



UNIVERSITY OF
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E X T E N S I O N

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SOUTH FLORIDA VEGETABLE PEST AND DISEASE HOTLINE

April 21, 2006

Hot dry weather has persisted across most South Florida growing areas over the past few weeks.

Temperatures have begun to creep up to seasonally expected norms with daytime temperatures in most areas regularly reaching the mid 80's to low nineties in some interior locations. Nighttime temperatures have been mild in the mid 50's, and 60's.

Conditions have been very dry in most areas with daily pan evaporation running 0.10 – 0.15 inches or higher. Warmer, drier weather conditions in most areas have prompted growers to increase irrigation frequency and have lead to reports of plant stress in some planting and increased insect pressure. East Coast production areas all report receiving from 1 – 2+ inches of much needed rain while West Coast locations stayed dry and received minimal precipitation for the period. A number of areas have reported nearly daily moderate to heavy morning fog over the past week, which has helped keep some diseases active.

Watermelon harvest has commenced and is increasing across South Florida. Other crops coming to market include blueberries, cabbage, celery, cucumbers, eggplant, endive, escarole, lettuce, peppers, radishes, snap beans, sweet corn, squash, strawberries, tomatoes and variety of specialty items. Quality and yields are mostly good but prices are weak on some items.

FAWN Weather Summary

Date	Air Temp °F		Rainfall (Inches)	Hours Below Certain Temperature (hours)							
	Min	Max		40°F	45°F	50°F	55°F	60°F	65°F	70°F	75°F
Balm											
4/1 – 4/20//06	48.5	90.2	0.06	0.0	0.0	1.8	19.1	36.5	88.9	91.9	51.8
Ft Lauderdale											
4/1 – 4/20//06	61.5	91.4	1.33	0.0	0.0	0.0	0.0	0.0	31.7	47.6	72.4
Fort Pierce											
4/1 – 4/20//06	52.2	88.3	1.46	0.0	0.0	0.0	3.2	41.5	3.6	37.8	32.7
Homestead											
4/1 – 4/20//06	54.4	89.2	2.09	0.0	0.0	0.0	1.4	27.0	42.4	96.4	65.2
Immokalee											
4/1 – 4/20//06	49.5	92.8	0.16	0.0	0.0	0.6	28.6	2.8	81.1	111.2	51.2

The short-term forecast from the National Weather Service in Miami indicates an upper ridge currently over the peninsula with surface ridge over S Central Florida, which will keep weather conditions mostly warm and dry. A light southeast surface flow will result in the development of sea breezes developing along both coasts. The only inhibiting parameter is lack of deep layer moisture but there will be enough instability for convection and a chance of scattered isolated showers over the interior portions through next week

The next weather maker will be a possible cold front sagging into Central Florida late Thursday but at this point it remains uncertain whether or not it makes it this far south. For additional information, visit the National Weather Service in Miami website at <http://www.srh.noaa.gov/mfl/newpage/index.html>

Insects

Whiteflies

In Homestead whitefly numbers have reached high levels in a numbers of places as crops near completion.

Respondents in Palm Beach indicate that whiteflies are building in some locations and remain low in others. Silverleaf has been reported in some squash plantings.

Around Southwest Florida, growers and scouts indicate that whitefly pressure is starting to build across the area on a variety of crops including tomato and watermelon but remains below average for this point in the season. Reports indicate that there are a number of fields around where reproduction is occurring and nymphs are beginning to build up.

Reports from the Manatee area indicate that high whitefly numbers pressure is still being noted in many areas with as many as 40 adults per plant being seen in some locations. Growers are now beginning to see immatures in the field so IGRs use is recommended as threshold levels are reached.

Initial reports of finds of the Q-biotype whitefly in a tomato field in the Manatee area which were circulated a few weeks ago have proven to be erroneous and a result of mixed up samples in the diagnostic lab.

I you feel you are having problems controlling whitefly, you may want to submit samples for Q testing. A minimum of 20 adults should be sampled from different plants. It would probably be easiest to try and carefully collect leaflets with whitefly adults and put them into a baggie. You can then put them in the freezer to slow them down and then transfer them to vials of 95% ethanol with a q-tip or artist's paintbrush. Do not crush the whitefly. Be sure to label the vial, but use a code so that you will know where the sample came from but the identity of the farm will not be known. You can request vials from Dr. McKenzie Vials should be kept out of heat and carefully packaged and sent via priority mail or overnight to the following address:

Dr. Cindy L. McKenzie
Subtropical Insects Research
2001 South Rock Road
Ft. Pierce, FL 34945
Phone: 772-462-5917
Fax: 772-462-5986
Email: cmckenzie@ushrl.ars.usda.gov

For additional information on biology and control information, a good source is Dr. Lance Osborne's website at <http://www.mrec.ifas.ufl.edu/LSO/bemisia/bemisia.htm>. It includes a number of documents

that you can click on for information from Florida and other states. Please contact us if you have questions we have not addressed.

There are several old fields around and many people have starting some crop destruction. Growers are reminded to maintain vigilance and keep up whitefly control measures to avoid a buildup of whiteflies and prevent the movement of infected whiteflies carrying TYLCV into younger plantings.

In older plantings growers should strive to maintain control of adults with oils, soaps and materials OTHER THAN nicotinoids. **A strong emphasis should be placed on PROMPT destruction, block by block, as harvest is completed, including oil with herbicide for quick burndown and control of existing whiteflies in those blocks, thus minimizing movement out to other blocks.**

Pinworms

Reports from Southwest Florida indicate that tomato pinworms are widespread at low levels with some locations starting to reach moderate levels.

Reports from the Palmetto/Ruskin area indicate that pinworms have started to show up in a few places on tomatoes.

Growers and scouts on the East Coast report that pinworms are widely present in tomato and eggplant in a number of locations. Pressure is severe in some locations especially in fields adjacent to abandoned crops.

Pinworms can be controlled with mating disruption techniques and pesticides. Mating disruption is most successful where fields are isolated or whole areas are treated.

Pheromone-based mating disruptants, such as No Mate TPW spirals or Checkmate TPW dispensers provide a very effective means of combating pinworm. These should be applied according to label instructions with good distribution throughout field.

If using insecticides, treatment must begin when populations reach economic thresholds. The UF/IFAS Florida Tomato Scouting Guide Tomato recommends season-long action thresholds of 5 adults/trap/night to initiate the application of mating disruptants and an action threshold of 0.7 larva per plant for the initiation of control measures.

Once begun, treatments may be required until harvest. If nearby infested tomato fields are abandoned, adults can immigrate into later planted fields in large numbers. If scouting detects a significant movement, consider border treatments.

Chemical controls such as Agri-Mek and Spintor have the advantage of being effective against pinworms and leafminers as well as the additional benefit of being soft on beneficials. Lannate (Methomyl) and a variety of synthetic pyrethroids are also effective materials for the control of pinworm. Development of resistance to Lannate has been documented in pinworms in some parts of the country and excessive use of these broad-spectrum insecticides may result in outbreaks of leafminers and mites if they are present.

Organically acceptable biological and cultural control methods include the use of mating disruptants, field sanitation, and pyrethrin. Sanitation is important as the season progresses and crops are terminated. Parasites can also be important in aiding in pinworm control.

Worms

Reports from the Palmetto Ruskin area indicate heavy armyworm pressure in some pepper plantings.

Reports from the Glades indicate that fall armyworm pressure remains high with up to 15% infestation in the silks in some fields despite being sprayed every two days with 0.5 lb Lannate.

Fall armyworm trap data from UF/IFAS EREC indicates that trap counts are down from the 768 count reported on 3/30/06. Fall armyworm counts on 4/13 were still high at 118. In addition beet armyworm counts were up significantly increasing to 132 from 22 the week before.

Around Immokalee, worm pressure is up with several new hatches of beet and southern armyworms being reported along with a few loopers and fall armyworms.

Respondents on the east coast production areas indicate that worms are mostly present in low numbers. A few problems have been reported in pepper with moderate pressure from mostly beet and southern armyworms in some locations

Silkfly

Reports from the Glades indicates that silk fly pressure not as bad as it was a few weeks ago, probably due to Lorsban and Baythroid suppression sprays, but pressure remains steady. Some growers are using Mustang in a tank mix with other insecticides, but most growers prefer stand-alone products. While effective reports indicate that not much Warrior being applied, due to cost. The other pyrethroids are about \$2.00/A cheaper to apply, so growers are following the money.

Thrips

Reports from the East Coast indicate that thrips pressure is up in a number of places especially in pepper. In several locations, *Thrips palmi* are present and increasing in numbers affecting fruit quality in some instances. Due to low pepper prices some growers have backed off on spray applications.

Respondents in the Plant City area indicate that thrips are present moderate to high levels in a range of crops including cucumbers, peppers and tomato.

Around Southwest Florida thrips have not gone away but have slowed down in most places. *Thrips palmi* remain very low.

For more information and photos of thrips, check out the Glades Crop Care Thrips KnowledgeBase at <http://www.gladescropcare.com/pg1.html>.

Aphids

Growers and scouts around Plant City report problems with aphids on peppers and cucumbers. Pressure is moderate to high depending on the location.

Around Immokalee reports indicate aphids remain present at most low levels in tomato. Some increase has been noted in peppers and growers are spraying to keep them in check. Aphids are also present in watermelons.

Spider mites

Growers and scouts in Palm Beach report problems with a few spider mites in eggplant and cucurbits.

Around Immokalee, respondents indicate that spider mites are present on eggplant, tomato and melons and some fields have are being treated to control infestations.

Broadmites

Growers and scouts in Palm Beach indicate that broadmites are present here and there, mostly in pepper. Around Southwest Florida broadmites are making a serious comeback in a number of pepper fields.

Pepper Weevils

Around Southwest Florida, pepper weevils are widely present and are populations are starting to build in a number of older field reaching moderate levels.

Reports from the East Coast indicate that pepper weevils are present in a few scattered locations.

Assail (Cerexagri) was inadvertently omitted under chemicals available for the control of pepper weevil in the last issue of the hotline. Assail 30 SG is labeled for control of pepper weevil under the fruiting vegetable section. Rate is 4 oz per acre with a maximum of 4 applications per season. There are no plant back restrictions.

Leafminer

Growers and scouts around Immokalee indicate that leafminer pressure remains low.

On the East Coast reports indicate that leafminers are still around in mostly low numbers.

Diseases

Late Blight

Late blight is still widely present on tomatoes around Southwest Florida. Late blight has not been a real significant problem this spring as incidence and severity has been mostly low but growers continue to report a few new leaf lesions at different locations.

Bacterial Leaf Spot

Growers and scouts on the East Coast indicate that bacterial spot is present in a number of places on peppers and tomatoes and continues to spread slowly aided by foggy mornings and some recent showers.

Growers and scouts in the Immokalee area indicate that bacterial spot won't seem to stop in some pepper plantings. Dr Ken Pernezny reports that all the bacteria strains collected recently from a trial outside Immokalee proved to be race 4.

Respondents around Manatee County indicate that bacteria remain mostly low.

Around Homestead reports indicate that bacterial spot is present at low to moderate levels depending on the location.

Tomato Yellow Leaf Curl Virus

Reports from Manatee County and surrounding areas indicate that growers continue to battle high levels of tomato yellow leaf curl virus in some locations where crops were held over longer than usual to take advantage of market conditions. Incidence as high as 80% has been reported in places.

Reports from the East Coast indicate that TYLCV is increasing in older fields but remains low overall.

Around Homestead, TYLCV has increased to moderate to high levels in some tomato plantings as crops near completion.

Around Southwest Florida of tomato yellow leaf curl virus continues to increase slowly with some places reaching 6–8 % infection. A few hotspots with even higher disease incidence have been noted.

Powdery mildew

Respondents on the East Coast are reporting significant problems with powdery mildew on cucumbers and squash and indicate that incidence and occurrence is moderate to high in a number of places. Powdery mildew is also widely present eggplant, peppers and tomato.

Growers and scouts around Southwest Florida report that powdery mildew is high in some squash and is also affecting watermelons. Low levels of powdery mildew are also being reported on pepper in a few locations around Southwest Florida.

Reports from the Belle Glade area indicate that powdery mildew continues to be the biggest disease problem in beans this season. Respondents note that conditions are so dry that you can go into a field one day and see 1-2 infected plants, then come back two days later to see 20-25% of the field infected.

Sulfur is a good candidate for control. Reports indicate that Microflo Sulfur 6L has given excellent control. Growers should pay attention to weather as when temperatures rise phytotoxicity may occur. In that case, use a different fungicide. Experience has shown the strobilurins and sterol inhibitors are more effective against powdery than the broad-spectrum protectants.

Growers should be sure to check labels for rates when applying sulfur. Microflo Sulfur 6L is labeled at a 6 pint rate. The Helena Sulfur 6L label only allows a 5-½ pint rate.

Downy Mildew

Downy mildew is widely present on cucumber and squash in a number of locations around Palm Beach. Incidence and severity is moderate to high in some locations especially on cucumbers with some growers indicating it is as bad as they have ever seen.

Respondents around Immokalee indicate that downy mildew is present on cucumbers, cantaloupe and squash on a number of farms around Immokalee. Downy mildew is also beginning to show up in some watermelons around Immokalee.

Growers and scouts should look at the underside of the leaves to help make the right diagnosis. Angular leaf spot will have some water-soaking at the edge of the lesions. The downy mildew lesions look uniformly dry. In addition, downy mildew infections typically start away from leaf margins toward the center of the leaf where as some diseases such as gummy stem blight normally begin from the leaf margin.

Early Blight

Reports from growers around South Florida indicate that early blight is widely present at low levels in tomato at a number of locations.

Common rust

Reports from the Glades indicate that common rust, caused by *Puccinia sorghi*, has reached high levels in corn. Common rust typically likes to infect young, expanding tissues and plants For this reason, during the

spring corn season in Florida, rust is usually the disease of primary concern during the early part of the season, and NCLB is the disease of primary concern later in the season. Both can be controlled with timely applications of strobilurin or sterol inhibitor fungicides. These should be tank-mixed with an EBDC fungicide and also alternated as a strategy for slowing the development of fungicide resistant strains of the pathogens. Scouts indicate incidence remains lower than normal for this time of year.

Reports indicate that Headline alternated with Tilt is providing good control. Not much Quadris going out, due to the nearly \$100.00 differential between the cost of a gallon of Headline and Quadris.

Northern corn leaf blight

Northern corn leaf blight, caused by *Exserohilum turcicum*, is also starting to heat up in the Glades. While common rust typically likes to infect young, expanding tissues and plants, northern corn leaf blight usually starts with older, fully expanded foliage. For this reason, during the spring corn season in Florida, rust is usually the disease of primary concern during the early part of the season, and NCLB is the disease of primary concern later in the season. Both can be controlled with timely applications of strobilurin or sterol inhibitor fungicides. These should be tank-mixed with an EBDC fungicide and also alternated as a strategy for slowing the development of fungicide resistant strains of the pathogens. Scouts indicate incidence remains lower than normal for this time of year.

Fusarium Crown Rot

Around Southwest Florida fusarium crown rot continues to wilt down plants in some locations especially romas and susceptible round varieties like Fl 47.

Fusarium

Fusarium has been diagnosed on watermelon in several locations around southwest Florida.

Fusarium wilt of watermelon usually occurs without plant yellowing; usually the entire plant wilts quickly becomes brown and dies. Occasionally, wilting of vines on one side of the plant occurs, particularly on older plants. Slicing the tap root lengthwise into two equal halves will reveal two streaks of vascular tissue that are dark yellow-brown, orange brown or reddish brown. In Florida, Fusarium wilt is likely to occur prior to fruit set.

Phytophthora

Around Immokalee, reports indicate that phytophthora is still causing scattered problems in some eggplant and pepper fields.

Rust

In the Glades, bean rust has just started to show up in a few places primarily in crops nearing harvest .

Anthracnose

Reports from Southwest Florida indicate that anthracnose is beginning to show up on older pepper in scattered locations.

Anthracnose is also present on pepper at mostly low levels on the East Coast.

Resistance is available in some varieties of chili peppers but not in bell peppers. For bell pepper production, choose cultivars that bear fruit with a shorter ripening period, which may allow the fruit to escape infection by the fungus. Wounds in fruit from insects or other means should be reduced to the extent possible because wounds provide entry points for *Colletotrichum* spp. and other pathogens like bacteria that cause soft rot. The disease can be controlled under normal weather conditions with a reasonable spray program. At the end of the season, remove infected plant debris from the field or deep plow to completely cover crop diseases.

Gummy stem blight

Gummy stem blight is present on watermelon and cantaloupe in a number of locations around SW Florida. Some early infections are now causing wilting and death of scattered plants in some fields.

News You Can Use

Immigration Reform

As most of you know, no resolution of the immigration reform issue was reached in either the House or Senate before the Easter recess with both sides badly divided on a possible solution. One of the most ag-friendly proposals put forth to date is the Martinez/Hagel Compromise amendment being promoted by Florida's Senator Martinez.

The Martinez/Hagel Compromise amendment protects and includes all of the provisions included in the Judiciary Committee's bill in regards to agricultural labor. Ag labor has always been viewed as a special case and the Martinez/Hagel Compromise continues to recognize the differences and challenges that labor-intensive agriculture industries face.

The compromise amendment includes the same reforms of the 50-year-old H2-A agriculture worker program to make it more user friendly and affordable for all growers. The current H2-A program is badly outdated and only encompasses about 2 to 3 percent of the entire agriculture labor force.

A one-time opportunity is provided to trained and experienced agriculture workers who lack proper immigration status to undergo a background check, pay a substantial fine, required commitment to stay in the agriculture workforce for at least 3 years to eventually earn the right to apply for legalized status. In addition, the prevailing wage employers must pay agriculture workers will be frozen for the next three years to allow employers to adjust to the new program. These are all substantial improvements over the current out-dated and badly broken agricultural worker program.

To learn more go to <http://martinez.senate.gov/>

Legislators are hearing from both sides on this controversial issue so it is important that you contact your elected officials and let them know how important this issue is to you.

Contact your Senators at <http://www.senate.gov> and your Congressional Representatives at <http://www.house.gov/writerep/> and let them know that you'd like them to support comprehensive immigration reform and include the agriculture-specific language. Note that phone calls and faxed messages are the most effective means of communication. Email can be effective but should be personalized to avoid appearing as a computer generated mass mailing. Avoid letters as current security concerns can cause these to take weeks before they are delivered due to mandatory inspection..

Glades Crop CARE Earns IPM Achievement Award

Over 650 People gathered in St Louis on April 4- 6th, 2006 to share innovations and information at the 5th National IPM Symposium. Sessions addressed state of the art Integrated Pest Management Strategies and technologies that will successfully manage pest problems in agricultural, recreational, natural, and community setting.

A key event included presentation of the first ever National IPM Achievement Awards. National IPM Achievement Award winners were chosen from a pool of 25 nominees from 4 different countries. The five national award winners were Glades Crop Care Inc, Jupiter, Florida, the Hawaii Area-Wide Fruit Fly IPM Program, City and County of San Francisco, California Integrated Pest Management Program, Dr Marc Lame, Monroe IPM School Model, Bloomington Indiana, and the Wisconsin Potato and Vegetable Growers Association.

Glades Crop Care has provided scouting and consulting services for over 30 years in the Southeastern US and the Caribbean Basin. In addition to scouting, Glades has conducted independent and collaborative research in all areas of pest management on some of the most intensive and quality conscious crops on the planet. Glades received the award because they are always innovative while building new partnerships in the private and government sectors. Glades Crop Care was recognized as a leader in IPM from their implementation of standard IPM practices to developing novel new solutions. Glades has been a leader in integrating management practices to limit high-risk pesticides through the reliance on biological intensive IPM. **Way to go Glades!**

TYLCV/SWF Management Update

In response to a severe outbreak of *Tomato yellow leaf curl virus* (TYLCV) in the Manatee County area in spring 2006, an informal meeting was held on March 9 with local growers and Drs. Dave Schuster and Jane Polston to talk about the situation, answer questions, get feedback from growers, and try to provide the most up-to-date information to help growers make the most informed decisions possible as the season progresses and for next season. The major points of discussion and questions/answers are provided below for those who were not able to attend.

The major situation that got us into this “fix” was the fact that, while we started planting in January, we were still harvesting in February in some fields. Due to the delay in the fall crop in Immokalee as a result of hurricane Wilma, plus damage in this area, we continued picking on a good market. It’s hard to argue with the market, even though most growers knew the possible consequences. In many cases, it is not the grower’s decision to destroy a crop, but the owner’s and their decision is often motivated more by economics. To make the situation here worse, we had a freeze that killed many of the weed hosts in the woods and field perimeters, but did not kill the tomatoes or the silverleaf whitefly (SWF). When the temperatures warmed quickly that next week, SWF migrated quickly from older plantings to the young succulent tomato plants and within about 10 days it became obvious that most of those whiteflies were carrying TYLCV. Even with old fall fields eliminated, there is still a problem with double crop situations where tomatoes were the first crop and were not completely killed before the cucurbit double crop was planted. Regrowth from these old tomato plants is often infected with TYLCV and thus serves as a source of virus, which can be picked up by SWF and carried to neighboring new tomato fields. Because the second crop is often in place when this is discovered, the only option may be to hand pull the old tomato plants.

Are we seeing an increase in adulticide resistance? This is very possible but not confirmed. Control with the pyrethroids and endosulfan certainly is not as good as it was 15 years ago. Also, tolerance to endosulfan was indicated in laboratory trials as long ago as 15 years. No support has been provided to continue evaluating

adulticides for resistance. A proposal has been submitted to EPA to expand resistance monitoring to insecticides other than the nicotinoids.

Are we seeing an increase in resistance to the nicotinoids? To test for resistance, large populations of SWF nymphs are needed and until after the freeze, SWF numbers were not that high. Last spring, SWF were as susceptible to the nicotinoids as they were in 2000. Dr. Schuster is still interested in testing for resistance if he can collect enough SWF. He is also beginning baseline monitoring for Oberon and for this he needs smaller numbers of adults, preferably from fields not yet treated with Oberon. Please give me a call if you have populations that can be tested.

What about the efficacy of Admire Pro versus Admire 2F? In studies conducted by Dr. Schuster in the spring of 2005, with a late influx of SWF, he still saw differences between the control plots and those treated with both Admire and Platinum, thus it would appear that they are still working. There was no difference between the two Admire formulations. The fact that at the time of this meeting we were seeing virtually no immatures in the field also indicates the nicotinoids are still working. The limitation is that they do not prevent primary infection.

Would cool temperatures (soil and air) slow uptake of soil applied nicotinoids? Uptake might be somewhat slower but in trials there has not been a sufficient depression of uptake to affect nymph control.

Are there any new products coming along? Not really. DuPont has a new product that has systemic activity similar to the nicotinoids, but is of a different chemistry. Growers may also want to consider the use of Oberon for adults. While most growers are trying to save Oberon because it is good on nymphs, at the field rate it also kills adults, just very slowly. In work by Dr. Schuster, 3 days after treatment, 50% of SWF were dead. When those remaining were placed on untreated plants, an additional 30% kill was achieved for a total of 80%. Again, it is just very slow. We still have Courier and Knack for nymphs, so Oberon may be a tool to consider for adult control in problem fields. Also, be sure to pay attention to the maximum rates and/or applications per season. For example, Fulfill has both a maximum rate per crop (11 oz.) and a maximum number of applications (4). Both of these requirements need to be followed. It was pointed out that Fulfill is both translaminar and translocated but it should be noted that the amount moving into the foliage that was not directly treated will be lower and control may not be as good as on leaves receiving direct spray deposit; hence the emphasis on staying as close as possible to the 7 day spray interval. It was also noted that Fulfill should not be applied with any material that will make it stay on the leaf. We want it to penetrate that leaf; thus, a penetrant is recommended.

What about Prevam and other oil products? When sprayed every week by itself, Prevam reduced nymphs significantly in the fall, but not in the spring. Why the difference? It could have been that in fall, temperatures are cooling and days are getting shorter, thus life cycles are lengthening and SWF pressure is less. This same situation may affect efficacy of other materials as well. With any oil, coverage is extremely critical. Success with oil has probably been better with transplants just out of the house or with young plants where coverage is easier. Growers may need to increase the volume of spray solution in order to achieve better coverage. In field trials, oil gave as much residual control as other, more toxic materials, although it was not highly residual. Work done in Immokalee by Dr. Phil Stansly indicated that weekly applications of oil at 0.5% have not caused significant phytotoxicity, have provided significant SWF control and have delayed onset of TYLCV. Phytotoxicity would be more of a problem under higher temperatures seen later in the spring season or in early fall. Soap is another option for adult control.

What about roguing? Should we rogue and when do we stop? If the virus is coming into the field from the outside, roguing will have no effect on reducing primary infections. Roguing is only going to prevent secondary spread within the field. If SWF adults are present on the plants being rogued, it is a good idea to spray those plants with an oil or an adulticide before roguing. The same is true for any field activity that is going to disturb the plant (tying, pruning, etc.). In terms of what to do with the rogued plant, if there are

immatures on the rogued plants, remove the plants from the field. If there are no immatures on the plants, this may not as critical and plants can be left in the alleyways or on the plastic to desiccate before removal.

Is TYLCV mechanically transmitted? No. The only means of transmission is by the SWF. TYLCV is a very unstable virus and once exposed to air is broken down quickly. Even the DNA that makes up the virus breaks down quickly. There has been some recent discussion about the ability to spread this virus via pruning or other mechanical means. This is not a virus that can be spread this way, unlike some viruses such as *Tobacco mosaic virus* or *Potato virus X*. Dr. Polston has tried to transmit TYLCV in the lab under ideal conditions and has not been successful. As she pointed out at the meeting, if it were mechanically transmitted it would make her research much easier to conduct.

Many of the plants that were pruned to remove freeze damage showed symptoms of TYLCV after growth resumed. This was not the result of mechanical inoculation. This is probably the result of a combination of several things: 1) whiteflies were coming into the field and inoculating plants while the soil temperatures were cool and plants were not actively growing, 2) pruning plants that are infected but not showing symptoms causes rapid growth and the rapid expression of symptoms if TYLCV is present (this is a trick plant virologists use to speed up symptom expression in inoculated plants), and 3) frost damage to weeds caused whiteflies to migrate into fields in search of live plants possibly bringing TYLCV with them.

What about weed hosts for SWF or TYLCV? Primrose willow (*Ludwigia sp.*) is a very good source of SWF on field perimeters. Spraying perimeters is not encouraged because that's where the SWF predators are. We have not seen significant differences in virus in fields where perimeters were sprayed. We do not know the entire spectrum of weeds that serve as hosts for the virus. Additional work is needed here.

The take home message of this meeting was that at this time no one can point the finger at any single grower. Everyone played a role in this problem and the only thing that will solve it is prompt crop destruction so that we have a crop free period, especially in the winter. Does this really solve the problem?? Take a look at the situation in Immokalee. Thanks to Hurricane Wilma, they had a longer than normal crop free period and they have very little SWF or virus as this report is being written. The owners in the Manatee/Hillsborough area need to decide if they want to grow tomatoes year round with often only half a crop. If so, then the battle will continue uphill until the Q biotype appears and then all bets are off! Contributed by P. Gilreath, Manatee County Extension Service

Potato Cyst Nematode Detected In Idaho

The U.S. Department of Agriculture in coordination with the Idaho State Department of Agriculture (ISDA) announced a confirmed finding of potato cyst nematode in a soil sample collected from a potato processing facility in Idaho.

As a result of survey efforts, two cysts – the size of pinheads – were found in a soil sample sent for testing at the University of Idaho. The university identified the cysts as that of the potato cyst nematode. USDA's Agricultural Research Service confirmed the finding.

This is the first time the potato cyst nematode has been found in the United States. The university has conducted more than 9,000 soil sample tests since 2003. To date, no other cysts have been found in any other Idaho samples.

APHIS and ISDA scientists have isolated the origin of the cysts to two fields, totaling approximately 500 acres, on a farm in Idaho. APHIS is in the process of placing the two fields under quarantine and will conduct extensive sampling of the soil in cooperation with ISDA to determine whether additional potato cyst nematodes are present. APHIS and ISDA are also working to trace the origin of the seed that was planted in these fields.

Earlier this week, APHIS issued an Emergency Action Notice restricting the movement of soil and potatoes from isolated Idaho facilities, including the processing facility where the sample was collected. This step was taken as a precaution until the facilities can be thoroughly evaluated and we can confirm that they pose no risk of spreading potato cyst nematode.

The potato cyst nematode, *Globodera pallida*, is a major pest of potato crops in cool-temperate areas. It primarily affects plants within the potato family including tomatoes, eggplants, and some weeds. If left uncontrolled, nematodes can cause up to 80 percent yield loss.

The potato cyst nematode is widely distributed in many potato-growing regions throughout the world. In North America, the nematode is also known to be present on the island of Newfoundland, Canada. Potato cyst nematode infestations may be associated with patches of poor growth. Affected potato plants may exhibit yellowing, wilting or death of foliage – none of which has been observed in Idaho potato fields.

Early detection of pests minimizes agricultural production costs and enhances product quality and marketability. Crop rotation and the use of resistant potato cultivars and nematicides (fumigants or granular systemic compounds) is an effective and practical means of control. The common recommendation is seven years without potatoes. The integration of these methods can be used to keep the nematode population levels below economic thresholds.

Job Opportunity

Help Wanted - Progressive grower, packer, and shipper of specialty vegetables in Southwest Florida is seeking grower(s) and office personnel to assist in the management of a growing operation. Must be motivated, self directed and willing to learn and grow with the operation. Education and experience is a plus but the right individual will be considered for all positions. Contact Chuck Obern, C&B Farms at 239-250-0551 for more information.

Up Coming Meetings

Manatee County

June 14, 2006

General Standards/Private Applicator Ag License Training and Testing

Manatee County Extension Service
Palmetto, Florida

For more information, please contact Phyllis Gilreath at 941-722-4524 or prgilreath@ifas.ufl.edu. 2 CORE CEUs offered.

Miami Dade County

May 24, 2006

General Standards (CORE) Training

Dade County Extension Auditorium
18710 SW 288th Street
Homestead, Florida

For more information, please contact Mary Lamberts at 305-248-3311

Palm Beach County

May 1, 2006 **General Standards/CORE Test Review** 8 AM – 12 PM

Clayton E. Hutchinson Agricultural Center
559 N Military Trail
West Palm Beach

Contact 561-233-1700

June 7, 2006 **General Standards/CORE Test Review** 8 AM – 12 PAM
Private Applicator Test Review 1 PM – 3 PM

Belle Glade Extension Office
2976 State Road 15
Belle Glade

Contact 561-996-1655

Southwest Florida

May 3, 2006 **UF/IFAS SWFREC Vegetable Spring Field day** 10:00 AM

UF/IFAS SWFREC
Hwy 29 N
Immokalee, Florida

Contact Gene McAvoy at 863-674-4092 for details

May 5, 2006 **UF/IFAS Pepper Variety Trial Field Day** 10:00 AM

Collier Pacific Farm
CR 856
Immokalee, Florida

Contact Gene McAvoy at 863-674-4092 for details

May 31, 2006 **UF/IFAS Nitrogen BMP Project Update** 6:00 PM

UF/IFAS SWFREC
Hwy 29 N
Immokalee, Florida

Contact Gene McAvoy at 863-674-4092 for details

June 3, 2006 **UF/IFAS Farm Safety Day** 8:00 AM

UF/IFAS SWFREC
Hwy 29 N
Immokalee, Florida

Contact Dr Mongi Zekri at 863-674-4092 for details

Other Meetings

May 3, 2006

Organic Farming in Florida: Production Opportunities and Research Needs - Dr. Danielle Treadwell, UF/IFAS 9-11:30 am

Green Building Auditorium
UF/IFAS - Sarasota County Extension
6700 Clark Road
Sarasota, Florida

Contact Robert A. Kluson, Ph.D., Ag/Natural Resources Extension Agent, (941) 232-3090. RSVP requested.

May 21 - 23, 2006

18th International Pepper Conference
Palm Springs, California

Go to <http://www.internationalpepper.com/> for details

June 4 – 6, 2006

Florida State Horticultural Society Annual Meeting
Marriot Tampa Westshore
Tampa, Florida

For more information, go to <http://www.lal.ufl.edu/fshs/>

September 17- 21 2006

Cucurbitaceae 2006
Asheville, North Carolina

For more information visit <http://www.ncsu.edu/cucurbit2006>

The Florida State Horticulture Society is pleased to announce the 119th Annual Meeting

- Joint meeting with the **Soil and Crop Science Society of Florida (SCSS)**.
- Meeting will be held **June 4, 5 and 6** at the Tampa Marriott Westshore Hotel.
- Registration forms can be downloaded at www.fshs.org and contain Hotel contact information.
- Keep your membership current by paying dues when you register.
- A hotel reservation by May 9th guarantees a room rate of \$99.

Program highlights include:

Sunday, June 4 – Welcome reception

Monday, June 5 –

1. Keynote speaker Walter Kates, Florida Fruit and Vegetable Association: **‘The Immigration Debate and it’s Impact on Florida Agriculture’**
2. **‘Citrus Harvesting and Utilization Effects on Production: Barriers and Opportunities’** workshop
3. Industry reception

Tuesday, June 6 – **‘Methyl Bromide Alternatives for Florida – In-service training’** workshop

June 5 and 6: Concurrent FSHS sessions with presentations on

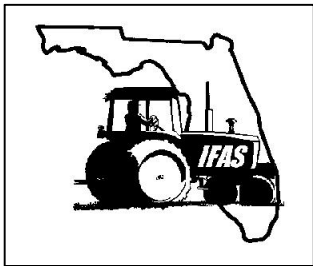
Citrus – growing, harvesting citrus, emerging pest and disease issues
Handling and Processing –postharvest and food processing
Krome Memorial – temperate tree and tropical fruit crops
Ornamental, Garden and Landscape – foliage and flower crops, home horticulture
Vegetable – growing, harvesting, managing Florida’s vegetable crops

June 5 and 6: Concurrent SCSS sessions with presentations on

Crops – growing and managing turf and other agronomic crops
Soils and Environmental Quality – soil, environmental impacts on crops

Not a FSHS member? Become a member when you register for the meeting, or download a membership form at www.fshs.org

The Sixteenth Annual Farm Safety Day



Saturday, 3 June 2006

**AN IMPORTANT MESSAGE
TO EMPLOYERS**



Safe and competent equipment operators are important to you as an employer. Accidents, which cause damage, injury or death to employees, equipment and crops are costly. We believe all types of accidents can be reduced with proper employee training. Our training has been designed to help your employees perform better, operate safely to prevent accidents, fulfill necessary training requirements and build pride in themselves and their farm company.

Certificates

The 2006 Southwest Florida Farm Safety Day is almost here. Farm Safety Day is an educational event designed to emphasize the importance of farm/equipment safety. Each participant is presented with a certificate of attendance and **the employer will be provided with a certificate of training that can be placed into the employee’s file.**

Registration Info

The deadline for registration is May 26th. It is the employer’s responsibility to assure that the employee is present at 7:45 a.m. on June 3rd to receive their nametag. Upon arrival each participant will check in at the registration table and receive a packet containing their nametag, instructions (in both English and Spanish) session handouts, an evaluation form, lunch ticket, rodeo cap and pencil. They will be directed to their respective course sessions.

In the event of a substitution, **the substitute employee must let the registration desk know the name of the person they are replacing.** A new nametag with the same color coding will be issued.

Language Preference

The courses will be marked by color-coded signs. The signs will rotate throughout the morning session and the employee will follow the color sign that matches their nametag. Courses will be offered in both Spanish and English so it is very **important to either check an “E” for English or an “S” for Spanish on the registration form.**

Tractor Rodeo

Participation in the rodeo will be on a first come/first serve basis and a driver must be designated. Only one driver per farm will be allowed. You must have your participator registered prior to the day of the rodeo to insure your company's participation. If company checks are issued from somewhere other than your local office, please contact Barbara and arrangements will be made to proceed with pre-registration.

If there are any questions, please feel free to contact **Barbara Hyman at 239 658 3415.**

The 2006 Southwest Florida Farm Safety Day **CONTEST RULES**



Each farm location may select one representative to participate in the tractor driving equipment safety rodeo contest planned as part of this training. Farm contestants will be competing for first, second and third place prizes. The prizewinners will be given special recognition and awards following the completion of the rodeo. The farm with the winning contestant will hold the rotating trophy, which will be passed along to the winning farm each year of the event. Only one individual may be selected to represent a farm. Only 10 contestants will be accepted for competition so register early!

Purpose: The rodeo is an educational and competitive event designed to emphasize the importance of farm/equipment safety. It allows designated participants the opportunity to demonstrate their skills in equipment operation and to practice the safety techniques they have learned.

Contest Rules: Only one contestant per farm, ranch or grove is allowed to participate in the rodeo contest. A maximum of 10 total participants will be allowed to compete due to time restraints. Registration will be on a first come/first serve basis. It is up to the farm to designate their equipment rodeo contestant when registering. Each contestant must participate in all three events, which make up the rodeo. Awards will be given to the top three scores in the overall rodeo competition.

Rodeo Events:

(1) Equipment *Safety Check* - Tractor and implement must be properly inspected for safety prior to starting and during the operation of equipment. Safety checks must be verbally called out to the judge. Failure to practice safety will result in a loss of points.

(2) *Backing* - After the safety inspection of the equipment, the implement must be backed into a "stall" from a 90 degree angle. Once the tractor is in reverse - it must stay there. Operation of equipment **must** be at a safe and proper speed. Scores are determined by (1) the number of scrapes and/or knock down of markers, (2) utilization of clutch, and (3) distance from back of "stall". The driver must back the equipment all the way to the back of the stall, regardless of how many markers are hit.

(3) *Driving Course* - Once the backing event is complete, the contestant will proceed (on the same equipment) directly in to the driving course. Operation of equipment **must** be at a safe and proper speed. The course will consist of several challenging angles and widths. Scores are determined by (1) number of scrapes and/or knock down of markers, (2) utilization of clutch, and (3) time to accomplish event safely.

SIXTEENTH ANNUAL SAFETY DAY

Saturday, June 3 2006
Southwest Florida Research and Education Center
2686 S.R. 29 N., Immokalee, FL

SCHEDULE:

7:45-8:10	Check In and Coffee
8:10-9:00	Sessions 1, 2, 3, 4 (Begin sessions by group no.)
9:00-9:10	Break (change session)
9:10-10:00	Sessions 1, 2, 3, 4
10:00-10:10	Break (change session)
10:10-11:00	Sessions 1, 2, 3, 4
11:00-11:10	Break (change session)
11:10-12:00	Sessions 1, 2, 3, 4
12:00-12:30	Lunch
12:30-2:30	Rodeo
2:30-3:00	Awards Presentation

CONCURRENT SESSIONS:

1. **Recognizing and Avoiding Africanized Bees** – Dr. Phil Stansly
2. **Working Safely Around Lightning and Electrical Hazards** – Mr. Cesar Asuaje and Mr. Gene McAvoy
3. **Avoiding Heat Stroke and Heat Related Illness** – Mr. Paul Midney

Eye Safety for Agricultural Workers and Preventing Eye Injuries – Dr. Paul Monaghan

The 2006 FARM SAFETY DAY REGISTRATION FORM

Please give us the names of those who will be attending our 16th Farm Safety Day on **Saturday, 3 June 2006**. The cost is \$15.00 per person, which will include educational sessions, handouts, refreshments, lunch, the rodeo, and a cap.

Make checks payable to:
SW Florida Citrus Advisory Committee

Mail registration and checks to:
University of Florida, IFAS, SWFREC
Attention: Barbara Hyman
2686 State Rd. 29 North
Immokalee, FL 34142

Or fax registration to: 239 658 3469
Entry Deadline is Friday, May 26, 2006

Company Name:

Administrative Contact Person:

E-mail address:

Mailing Address:

Telephone: _____ Fax: _____ County: _____

Name of authorized driver for tractor rodeo contest, one per farm:

Alternate/second choice: _____

(Any driver substitutions made the day of the event will require authorization by his/her company.)

Please list the employees who will be attending our safety training and rodeo and please check their language preference.* If there is not enough space to fill in all attendants, please attach an additional sheet with the necessary information.

English Spanish

English Spanish

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

*Please Note: It is very important that we know the language capabilities for each attendee. Next to each attendee's name please mark in which language they are more fluent.



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IFAS EXTENSION

Sponsorship for the Annual Farm Safety Day

The Southwest Florida Farm Safety Day has been conducted annually since 1991. The program is strongly supported by area citrus, vegetable, sugarcane, and sod growers. Southwest Florida agricultural employers collectively send between 160 to 200 employees annually to receive training on various safety related topics. The Sixteenth Annual Farm Safety Day will be held on Saturday, June 3, 2006 and will feature a very comprehensive farm safety program.

We ask you to consider sponsorship of the Fifteenth Annual Farm Safety Day to help make it a success. Any profits generated will support extension and other farm safety related programming, such as WPS training, agent in-service-training, teaching tools and related equipment, and travel for extension agents to approved conferences and meetings.

Annual expenses are estimated to be approximately \$3,000. Costs include lunches, refreshments, handouts, hats, awards (trophies, plaques, door prizes), tent rentals, travel expenses for out-of-town speakers, and other supplies. Participants receive certificates of attendance and employers receive certificates of training that can be placed into the employee's file. The highlight of the Farm Safety Day is farm/equipment safety education and a tractor-driving contest. Trophies are provided to the winners along with display plaques for their respective companies.

We hope you will be able to help sponsor the Sixteenth Annual Farm Safety Day. We have enclosed a sponsorship form for your use. Please return the form and your sponsorship check as indicated on the form no later than May 26, 2006. As a sponsor, you will be recognized during the Farm Safety Day at the Master of Ceremonies and in the southwest Florida extension newsletters, "Flatwoods Citrus" and the "South Florida Pest and Disease Hotline." You will also receive a "Thank you" certificate.

Thank you for your support!

Dr. Mongi Zekri
Farm Safety Day Coordinator
Multi-County Citrus Agent, SWF
Hendry County Extension Office
P.O. Box 68
LaBelle, FL 33975



UNIVERSITY OF
FLORIDA

IFAS EXTENSION

16th Annual Farm Safety Day

WHEN: Saturday, June 3, 2006

WHERE: Southwest Florida Research & Education Center, Immokalee

AUDIENCE: Anticipate 160 farm workers, managers, equipment operators, and crew leaders from the 5-county area of Southwest Florida.

COST: Sponsorships: _____ \$300 ***Platinum***
_____ \$200 ***Gold***
_____ \$100 ***Silver***

Sponsorship goes to support awards, expenses, and other extension programs.

SPONSORSHIP REGISTRATION FORM

Business _____

Name: _____

Address: _____

City: _____ Zip Code: FL _____

Contact Person: _____

Phone: _____ Fax: _____

Check here if you are a \$300 sponsor and desire an outdoor exhibit space.

Please make checks payable to: SW Florida Citrus Advisory Committee

Mail to:

Dr. Mongi Zekri
Multi-County Citrus Agent
Hendry County Extension Office
PO Box 68
LaBelle, FL 33975-0068

Websites

Barn Owl Cams – for those interested in watching the development of some of the owlets in a couple of the University of Florida’s nesting sites around Belle Glade, check out the Live Owl Cams at <http://erec.ifas.ufl.edu>

Click on the “Barn Owl Project” listed in the left side menu and then page down to the bottom of the opening page. Click on Cam#1 or Cam#2 and then type in the userid (guest) and password (barnowl). This should let you view our cams in real time streaming video. In Cam#1, the mother owl is tending to recently hatched chicks, and in Cam#2, four owlets getting close to fledging are frequently observed swallowing prey (mice and rats) delivered by their parents...whole! Check them out and Dr Rick Raid project coordinator (rmraid@ufl.edu) know what you think.

The North American Plant Protection Organization's (NAPPO) Phytosanitary Alert System - provide pest alerts and news of emerging plant pests of significance to North America and is intended to facilitate awareness, detection, prevention and management of exotic species in North America. Go to <http://www.pestalert.org/main.cfm>

Quotable Quotes

I don't know the key to success, but the key to failure is trying to please everybody. - Bill Cosby

Success usually comes to those who are too busy to be looking for it. - Henry David Thoreau

Most folks are about as happy as they make up their minds to be. - Abraham Lincoln

If all economists were laid end to end, they would not reach a conclusion. - George Bernard Shaw

There is nothing like returning to a place that remains unchanged to find the ways in which you yourself have altered. - Nelson Mandela

On the Lighter Side

Southernisms

Well, butter my butt and call me a biscuit.

He fell out of the ugly tree and hit every branch on the way down.

Have a cup of coffee--it's already been 'saucered and blowed.'

She's so stuck up; she'd drown in a rainstorm.

It's so dry; the trees are bribing the dogs.

My cow died last night, so I don't need your bull.

He's as country as cornflakes.

This is gooder'n grits.

If things get any better, I may have to hire someone to help me enjoy it.

I'm 'bout as... Nervous as a long tailed cat in a room full of rocking chairs.

Busy as a moth in a mitten.

The Bathtub

It doesn't hurt to take a hard look at yourself from time to time, and this should help get you started

During a visit to the mental asylum, a visitor asked the director what the criterion was which defined whether or not a patient should be institutionalized.

"Well," said the director, "We fill up a bathtub, then we offer a teaspoon, a teacup and a bucket to the patient and ask him or her to empty the bathtub."

"Oh, I understand," said the visitor. "A normal person would use the bucket because it's bigger than the spoon or the teacup."

"No" said the director, "A normal person would pull the plug ...

Do you want a room with or without a view?"

Contributors include: Joel Allingham/AgriCare, Inc, Karen Armbruster/SWFREC, Kathy Smith/Agricultural Pest Management, Bruce Corbitt/West Coast Tomato Growers, Dr. Kent Cushman/SWFREC, Dr. Phyllis Gilreath/Manatee County Extension, Michael Hare/Drip Tape Solutions, Fred Heald/Farmers Supply, Sarah Hornsby/AgCropCon, Cecil Howell/Taylor & Fulton, Loren Horsman/Glades Crop Care, Keith Jackson/SWFREC, Bruce Johnson/General Crop Management, Dr. Mary Lamberts/Miami-Dade County Extension, Leon Lucas/Glades Crop Care, Bob Mathews, Glades Crop Care, Mark Mossler/UF/IFAS Pesticide Information Office, Gene McAvoy/Hendry County Extension, Alice McGhee/Thomas Produce, Jimmy Morales/Pro Source One, Tim Nychk/Nychk Bros. Farm, Chuck Obern/C&B Farm, Teresa Olczyk/ Miami-Dade County Extension, Dr. Aaron Palmateer/TREC, Darrin Parmenter/Palm Beach County Extension, Dr. Ken Pernezny/EREC, Dr. Pam Roberts/SWFREC, Dr. Nancy Roe/Farming Systems Research, Wes Roan/6 L's, Kevin Seitzinger/Gargiulo, Jay Shivler/ C&B Farm, Ken Shuler/Stephen's Produce, Ed Skvarch/St Lucie County Extension, John Stanford/Thomas Produce, Mike Stanford/MED Farms, Dr. Phil Stansly/SWFREC, Eugene Tolar/Red Star Farms, Mark Verbeck/GulfCoast Ag, and Alicia Whidden/Hillsborough County Extension.

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

County Extension Director / Extension Agent III

Regional Specialized Agent - Vegetables/Ornamental Horticulture

Hendry County Extension Office

PO Box 68

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Web: <http://hhort.ifas.ufl.edu/>

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863-674-4097 fax

GMcAvoy@mail.ifas.ufl.edu

Special Thanks to the **generous support** of our **sponsors**; who make this publication possible.

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Boca Raton, Florida 33496

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Florida Favorite Fertilizer

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Rachel Walters
Bayer CropScience

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Glen Kaufman
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Palm City, Florida 34991
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Manatee Fruit Company

PO Box 128
Palmetto, Florida 34220-0128
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"Our business is to help you grow"
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