



UNIVERSITY OF
FLORIDA

E X T E N S I O N

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SOUTH FLORIDA VEGETABLE PEST AND DISEASE HOTLINE

December 13, 2016

November proved to be one of the driest on record with all areas experiencing below normal precipitation. Naples Municipal Airport went 59 without a drop of rain and both LaBelle and South Bay recorded no measureable precipitation in November.

A nearly stationary frontal boundary over South Florida was accompanied by unsettled weather last week and most areas experienced light showers with only trace amounts of rain with the exception of some east coast locations which reported an inch and a half or more. Misty rain, accompanied by heavy dews and morning fog over the past few days have helped keep some diseases active.

Temperatures have been mild with highs in the 70's and low 80's and nights mainly in the 50's and 60's.

FAWN Weather Summary

Date	Air Temp °F		Rainfall (Inches)	Ave Relative Humidity (Percent)	ET (Inches/Day) (Average)
	Min	Max			
Balm					
11/22 – 12/12/16	40.54	85.53	0.09	79	0.07
Belle Glade					
11/22 – 12/12/16	48.02	86.77	0.16	86	0.07
Clewiston					
11/22 – 12/12/16	44.60	86.34	0.24	84	0.07
Ft Lauderdale					
11/22 – 12/12/16	56.57	86.94	1.68	80	0.08
Homestead					
11/22 – 12/12/16	49.35	86.74	1.59	84	0.07
Immokalee					
11/22 – 12/12/16	37.38	88.38	0.26	84	0.07
Okeechobee					
11/22 – 12/12/16	37.83	88.47	0.19	85	0.07

When in Doubt – Scout!

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COOPERATIVE EXTENSION WORK IN AGRICULTURE, FAMILY AND CONSUMER SCIENCES, SEA GRANT AND 4-H YOUTH, STATE OF FLORIDA, IFAS, UNIVERSITY OF FLORIDA, U.S. DEPARTMENT OF AGRICULTURE, AND BOARDS OF COUNTY COMMISSIONERS COOPERATING

Pest and disease pressure has been relatively light this season. The Manatee/Ruskin fall crop is winding down as the season transitions south. A variety of crops are coming to market including collards, cucumber, eggplant, green beans, herbs, kale, lettuce, peppers, radishes, squash, sweet corn, watermelon and a variety of specialty items. Crops look good but prices have been disappointing on many items.

The National Weather Service forecast indicates most areas will see fair weather through Wednesday with less cloud cover and little chance of precipitation compared to the past weekend. Temperatures will be above normal, with highs in the lower to mid-80s and lows in the 60s to near 70. Patchy fog, potentially locally dense, will be possible.

A weakening frontal boundary will cross the region Thursday into Friday, with high pressure building in its wake for the weekend. The frontal passage is expected to be mostly dry, although some isolated showers will be possible mainly over the eastern coastal areas. Drier air will filter in behind the frontal passage, although northeasterly flow may bring in a stray shower to east coast areas from time to time. Temperatures will be near to slightly above normal throughout the long term period.

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

Insects

Worms

Around Immokalee, worm pressure persists at moderate levels in most locations. Scouts report that fruitworms and fall armyworms numbers have increased recently. Southern armyworms, beet armyworms, loopers and melonworms remain common in a variety of crops as well.

On the East Coast, worm pressure remains mostly low.

Growers and scouts in the Manatee Ruskin report that worm pressure is steady with mainly armyworms and loopers showing up with a very few pinworm, hornworms, and fruitworms. Melonworms are still active in cucurbits.

Dak Seal, entomologist at UF/IFAS TREC reports that worm pressure is mostly low around Homestead but is likely to increase as crops mature. Beet armyworm is common on a variety of crops.

Dak advises that Verimark applied at plant followed by Novaluron/Radiant (28 DAP), indoxicarb (42 DAP) will provide excellent control of DBM, FAW, BAW and Melon worms. *Bacillus thuringiensis* based insecticides can be used in between two application of above treatments to have a worm free crop. Neemix applied earlier in the crop production cycle reduces BAW population.

Dak also notes that Intrepid is effective in controlling all worms. It is an insect growth regulator. Once young lepidopteran larvae come in contact with Intrepid, they stop feeding. Death may occur immediately or several hours later.

Intrepid is benign to natural enemies, and thus, a good IPM and IRM tool. It has a long residual toxicity (about two weeks). It is most effective when applied against freshly emerged larvae.

Rimon is another effective growth regulator in controlling fall armyworm and other worm pests. Rimon also provides excellent control of cucumber beetle. (Note be sure to read the label as Rimon can cause phyto on pepper, squash and other crops in some tank mixes an EC or any oil product.)

Some diamondback moths are beginning to show up in crucifers in the Glades and in the Manatee Ruskin area. Diamondbacks are prone to resistance problems and products such as Coragen, Radiant, Rimon, Avaunt, and Exirel have given good results.

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, week's lesser cornstalk borer trap counts are extremely high on the sand lands around Clewiston while the counts on muck soils remain steady at much lower populations. Scouts report that some young corn has been under heavy but spotty, lesser cornstalk borer pressure.

Leafminer

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

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

Around SW Florida, leafminer pressure is increasing in a variety of crops, especially in younger fields with nice new flushes of growth.

Reports indicate that leafminers are causing problems in almost everything in the EAA.

Respondents indicate that leafminer pressure is mostly low around Homestead.

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.

Whiteflies

Reports from in Miami Dade County indicate that whitefly pressure is high in all crops. TYLCV is common in all tomato fields. Cucurbit crops at various locations around Miami-Dade are also showing high number of silverleaf whitefly infestation.

In the Manatee Ruskin area, whitefly numbers are variable and a beginning to spike in a number of areas where growers have run out of Sivanto sprays. Reports indicate that pupae also increasing in occurrence.

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 whitefly numbers are beginning to increase in a number of places.

Proper scouting is essential to manage silverleaf whitefly. 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 labelled, 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

Pepper weevils are established in a number of pepper fields around Southwest Florida at mostly low levels.

Reports indicate that pepper weevil numbers are increasing in older pepper fields on the east Coast.

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

Scouting is importance 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 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 continue to be a threat. Growers should scout fields carefully to detect their presence in tomato as well as weedy hosts near the fields and in the surrounding area. These thrips are already transmitting tospoviruses in tomatoes around Miami Dade County. Reflective plastic mulch may be useful to repel thrips early in the cropping cycle.

Melon thrips are also causing problems around Miami Dade County. Reports indicate numbers are high in eggplants and adults are being found in squash, cucumber, beans and okra as well.

Radiant, Movento, Torac, Exirel and Requiem in rotation program can be used to manage melon thrips. Addition of non-ionic surfactant in tank mix to will increase effectiveness on insecticides.

Broad Mites

Respondents indicate that broad mites have been persistent and just won't stop in pepper and eggplant 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.

Around Homestead, broad mite populations are active on various hosts. Soap and oil-based products can be effective to manage mites at early stages of infestations.

Spider mites

Spidermites are also starting to show up in a number of locations on cucurbits, eggplant and tomatoes.

There are reports of an outbreak of two spot spider mites in strawberries around Plant City.

Russet mites

Reports from Homestead indicate that russet mite infestation can be seen in almost all tomato fields. In most fields, incidence of russet mites starts at the edge of the field. In absence of effective control mite infestation continues inside the field in a sporadic pattern. Dead and dying lower leaves on tomato plants showing normal growth in rest of the plant is often a tell-tale clue of russet mite infestation. Note that russet mites are extremely small and cannot be seen without magnification. In the absence of any control efforts, the entire plant can die from russet mite attack. Oberon, Agrimek, and Fujimite are effective in controlling mites.

Aphids

In the Glades, aphids have been active in some greens and brassicas.

Around Hillsborough and Manatee Counties, flights of aphids continue to move into susceptible crops.

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

Growers and scouts are reporting surges of winged aphids moving into crops around Southwest Florida but note they have been easy to kill.

Low numbers of aphids are present around Miami Dade County.

Silkfly

Silk fly numbers have picked up in sweet corn higher in the past two weeks in EAA as sugar cane fields harvesting in close relationship to maturing sweet corn fields occurs.

Around Homestead, corn silk fly number are increasing and will most likely grow worse with the progression of season.

Growers should scout corn fields carefully for silk fly infestation. Certis Bait pellets have shown significant reduction of adults and silkfly damage on corn ears. Pyrethroids can also be used to reduce silk fly adults.

Diseases

Target Spot

Around Immokalee, target spot continues to be a problem in tomatoes, especially as fields approach maturity and have developed a big, thick bush allowing target spot to get started inside where moisture is good and spray coverage is weak.

Target spot remains active at mostly low levels in the Manatee Ruskin area where low levels of fruit infection have been reported.

Target spot remains low in most East Coast plantings.

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 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>

Bacterial Spot

Around Southwest Florida, bacterial spot has slowed down but is still creeping around in some field where present

In Manatee and Hillsborough County, bacterial spot remains mostly low with dry weather but continues to creep along in fields where it is present.

On the East Coast, bacterial spot in tomato remains mostly low.

Bacterial leaf spot is present in tomato plantings in Homestead which saw considerable rainfall over the 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.

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.

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 remains active in cucurbits around SW Florida, mostly squash but also a few watermelons.

Powdery mildew is present in cucumber around Palm Beach County and is also starting to show up on some Cubanelle pepper as well.

Growers and scouts indicate that powdery mildew is widespread in cucurbits around Homestead including squash and bitter melon.

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.

In the EAA, downy mildew is causing some issues in cole crops.

Downy mildew continues to plague basil producers and is increasing with cooler humid nights and foggy conditions.

Anthracnose of pepper

Anthracnose remains present in low levels pepper on the East Coast.

Growers continue to report finding some anthracnose on pepper around Southwest Florida.

Stemphylium leaf spot

Respondents in the Glades have reported some issues with Stemphylium leaf spot on spinach.

Initial symptoms of Stemphylium leaf spot on leaves consist of small (0.13 to 0.25-inch diameter), circular to oval, gray-green leaf spots. As the disease progresses, leaf spots enlarge, remain circular to oval in shape, and turn tan in color.

Older spots coalesce, dry up, and become papery in texture. Visual signs of fungal growth are generally absent from the spots; hence this problem is readily differentiated from foliar diseases in which purple growth (downy mildew), green spores (Cladosporium leaf spot), or acervuli (anthracnose) develop within circular lesions.

Overall, symptoms resemble the tan, circular spots caused by pesticide or fertilizer damage.

Weeds or other reservoir hosts have not been identified. This pathogen is seed-borne. Hot water or chlorine treatment of seed may help reduce chances of seed-borne transmission.

Dr Richard Raid Pathologist at UF/IFAS EREC reports that strobilurin fungicides have been effective in the past trials but plans additional trials to look at other compounds.

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.

TCSV has also been reported on scattered plants around Palm Beach County.

In the Homestead area, respondents indicate that almost all tomato fields have low levels of TCSV.

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

Growers indicate that halo blight remains an issue on some beans around Homestead.

Sheath Blight

Low levels of sheath blight caused by *Rhizoctonia* sp have been reported on some sweet corn around Belle Glade,

News You Can Use

Diseases Do Not Take Holidays

Although many of us will be looking forward to celebrating Christmas and ringing in the New Year and spending a few days off with family and friends - remember that plant diseases do not celebrate holidays.

Since this is the time of year we often experience foggy conditions and heavy dews which are favorable for disease development, growers would be advised to make sure their crops are protected going into the holidays.

Remember that most of our fungicides are protectants and must be present to prevent infection.

Looking back over the years, we often see an outbreak of various diseases including late blight several days after an extended holiday, which suggests growers may let spray schedules lapse during the holiday period.

Do yourself a favor and make sure your crops are covered before kicking back and taking off for the holidays!

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 finalizes standards for application of restricted-use pesticides

Going forward, certified applicators must apply restricted-use pesticides.

Farm Futures
Dec 12, 2016

The U.S. Environmental Protection Agency (EPA) is finalizing standards for applicators who apply restricted-use pesticides that are not available for purchase by the general public, and require special handling.

“We are committed to keeping our communities safe, protecting our environment and protecting workers and their families,” said Jim Jones, EPA Assistant Administrator for the Office of Chemical Safety and Pollution Prevention. “By improving training and certification, those who apply these restricted use pesticides will have better knowledge and ability to use these pesticides safely.”

Today's action will reduce the likelihood of harm from the misapplication because the pesticides may only be applied by a certified applicator or someone working under their direct supervision. EPA's stricter standards would require all people who are certified to apply restricted use pesticides to be at least 18 years of age. These certifications must be renewed every five years.

EPA is requiring specialized licensing for certain methods such as fumigation and aerial application that can pose greater risks if not conducted properly. For further protection, those working under the supervision of certified applicators will now receive training to use pesticides safely and to protect their families from “take-home” pesticide exposure.

EPA expects the benefits of this rule to include fewer acute pesticide incidents to people, reduced chronic exposure and reduced incidents of ecological harm from pesticide use.

States and tribes may issue licenses to pesticide applicators with an EPA-approved program who can demonstrate the ability to use these products safely. The final action also updates requirements for state programs and for applicators obtaining licenses. Many states already have in place some of the stronger requirements of today's action. (Florida is in this group - GM)

The final rule includes flexibility for states to continue portions of their existing programs that are equivalent to the revised rule. EPA will work with states to review and approve updated certification plans.

Learn more: <https://www.epa.gov/pesticide-worker-safety/revised-certification-standards-pesticide-applicators>

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.

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.

According to the newly revised WPS regulations, another major change is that beginning in 2017 employers must provide respirator as well as fit testing, training and medical evaluation that conforms to OSHA standards for any handler required to wear a respirator by the labeling as part of the PPE requirement.

Under the new rules PS also requires recordkeeping of completion of the fit test, training and medical evaluation.

Here are some resources that may be of assistance in meeting these requirements.

The regulations do not state that there is any required training that an employer is required to have prior to conducting the fit testing.

Some folks have received a fit testing training from 3M, but it is not required as long as the fit testing is done in a manner as to comply with OSHA regulations.

The OSHA regulations are listed below. It will require the purchase of fit testing equipment, see the OSHA regulations for the types of equipment you need.

General respirator and PPE information:

<http://edis.ifas.ufl.edu/pdffiles/PI/PI11400.pdf>

<http://edis.ifas.ufl.edu/pi156>

OSHA Medical Questionnaire (must be viewed by a medical professional, can also use the online services, some are listed below)

<http://1.usa.gov/pWi11O>

OSHA Mandatory fit testing procedures

<http://1.usa.gov/2sQOpG>

OSHA daily Mandatory fit test (does not require chemicals and does not replace the qualitative fit test). This should be done on a daily basis by anyone wearing a respirator.

<http://1.usa.gov/pnXJTg>

Online medical certification questionnaires -

<http://www.respexam.com/>

<https://www.respiratorcertification.com/public/>

<http://www.mchaneysafety.com/RespiratorMedicalEvaluation.aspx>

<http://www.honeywellsafety.com/USA/oshamedcert/?LangType=1033>

There are many more sites like these, a quick search online will give you more options.

3M fit testing kit and instructions

<http://bit.ly/pcdGbt>

3M fit testing video – English (there is also a Spanish version)

<http://bit.ly/pcdGbt>

3M website on establishing a respirator protection program (contains the two links above)

<http://bit.ly/pcdGbt>

Any information on the 3M website is their property and is not guaranteed to comply with OSHA regulations.

We, at the University of Florida, do not endorse the use of the 3M program as a replacement for OSHA regulations but feel that it may provide a starting point in the development of a respirator protection program.

Meetings

January 5-8, 2017

SE Regional Fruit and Vegetable Conference

Savannah International Trade and Convention Center
Savannah, Georgia

For more info and to register, go to <http://www.seregionalconference.com/>

FSMA Produce Safety Alliance Classes – mark your calendar, more information to follow as registration goes on-line

January 10 – Lake Alfred, FL

February 7 – Live Oak, FL

February 13 – Marianna, FL

March 13 – Arcadia, FL

April 20 – Tavares, FL

May 17 – Palmetto, FL

February 8-10, 2017 **FSMA Preventive Controls for Human Food Rule classes**
April 24-26, 2017

For more information and to register, use the links below:

Lake Alfred, February 8-10 <https://www.eventbrite.com/e/fspca-training-lake-alfred-registration-28581155004>

Gainesville, April 24-26 <https://www.eventbrite.com/e/fspca-training-gainesville-registration-29441832313>

Websites

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

Check out Southwest Florida Vegetable Grower on Facebook

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Quotable Quotes

You can make excuses or you can make progress, but you can't make both. – Anon

No pessimist ever discovered the secret of the stars or sailed to an uncharted land or opened a new heaven to the human spirit. - Helen Keller

There may be people who have more talent than you, but there's no excuse for anyone to work harder than you do. – Derek Jeter

"Impossible is just a big word thrown around by small men who find it easier to live in the world they've been given than to explore the power they have to change it. Impossible is not a fact. It's an opinion. Impossible is not a declaration. It's a dare. Impossible is potential. Impossible is temporary." - Ernest Hemingway

I wear the chain I forged in life.... I made it link by link, and yard by yard; I girded it on of my own free will, and of my own free will I wore it. – The Ghost of Jacob Marley, A Christmas Carol

This boy is Ignorance. This girl is Want. Beware them both, and all of their degree, but most of all beware this boy, for on his brow I see that written which is Doom. – A Christmas Carol

On the Lighter Side

Once Again

The local news station was interviewing an 85-year-old lady because she had just married for the fourth time

The interviewer asked her questions about her life, about what it felt like to be marrying again at 85, and then about her new husband's occupation.

"He's a funeral director," she answered.

"Interesting," the newsman thought. He then asked her if she wouldn't mind telling him a little about her first three husbands and what they did for a living.

She paused for a few moments, needing time to reflect on all those years.

After a short time, a smile came to her face and she answered proudly, explaining that she had first married a banker when she was in her early 20's, then a circus ringmaster when in her 40's, then a preacher when in her 60's, and now in her 80's, the funeral director.

The interviewer looked at her, quite astonished, and asked why she had married four men with such diverse careers. She smiled and patiently explained, "I married one for the money, two for the show, three to get ready, and four to go."

Parents

Sheldon visited mama and papa. He said: "Finally, I've found my true love. Just for fun, I'm going to bring over three women and you guess which is "the one." Mama and Papa agreed.

The next day he brought three beautiful women who sat on the sofa and chatted with Mama and Papa over a little cake. After they left, he challenged, "Okay, Guess which one I'm going to marry?"

"The one in the middle with the red hair," his parents replied instantly.

"Right! But ... how did you know?" asked Sheldon, amazed.

Mama said, "Simple. Her, we don't like."

The Best Way to Pray

A priest, a minister and a guru sat discussing the best positions for prayer, while a telephone lineman worked nearby

"Kneeling is definitely the best way to pray," the priest said.

"No," said the minister. "I get the best results standing with my hands outstretched to Heaven."

"You're both wrong," the guru said. "The most effective prayer position is lying down on the floor."

The lineman could contain himself no longer. "Hey, fellas," he interrupted. "The best prayin' I ever did was when I was hangin' upside down from a telephone pole."

The Twenty and the One

A well-worn one-dollar bill and a similarly distressed twenty-dollar bill arrived at a Federal Reserve Bank to be retired.

As they moved along the conveyor belt to be burned, they struck up a conversation.

The twenty-dollar bill reminisced about its travels all over the country.

"I've had a pretty good life," the twenty proclaimed. "Why I've been to Las Vegas and Atlantic City, the finest restaurants in New York , performances on Broadway, and even a cruise to the Caribbean ."

"Wow!" said the one-dollar bill. "You've really had an exciting life!"

"So, tell me," says the twenty, "where have you been throughout your lifetime?"

The one-dollar bill replies, "Oh, I've been to the Methodist Church, the Baptist Church, the Lutheran Church."

The twenty-dollar bill interrupts, "What's a church?"

Wishing you all the very best for a Blessed and Merry Christmas and a Happy and Prosperous New Year!

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