



UNIVERSITY OF  
FLORIDA

E X T E N S I O N

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# SOUTH FLORIDA VEGETABLE PEST AND DISEASE HOTLINE

February 8, 2008

**Area weather has been mostly unseasonable warm over the past few weeks with a few cooler days and nights thrown in marking the passage of frontal systems.** Daytime temperatures have been ranging from the mid 70's to low 80's with most night in the 50's and 60's.

**Most areas saw scattered light showers over the past few weeks with heaviest accumulations recorded in northern and east coast locations.** Most areas also experienced heavy fogs and night dews which have contributed to diseases.

**Vegetables coming to market include snap beans, cabbage, celery, eggplant, endive, escarole, lettuce, pepper, radishes, squash, sweet corn, tomatoes, and various specialty items coming to market.** Some reduction in quality and higher culls associated with weather related injury continues to be reported.

## FAWN Weather Summary

Date	Air Temp °F		Rainfall (Inches)	Ave Relative Humidity (Percent)	ET (Inches/Day) (Average)
	Min	Max			
<b>Balm</b>					
1/14 – 2/08/08	39.05	84.13	2.99	74	0.07
<b>Belle Glade</b>					
1/14 – 2/08/08	39.33	86.41	0.81	77	0.08
<b>Clewiston</b>					
1/14 – 2/08/08	38.28	87.28	0.79	74	0.08
<b>Ft Lauderdale</b>					
1/14 – 2/08/08	50.77	84.88	1.33	77	0.08
<b>Fort Pierce</b>					
1/14 – 2/08/08	41.02	84.85	1.43	79	0.08
<b>Homestead</b>					
1/14 – 2/08/08	47.73	86.04	1.79	75	0.08
<b>Immokalee</b>					
1/14 – 2/08/08	36.56	86.04	0.78	75	0.08

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**The short-term forecast from the National Weather Service in Miami indicates that increased moisture in front of the cold front slowly making its way down the peninsula will bring an increased chance of showers and foggy conditions before clearing out on Sunday.** The front will bring drier air and drop temperatures slightly with lows in the 50's Sunday night. By Tuesday, temperatures and humidity will begin to increase once again bringing a chance of showers. For additional information, visit the National Weather Service in Miami website at <http://www.srh.noaa.gov/mfl/newpage/index.html>

**Some reports indicate that with the continuing drought water is becoming an issue in a number of places with some wells running out and coughing and ditches drying out.** Many land owners have curtailed leases and growers are reducing acreage in anticipation of increasing problems this spring.

## **Insects**

### **Whiteflies**

**Growers and scouts report that whitefly numbers are escalating rapidly around Immokalee and are a major cause for concern.** Reports indicate that whitefly counts are consistently above 1/plant and often much higher regardless of what is sprayed. Respondents note that numbers vary greatly from farm to farm with some locations experiencing moderate to high pressure and others have low levels of adults. Whiteflies are also building in crops other than tomatoes including watermelons, peppers, potatoes and squash.

**Around the Hillsborough/Manatee County area, whiteflies have been quiet so far.** Scouts report that even sticky cards have been coming up clean.

**Respondents in Palm Beach report that whiteflies are everywhere and numbers are increasing dramatically in recent weeks.** They note also that control of adults has been problematic in places.

For current management recommendations – see **Management of Whiteflies, Whitefly-Vectored Plant Virus, and Insecticide Resistance for Vegetable Production in Southern Florida** - <http://edis.ifas.ufl.edu/IN695>

### **Pepper Weevils**

**Growers and scouts on the East Coast report that pepper weevils are widespread and causing problems in a number of locations.**

**Around Southwest Florida, pepper weevil pressure has increased dramatically in older peppers with lots of adults, larvae and damage present at moderate to high levels.** In some places, younger fields are also being infested.

### **Leafminer**

**Respondents around Immokalee report that leafminer are slowing down some but remain a nuisance that continues to threaten many crops with overall pressure ranging from low to moderate depending on location.** In some places scouts are reporting good parasitism is assisting in control.

**Leafminers are active in Homestead and are reported to be causing problems in tomatoes, squash and other crops.**

**Growers in the Glades report leafminer are active.**

**In the Manatee Ruskin area leafminer numbers are increasing slowly as temperatures increase.**

## Worms

**In Palm Beach County, respondents note some increase in mostly southern armyworm numbers.** Reports indicate that melon and pickle worm just won't quit and pressure remains high. Control has been problematic due to the worms tendency to move quickly into the blooms were they are protected.

**Around Southwest Florida, worms are mostly light with some indication that pressure is just starting to pick up a little with some beet and southern armyworm eggs and new hatches being reported in the past few days.** Respondents indicate that pickle and melon worms pressure is high and has been higher this season than in recent memory.

## Aphids

**Growers and scouts around Immokalee report that aphids are present at mostly low levels, with a few colonies building in some potatoes and peppers.** Respondents note that with the hot pepper market, the picking schedules are tight and it is difficult to get sprays in.

**On the East Coast, reports indicate that aphid numbers are building in eggplant, pepper and tomato.**

**Producers of leafy brassicas are reporting problems with cabbage aphids in Devils Garden and the Glades.** Growers report good control using Beleaf (FMC).

## Thrips

**Scouts on the East Coast report variable thrips pressure ranging from low to high depending on the location.** Species present include Florida flower thrips as well as western flower thrips and *Thrips palm*. Some growers are reporting problems with control where western flower thrips is present.

**Respondents in Southwest Florida report that thrips remain very low but they are starting to be seen a little more frequently.** At present reports indicate most appear to be the Florida flower thrips, *F. bispinosa*.

**Around Plant City, the big news in strawberry is confirmation of the presence of chilli thrips on two farms.**

**Chilli thrips (*Scirtothrips dorsalis*) was detected in Florida in 2005.** It has since been found throughout South and Central Florida mainly on ornamentals. It has been recorded throughout the world from over 100 hosts including tomato, pepper, strawberry, soybean, peanut, banana, bean, eggplant, castor beans (see <http://www.doacs.state.fl.us/pi/enpp/ento/chillithrips.html> for full host list).

**It is extremely difficult to differentiate chilli thrips from other thrips in the field.** Feeding can severely deform leaves and/or fruits, leaves and flower buds can drop, or leaf tissue can look scraped. Leaf symptoms can resemble broad mite damage. This thrips has also been reported to transmit several viruses. If you believe you have chilli thrips, please contact your local extension agent or the Cooperative Agricultural Pest Survey: <http://www.doacs.state.fl.us/pi/caps/index.html>

## Broad Mites

**East Coast respondents indicate that broad mite continue to cause problems in eggplant and peppers.**

**Around Southwest Florida while broad mite activity has slowed they have not gone away.**

## Spider Mites

Growers and scouts around Immokalee report that spider mites are present in low levels in a few more fields and crops such as tomato and watermelons; but most of the pressure continues to be in eggplants.

Reports from Palm Beach and other east Coast location indicate scattered problems with spider mites on cucumbers, eggplant and tomato.

## Diseases

### Bacterial Spot

Around Southwest Florida, bacterial spot is still the big disease in tomatoes and there has been some new bacterial spot activity in both tomato and pepper in recent days.

Respondents in Homestead report some bacterial spot is present in tomato at mostly low levels.

Growers and scouts on the East Coast report that bacteria is widespread especially in pepper where scatter showers and wet nights have kept the disease active. Some fruit lesions are present.

### TYLCV

Around Southwest Florida, tomato yellow leaf curl virus is still mostly low but is increasing and some places have seen TYLCV go from 5% two weeks ago up to 30-40% over the past few days indicating that viruliferous adults are on the move. Some growers have reported moved to using resistant varieties for the spring crop.

Respondents in Homestead indicate that tomato yellow leaf curl virus is a relatively severe problem with incidence reaching moderate to high levels in places.

On the East Coast, reports indicate that TYLCV is reaching high level in some hotspots but remains low in many others.

### Late Blight

Late blight has been reported on tomato and potato in several locations around Fort Pierce.

Late blight is caused by the fungus *Phytophthora infestans*, which is a pathogen of potato and tomato. Very few vegetable diseases cause more concern to growers. The disease can spread quickly and devastate a tomato or potato field within a few weeks if not properly controlled.

**The disease thrives under cool and wet conditions.** Temperatures between 50 and 80°F combined with moist conditions such as rain, fog, heavy dews, or relative humidity above 90 percent are conducive for disease development. Night temperatures in the mid-fifties with daytime temperatures from the mid-fifties to mid-seventies are ideal for this disease.

**Since the disease can spread so rapidly, growers should scout their fields thoroughly each day, especially when cool and wet conditions conducive to disease development prevails.**

Late blight symptoms on leaves appear as irregularly shaped brown to purplish lesions with indefinite border lesions that can span veins. The lesions may be seen any time of day, on any stage of plant growth and

on leaves of any age. Velvety, white fungal growth may appear on the lower surface of affected leaflets early in the morning before leaves dry and/or in the lower canopy.

**On stems, purplish lesions may be found any where on the stem.** Cottony, white growth of fungus on stems with lesions can often be seen early in the morning and/or in the lower canopy. Stems with lesions are brittle and break easily. Lesions are confined to epidermis and cortex. Leaf rolling and wilting is often associated with stem lesions and purpling of leaflets may occur in some varieties.

**Several control measures plus observation are absolute necessities if late blight is to be properly controlled.** In addition to cultural means, begin a spray program with fungicides if late blight is in your area or weather conditions are suitable for late blight development. After harvest, kill infected foliage to minimize tuber infection.

**Tomato growers should purchase disease-free transplants. Observe your fields thoroughly each day, especially when cool and wet weather prevails.**

**Currently, fungicides are the most effective means of controlling late blight and will remain the primary tool until cultivars with resistance to this disease become available.** Fungicides slow the rate at which the disease develops in the field by creating a protective barrier on the foliage. Just applying a chemical, however, does not necessarily equate with effective disease control. Relative effectiveness of a product, coverage, and timing must be factored into the equation for maximum benefit.

**Numerous fungicide products are registered for late blight control.** Protectants, as the name implies, protect foliage from infection by spores. Protectant chemicals must be well distributed over the leaf surface and must be applied before spores land on leaves. They are ineffective against established infections.

**Systemic products become distributed locally within plant tissues and protect foliage from infection by spores.** They may kill some established infections and may suppress production of new spores. Even a short break in spray schedules, despite what is said regarding some of the newer fungicides, can result in a dramatic increase in blight under conducive environmental conditions.

**To further complicate matters *P. infestans*, like many members of the Oomycota, has two mating types, termed A1 and A2.** It can undergo sexual reproduction only if both mating types are present in a population. Up through 1992, only the A1 mating type existed in Florida. Beginning in 1993, both mating types have been identified in Florida. This is significant in that the fungus can now generate genetic variation via recombination. The stage is now set for even more rapid emergence of new pathogenic variants, to overcome our continuing attempts to control this disease.

**Dr Pam Roberts, Pathologist at SWFREC is interested in obtaining samples in an effort to characterize races occurring in Florida.** She can be contacted at 239-658-3400.

### **Target Spot**

**Growers and scouts around Immokalee report that target spot** continues to move into the interior foliage on maturing tomatoes.

**Target spot is also present in Palm Beach.**

### **Alternaria**

**Growers and scouts across the area report that Alternaria is moving in on wind damage foliage in a number of locations.**

## Downy Mildew

**Cucurbit producers around Southwest Florida continue to report problems with downy mildew in cucumbers and squash.**

**Downy mildew is also causing problems on the East Coast especially in cucumber.**

**Around Homestead, respondents note that downy mildew is increasing in squash.**

## Powdery Mildew

**Powdery mildew is wide spread in squash and cucumbers in Homestead.** In most fields, incidence is surpasses that of downy mildew. Some problems have also been noted with powdery mildew on tomato.

**On the East Coast, powdery mildew is high in some squash.** Powdery mildew is also present on pepper in scattered locations. Incidence is high in a few places.

## Gummy Stem Blight

**Gummy stem is present on watermelons at low levels around Southwest Florida.** Some reports of infected transplant have been received.

**Respondents in Palm Beach County report that gummy stem is present on cucumbers and squash in several locations.**

## Sclerotinia

**Sclerotinia (white mold) has been reported in a few pepper and tomato fields around south Florida.**

## Cucurbit Leaf Crumple Virus

**Cucurbit Leaf Crumple Virus has been diagnosed on squash in Hendry County.** Beans have also been implicated as a host – see below.

## New Cucurbit Viruses in Florida

Over the last couple of years, the number of whitefly-transmitted viruses in some cucurbit fields has increased to almost epidemic proportions. Growers and scientists are now dealing with 3 major viruses in cucurbits, all of which are transmitted by the silverleaf whitefly, *Bemisia tabaci*. The host range is similar (mostly cucurbits) but the symptoms differ.

**Most growers are aware of Squash Vein Yellowing Virus (SqVYV).** Symptoms of this Ipomovirus were first seen in watermelon in Florida in the mid 1980's. It is widely distributed in SW and West Central Florida and has also been reported from southern Indiana. It is probable that this virus is native to Florida. Cucurbits are hosts, especially squash and watermelon, but *Momordica charantia* (balsam-apple) is also a known host and potentially an excellent reservoir of SqVYV. Symptoms of SqVYV in watermelon are death of young plants, death of vines of older plants and necrosis in the fruit, especially just inside the rind. **This virus is the cause of watermelon vine decline (WVD) which Florida watermelon growers have been battling since 2003.** Trials for resistance to SqVYV are being conducted by grafting watermelon germplasm onto gourd rootstock and evaluating the watermelon scions for symptoms. Several potential sources of resistance in wild type watermelons have been identified. Also being evaluated are insecticides and use of silver plastic mulch to manage SWF and thus WVD.

**Cucurbit Leaf Crumple Virus (CuLCrV) is a begomovirus first seen in Florida in 2006 in squash.** At the same time it was found in grafted watermelon transplants received in Georgia from the Western U.S. Known hosts include tobacco and bean. Like the other viruses, SqVYV and CYSDV (see below), CuLCrV is able to infect most cucurbits including watermelons, cucumbers, squash, and pumpkin. Weed hosts are being investigated, but it is possible that balsam apple may be a host as it is in SqVYV. Initial symptoms include a chlorotic mottle pattern on foliage and crumpling of leaves. Plants which are infected early are stunted. In squash, leaves can be thickened and distorted as well as curled and crumpled. Fruit symptoms vary but severe color break was observed in yellow summer squash in 2006.

**Cucurbit Yellow Stunting Disorder Virus (CYSDV) was not seen in Florida until 2007.** It infects melons, cucumbers, gourds and winter and summer squash. Symptoms appear first on older leaves toward the center of the plant, progressing outward along vines toward growing points. Symptoms often mimic water stress. Then a yellowing between the leaf veins appears and the leaves later turn bright yellow. On some, small green spots develop on leaves of certain varieties. Older leaves drop as the plant's internal transport system breaks down. This virus does affect fruit quality by reducing fruit size and sugar content, plus shortening the product's shelf life. It was first identified in cucumber and melon crops in the Middle East more than 15 years ago and in cucumbers and melons in Spain about 10 years ago. In 2003-04, it was identified in Central America and the Rio Grande Valley, Texas, and 2006 in Arizona and California where it and CuLCrV caused significant yield losses. It is not known if this virus infects wild cucurbits or other uncultivated hosts. As with some other viruses, it may cause symptomless infections in some hosts.

**Management recommendations for these viruses are similar to recommendations for tomatoes and TYLCV.** They include:

- Select the most vigorous and well adapted varieties
- When using transplants, use pathogen-free, whitefly-free transplants. Use caution when buying transplants that were produced in the western U.S.
- Use reflective mulches
- Treat prior to planting with nicotinoids to manage whiteflies in the field
- Apply appropriate insecticides for whitefly control during production in the field
- Don't plant in old established fields. Volunteers, especially cucurbits and balsam apple, can be a significant reservoir for these viruses.
- Post-production sanitation – pull up the plastic and plow fields under. Prevent growth of volunteers or remove all volunteers
- Maintain a host-free period between spring and fall crops

Excerpted from UF/IFAS Vegetarian, December, 2007, for photos, go to <http://www.hos.ufl.edu/vegetarian/07/December%2007/Triple%20Threat%20for%20Cucurbits.htm>

## News You Can Use

### New Development on the Cucurbit Virus Front

Dr Scott Adkins, Virologist USDA ARS USHRL cautions that cucurbit growers may need to watch hosts other than cucurbits as potential reservoirs of these viruses.

Scott reports that in mid-December, he and Dr Bill Turechek USDA ARS USHRL collected some green bean plants with virus-like symptoms from a bean field adjacent to a watermelon field with confirmed Squash vein yellowing virus and Cucurbit leaf crumple virus (CuLCrV) infections in Hendry County. Curious to see if CuLCrV was making its way into beans in Florida, as has been reported in western states, they took and tested beans samples for the virus. Symptoms on beans included leaf deformation/rugosity and mosaic, including a

chlorotic mosaic. All bean samples were tested by ELISA for potyviruses and Cucumber mosaic virus. All were negative. Nucleic acid was subsequently extracted from all samples and used in RT-PCR with begomovirus primers. PCR products were generated from all eleven of our symptomatic bean samples but from none of our non-symptomatic samples. They then cloned and sequenced three of these PCR products and found them to be virtually identical to prior CuLCrV sequences we generated from infected cucurbits.

Thus, it seems that green beans (and potentially other legumes) could become an important reservoir host of CuLCrV in Florida, and something that merits watching. To Dr Adkin's knowledge, this is the first report of CuLCrV infecting any host other than a cucurbit in Florida.

### **Farmers Urged to Review Homeland Security Guidelines**

Billy Dictson, the director of the office of bio-security at the Southwest Border Food Safety and Defense Center at New Mexico State University's College of Agriculture and Home Economics, was cited as saying that farmers and agribusiness operators should review chemical guidelines and determine whether they will be affected by a new U.S. Department of Homeland Security regulation, adding, "In an effort to increase the security of high-risk chemical facilities, the Department of Homeland Security recently released a list of chemicals that, if possessed by a facility in a specified quantity, would require them to complete a Chemical Security Anti-Terrorism Top-Screen assessment. Those required to go through this initial screening must do so before January 21."

Failure to comply with the regulations could result in civil penalties of up to \$25,000 per day or the shutdown of the facility. Chemicals of interest and quantities that are most likely to affect agriculture include, but are not limited to:

- Chlorine: 2,500 pounds bulk, not bagged or in some other transportation package.
- Chlorine: 500 pounds bagged, on a trailer or in some other transportation package.
- Anhydrous ammonia: 10,000 pounds in typical pull behind tanks, completely loaded.
- Ammonium nitrate: 2,000 pounds bagged, on a trailer or in some other transportation package.
- Potassium nitrate: 400 pounds bagged, on a trailer or in some other transportation package.
- Sodium nitrate: 400 pounds bagged, on a trailer, or in some other transportation package.

### **DHS Proposes Changes to Improve H-2A Temporary Agricultural Worker Program**

[Notice of Proposed Rulemaking: Changes to Requirements Affecting H-2A Nonimmigrants](#) (PDF, 69 pages - 620 KB)

[Fact Sheet: H-2A Temporary Agricultural Worker Program](#)

The U.S. Department of Homeland Security announced today a series of proposed rule modifications to provide employers with a streamlined hiring process for temporary and seasonal agricultural workers under the H-2A program.

"These proposed changes are designed to provide an efficient and secure program for farmers to legally fulfill their need for agricultural workers within the law rather than outside the law," said Homeland Security Secretary Michael Chertoff. "This common-sense simplification of H-2A will provide farm employers with a more orderly and timely flow of legal workers, while continuing to protect the rights of laborers and promoting legal and secure methods for determining who is coming into the country."

The proposed modifications to the rule reduce current limitations and certain delays faced by U.S. employers and relax the current limitations on their ability to petition for multiple, unnamed agricultural workers. It extends from 10 to 30 days the time a temporary agricultural worker may remain in the U.S. after the end of



employment. The rule also reduces from six to three months the time a temporary agricultural worker must wait outside the U.S. before he or she is eligible reenter the country under H-2A status. Additionally, under the proposed rule H-2A workers who are changing from one H-2A employer to another may begin work with the new petitioning employer before the change is approved by USCIS, provided the new employer participates in

USCIS' E-Verify program.

To better ensure the integrity of the H-2A program, and encourage the lawful employment of foreign temporary and seasonal agricultural workers, the proposed rule would:

- Require an employer attestation regarding the scope of the H-2A employment and the use of recruiters to locate H-2A workers;
- Crack down on employers and recruiters who impose fees on prospective H-2A workers;
- Eliminate the ability of employers to file an H-2A petition without an approved temporary labor certification; and
- Prohibit the approval of H-2A petitions for nationals of countries determined to be consistently refusing or unreasonably delaying repatriation of their nationals.

The rule also proposes the establishment of a land-border exit system pilot program. Under the program, H-2A visa holders admitted through a port of entry participating in the program would also depart through a port of entry participating in the program and present upon departure designated biographical information, possibly including biometric identifiers.

The proposed rule is available at [www.dhs.gov](http://www.dhs.gov) for public comment and will soon appear at [www.regulations.gov](http://www.regulations.gov) under docket number "USCIS-2007-0055," until 60 days after publication in the Federal Register. More information regarding the proposed rule, plus instructions on submitting comments, is available through an accompanying Fact Sheet available at the USCIS website: [www.uscis.gov](http://www.uscis.gov).

## **Fact Sheet: H-2A Temporary Agricultural Worker Program**

### **Fiscal Year 2007**

USCIS received 6,212 H-2A I-129 petitions and approved 6,134 petitions for 78,089 beneficiaries. DOS issued 50,791 H-2A visas.

### **Fiscal Year 2006**

USCIS received 5,667 H-2A I-129 petitions and approved 5,448 petitions for 56,183 beneficiaries. DOS issued 37,149 H-2A visas.

## **Florida Citrus Mutual Commends Dept. of Labor for Guest Worker Reform Proposal**

Florida Citrus Mutual commended the U.S. Department of Labor (DOL) Wednesday for proposing changes to the H-2A agricultural guest worker program.

"This proposal is a start to finding solutions to a very complex issue that is critical to Florida citrus growers and U.S. agriculture in general," said Michael W. Sparks, executive VP/CEO of Florida Citrus Mutual. "H-2A reform is desperately needed. The current program is so cumbersome and prone to delays that many agriculture employers can't use it."

"Mutual will continue to lobby Congress for comprehensive immigration reform and a better guest worker program that meets the needs of growers and foreign workers."

The DOL Wednesday proposed rules to modernize the H-2A program for employing foreign workers in temporary or seasonal agricultural jobs. The DOL said the proposed changes will provide farmers with an orderly and timely flow of legal workers.

Mutual noted several provisions in the DOL proposal that may help Florida citrus growers.

**Applications** - Eliminate the duplication of activities currently performed by the State WorkForce agencies (SWAs) and the Dept's Employment and Training Admin (ETA). Employers would file their H-2A applications directly with DOL instead of filing simultaneously with both the SWA and DOL.

**Housing inspections** – Increase the amount of time states have to conduct required housing inspections in response to delays often caused by SWAs overwhelmed by employer requests for pre-certification housing inspections. This reform creates consistency between the housing inspection process under H-2A and the housing inspection process under the Migrant and Seasonal Workers Protection Act, which protects U.S. farm workers.

**Wage Rate** – Revise the methodology for determining the Adverse Effect Wage Rate to more accurately measure market-based wages by occupation

To view the entire proposed rule visit [http://www.doleta.gov/pdf/DOL\\_H2A\\_NPRM\\_final\\_020508.pdf](http://www.doleta.gov/pdf/DOL_H2A_NPRM_final_020508.pdf)

### **South Florida Water Management District Happenings**

The District received no rain last week and the rainfall outlook for the next seven days is below average.

Lake Okeechobee measured 10.05 feet NGVD 29 on February 5 which is 0.01 feet lower than it was on that day last week and 0.07 feet lower than it was a month ago. The current water level is 1.53 feet lower than it was a year ago and 4.66 feet below its historical average for this time of year.

During the last week, the Kissimmee Basin received no rain. Water levels in the upper basin lakes appear to have stabilized from rainfall in recent weeks. Water levels are at or below regulation schedules.

Salinity increased slightly in most areas of the St. Lucie Estuary over the past week. Based on the salinity tolerance of oysters, salinity conditions in the estuary are good. Salinity increased slightly in most areas of the Caloosahatchee Estuary. Based on submerged plant requirements, conditions in the upper estuary, east of Ft. Myers, are poor due to high salinity. Based on the salinity tolerance of oysters, salinity conditions in the estuary downstream of the Cape Coral Bridge are fair.

The Water Conservation Area received no rain last week. Water stages in WCA-1 are slightly below regulation, WCA-3 stages continue to be significantly below regulation, and WCA-2A remains above regulation.

District-wide, one-day-a-week landscape irrigation measures took take effect January 15.

Residents and businesses of Broward, Glades, Hendry, Martin, Miami-Dade, Monroe, Okeechobee, Palm Beach and St. Lucie counties are limited to a one-day-per-week landscape irrigation schedule with two watering windows. Odd street addresses may irrigate lawns and landscapes on Mondays between 4:00 a.m. and 8:00 a.m. or 4:00 p.m. and 8:00 p.m. Even street addresses may irrigate lawns and landscapes on Thursdays between 4:00 a.m. and 8:00 a.m. or 4:00 p.m. and 8:00 p.m. Residents and businesses with more than five acres have expanded irrigation hours, between 12:00 a.m. and 8:00 a.m. or 4:00 p.m. and 11:59 p.m. on their designated irrigation day.

For all locations of Lee County, other than the City of Cape Coral, the typical homeowner may choose one four-hour watering window on your designated irrigation day - either 4 a.m. to 8 a.m. or 4 p.m. to 8 p.m.

Because jurisdiction in certain counties is shared with other water management districts, the SFWMD has coordinated with these agencies to simplify implementation and enforcement. Residents of Orange and Osceola counties should adhere to any water restrictions set forth by the St. Johns River Water Management District. Residents of Polk, Highlands, and Charlotte counties should adhere to the water restrictions set forth by the Southwest Florida Water Management District. However, golf courses, nurseries, and agricultural users District-wide should follow SFWMD water use restrictions.

### **Florida Weed Science Society Meeting Scheduled**

The 2008 Annual Meeting of the Florida Weed Science Society will be held at FFVA's office in Maitland February. 25-26, 2008.

In conjunction with the Society's itinerary this year is the Weed Identification Short Course, a unique opportunity for a hands-on chance to learn more about identifying weeds we encounter every day in Florida from citrus and vegetable production as well as in lawns and gardens.

Pre-registration for the Weed Identification Short Course portion of the meeting is required and space is limited to the first 50 applicants.

A block of rooms is reserved at the Sheraton Orlando North at a rate of \$109 per night, with a cutoff date of Feb. 11, so reservations need to be made soon.

For more information on the meeting, the Short Course or accommodation details, contact FFVA's Environmental and Pest Management Division at (321) 214-5200.

### **Pesticide Registration and Actions**

The Florida Department of Agriculture and Consumer Services (FDACS) has approved the registration of fipronil (Regent® 4SC) insecticide as a single in-furrow at-plant application to field corn and potato for control of rootworms, wireworms, borers and other listed pests. The EPA Reg. No. of the BASF product is 7969-207. (PREC Agenda, 1/10/08).

Based on a request by IR-4, the EPA has approved tolerances for the herbicide ethalfluralin (Curbit®/Sonalan®). Tolerances of importance in Florida include dill and potato. (Federal Register, 12/5/07).

Based on a request by IR-4, the EPA has approved tolerances for the miticide etoxazole (Zeal®). Tolerances of importance in Florida include the cucurbit vegetable subgroup 9A (melons such as muskmelon and watermelon). (Federal Register, 12/26/07).

Based on a request by Bayer CropScience, the EPA has approved tolerances for the fungicide trifloxystrobin (Flint®/Gem®). Tolerances of importance in Florida include: canistel, citrus fruit/pulp/oil, mango, papaya, radish tops, sapodilla, sapote (black/mamey), star apple, strawberry, and root vegetable (subgroup 1B - radish, beet, chicory).

Rachel Walters, Bayer Crop Science reports that Leverage 2.7 has received a Florida registration effective 1/31/2008. Active ingredients in Leverage 2.7 include 17.0% Imidacloprid and 12.0% Cyfluthrin. Fruiting Vegetables and Potato will be the target crops for this area. It is available for immediate sale.

Fruiting Vegetables - Pests Controlled - 3.8 - 51 ounces

Aphids  
Beet Armyworm (1st and 2nd Instars)  
Cabbage Looper  
Colorado potato beetle  
European corn borer  
Southern armyworm  
Stinkbugs  
Thrips (except thrips palmi. Controls foliage feeding thrips only)  
Tomato fruitworm  
Tomato hornworm  
Tomato pinworm  
Variegated cutworm  
Western yellowstriped armyworm

Pest Suppressed - 5.1 ounces

Dipterous leafminer  
Flea beetles  
Pepper weevil  
Thrips palmi (foliage feeding thrips only)  
Whitefly (including sweet potato whitefly)

PHI for tomato - 0 day  
PHI for all other fruiting vegetables - 7 days

Potato - Pests Controlled -3.0 - 3.8 ounces - PHI - 7 days

Cabbage Looper  
Colorado potato beetle (use high rate if pyrethroid resistance suspected)  
Cutworm  
European corn borer  
Flea beetle  
Potato leafhopper  
Potato tuberworm  
Tarnished plant bug  
Aphid - 3.8 ounces  
Potato psyllid - 3.8 ounces

Mike Edenfield, Bayer CropScience reports that in January, 2008, the Reason label was expanded to include all fruiting and leafy vegetables, bulb crops, and cucurbits. Historically, Reason was labeled on tomato, potato, lettuce, and cucurbits. The Reason label states that you can recrop to any labeled crop immediately, but non-labeled crops have a 1 year plant-back.

Reporting to Lettuce Growers Association meeting, Dr. Raid reported that Reason looked good for Downy Mildew control in trials. Before the label change, Reason sales were limited because of the label restrictions.

## Up Coming Meetings

### Palm Beach County

**March 3, 2008**                      **General Standards/Core Training and Test Review**                      8:00 AM – 12:00 PM  
**Aquatic Weed Control Test Review (2 CEUs each)**                      1:00 PM – 3:00 PM

Clayton Hutchinson Ag Center  
559 N Military Trail  
West Palm Beach, Florida

Contact 561-233-1700 – select option, 1 then option 3

**March 5, 2008**                      **General Standards/Core Test Review (2 CEUs)** 8:00 AM – 10:00 AM  
**Private Applicator Test Review (2 CEUs)** 1:00 – 3:00 PM

Belle Glade Extension Office  
2975 State Road 15  
Belle Glade, Florida

Call 561-996-1655 for more information.

**April 8, 2008**                      **UF/IFAS Everglades REC Field Day**

Southwest Florida

**February 19, 2007**                      **Everglades West Coast TMDL Technical Working Group**                      1:30 PM

FDEP South District Office, Conference Room 368 A&B  
2295 Victoria Avenue  
Fort Myers, Florida

**February 25, 2008**                      **Vegetable Growers Meeting – Valent Product Update**

UF/IFAS SW Florida Research and Education Center  
SR 29 N  
Immokalee, Florida

Contact Gene McAvoy at 863-674-4092 for details

### Other Meetings

**February 19-20, 2008**                      **SYSCO 2008 Sustainable Ag/IPM Conference & Farm Tour**

Holiday Inn Palm Beach Airport Conference Center  
1301 Belvidere Rd.  
West Palm Beach FL 33405

Registration: Brooke Williams, SYSCO Quality Assurance, 281-584-2841, Fax  
281-584-1240,

Co-hosted by Glades Crop Care, IPM Florida, the Southern Region IPM Center and the US EPA Pesticide Environmental Stewardship Program; co-organized by the IPM Institute of North America.

**February 25-26, 2008**

**Annual Meeting of the Florida Weed Science Society**

Florida Fruit and Vegetable Association Office  
Maitland, Florida

For more information, contact FFVA's Environmental and Pest Management Division at (321) 214-5200.

## **Websites**

**Florida Invaders** - With every passing year, south Florida faces a growing menace: the spread of non-native species. Burmese pythons, Island apple snails, Asian swamp eels and Gambian pouch rats are but a few of the hundreds of exotic species that have invaded our landscape. The establishment of these species seriously threatens the health of our native environment and costs us millions of dollars every year to fight. Learn more about this problem at <http://www.nps.gov/ever/naturescience/floridainvaders.htm>

Citrus and Vegetable Magazine on-line – need CEUs? A number of correspondence credits are available at <http://www.citrusandvegetable.com/ME2/dirsect.asp?sid=9118F66C182440898BA550958077C8B3&nm=CEUs>

## **Quotable Quotes**

In 1929 the wise, far-seeing electors of my native Hereford sent me to Westminster and, two years later, the lousy bastards kicked me out. - Frank Owen

The future is something which everyone reaches at the rate of sixty minutes an hour, whatever he does, whoever he is. - C. S. Lewis

There are as many nights as days, and the one is just as long as the other in the year's course. Even a happy life cannot be without a measure of darkness, and the word 'happy' would lose its meaning if it were not balanced by sadness. - Carl Jung

What we see depends mainly on what we look for. - John Lubbock

Pick battles big enough to matter, small enough to win. - Jonathan Kozol

We could never learn to be brave and patient if there were only joy in the world. - Helen Keller

The moment one gives close attention to anything, even a blade of grass, it becomes a mysterious, awesome, indescribably magnificent world in itself. - Henry Miller

If we could see the miracle of a single flower clearly, our whole life would change. – Buddha

## **On the Lighter Side**

### **Lessons in Life**

1. Life isn't fair, but it's still good.
2. When in doubt, just take the next small step.
3. Life is too short to waste time hating anyone.
4. Don't take yourself so seriously. No one else does.
5. Pay off your credit cards every month.
6. You don't have to win every argument. Agree to disagree.
7. Cry with someone. It's more healing than crying alone.
8. It's OK to get angry with God. He can take it.
9. Save for retirement starting with your first paycheck.
10. When it comes to chocolate, resistance is futile.
11. Make peace with your past so it won't screw up the present.
12. It's OK to let your children see you cry.
13. Don't compare your life to others'. You have no idea what their journey is all about.
14. If a relationship has to be a secret, you shouldn't be in it.
15. Everything can change in the blink of an eye. But don't worry; God never blinks.
16. Life is too short for long pity parties. Get busy living, or get busy dying.
17. You can get through anything if you stay put in today.
18. A writer writes. If you want to be a writer, write.
19. It's never too late to have a happy childhood. But the second one is up to you and no one else.
20. When it comes to going after what you love in life, don't take no for an answer.
21. Burn the candles, use the nice sheets, wear the fancy lingerie. Don't save it for a special occasion. Today is special.
22. Over prepare, then go with the flow.

23. Be eccentric now. Don't wait for old age to wear purple.
24. The most important sex organ is the brain.
25. No one is in charge of your happiness except you.
26. Frame every so-called disaster with these words: "In five years, will this matter?"
- 27 Always choose life.
28. Forgive everyone everything.
29. What other people think of you is none of your business.
30. Time heals almost everything. Give time time.
31. However good or bad a situation is, it will change.
32. Your job won't take care of you when you are sick. Your friends will. Stay in touch.
33. Believe in miracles.
34. God loves you because of who God is, not because of anything you did or didn't do.
35. Whatever doesn't kill you really does make you stronger.
36. Growing old beats the alternative -- dying young.
37. Read the Psalms. They cover every human emotion.
38. Get outside every day. Miracles are waiting everywhere.
39. If we all threw our problems in a pile and saw everyone else's, we'd grab ours back.
40. Don't audit life. Show up and make the most of it now.
41. Get rid of anything that isn't useful, beautiful or joyful.
42. All that truly matters in the end is that you loved.
43. Envy is a waste of time. You already have all you need.
44. The best is yet to come.
45. No matter how you feel, get up, dress up and show up.
46. Take a deep breath. It calms the mind.
47. If you don't ask, you don't get.
48. Yield.
49. Life isn't tied with a bow, but it's still a gift.



50. "A REAL FRIEND IS ONE WHO WALKS IN WHEN THE REST OF THE WORLD WALKS OUT

**Note: The hotline is now available by subscribing to the South Florida Vegetables LISTSERV. Get the latest pest and disease updates and news in a timely fashion -the e-version is automatically sent to you as soon as it is published.**

**If you want to switch over just drop me an email and help save a tree.**

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The **South Florida Pest and Disease Hotline** is compiled by **Gene McAvoy** and is issued on a biweekly basis by the **Hendry County Cooperative Extension Office** as a service to the vegetable industry.

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