-26056019255

Up Coming Meetings

10/13/2016 **Vegetable Growers Workshop for Pest Management and Pesticide Update** **6:00 – 8:00 PM**

Miami-Dade County Extension
18710 SW 288 ST
Homestead, FL 33030

RSVP to Lize: lluna@ufl.edu or 305-248-3311 Ext. 242.

Oct. 18, 2016 **Tomato Scouting Workshop and In-service Training**

UF/IFAS SWFREC
2685 State Rd 29 North,
Immokalee FL (239)-658-3400

Registration is required through Eventbrite at
http://www.eventbrite.com/e/tomato-scouting-workshop-and-in-service-training-tickets-27705838910

AGENDA

9:00 am - Welcome and Introduction, Dr. Monica Ozores-Hampton, Horticultural Science Department, UF/IFAS-SWFREC

9:05 am - Dr. Monica Ozores-Hampton, Horticultural Science Department, UF/IFAS-SWFREC. Major nutritional disorders and prevention in tomatoes production.

9:45 am - Dr. Pamela Roberts, Plant Pathology, UF/IFAS-SWFREC. Scouting and management of common diseases on tomatoes.

10:25 am - Dr. Phil Stansly, Entomology, UF/IFAS-SWFREC. Damaging and beneficial insects and mites on tomato crops.

11:05 am - Dr. Donald Dickson, Department of Entomology and Nematology, UF/IFAS-Gainesville. The complexity of root-knot nematodes in FL vegetables.

12:00 pm - Lunch-Generously provided by ADAMA, Pablo Navia, Nimitz new non-fumigant contact true nematicide registered by the EPA.

12:30 pm - Gene McAvoy, Regional Vegetable Extension Agent, UF/IFAS/Hendry County Extension Office. Tomato weed management - identification and strategies for problem weeds.

12:45 pm - Trip to fields to observe disease, insects and weeds.

2:00 pm – Adjourn

October 19, 2016 **Africanized Honey Bee Safety Workshop** **8:30 – 11:30 AM**

UF/IFAS Everglades Research and Education Center
3200 E Palm Beach Rd
Belle Glade, FL 33440

For more information or to register contact: Ann at dah@ufl.edu

October 19, 2016 **Lettuce Advisory Meeting** **12:00PM -**

EREC Conference Center
3200 East Palm Beach Road
Belle Glade, FL 33430

October 19-20, 2016 **HACCP for Packinghouses**

Orlando

https://www.eventbrite.com/e/haccp-for-florida-fresh-fruit-and-vegetable-packinghouses-orlando-registration-26056019255

Not an FDA regulation, put possibly important for 3rd party audits.

October 24, 2016 **Produce Safety Alliance Grower Training**

Immokalee – see below for additional calluses and locations

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

October 24, Immokalee https://psa102416.eventbrite.com
October 28, Live Oak - https://psa102816.eventbrite.com
November 7, West Palm Beach - https://psa110716.eventbrite.com

November 30, Balm - https://psa113016.eventbrite.com
December 9, Homestead - https://psa120916.eventbrite.com

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

November 1-2, 2016 **Treasure Coast Small Farms and Alternative Enterprises Conference**

Indian River Research and Education Center
2199 South Rock Road
Fort Pierce, FL 34945

https://www.eventbrite.com/e/treasure-coast-small-farms-and-alternative-enterprises-conference-tickets-26522058190

November 9, 2016 **WPS Train the Trainer Workshop** **8:30AM – 3:00PM**

559 N Military Trail (Exhibit Hall A)
West Palm Beach, FL 33415

RSVP required, please contact Ethel Scott for registration instructions (eescott@pbcgov.org**)**

November 16-18, 2016 **Food Safety Preventive Controls Alliance**

West Palm Beach

(FSPCA, those who fall under the Preventive Controls for Human Food Rule) – some packinghouses
https://www.eventbrite.com/e/fspca-training-west-palm-beach-registration-26053345257

November 2, 2016 **11th Annual Florida Ag Expo**

UF/IFAS Gulf Coast Research and Education Center
14625 CR 672
Wimauma, FL 33598

Register online at www.floridaagexpo.com – note: almost sold out!

November 9, 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.

Websites

Operation Cleansweep 2016-2017 provides farmers, nursery operators, golf course operators, and pest control services a safe and economical way to dispose of their cancelled, suspended, and unusable pesticides. For more info, go to http://www.dep.state.fl.us/waste/quick_topics/publications/shw/cleansweep-pesticides/Cleansweep-Flyer_2016-17.pdf

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

Check out Southwest Florida Vegetable Grower on Facebook
https://www.facebook.com/pages/South-Florida-Vegetable-Grower/149291468443385 **or follow me on Twitter @SWFLVegMan -** https://twitter.com/SWFLVegMan

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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

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