



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

SOUTH FLORIDA VEGETABLE PEST AND DISEASE HOTLINE

May 27, 2015

An unusually hot and wet period from mid to late April ushered in a “quasi-rainy-season” due to its resemblance to typical summer rainy season conditions.

However, this was followed by a frontal passage on May 1 which initiated a drying and cooling trend which persisted through the first week of May which saw lows drop into the mid-50s for a couple of days.

An increase in moisture and temperatures followed, leading to an early start for the rainy season on May 10th when the summer Atlantic subtropical high became the main weather driver across south Florida.

FAWN Weather Summary

Date	Air Temp °F		Rainfall (Inches)	Ave Relative Humidity (Percent)	ET (Inches/Day) (Average)
	Min	Max			
Balm					
4/20 – 5/27/15	54.90	95.86	1.66	75	N/A
Belle Glade					
4/20 – 5/27/15	57.15	94.15	2.25	82	N/A
Clewiston					
4/20 – 5/27/15	49.12	92.75	4.63	73	N/A
Ft Lauderdale					
4/20 – 5/27/15	64.89	94.64	6.93	76	N/A
Homestead					
4/20 – 5/27/15	60.51	96.06	6.40	79	N/A
Immokalee					
4/20 – 5/27/15	54.50	96.10	7.95	79	0.16
Okeechobee					
4/20 – 5/27/15	54.73	95.34	7.13	81	0.15

“Remember, when in doubt - scout.”

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Unsettled weather over the past few weeks has brought much needed rain to a number of areas with a number of places reporting from 2 – 6 inches or more. With the exception of extreme south Florida, most areas are drought free. High temps brought the South Florida vegetable deal to a rather rapid finish as the harvest progressed north.

The National Weather Service forecast indicates the trough of low pressure will continue to move east this weekend into the Mid-Atlantic States keeping an easterly wind flow over South Florida this weekend and allowing for more tropical moisture to work into the area increasing the chance of showers and thunderstorms over the interior and west coast metro areas.

Long range models showing a possible upper level low developing over the eastern Gulf of Mexico early to middle of next week. if this happens, deeper tropical moisture will be able to work northward from the Caribbean sea and into south Florida by middle of next week bringing an increase chance of rain should this occur.

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 overlooked 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, (1 so far in 2015) 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.

Lightning Risk Reduction When a Safe Location is Nearby

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 lightning.
- 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/>

2015 RAINY SEASON OUTLOOK - "Near to Slightly Below Normal" Rainy Season Anticipated

The 2015 rainy season is underway across south Florida, with a designated start date of May 10th. Information on the methodology used to determine the start of the rainy season is included below.

Despite an earlier than normal start to the rainy season, the outlook for this rainy season is for near to slightly-below normal rainfall across the area. May and June will likely have above-normal rainfall, with a possible drier-than-normal period commencing sometime in July and continue through much of the remainder of the wet season.

Outlook Explanation

The outlook of near to slightly below normal precipitation is based on a combination of several factors: analogs (past summers with similar atmospheric conditions to what is expected this summer), long-range models, the official NOAA Climate Prediction Center outlooks and trends (observed conditions over the past 10-20 years).

One of the primary influences to this rainy season is the presence of El Niño through the summer and fall. El Niño influences large-scale weather patterns which affect summer rainfall across South Florida. Although it's important to note that not every El Niño event has the same effects on Florida's weather, the tendency from past El Niño events is for near to slightly-below normal summer rainfall across southern Florida. Current long-range models and the CPC outlook generally support this tendency. During many El Niño summers, southern Florida sits on the northern edge of the climatologically-favored Caribbean dry summer regime, with some years extending more into Florida and other years remaining south of the state. The most likely range for this wet season's rainfall compared to normal is from 75% to 95% of normal, with a few areas likely to see higher or lower ratios.

Nevertheless, a "near to slightly below normal" wet season should still lead to a decent amount of rainfall across the area. Average wet season rainfall ranges anywhere from 35 to 45 inches, highest along interior suburbs of east and west coasts and lowest over coastal areas along both the Atlantic and Gulf coasts. South Florida's daily summer rainfall tends to be highly variable in nature, with nearby areas potentially observing large differences in rainfall amounts. Normally it takes at least one or two organized, large-scale weather systems (such as tropical waves, disturbances or tropical storms/hurricanes) to provide high rainfall amounts over a large area.

The rainy season usually has three phases:

- Late May through early July ("stormiest" part of the season).
- Early July through mid-August (hotter with dry periods).
- Late August through mid-October (higher rainfall variability due to potential tropical systems and early-fall cold fronts).

This wet season's outlook of wetter than normal conditions in late May and June could mean a more active severe weather period, including the threat of damaging thunderstorm winds, hail, flooding and even tornadoes. The potential drying trend in July and August matches up fairly well with the typical summer pattern of hotter and drier mid to late-summer weather across south Florida.

The temperature outlook for the wet season is for the likelihood of above normal temperatures, generally within 1 to 2 degrees F above normal. These above normal temperatures may be most noticeable in the overnight and early morning low temperatures due to the expectation of warmer than normal waters off the east coast of Florida.

Weather Hazards and Potential Impacts

Weather hazards associated with the rainy season include lightning, damaging thunderstorm winds, flooding, hail and even tornadoes. May to August is the period when most of South Florida's severe weather (flooding, large hail, tornadoes and strong winds) takes place (Figure 3). Also, rip currents are common due to the persistent onshore winds.

These hazards do not include impacts from any tropical systems that can affect South Florida, particularly during the peak months of August, September and October.

Please visit <http://weather.gov/southflorida> for daily forecasts and severe weather warnings and outlooks.

Definition and Significance of the South Florida Rainy Season

The South Florida rainy season is defined as the time of year when most of the yearly rainfall occurs. The median start date of the rainy season is May 20th and the median end date is October 17th. During this nearly five-month period, South Florida receives about 70% of the rainfall for the entire year. The start date of the rainy season varies from year to year and is largely determined by the onset and almost daily persistence of daily showers and thunderstorms over the Florida peninsula, as well as night and morning showers and thunderstorms over the local Atlantic and Gulf waters.

This is typically accompanied by an increase in humidity reflected by higher surface dew points (water-to-air saturation temperature associated with relative humidity); with persistent dew point values above 70F a general indicator. Daily temperatures exhibit very little variation, with low temperatures in the 70s to around 80 and high temperatures from the upper 80s to the mid-90s.

Some years, the rainy season begins abruptly; triggered by a large-scale weather system such as low pressure systems near or over Florida. Other years, the onset can be quite subtle and dependent on gradual wind shifts and weather pattern changes which can take weeks to develop. Therefore, the beginning of the rainy season is usually a transition period rather than a sharp onset date. For example, this year's beginning of the rainy season (May 10th), followed an unusually hot and wet period in mid to late April which can be referred to as a "quasi-rainy-season" due to its resemblance to typical rainy season conditions.

However, this period was followed by a frontal passage on May 1 which initiated a drying and cooling trend which persisted through the first week of May. An increase in moisture and temperatures followed, which led to the start of the rainy season on May 10th when the summer Atlantic subtropical high became the main weather driver across south Florida.

See entire report at <http://www.srh.noaa.gov/images/mfl/news/RainySeasonOutlookSummary2015.pdf>

NOAA: Below-normal Atlantic Hurricane Season is likely this year

NOAA's Climate Prediction Center says the 2015 Atlantic hurricane season will likely be below-normal, but that's no reason to believe coastal areas will have it easy.

For the hurricane season, which officially runs from June 1 - November 30, NOAA is predicting a 70 percent likelihood of 6 to 11 named storms (winds of 39 mph or higher), of which 3 to 6 could become hurricanes (winds of 74 mph or higher), including zero to 2 major hurricanes (Category 3, 4 or 5; winds of 111 mph or higher). While a below-normal season is likely (70 percent), there is also a 20 percent chance of a near-normal season, and a 10 percent chance of an above-normal season.

"A below-normal season doesn't mean we're off the hook. As we've seen before, below-normal seasons can still produce catastrophic impacts to communities," said NOAA Administrator Kathryn Sullivan, Ph.D., referring to

the 1992 season in which only seven named storms formed, yet the first was Andrew – a Category 5 Major Hurricane that devastated South Florida.

“The main factor expected to suppress the hurricane season this year is El Niño, which is already affecting wind and pressure patterns, and is forecast to last through the hurricane season,” said Gerry Bell, Ph.D., lead seasonal hurricane forecaster with NOAA’s Climate Prediction Center. “El Niño may also intensify as the season progresses, and is expected to have its greatest influence during the peak months of the season. We also expect sea surface temperatures in the tropical Atlantic to be close to normal, whereas warmer waters would have supported storm development.”

"It only takes one hurricane or tropical storm making landfall in your community to significantly disrupt your life," said FEMA Deputy Administrator Joseph Nimmich. "Everyone should take action now to prepare themselves and their families for hurricanes and powerful storms. Develop a family communications plan, build an emergency supply kit for your home, and take time to learn evacuation routes for your area. Knowing what to do ahead of time can literally save your life and help you bounce back stronger and faster should disaster strike in your area."

NOAA will issue an updated outlook for the Atlantic hurricane season in early August, just prior to the historical peak of the season.

See more at <http://www.noaanews.noaa.gov/stories2015/20150527-noaa-hurricane-outlook-below-normal-atlantic-hurricane-season-is-likely-this-year.html>

Up Coming Meetings

Restricted-Use Pesticide Review Session

June 1, 2015

Core – Regulations & Pesticide	8 AM – 10 AM
Basics Fertilizer Review	10:15 AM – 12:15 PM

Clayton E. Hutcheson Agricultural Service Center 559 N Military Trail, West Palm Beach, FL 33415

To register, send email to fdowdle@ufl.edu or call 561-996-1655. We encourage you to take exams on our computers. This is the fastest way to receive your test score and your license. To apply for examinations go to: <https://pesticideexam.ifas.ufl.edu/> and follow the ‘Apply for examination’ link. You will receive a personal identification number (PIN) from FDACS in an email, click on the link in that email, then fill in your information, and schedule your exam. Call our office at 561-996-1655 if you have any questions.

Restricted-Use Pesticide Review Session

June 2, 2015

Core – Application and the Effects	2 Core CEUs	8:00 AM – 10:00 AM
Private Applicator Review	2 Pvt. and 2 Ag Row CEUs	10:00 AM – 12:00 PM
Exams		12:15 PM

UF/IFAS - Palm Beach County Extension - 2976 State Road 15 Belle Glade, FL 33430

To register, send email to fdowdle@ufl.edu or call 561-996-1655. We encourage you to take exams on our computers. This is the fastest way to receive your test score and your license. To apply for examinations go to: <https://pesticideexam.ifas.ufl.edu/> and follow the ‘Apply for examination’ link. You will receive a personal identification number (PIN) from FDACS in an email, click on the link in that email, then fill in your information, and schedule your exam. Call our office at 561-996-1655 if you have any questions.

June 10, 2015

Aquatic Weed Management Pesticide License Exam Prep Classes

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

Classes are \$10 each. For more information or to register, contact Debra at 863-674-4092 or dcabrera@ufl.edu

June 17, 2015

31st Annual UF/IFAS Florida Seed Association – Seed Seminar

UF/IFAS Southwest Florida Research and Education Center
2685 SR 29N
Immokalee, FL 34142

UF/IFAS Florida Seed Association – Seed Seminar

Agenda

8:30 Welcome – Gene McAvoy: Moderator

8:30 – 9:00 - Monica Ozores-Hampton and Pamela Roberts, UF/IFAS SWFREC - Late blight resistant tomato varieties in South Florida: Round, Roma, Campari and cherry tomatoes.

9:00 – 9:30 - Joe Noling, UF/IFAS CREC - New Insights Regarding the Depth Distribution and Needs for Considering Vertical Management Zones for Nematode Control.

9:30 – 10:00 - Gary Vallad, UF/IFAS GCREC - Life after methyl bromide: Supplemental fumigation strategies for managing soilborne pathogens.

10:00 – 10:30 - Break

10:30 – 11:00 - H. Brett Highland, Field Development Manager Eastern US, Certis USA - The Use of Biopesticides in Vegetable Pest Management

11:00 – 11:30 - Scott Adkins, USDA ARS - News from the world of vegetable viruses

11:30 – 12:00 - Shouan Zhang, UF/IFAS TREC - Evaluation of tomato cultivars for resistance against Tomato chlorotic spot virus (TCSV), an emerging threat to tomato production in Florida and the United States.

12:00 – 1:00 – Lunch – Courtesy of Seminis

1:00 – 1:30 - Bryant Long, PhD, Vice President Product Development, Abbott & Cobb, Inc. - Historic Transition of Sweet Corn Related Genetics

1:30 – 2:00 - Robert Beiriger, UF/IFAS EREC – Traditional breeding methods for incorporating natural insect resistance in sweet corn

2:00 – 2:30 – Mathews Paret, UF/IFAS NFREC - Newly emerging pathogen on watermelon and other cucurbits belonging to Pseudomonas syringae group in the U.S

2:30 – 3:00 - Steve Hildebrandt, Certification Specialist, FDACS Division of Plant Industry – Seed Export and Import Regulations and Considerations

3:00 – 3:30 - Break

3:30 – 4:00 - Joe Sutton, FDACS – Update on the FDACS Bureau of Agricultural Environmental Laboratories – Seed Lab

Earn up to 6 CEU's. Registration is \$20 per person.

For more information, contact Arlen Wood - AWood92014@aol.com

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/>

Need a CEU Class? This search tool will allow you to search for available CEU classes by date, by location and by subject. <http://ceupublicsearch.freshfromflorida.com/AvailableClassSearch.asp>

Note: State and local budgets cuts are threatening to further reduce our funding – if you are receiving currently receiving the hotline by mail and would like to switch over to electronic delivery – just drop me an email. It is much quicker and you will get the hotline within minutes of my completing it and help conserve dwindling resources at the same time.

Thanks to those that have already made the switch and many thanks to all our sponsors who support the hotline and make it possible.

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!

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