UF | IFAS Extension UNIVERSITY of FLORIDA

Palm Beach County

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SOUTH FLORIDA VEGETABLE PEST AND DISEASE HOTLINE

June 8, 2018

The 2017-2018 South Florida Vegetable came to a soggy end as many areas reported the wettest May on record with near daily rains in many areas for the last three weeks of the month.

The season ended earlier than normal in much of south Florida as warmer than normal weather for much of the spring season advanced maturity on many crops. In addition, low prices for many items throughout most of May induced growers to back off on spraying leaving crops in poor condition. By the time prices started to rebound in mid-May, the rains started falling and many fields were beyond the point of no return.

FAWN Weather Summary

Date	Air Temp °F		Rainfall	Ave Relative Humidity	ET (Inches/Day)
	Min	Max	(Inches)	(Percent)	(Average)
Balm					
5/1 – 6/7/2018	55.36	91.09	12.94	81	0.14
Belle Glade					
5/1 – 6/7/2018	59.49	89.92	9.29	87	0.14
Clewiston					
5/1 – 6/7/2018	59.97	91.29	10.06	86	0.14
Ft Lauderdale					
5/1 – 6/7/2018	67.33	90.05	15.66	81	0.14
Homestead					
5/1 – 6/7/2018	63.05	89.17	10.15	81	0.13
Immokalee					
5/1 – 6/7/2018	56.98	93.88	8.21	79	0.13
Okeechobee					
5/1 – 6/7/2018	54.12	90.77	10.82	87	0.14
Wellington					
5/1 – 6/7/2018	62.28	92.84	19.15	85	0.14

“Remember, when in doubt - scout.”

Unsettled weather over the past few weeks has bought a lot rain to most of South Florida in May with 8 to 15 inches or more being reported depending on the location. Some locations reported over 20 inches for the month. Heavy rains interfered with harvest of some crops especially sweet corn in the EEA.

The National Weather Service forecast indicates the upper level low currently over the northern Gulf is expected to weaken and be reabsorbed into the broader trough by early next week as the western Atlantic ridge rebuilds across the area. This will allow a return to a more typical summertime pattern across the region with scattered showers and thunderstorms developing along the east and west coast sea breezes and pushing inland by the afternoon hours.

High and low temperatures next week will be close to normal for this time of year.

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

Sanitation, Sanitation, Sanitation...

Once again as we near the end of the deal, growers are reminded of the importance of sanitation in an integrated pest management program. Disease and insects do not magically materialize to plague growers. Many require a living host to carry them from one season to another.

Field sanitation is one of the most important tactics in vegetable pest and disease management. One of the best things that growers can do for themselves and their neighbors is to clean up crop residues promptly after harvest. Sanitation is an important IPM technique that should not be over looked as an effective, preventative tool against many vegetable pest and disease problems. Sanitation includes any practice that eradicates or reduces the amount of pathogen inoculum, pests, or weed seeds present and thus helps reduce or eliminate subsequent pest and disease problems.

Prompt crop destruction at the end of the season will immediately end the production of disease inoculum and insects and eliminate the spread of diseases and pests to any other host plants in the vicinity. Downy and powdery mildew on melons can spread via wind from older, diseased plants to plants in surrounding fields that are still maturing. These diseases are obligate parasites. This means that they can only grow and multiply on living host tissue. Some plant pathogens, such as the bacterium that causes bacterial spot of tomato and pepper, are unable to survive for extended periods of time outside of the host tissue. Plowing or disking under infected plant debris helps not only by covering up the inoculum but also speeds up the disintegration of plant tissue and kills the pathogen. Good sanitation will help control a number of important vegetable pathogens.

Cull piles should not be neglected as several scouts over the past few years have reported that they have found both insects and diseases such as TYLCV, late blight, whiteflies and others in volunteer plants springing up around cull piles.

Soil tillage can destroy insects and expose them to birds and other predators. It can also speed the breakdown of plant residues that harbor insects and plant pathogens. By either allowing the organic matter in a field to decompose completely before you plant the next crop and /or allowing a fallow period between crops, you can enhance the control of a number of insects and diseases.

Destruction of tomato vines will kill off white fly populations and eliminate transmission of the tomato yellow leaf curl and other viruses to subsequent crops and also eliminate inoculum from late blight and other fungal diseases. This is particularly important in the case of TYLCV and other viruses, as sanitation, a crop free period, and whitefly/thrips control are the only tools currently available for the management of this disease. A crop-free period is also considered a necessity for the control of a number of other important vegetable pests

such as pepper weevil, tomato pinworm, whitefly and thrips and is recommended for management of all vegetable pests.

A little extra effort spent in cleaning up old fields at the end of the season may well prevent or reduce a number of potential problems next fall!

Summer weed management can be a challenge and will become increasingly important in the post- methyl bromide era. Growers should check field margins to make sure that pest species are not building up there and migrating out into cropping areas. Many insects over summer on weeds, so efforts to control them can be profitable by reducing their movement into the crops next growing season.

Weeds are also known reservoirs of nematodes as well as a number of viral, fungal and bacterial pathogens. Weeds and volunteers should be removed to prevent the survival and over-summering of pathogens that could serve as inoculum reservoirs for the next crop. Techniques such as mowing off pepper should not be relied upon as this often results in re-sprouts, which can harbor pests and disease problems over summer.

The use of cover crops and summer fallowing of fields are also effective tools in reducing weed populations that can cause problems in the subsequent crop. The role of summer fallow in weed management is often overlooked and again promises to become more important in the absence of methyl bromide as a component of a comprehensive methyl bromide alternative strategy. Summer fallow keeps new weed seeds from being added to the soil seed-bank. It also reduces the increases in asexual propagated plants such as nutsedge. Yellow nutsedge can put out 70 new tubers (nuts) every two months. Keeping the weeds from propagating will reduce the weed problems encountered during the next cropping season and help reduce insects and diseases that may over summer in weedy fields.

Chemical fallowing is a twist on the traditional method of fallowing that depends on disking fields throughout the summer period to reduce weed pressure in subsequent crops. One approach uses glyphosate to kill weeds during the crop free period. Note with some combinations of high use rates, heavy weed infestation, soil fumigation, short plant back times and other factors growers have experienced carryover resulting in phytotoxicity and plant damage in subsequent crops on sandy soils.

Cover crops planted prior to the main cash crop can also improve soil fertility and provide a valuable source of organic matter.

With new regulations for fumigants, building soil organic matter content with summer cover crops can help provide credit which will allow reductions in the proposed required buffer zones which will come into effect in 2012. For example by raising soil organic content to the 1 - 2 % level in the fumigated block you can reduce buffer zones by 20%, increase soil organic content to 2 - 3 % and you get a 30% buffer zone reduction.

When devising a crop rotation strategy, a grower should also be aware of which crops and cover crops might increase disease problems. Sunn hemp can increase soil populations of Pythium and Rhizoctonia damping-off fungi. Some varieties of cowpea may host of root-knot nematode. These factors should be considered before selecting a cover crop.

Soil solarization is the use of plastic tarps placed on the soil surface to increase soil temperatures to a level that kills soilborne pathogens, weeds, and other crop pests. Soil solarization works best when summer temperatures are uniformly high. These conditions don’t always occur in Florida. Soil solarization will not eradicate a pathogen from a field, but it may lower pathogen populations.

Soil flooding is a related means of creating conditions—in this case, saturated soil over an extended period - that might result in a decline of soil-borne pathogens.

The end of the season is also the ideal time to take samples taken to predict the risk of nematode injury to fall crops well in advance of planting to allow for sample analysis and treatment periods if so required. For best results, sample for nematodes at the end of the growing season, before crop destruction, when nematodes are most numerous and easiest to detect.

Collect soil and root samples from 10 to 20 field locations using a cylindrical sampling tube, or, if unavailable, a trowel or shovel. Since most species of nematodes are concentrated in the crop rooting zone, samples should be collected to a soil depth of 6 to 10 inches.

Sample in a regular pattern over the area, emphasizing removal of samples across rows rather than along rows. One sample should represent no more than 10 acres for relatively low-value crops and no more than 5 acres for high value crops.

Fields which have different crops (or varieties) during the past season or which have obvious differences either in soil type or previous history of cropping problems should be sampled separately. Sample only when soil moisture is appropriate for working the field, avoiding extremely dry or wet soil conditions. Plant roots should also be examined visually for the telltale signs of galling caused by root knot nematode.

Recognizing that the root-knot nematode causes the formation of large swollen areas or galls on the root systems of susceptible crops, relative population levels and field distribution of this nematode can be largely determined by simple examination of the crop root system for root gall severity. Root gall severity is a simple measure of the proportion of the root system that is galled. Immediately after final harvest, a sufficient number of plants should be carefully removed from soil and examined to characterize the nature and extent of the problem within the field. In general, soil population levels increase with root gall severity. This form of sampling can in many cases provide immediate confirmation of a nematode problem and allows mapping of current field infestation.

The detection of any level of root galling usually suggests a nematode problem for subsequent plantings of susceptible crops. Detection of a potential problem well in advance of the next growing season will provide ample time to devise and implement an effective management strategy.

Integrated pest and disease management is a year round commitment that should incorporate a combination of cultural, biological and chemical pest management techniques.

News You Can Use

Tips to Avoid Heat Related Illness

It is hot out there - remember to take care of yourself and your workers in hot weather and avoid heat related illness.

Summer in Florida can be overwhelmingly hot, even for long-time residents. Heat stress, heat exhaustion, and heat stroke are illnesses that can overcome you when your body is unable to cool itself.

Heat stress hits quickly, and it may be deadly.

The most serious forms of heat related illness include heat cramps, heat exhaustion and heat stroke.

As many as 600 people die of heat-related causes a year across the United States.

Never leave children or pets in a parked car. The temperature inside cars can rise to 135°F in less than ten minutes, which can kill children or pets. If you see a child or pet left unattended in a parked car, you should call 911.

Slow down. Strenuous activities should be reduced, eliminated, or rescheduled to the coolest time of the day. At-risk Individuals should stay in the coolest available place, not necessarily indoors.

Clothing is important. Dress for summer. Use common sense and wear light colors, a loose weave, long sleeves and a hat. Lightweight, light-colored clothing reflects heat and sunlight and helps your body maintain normal temperatures.

Put less fuel on your inner fires. Foods that increase metabolic heat production--such as proteins--also increase water loss.

Drink plenty of water and other nonalcoholic fluids. Your body needs water to keep cool.

Drink plenty of fluids even if you don't feel thirsty.

People who may be at most risk:
(1) have epilepsy or heart, kidney, or liver disease;
(2) are on fluid-restrictive diets; or
(3) have a problem with fluid retention, should consult a physician before increasing their consumption of fluids.

Do not drink alcoholic beverages. Alcohol dehydrates you.

Do not take salt tablets unless specified by a physician. People on salt-restrictive diets should consult a physician before increasing their salt intake.

Spend more time in air-conditioned places. Air conditioning in homes and other buildings markedly reduces danger from the heat. If you cannot afford an air conditioner, spending some time each day in an air-conditioned environment (during hot weather) can offer some protection.

Don't get too much sun. Sunburn makes it harder for you to cool off.

REMEMBER TO DRINK BEFORE YOU FEEL THIRSTY!

Factors Leading to Heat Stress:

- High temperature and humidity
- Direct sun or heat
- Limited air movement
- Physical exertion
- Poor physical condition
- Some medicines
- Inadequate tolerance for hot workplaces

Symptoms of Heat-related Illnesses

Heat Cramps - Rest in a cool place, drink sports drink, and stretch the cramped muscle.

Heat Exhaustion - Hot and sweaty.
Headaches, dizziness, lightheadedness, or fainting

Weakness and moist skin
Mood changes such as irritability or confusion
Upset stomach or vomiting

Move the victim to a cool place, give the person sports drinks, lay them down and elevate their legs, remove excess clothing, sponge with cool water and fan the person. If there's no improvement within half an hour, call 911.

Heat Stroke - Clammy and dry.
Dry, hot skin with no sweating
Mental confusion or loss of consciousness
Seizures or fits

This is The Big One! This one can, and does, kill. CALL 911 IMMEDIATELY even if the victim seems to be improving; move the victim to a cool place, remove excess clothing, keep the head and shoulders slightly elevated, fan the victim and spray with water, place ice packs under the arms, by the groin and sides of the neck where the big veins are. Ice will help cool the blood.

Preventing Heat Stress

- Know the signs and symptoms of heat-related illnesses, and monitor yourself and your coworkers.
- Block out direct sun or other heat sources.
- Use cooling fans and air-conditioning; rest regularly.
- Drink lots of water--about one cup every fifteen minutes.
- Wear lightweight, light-colored, loose-fitting clothes.
- Avoid alcohol, caffeinated drinks, and heavy meals.

How to Treat Victims of Heat-related Illness

Call 911 (or local emergency number) at once.
Move the affected person to a cool, shaded area.
Loosen or remove heavy clothing on victim.
Provide cool drinking water to victim.
Fan and mist the person with water.

When Thunder Roars, Go Indoors

The rainy season also brings with it an elevated risk of lightning strikes and several people are killed each year in Florida, many of them employed in outdoor jobs. Lightning strikes the United States about 25 million times a year. Although most lightning occurs in the summer, people can be struck at any time of year. Lightning kills an average of 49 people in the United States each year, and hundreds more are severely injured.

Be safe and go indoors when you hear thunder. Lightning can travel 10-15 miles away from the main storm in some instances.

There is little you can do to substantially reduce your risk if you are outside in a thunderstorm. The only completely safe action is to get inside a safe building or vehicle.

You are not safe anywhere outside. Run to a safe building or vehicle when you first hear thunder, see lightning or observe dark threatening clouds developing overhead. Stay inside until 30 minutes after you hear the last clap of thunder. Do not shelter under trees.

Plan Ahead!

Your best source of up-to-date weather information is a NOAA Weather Radio (NWR). Portable weather radios are handy for outdoor activities. If you don't have NWR, stay up to date via internet, smart phone, radio or TV. If you're in a group, make sure the group has a lightning safety plan and are ready to use it. If you're in a large group, you'll need extra time to get everyone to a safe place. NWS recommends having proven professional lightning detection equipment that will alert your group when lightning is nearing the event site.

When a Safe Location is not Nearby

Remember, there is NO safe place outside in a thunderstorm. If you absolutely can't get to safety, this section may help you slightly lessen the threat of being struck by lightning while outside. Don't kid yourself--you are NOT safe outside.

Know the weather patterns of the area you plan to visit. For example, in mountainous areas, thunderstorms typically develop in the early afternoon, so plan to hike early in the day and be down the mountain by noon. Listen to the weather forecast for the outdoor area you plan to visit. The forecast may be very different from the one near your home. If there is a high chance of thunderstorms, stay inside.

These actions may slightly reduce your risk of being struck by lightning:

- Avoid open fields, the top of a hill or a ridge top.
- Stay away from tall, isolated trees or other tall objects. If you are in a forest, stay near a lower stand of trees.
- If you are camping in an open area, set up camp in a valley, ravine or other low area. Remember, a tent offers NO protection from lighting.
- Stay away from water, wet items (such as ropes) and metal objects (such as fences and poles). Water and metal are excellent conductors of electricity. The current from a lightning flash will easily travel for long distances .

For more information please see the following statistics on a map with details of what the unfortunate individuals were doing when struck by lightning. http://www.lightningsafety.noaa.gov/fatalities.shtml

For more information on lightning safety, see http://www.lightningsafety.noaa.gov/

Forecasters predict a near- or above-normal 2018 Atlantic hurricane season

May 24, 2018 NOAA’s Climate Prediction Center is forecasting a 75-percent chance that the 2018 Atlantic hurricane season will be near- or above-normal.

Forecasters predict a 35 percent chance of an above-normal season, a 40 percent chance of a near-normal season, and a 25 percent chance of a below-normal season for the upcoming hurricane season, which extends from June 1 to November 30.

“With the advances made in hardware and computing over the course of the last year, the ability of NOAA scientists to both predict the path of storms and warn Americans who may find themselves in harm’s way is

unprecedented," said Secretary of Commerce Wilbur Ross. "The devastating hurricane season of 2017 demonstrated the necessity for prompt and accurate hurricane forecasts."

NOAA's forecasters predict a 70-percent likelihood of 10 to 16 named storms (winds of 39 mph or higher), of which 5 to 9 could become hurricanes (winds of 74 mph or higher), including 1 to 4 major hurricanes (category 3, 4 or 5; with winds of 111 mph or higher). An average hurricane season produces 12 named storms, of which 6 become hurricanes, including 3 major hurricanes.

The possibility of a weak El Nino developing, along with near-average sea surface temperatures across the tropical Atlantic Ocean and Caribbean Sea, are two of the factors driving this outlook. These factors are set upon a backdrop of atmospheric and oceanic conditions that are conducive to hurricane development and have been producing stronger Atlantic hurricane seasons since 1995.

"NOAA's observational and modeling enhancements for the 2018 season put us on the path to deliver the world's best regional and global weather models," said Neil Jacobs, Ph.D., assistant secretary of commerce for environmental observation and prediction. "These upgrades are key to improving hurricane track and intensity forecasts, allowing NOAA to deliver the best science and service to the nation."

NOAA's suite of sophisticated technologies – from next-generation models and satellite data to new and improved forecast and graphical products – enable decision makers and the general public to take action before, during, and after hurricanes, helping to build a more "Weather-Ready Nation." New tools available this year to assist in hurricane forecasts and communications include:

NOAA's fleet of earth-observing satellites is more robust than ever with the successful launch of the GOES-17 satellite in March. This satellite, along with the GOES-16 satellite – now GOES-East – contribute to a comprehensive picture of weather throughout the Western Hemisphere, allowing forecasters to observe storms as they develop.

The new polar-orbiting satellite, NOAA-20, will join the NOAA/NASA Suomi NPP satellite and use a suite of sophisticated instruments to gather high-resolution data from around the globe to feed NOAA's weather models, driving the 3-7 day weather forecast that is critical to preparedness and effective evacuations.

The National Weather Service will run a version of the Global Forecast System (called FV3 GFS) with a new dynamic core alongside the current GFS model – often referred to as the American model – during the 2018 season. This will mark the first dynamic core upgrade to NOAA's flagship weather model in more than 35 years, representing the first step in re-engineering NOAA's models to provide the best possible science-based predictions for the nation.

NOAA's hurricane-specific model – the Hurricane Weather Research and Forecast system – will be upgraded to offer greater resolution than ever before, increasing model resolution from 1.2 miles to 0.9 miles (2 km to 1.5 km) near the center of a storm. Additionally, the Hurricanes in a Multi-scale Ocean coupled Non-hydrostatic model was first implemented in 2017 and will undergo upgrades for the 2018 season to include greater resolution, new physics and coupling with ocean models.

NOAA's National Hurricane Center will make the Arrival Time of Tropical-Storm-Force Winds graphics operational for this hurricane season. One graphic displays the "earliest reasonable" arrival time of tropical-storm-force winds, at which point further preparedness activities could be hindered. A second graphic displays the "most-likely" arrival time of tropical-storm-force winds.

2018 Tropical Storm & Hurricane Names

Alberto, Beryl, Chris, Debby, Ernesto, Florence, Gordon, Helen, Isaac, Joyce, Kirk, Leslie, Michael, Nadine, Oscar, Patty, Rafael, Sara, Tony, Valerie, and William.

"Preparing ahead of a disaster is the responsibility of all levels of government, the private sector and the public," said acting FEMA Deputy Administrator Daniel Kaniewski. "It only takes one storm to devastate a community so now is the time to prepare. Do you have adequate insurance, including flood insurance? Does your family have a communication and evacuation plan? Stay tuned to your local news and download the FEMA app to get alerts, and make sure you heed any warnings issued by local officials."

In addition to the Atlantic hurricane season outlook, NOAA also issued seasonal hurricane outlooks for the eastern and central Pacific basins. An 80 percent chance of a near- or above-normal season is predicted for both the eastern and central Pacific regions. The eastern Pacific outlook calls for a 70-percent probability of 14 to 20 named storms, of which 7 to 12 are expected to become hurricanes, including 3 to 7 major hurricanes. The central Pacific outlook calls for a 70-percent probability of 3 to 6 tropical cyclones, which includes tropical depressions, tropical storms and hurricanes.

NOAA will update the 2018 Atlantic seasonal outlook in early August, just prior to the peak of the season.

Rainy season start, end dates now fixed

The onset of South Florida's rainy season used to be a cyclical anticipation unique in the U.S., a water cooler guessing game of when the tropics will open wide with daily showers to quench winter's thirst.

But the annual mystery is over.

The National Weather Service in Miami has designated May 15 through Oct. 15 as the permanent dates for the rainy season, fixing the days similar to the set time frame given for hurricane season.

Robert Molleda, the warning coordination meteorologist with the NWS in Miami, announced the change Thursday, saying it will help increase awareness of what can be the most dangerous time of year for weather in South Florida.

"We get most of our rainfall and all the associated hazards — lightning, flooding, tornadoes, severe thunderstorms — during this time," he said. "I think we can use it as a way to get everyone ready for the rainy season similar to the way we get ready for hurricane season."

In the past, the rainy season was determined by looking at dew point temperatures, sea surface temperatures, and an established pattern of rainfall typical to the rainy season — at least three consecutive days.

"Many of these factors occur independently of each other and don't have clear beginning and end dates, but instead occur mainly during transition periods which can last anywhere from 2-4 weeks in length," Molleda said.

The decision on May 15 to Oct. 15 was made after examining records dating to the 1960s on rainy-season start dates. South Florida gets an average of 70 percent of its rain during the wet season.

Florida climatologist David Zierden said the reasoning for setting rainy season dates is “sound.”

“Having fixed dates certainly simplifies things for messaging and simple comparisons,” Zierden said. “For scientific studies, a more meteorological-based definition that accounts for year to year variability would still be better.”

In addition to hurricane season, which runs June 1 to Nov. 30, other fixed weather dates include the calendrical beginning of summer, fall, winter and spring. But even those differ depending on whether they are meteorological or astronomically-based. Meteorological seasons run in succinct blocks. For example, winter is Dec. 1 to March 1.

Astronomical seasons begin on the solstice and equinox.

While many areas have seasonal shifts other than the traditional four — such as the southwest’s monsoon season — South Florida’s seasons are unique in that they are influenced not just by latitude, but also by being surrounded by water.

Molleda said he doesn’t want to discourage people from debating when the rainy season will kick in, or end, and plans to keep an in-house record of rainy-season start dates that may differ from the official calendar for climatological reference.

The set rainy-season dates will cover the seven counties overseen by the Miami office of the NWS — Miami-Dade, Monroe, Broward, Collier, Palm Beach, Glades and Hendry.

Treasure Coast counties, which are overseen by the Melbourne office, will not have set rainy season dates, said meteorologist Scott Kelly.

“Our onset is more variable,” Kelly said. “It’s not very different than Miami’s but we are not comfortable setting a beginning and end date because it is more variable up our way.”

Late season cool fronts that let dry air reach Central Florida, but don’t push through South Florida, can delay the rainy season in areas north of Palm Beach County.

While having set dates may increase awareness of rainy-season hazards, others say it is inconsequential.

“I think having an official announcement date of when the rainy season stops or starts is not of that much value to locals,” said Tequesta resident Tom Knapp, Jr. “People who live down here know about when the heavy rains and thunderstorms start to either ruin our afternoon plans, or bring us a welcome relief from the heat.”

Up Coming Meetings

June 27, 2018 **Tree Crop Pesticide License Exam Prep Classes**

UF/IFAS Hendry County Extension Office
1085 Pratt Boulevard
LaBelle, Florida 33935

If you intend to take a pesticide license exam – you must apply for a voucher and schedule your exam at least one day prior to the exam date. Go to https://pesticideexam.ifas.ufl.edu/ to apply for a voucher and schedule your exam

Classes are $20 each. For more information or to register, contact Debra at 863-674-4092 or dcabrera@ufl.edu

June 28, 2018 **Spanish CORE Pesticide License Exam Prep Classes**

UF/IFAS Hendry County Extension Office
1085 Pratt Boulevard
LaBelle, Florida 33935

If you intend to take a pesticide license exam – you must apply for a voucher and schedule your exam at least one day prior to the exam date. Go to https://pesticideexam.ifas.ufl.edu/ to apply for a voucher and schedule your exam

Classes are $20 each. For more information or to register, contact Debra at 863-674-4092 or dcabrera@ufl.edu

June 29, 2018 **Spanish Private Pesticide License Exam Prep Classes**

UF/IFAS Hendry County Extension Office
1085 Pratt Boulevard
LaBelle, Florida 33935

*To take a pesticide license exam – you must apply for a voucher and schedule your exam at least one day prior to the exam date. Go to https://pesticideexam.ifas.ufl.edu/ to apply for a voucher and schedule your exam

Classes are $20 each. For more information or to register, contact Debra at 863-674-4092 or dcabrera@ufl.edu

July 20, 2018 **Spanish Language WPS Train the Trainer Workshop**

PB County Extension Exhibit Hall A
559 N. Military Trail
West Palm Beach, FL

Contact Ethel Scott for questions and registration ($25, includes lunch) eescott@pbcgov.org or 561-233-1725

October 12, 2018 **Spanish Language WPS Train the Trainer Workshop**

PB County Extension Exhibit Hall A
559 N. Military Trail
West Palm Beach, FL

Contact Ethel Scott for questions and registration ($25, includes lunch) eescott@pbcgov.org or 561-233-1725

October 16, 2018 **English Language WPS Train the Trainer Workshop**

PB County Extension Exhibit Hall A
559 N. Military Trail
West Palm Beach, FL

Contact Ethel Scott for questions and registration ($25, includes lunch) eescott@pbcgov.org or 561-233-1725

November 4–6, 2018 **The 24th International Pepper Conference**

Sanibel Harbour Marriott
Fort Myers, Florida, USA

Learn more at http://conference.ifas.ufl.edu/pepper2018/

Websites

How to communicate science so it makes sense. You may ask as a farmer or agriculturalist, why I should bother to try and educate the public about the science of agriculture. Because if you are not at the table you are on the menu! http://www.foodnutritionscience.com/articles/how-to-communicate-science-so-that-it-makes-sense/

PERC is the Pesticide Educational Resources Collaborative – the website provides a wealth of resources to help you understand and comply with the 2015 Revised WPS including training materials, the "new" WPS poster, handouts and WPS respiratory guide.

WPS Compliance Suite — Training Materials

Under the newly-revised Worker Protection Standard (WPS), training materials must be EPA-approved when officially training workers, handlers, and trainers.

- Expanded training concepts will be required starting January 2, 2018.
- Training must be delivered in a manner that can be understood, in a location relatively free from distractions.
- When training workers or handlers, the trainer must remain present at all times to be available to answer questions, even when showing a video.
- Trainers must be qualified, most often by holding a pesticide applicator's license or by completing an EPA-approved Train-the-Trainer course.

Training Materials for Workers and Handlers - http://pesticideresources.org/wps/temp/training/index.html

Need CORE CEU's? – here is an easy way to obtain CORE CEU's on-line by reading an article and answering questions regarding the online. A passing score obtains one Core CEU.

CEU Series: Mix and Load Pesticides Safely
CEU Series: Protect Crops and the Environment
CEU Series: Make Sure to Stow Your Pesticides before You Go
CEU Series: Avoid Mishaps When Handling Pesticides
CEU Series: Be Aware of Bees When Applying Pesticides
CEU Series: Place Priority on Preventing Pesticide Poisoning
CEU Series: Learning about Pesticide Resistance Is Anything but Futile

Go to http://www.growingproduce.com/?s=CORE+CEUs

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

This will be the last hotline for the season – wishing you all the best for a safe and restful summer season!

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, Fred Heald/The Andersons, Sarah Hornsby/AgCropCon, Cecil Howell/H & R Farms, Bruce Johnson/General Crop Management, Barry Kostyk/SWFREC, Leon Lucas/Glades Crop Care, Chris Miller/Palm Beach County Extension, Mark Mossler/UF/IFAS Pesticide Information Office, 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, Dr Ron Rice/Palm Beach County Extension, Dr Pam Roberts/SWFREC, Dr. Nancy Roe/Farming Systems Research, Wes Roan/6 L's, Dr. Dak Seal/ TREC, Kevin Seitzinger/Gargiulo, Ken Shuler/Stephen's Produce, Crystal Snodgrass/Manatee County Extension, Dr. Phil Stansly/SWFREC, 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
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