



UNIVERSITY OF
FLORIDA

E X T E N S I O N

Institute of Food and Agricultural Sciences

Hendry County Extension

PO Box 68 LaBelle, Florida 33975-0068

Phone (863) 674-4092

SOUTH FLORIDA VEGETABLE PEST AND DISEASE HOTLINE

February 9, 2004

A series of cold fronts crossed the peninsula over the past few weeks bringing several rain events to South Florida vegetable production regions. All regions received significant amounts of rainfall for the period ranging from just over an inch in some places to more than 5 inches in others. Fog mornings and heavy dews have also been commonplace over the past few weeks.

Temperatures have been cool with most areas averaging from near normal to a few degrees below normal. Daytime temperatures have been mainly in the 60's and 70's with nighttime lows ranging in the low 50's, 40's and a few nights in the 30's in normally colder areas. Reports indicate that cold winds and scattered light frost associated with a front at the end of January burned some foliage on sensitive crops in places.

Wet weather resulted in some slow up in planting, harvesting and other cultural activities in areas that saw higher rain fall accumulations. Watermelon planting continues around Immokalee and transplanting in West Central Florida is in high gear, including tomatoes, peppers, cabbage and some watermelons.

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
Bradenton											
1/23 -2/9/04	33.6	82.8	1.07	17.2	8.7	4.0	7.9	1.2	34.0	36.2	74.5
Ft Lauderdale											
1/23 -2/9/04	43.6	84.9	5.54	0.0	1.6	1.2	14.5	2.6	1.6	3.7	23.7
Fort Pierce											
1/23 -2/9/04	36.9	84.9	1.73	5.2	18.7	12.8	3.5	10.9	16.7	29.1	60.9
Homestead											
1/23 -2/9/04	38.3	83.6	3.32	3.1	3.1	11.1	2.9	4.8	23.6	10.7	33.8
Immokalee											
1/23 -2/9/04	34.3	81.4	1.68	14.0	6.3	10.4	7.2	1.6	2.9	25.9	51.4

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Crops coming to market include snap beans, cabbage, celery, cucumbers, eggplant, endive, escarole, lettuce, peppers, radishes, squash, strawberries, sweet corn, tomatoes, and specialty crops. Quality is mostly good although reports indicate that cold wet weather has resulted in some rain check and reduced pack outs in some commodities.

The short-term forecast from the National Weather Service in Miami indicates that the front that passed through the area over the weekend is being pushed north and will bring a chance of showers mainly to the east coast through tomorrow. Behind the front, temperatures will be mild and a buildup of low-level moisture may result in foggy mornings. The next chance of showers comes next weekend when the front pushes south again ahead of some cooler air.

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

Insects

Cool temperatures have resulted in mostly low insect pressure across the area although there are some reports of increased pressure in association with warm periods between fronts.

Whiteflies

Reports from growers and scouts in Southwest Florida indicate that whitefly pressure is inconsistent across the area. A number of reports indicate increased pressure in recent weeks noting increases in the numbers of whitefly adults and nymphs in tomato, pepper, potato and cucurbits in a number of places. In other places respondents note that whitefly numbers remain low to moderate.

Respondents in the Manatee/Ruskin area indicate that whiteflies are still around numbers in remaining fall tomatoes but indicate that numbers are mostly low in new plantings. Phyllis Gilreath reports that TYLCV is also present in many of these older plantings and notes that growers need to get busy and destroy these old crops to reduce sources of inoculum for the spring crop now being planted.

East Coast growers report that whitefly numbers are variable depending on location with some hot spots being reported. Whiteflies are present in eggplant, pepper, squash and tomatoes. Pressure has been persistent in squash and moderate incidence of silverleaf has been reported.

Reports from Miami-Dade County indicate that mostly low to moderate whitefly pressure in cucurbits. Scouts indicate that whiteflies are present in some but not all bean and tomato plantings.

At the risk of being extremely repetitive, growers are reminded that this is a critical time for growers 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 the spring crop.

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.

Remember that a big part of an effective resistance management program is not following an application of a nicotinoid with another application (soil or foliar) of the same or different nicotinoid. Please think twice before doing this!! While they may work now, then what? What will you use next time? There are NO new adulticides coming down the pipe, at least not in the near future. While you may feel you have no

alternatives right now, the nicotinoids may be the only thing standing between a decent crop and disaster. If we were to lose the nicotinoids to resistance, we likely would not be able to grow tomatoes in South Florida.

Aphids

Aphids remain mostly low around Southwest Florida with few winged aphids showing up in bean cucurbits, pepper, potato, and tomato. Growers also note an increase in aphid activity in specialty brassicas.

Some winged aphids are also being reported on crops in West Central Florida.

Reports from Palm Beach indicate that tomato and pepper growers have been battling aphids and have done a respectable job keeping them under control. Pressure has also been persistent in squash and specialty crops including oriental brassicas.

Growers in the Belle Glade report that aphids are currently the biggest pest problem in leafy vegetables at this time. Growers with sensitive crops should be on the look out for both aphids. Control treatments for aphids should be made before the population gets out of control and definitely before leafy and cole crops cup and lock the aphids in away from contact and translaminar type insecticides.

In Homestead, respondents indicate that aphids are present in cucurbits.

Leafminers

Reports from the Bradenton area indicates that leafminer adults and stippling are on the increase but note that populations still remain below threshold levels in most places.

Growers and scouts in the Homestead area, report increasing leafminer pressure especially on new growth in beans and potatoes.

Around Southwest Florida reports indicate that leafminers continue to be active around Immokalee and in the Naples area. Crops affected include beans, cucurbits, tomatoes and specialty crops. Reports indicate that numbers have reached threshold levels in some areas and are being treated.

Dr Gregg Nuessly, Entomologist UF/IFAS EREC reports that *Liriomyza* leafminers are requiring treatment in leafy vegetables in the Belle Glade area. He notes that growers with sensitive crops should be on the look out for leafminers and reminds growers that leafminers can sneak up on growers during the winter, particularly when the temperature is cool for several weeks followed by a warming trend. The cooler temperatures tend to collapse the partially overlapping generations onto each other. Then when it warms significantly the adults emerge en masse and can at least temporarily overwhelm the natural enemies ability to keep them under control. Therefore, growers and scouts should check their fields for leafminer escapes.

Respondents on the East Coast indicate that leafminer pressure has been persistent in a number of areas.

Thrips

Respondents in Homestead report some problems with thrips in a variety of crops including beans, cucurbits, eggplant, pepper and potato.

So far this season thrips populations have been very low around southwest Florida. This situation may change rapidly as we approach spring and many of the native plants are starting to bloom and the citrus bloom is just around the corner. Growers should monitor crops as thrips populations often build up at this time and move into susceptible vegetables.

Thrips numbers are also low around Palm Beach although some isolated reports of *Thrips palmae* damage still continue to be received.

Worms

Growers and scouts in the Homestead area report increasing worm pressure in a variety of crops including beans, corn, cucurbits, potato and tomato. Reports indicate that loopers are the widely present in beans and that melon/pickleworm pressure is increasing in squash.

Respondents that otherwise worm pressure remains relatively low across most South Florida growing areas with a few beet and southern armyworms as well as a few fruitworms and loopers being reported.

Mites

Growers and scouts on the East Coast report finding a few two-spotted and red and spider mite in eggplant, tomato and specialty items especially along field margins and ditch banks. Broadmites are still present in pepper in low numbers in several locations.

Around Southwest Florida, a few spider mites are present in eggplant and young cucurbits.

Reports from Homestead report finding red and two spotted spider mites on eggplant as well as a few broadmites in eggplant and pepper.

Strawberry producers in West central Florida report that mite populations are building up but overall pressure has been low this season. Reports indicate that some growers are beginning to spray and other are watching population levels which are expected to reach threshold levels if the current trend continues.

Pepper Weevils

Respondents around southwest Florida indicate that pepper weevil s remain low with a few scattered hotspots reporting higher numbers.

Growers and scouts on the East Coast report mostly low to moderate pepper weevil activity.

Around Homestead, respondents report pepper weevils remain at very low levels.

Diseases

Growers and scouts report recent rainy weather has increased disease pressure in a number of areas. Foggy mornings and heavy dews have helped sustain favorable conditions for disease development.

Late Blight

Late blight has now been diagnosed on tomatoes east of Immokalee. Reports indicate that incidence is low and is currently restricted to a relatively small area.

Late blight had been previously reported on potatoes in the Immokalee area. Despite an aggressive spray schedule some new lesions continue to be reported.

Few diseases spread as quickly as late blight. The disease can easily devastate a tomato or potato field within a few weeks if it is not properly controlled.

Late blight is caused by the fungus *Phytophthora infestans*, which is a specialized pathogen of potato and, to a lesser extent of tomato. 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. Temperatures in the lower range stimulate the formation of many swarm spores (zoospores) from the sporangia. This situation dramatically increases the potential for disease spread.

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. Since late blight symptoms may be confused with symptoms of other diseases, the following diagnostic pointers may help growers distinguish between the late blight and other diseases.

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 seen any time of day and 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 including use of certified seed and destruction of cull in addition to careful scouting are absolute necessities if late blight is to be properly controlled. Remember that prevention is the key to success

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. They are often grouped as protectants or systemics. 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.

Although growers have been able to effectively control late blight by sanitation, cultural methods and judicious use of fungicides, the situation became more complicated in recent years by the development of resistance to certain fungicides such as metalaxyl. Growers should be aware of this problem and be careful exercise resistance management strategies rotating fungicides with diverse modes of action into their spray programs.

In Florida, it has been observed that seldom does a widespread late blight epidemic occur on tomatoes in the Manatee-Ruskin area unless the disease was present in the Immokalee area and/or Dade County. Since late blight has been confirmed on both potato and tomato in Immokalee growers in other areas are advised to adhere to a preventative spray program.

To date, no reports of late blight have been received from other areas of the state.

Sclerotinia

Reports from the East Coast report that sclerotinia is still a problem in peppers and is quickly becoming a bigger problem in the tomatoes.

Dr Ken Pernezny also reports diagnosing sclerotinia on pepper on east coast. He reminds growers that the emergency use label for Topsin-M is still in effect but stresses that it is important that they save these applications for when the petals of the flowers are falling into the crooks of the stems.

Growers and scouts around Southwest Florida note that Sclerotinia is widely present in a number of locations on bean, pepper, tomato and eggplant. Initially reports were largely centered in the Devil's Garden area but over the past week or so new infections have been reported around Immokalee and Naples.

Respondents in Homestead report that white mold has been active in beans in recent weeks.

Dr Rick Raid, Pathologist UF/IFAS EREC reports that growers in the Belle Glade area (and other parts of South Florida) are beginning to see some of the vegetable diseases caused by the fungus *Sclerotinia sclerotiorum*. This pathogen causes lettuce drop, white mold on beans, and cottony soft rot of crucifers. Sclerotinia is most active under cool to moderate temperatures; our typical winter temperatures favor disease development.

The pathogen survives as sclerotia in the soil and this may give rise to a fruiting structure (under the right conditions), which provides aerial or wind-blown inoculum (spores). The most effective management programs are aimed at the primary inoculum form, the sclerotia.

While management of this disease begins before planting with fallow flooding of organic soils (nearly 100% effective) during the summers, crop rotation, or deep plowing of heavily infested fields; growers can sometimes achieve control on the currently planted crop using available fungicides. On beans, Topsin M (thiophanate methyl) and Rovral (iprodione) provide some control.

Since the infections frequently occur on senescing blooms, applications should be timed to coincide with blossoming. If applied once, apply at 50-70% bloom or, for better control, apply twice, with the first application at 10-30% bloom and the second at peak bloom. Botran is another chemical registered on beans, which may be used to target Sclerotinia. As usual, read all labels before applying chemicals to check for proper registration, rates, and safety guidelines.

In tomato and pepper, infections also typically start at flowering. Water-soaked spots are usually the first symptom, which is followed by invasion of the stem, girdling, and death of the upper part of the stem that turns a light gray. Large portions of the field may become diseased, producing large, circular, areas of dead plants.

Sclerotinia is a fungus that prefers cool, moist weather, causing diseases of great intensity when temperatures range from 60 - 70°. High humidity with dew formation supports the spread and increases the severity of infections. Topsin has given good results in controlling the disease in fruiting vegetables if applied preventatively.

A good indicator of Sclerotinia is the presence of small, black sclerotia (resting structures) of the fungus. Sclerotia vary in size and shape. Sclerotia can form on the surface of plant parts as well as inside the stems of tomato. Another common indicator of Sclerotinia diseases is the presence of white, cottony-like mycelium of the fungus when weather conditions are cool and moist.

Topsin M 70 WP has an emergency, Section 18 label for use in Florida on fruiting vegetables including tomato, pepper, and eggplant for suppression of white mold caused by *Sclerotinia sclerotiorum* from July 3, 2003 to March 31, 2004. The rate is 0.5 to 1.0 lbs of product per acre. It is for use by ground application only. A maximum of 4 applications per crop are allowed. Do not apply within 2 days of harvest. The maximum amount of product per crop that can be used is 3.5 lb/acre.

Bacterial Spot and Speck

Around Immokalee, recent rains and wet conditions have increased incidence and occurrence of bacterial spot on both tomato and pepper in most locations. In most cases, infections remain low on the plant in spring crops.

Bacterial speck has also been diagnosed on tomato in the Immokalee area.

Bacterial speck of tomato, caused by *Pseudomonas tomato*, is favored by cool, moist environmental conditions. The disease is spread mechanically and by wind-driven rain. The disease develops rapidly at 75°F. but disease development occurs readily at lower temperatures.

Tentative field diagnosis of bacterial speck is best accomplished by careful inspection of fruit symptoms. Speck lesions on green fruit are small, **sunken**, black spots surrounded by **darker green** haloes. On ripe fruit, spots are dark brown to black, superficial flecks. Foliage symptoms of bacterial speck are much more difficult to distinguish from other diseases. The leafspots are small, black lesions surrounded by prominent chlorotic (yellow) haloes. These haloes are quite large, averaging twice the size of the necrotic tissue they surround.

Stem lesions in the stems are dark brown to black and shaped like elongated ovals.

Respondents around the Homestead area report new bacterial spot activity in pepper and tomato.

East Coast growers report mostly some increased bacterial spot activity in pepper and tomato.

Reports from the Manatee/Ruskin area indicate that foggy weather and two recent rain events have caused slight increases in bacterial spot incidence in tomatoes but most young crops look good.

Early Blight

Reports from Homestead indicate that early blight is active on potato and tomato. *Alternaria* is also present on beans.

Low levels of early blight are also being reported from widely scattered locations in East Coast growing areas.

Around southwest Florida, respondents report an increased early blight activity in tomato and potato over the past few weeks.

***Alternaria* leaf spot, caused by the fungus *Alternaria brassicae*, has been observed on Chinese cabbage this fall throughout the Glades.** Dr Rick Raid notes that although this disease can be brought into check by some of the broad spectrum protectants, such as chlorothalonil and maneb, strobilurin fungicides registered on this crop have proven to be the most effective. Again, this class of fungicide should be alternated or tank mixed with a broad-spectrum protectant to avoid or reduce the likelihood of fungicide resistance developing and to improve efficacy.

Target spot

Respondents in Palm Beach County report that target spot is widely present on tomato. Incidence and severity is mostly low.

Growers around Homestead report that very active target spot working on the inside foliage of large lush vines.

Growers and scouts around Southwest Florida indicate that target spot is widely present across the area especially in the inner canopies of older tomatoes.

Tomato Yellow Leaf Curl Virus

Around Homestead, some new reports of TYLCV infections have been received even though whitefly numbers remain fairly low in many fields.

In the Immokalee area, growers and scouts indicate that TYLCV is increasing in a number of scattered locations but remains low overall across the area. Most spring plantings remain well below 1% infections but there have been some localized hotspots reaching 15%.

Growers and scouts on the East Coast report mostly low incidence of TYLCV with a few infected plants showing up here and there. There have been some reports of increased incidence and occurrence in older plantings with secondary infections being observed within fields.

In the Bradenton area, TYLCV is present in many remaining fall plantings.

Rust

Reports from the Belle Glade area indicate that common rust of corn, incited by *Puccinia sorghi*, has picked up early this year. A foliar disease, common rust may be diagnosed by the orange to brown pustules that develop on both sides of the corn leaf. Easily disseminated long distances by wind-blown spores, the disease may spread quite rapidly. Rust on young seedlings may result in stunted plants and pustules on ear husks may adversely affect marketability. Broad-spectrum protectants (EBDCs and chlorothalonil) used in a rotational or tank-mix program with the more effective strobilurin and sterol-inhibiting fungicides are recommended. On susceptible varieties, growers should not wait for the disease to build up to significant levels before applying chemical controls. This greatly reduces the likelihood of keeping the disease below economic levels. In addition, it increases the risk that fungicide-insensitive strains may develop. Use of a spreader-sticker, particularly when the plants are young and have waxy leaves may assist in obtaining good coverage. Once again, read all labels and follow all restrictions and safety instructions before applying pesticides.

Rust has also been reported on beans in the Devils Garden area of Hendry County. Bean rust, caused by the fungus *Uromyces phaseoli* var *typica*, is primarily found during the cooler months when heavy dews, rather than actual driving rain, provide moisture for spore germination and penetration of host plants. In South Florida, rust usually first appears in early January and becomes progressively more severe through the end of the commercial crop in April.

Variation in pustule size, prominence of haloes, and other symptom patterns are due, in part, to the many races of the bean rust fungus -- 57 at last count. Each race is pathogenic on a specific combination of bean varieties. If varieties resistant to those specific races in a given locale are planted, control of rust can be very good. Unfortunately new races of the pathogen seem to appear almost as fast as new varieties are released.

Prompt crop destruction after harvest is very important in the control of rust. If fields are abandoned after harvest and not destroyed, rust can continue to develop and serve as a major source of inoculum for fields in full production. Brown clouds made of literally millions of rust spores have been observed above abandoned fields on gusts of wind. Such inoculum loads can make it difficult to control rust even with the most intensive spray schedule.

Currently, the most important method for rust control is periodic application of protectant fungicides. Initiate the spray program prior to the first sign of rust if rust is an annual problem. Where rust is sporadic in occurrence, begin the spray program at first sign of the disease. Subsequent sprays may have to be at 5 to 7 day intervals.

Downy Mildew

Dr Rick Raid reports that plant pathologists at the EREC confirmed a limited outbreak of lettuce downy mildew in south Florida, caused by *Bremia lactucae*, during January. The outbreak occurred on specialty lettuce grown on a very small acreage. The disease has thus far not spread beyond the borders of the one location. Early detection and notification of all lettuce growers is key in containing this potentially devastating disease, and plaudits go out to the alert scouting service involved in the original diagnosis. All lettuce growers are urged to maintain good protective fungicide coverage of their lettuce crop to prevent spread of downy mildew. There are now a number of compounds that are effective in combating this disease and growers should consult their labels and Plant Protection Pointer 6 for more information.

Respondents in West Central Florida report that downy mildew is present on some oriental brassicas including Napa and Chinese broccoli. Control is being achieved with chlorothalonil.

Reports indicate that downy mildew is also active in squash in a number of locations across South Florida.

Fusarium crown rot

Fusarium crown rot in tomato has increased in some older tomato fields around Immokalee. Fusarium wilt is also present in a few widely scattered locations.

Growers in scouts in Palm Beach also report finding a few isolated cases of fusarium in pepper and tomato.

Powdery mildew

Respondents in Palm Beach County indicate that they continue to find powdery mildew on squash in a number of locations. Incidence is low to moderate but drier conditions and crop maturity will favor disease development. Powdery mildew has also been found on beans, pepper and eggplant as well.

Powdery mildew is also widely present on squash around southwest Florida. Scouts operating around Immokalee note they are seeing some powdery mildew in older pepper in a few locations.

Phytophthora

Reports from the East Coast continue to note widely scattered occurrence of *Phytophthora capsici* on pepper, tomato, and squash. Some increase in incidence and occurrence has been noted following recent rains.

Phytophthora is also showing up in pepper in a few locations around southwest Florida.

Gummy stem blight

Growers and scouts around Immokalee report finding new gummy stem blight infections in watermelon.

Phomopsis

Growers and scouts are reporting the presence of Phomopsis on eggplant in a number of areas across South Florida.

Gray Wall

Growers are reporting problems with gray wall in tomato in a number of locations around southwest Florida. Although gray wall or blotchy ripening has been known and described for many years - we still do not have a clear understanding of the exact causes. Many factors have been implicated in this disorder including high nitrogen, low potassium, high soil moisture, high humidity, low light intensity, low temperatures and or temperature fluctuations and soil compaction. In addition to these abiotic causes - bacteria, fungi and TMV have also been implicated in the development of these symptoms.

Some varieties are more susceptible than others and a combination of the above conditions is generally present when the problem is seen. For example, a combination of low light and temperatures high N and high soil moisture seem to result in a greater occurrence than if only one of these factors is present.

Gray Mold

Growers and scouts report finding botrytis in tomato in several locations around southwest Florida, especially in areas such as Naples that experienced higher accumulations during recent rains. Some reports indicate heavy bloom loss in the most severely affected plantings.

Anthracnose

Reports from the Dover area indicate the presence of anthracnose on strawberry. The variety - Treasure has been most affected.

Anthracnose has also been diagnosed on pepper in the Immokalee area.

Watermelon Vine Decline and Fruit Rot Alert

For at least the past 2 seasons, central and southwest Florida growers have experienced problems with watermelon vine decline late in the crop cycle approaching harvest characterized by wilting in the plant, scorched leaves, defoliation and rapid vine collapse on maturing vines. Frequently, fruit were observed with greasy, necrotic lesions on the interior portion of the rind that rendered the fruit non-marketable.

Investigations to date have been inconclusive for identifying a cause. No pathogen was consistently associated with the symptoms nor were any cultural or environmental factors identified as the cause. Under the leadership of Dr. Pam Roberts at Immokalee, we now have additional resources to address this problem if or when it appears this season.

If you see this problem, please notify your county extension agent immediately so we can begin collecting samples and information to try and pinpoint a cause. A significant number of melons have been lost to this problem and we need to find a solution.

Up Coming Meetings

Hillsborough County

February 26, 2004 **Blueberry/Peach/Plum Production for West Central Florida** 9 AM - Noon
Hillsborough County Extension Office
5339 S CR 579
Seffner, Florida

RSVP Traci Buck at 813-744-5519 ext 104

Manatee County

March 9 **CORE/Private Pesticide Applicator Exam Preparation** 9AM - 11 AM
Manatee County Extension Office
1303 17th Street W
Palmetto, Florida

Contact Phyllis Gilreath at 941-722-4524

Miami Dade County

February 12, 2004 **Transportation of Hazardous Materials and** 6:00 PM
BASF Product Update

John D. Campbell Ag Center
18710 SW 288th Street
Homestead, Florida

Call Mary Lamberts at 305-248-3311 for information

Palm Beach County

February 11, 2004 **General Standards/Core Test Review** 8 AM - 12 Noon
Private Applicator Test Review 1 PM – 3 PM

Belle Glade Extension Office
2976 State Road 15
Belle Glade, Florida

Contact Laura Powell at 561-996-1655.

February 26, 2004 **Developing an Effective Weed Control Program** 9 AM to 12 Noon

Everglades Research and Education Center
3200 East Palm Beach Road
Belle Glade, Florida

Contact Darrin Parmenter at 561-233-1725
or Curtis Rainbolt at 561-996-165

Southwest Florida

February 25, 2004

WPS Handler Training

Spanish 9 AM – Noon
English 1 – 3 PM

Hendry County Extension Office
1085 Pratt Boulevard
LaBelle, Florida 33935

Contact 863-674-4092 for details

Other Meetings

March 23-27, 2004

ISHS International Symposium on Protected Culture in a Mild-Winter Climate

Orlando, Florida, USA.

Contact Dr. Daniel J. Cantliffe at 352-392-1928 ext. 203

June 21-24, 2004

1st International Symposium on Tomato Diseases and 19th Annual Tomato Disease Workshop

Grosvenor Resort at Walt Disney World
Orlando, Florida

For more information, visit <http://plantdoctor.ifas.ufl.edu/istd.html>

November 14 – 16, 2004

17th International Pepper Conference

Naples Beach Hotel and Golf Resort
Naples, Florida

For more information, contact Gene McAvoy at 863-674-4092 or visit
<http://conference.ifas.ufl.edu/pepper>

Websites

NewCROP (New Crops Resource Online Program) is an information-rich site related to non-conventional crop plants. If you are considering a new nontraditional crop, this website maintained Purdue University may help you in your quest for information. Set your browser to <http://newcrop.hort.purdue.edu/newcrop/>

The Colorful Past of Okeechobee County – if you have an interest in Florida history – this website will provide you with interesting insights to our not so distant past. Go to <http://www.geocities.com/TheTropics/Shores/4374/history.htm>

News You Can Use

Barn Owls for Sustainable Rodent Control

Barn owl nesting boxes have been sprouting like weeds on many vegetable farms in the Everglades Agricultural Area this fall and spring as part of a USDA program fostering sustainable rodent control. One of nature's most effective rodent predators, the common barn owl (*Tyto alba*) is considered to be the "farmer's friend". It has

been documented that a single nesting pair of barn owls can easily eliminate over 1,000 rodents per year. Spearheaded by Dr. Richard Raid at the EREC, the University of Florida's "Barn Owl Program" assists growers in placing nesting boxes along field edges and drainage canals to help control rodent pests. Major among these pests are various rat and mice species, as well as marsh rabbits.

Nesting boxes can be made from an assortment of materials but Raid's program uses a standard nesting box measuring 38" L X 12" W X 18" H and built of exterior plywood and pine board. Boxes are best positioned out in the open on 4" X 4" posts about 10 to 12 feet off the ground, with the entrance hole facing north. Box plans and instructions can be obtained from Dr. Raid by contacting him at 561-993-1564.

A key component of the USDA project has been the educational and public relations aspects. Raid uses the program to provide "hands-on" lessons for students (K-12), encouraging them to get involved in not only an environmental cause, but agriculture as well. Rising owl populations have also enabled Raid to collect "owl pellets", regurgitated prey remains, for distribution to schools. The dissection of owl pellets is a favorite activity of teachers and students for science labs in the classroom. It is a win-win program for all involved... unless perhaps, you're a rodent.

Ag Literacy Day in Florida: March 16, 2004 has been designated Agriculture Literacy Day by the Florida Department of Agriculture and Florida Agriculture in the Classroom, Inc. (FAITC). Resources are available for those interested to present good, cogent information about Florida Agriculture. For further information, go to <http://www.agtag.org> or call 352-846-1391.

Pesticides Registrations and Actions

The Florida Department of Agriculture and Consumer Service (FDACS) issued the Special Local Needs [24(c)] registration number FL-030013 to Nichino America for use of **Courier®** (buprofezin) insecticide to control whiteflies on tomato with a one-day preharvest interval. The EPA registration number for the product is 71711-15.

The FDACS issued the Special Local Needs 24(c) registration number FL-030014 to Syngenta Crop Protection for use of **Switch®** (cyprodinil + fludioxonil) fungicide as a dip on strawberry transplants to suppress root and crown rot. The EPA registration number for the product is 100-953.

On October 3, FDACS registered the fungicide **Endura®** (boscalid) for control of diseases on lettuce, potato, cucurbits, fruiting vegetables, and other crops. The EPA registration number for the BASF Corporation product is 7969-197.

On October 3, FDACS registered the fungicide **Pristine®** (boscalid) for control of diseases on strawberry, bulb vegetables, and other crops. The EPA registration number for the BASF Corporation product is 7969-199.

On October 20, FDACS registered the fungicide **Tanos®** (famoxadone) for control of diseases on cucurbits, potato, tomato, and other crops. The EPA registration number for the DuPont product is 352- 604. REI is 12 hours. Consult the label for rate and PHI as this varies by crop. There are season and annual maximum applications as well.

On November 6, the FDACS registered the herbicide **Envoke®** (trifloxysulfuron-sodium) for selective control of certain broadleaf, sedge, and grass weeds in transplanted tomato. The EPA registration number for the Syngenta Crop Protection product is 100- 1132.

On December 22, the Florida Department of Agriculture and Consumer Service (FDACS) registered the miticide **Zeal®** (etoxazole) for control of spider mites on pome fruits, cotton, and strawberry. The EPA registration number for the Valent U.S.A. Corporation product is 59639-123

The nematicide **DiTera® DF** (dried fermentation products of *Myrothecium verrucaria*) is now available from Valent U.S.A. Corp. It is registered with the EPA and is also listed by the Organic Materials Review Institute for use in organically grown products.

Assail 70 WP has received a supplemental label for the control of pepper weevil on fruiting vegetables (except Cucurbits). Rate is 1.7 ounces per acre. No more than 4 applications are permitted per season. REI is 12 hours. PHI is 7 days.

Quotable Quotes

To the generous mind the heaviest debt is that of gratitude, when it is not in our power to repay it. -- Benjamin Franklin

If you put tomfoolery into a computer, nothing comes out of it but tomfoolery. But this tomfoolery, having passed through a very expensive machine, is somehow enobled and no one dares criticize it. -- Pierre Gallois

In all things of nature there is something of the marvelous. -- Aristotle

"No other human occupation opens so wide a field for the profitable and agreeable combination of labor with cultivated thought as agriculture." - Abraham Lincoln

Man is the Only Animal that Blushes. Or needs to. -- Mark Twain

Women who seek to be equal with men lack ambition. -- Timothy Leary

Live in such a way that you would not be ashamed to sell your parrot to the town gossip. -- Will Rogers

On the Lighter Side

Dead Horse

The tribal wisdom of the Dakota Indians, passed on from generation to generation, says, "When you discover that you are riding a dead horse, the best strategy is to dismount."

Now a days in government and in the workplace more advanced strategies are often employed, such as:

1. Buying a stronger whip.
2. Changing riders.
3. Appointing a committee to study the horse.
4. Arranging to visit other countries to see how other cultures ride horses.
5. Lowering the standards so that dead horses can be included.
6. Reclassifying the dead horse as living-impaired.
7. Hiring outside contractors to ride the dead horse.
8. Harnessing several dead horses together to increase speed.
9. Providing additional funding and/or training to increase dead horse's performance.
10. Doing a productivity study to see if lighter riders would improve the dead horse's performance.
11. Declaring that, as the dead horse does not have to be fed, it is less costly, carries lower overhead and, therefore, contributes substantially more to the bottom line of the economy than do some other horses.
12. Rewriting the expected performance requirements for all horses.

And of course the favorite...

13. Promoting the dead horse to a supervisory position.

T- Shirts

A WASHINGTON POST columnist runs a column each summer listing interesting T-shirt slogans observed at the Ocean City, Maryland beach. Here is a sampling:

I CHILDPROOFED MY HOUSE, BUT THEY STILL GET IN.

I'M STILL HOT. IT JUST COMES IN FLASHES.

MY REALITY CHECK JUST BOUNCED.

ANNAPOLIS -- A DRINKING TOWN WITH A SAILING PROBLEM.

KEEP STARING.... I MAY DO A TRICK.

LIVE YOUR LIFE SO THAT WHEN YOU DIE, THE PREACHER WILL NOT HAVE TO TELL LIES AT YOUR FUNERAL.

IN GOD WE TRUST. ALL OTHERS WE POLYGRAPH.

MY MIND WORKS LIKE LIGHTNING ...ONE BRILLIANT FLASH AND IT'S GONE.

Contributors include: Joel Allingham/AgriCare, Inc, Karen Ambrester/SWFREC, Kathy Carbiener /Agricultural Pest Management, Jim Connor/SWFREC, Bruce Corbitt/West Coast Tomato Growers, Dr. Phyllis Gilreath/Manatee County Extension, John Hamilton/Helena Chemical Company, Fred Heald/Farmers Supply, Sarah Hornsby/AgCropCon, Cecil Howell/H&R Farm, Loren Horsman/Glades Crop Care, Bruce Johnson/General Crop Management, Dr. Mary Lamberts/Miami-Dade County Extension, Leon Lucas/Glades Crop Care, Gene McAvoy/Hendry County Extension, Alice McGhee/Thomas Produce, Jimmy Morales/Pro Source One, Dr. Gregg Nuessly/EREC, Tim Nychk/Nychk Bros. Farm, Chuck Obern/C+B Farm, Teresa Olczyk/ Miami-Dade County Extension, Darrin Parmenter/Palm Beach County Extension, Dr. Ken Perneznny/EREC, Dr. Richard Raid/EREC, Dr. Pam Roberts/SWFREC, Dr. Nancy Roe/Farming Systems Research, Wes Roan/6 L's, Kevin Seitzinger/Gargiulo, Jay Shivler/ F& F Farm, Kevin Short/Integrated Crop Management, Ken Shuler/Stephen's Produce, Ed Skvarch/St Lucie County Extension, John Stanford/LNA Farm, Mike Stanford/MED Farms, Dr. Phil Stansly/SWFREC, Julie Stocker/Diamond R, Eugene Tolar/Red Star Farms, Dr. Charles Vavrina/SWFREC, Mark Verbeck and Donna Verbeck/GulfCoast Ag, Alicia Whidden/Hillsborough County Extension, and Dr. Henry Yonce/KAC Agricultural Research, Inc.

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
Extension Agent III
Regional Specialized Agent - Vegetables/Ornamental Horticulture
Hendry County Extension Office
PO Box 68
LaBelle, Florida 33975
Web: <http://hhort.ifas.ufl.edu/>

863-674-4092 phone
239-860-8811 mobile - Nextel Agnet 28950
863-674-4097 fax
GMcAvoy@mail.ifas.ufl.edu

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Thomas Produce Company

Of South Florida
Grower and Shippers of Quality Vegetables
9905 Clint Moore Road
Boca Raton, Florida 33496

Robert Murray
Florida Favorite Fertilizer

787 Overriver Drive
North Fort Myers, Florida 33903
Phone 800-457-0807 Cell 239-707-2272

LaBelle Plant World, Inc.

Tommy Smith: President
Scott Smith: Vice President
We Grow Plants for the Pros
LaBelle, Florida Phone 863-675-2020

Fred Heald
Farmers Supply Inc

710 Broward Street
Immokalee, FL 34142
Phone 239-657-8254 Fax 239-657-2005

Gargiulo

Growers Shippers Importers Exporters
David Pensabene: Production Manager
Naples Operations
Phone 239-353-0300 Fax 239-353-3407

Damon Shelor
ProSource One

Immokalee, Florida
Office 239-657-8374 Cell 239-707-6142
E-mail: dshelor@ProSourceOne.com

Ted and Trudy Winsberg
Green Cay Farms, Inc.

Rt. 1, Box 331B
Boynton Beach, Florida 33437-9727
Phone 561-499-5345

Ed Early
Dupont Agricultural Products

5100 South Cleveland Avenue
Fort Myers, Florida 33907
Phone 239-332-1467 Mobile 239-994-8594

Donna Muir Strickland
Monsanto Crop Protection

PO Box 1723
LaBelle, Florida 33975
Phone 863-675-4250

Cameron Sutherland
Enza Zaden NA Inc

PO Box 367
Avon Park, Florida 33826
Office/Fax 863-452-2232 Cell 239-842-0248

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Charlie Mellinger, Ph.D.

Phone 561-746-3740 Fax 561-746-3775

Rachel Walters

Bayer CropScience

5243 Tamiami Court

Cape Coral, Florida 33904

Phone 239-542-8831 Cell 239-707-1198

Glen Kaufman

Paramount Seeds, Inc.

PO Box 1866

Palm City, Florida 34991

Phone 772-221-0653 Fax 772-221-0102

Walter Preston

Manatee Fruit Company

PO Box 128

Palmetto, Florida 34220-0128

Phone 941-722-3279 Fax 941-729-5151

Robert F. Gregg

Syngenta Crop Protection

11051 Championship Drive

Fort Myers, FL 33913

Office 239-561-8568 Cell 239-872-8936

CERTIS USA

Dr. Adam Muckenfuss 772-781-2233

Sales: Joe Craig 863-424-5412

Ed Dickinson 863-318-9004

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Scott Allison

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1155 Commerce Drive

LaBelle, Florida 33935

Phone 863-675-3700 Cell 239-851-0613

Bill Hunt Company, LLC

Agricultural Spray Technology

Miami, Florida USA

Phone 305-238-0991 Fax 305-254-6319

bilihun@spraytec.com www.spraytec.com

Meghan Zielinski

Dow AgroSciences LLC

9330 Zionsville Road

Indianapolis, Indiana 46268

Phone 727-397-7793 Cell 727-415-0431

Bobby Hopkins

SIPCAM AGRO USA

Phone 1-800-295-0733 or 770-587-1032

Cell 678-576-4549

www.sipcamagrousa.com

Lrhopkins3@aol.com

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Sarah Hornsby, CCA
Agricultural Crop Consulting, Inc
Scouting: Manatee, Hillsborough, Collier
Office/Fax 941-776-1122
Cell 941-713-6116
Email: AgCropCon@aol.com

Donald Allen
AGLIME SALES INC
1375 Thornburg Road
Babson Park, Florida 33827-9549
Office 863-638-1481 Fax 863-638-2312
Mobil 863-287-2925

Bobbit Jenkins
BASF Corporation
11100 Lakeland Circle
Fort Myers, Florida 33913
Office 239-561-2812 Fax 239-561-6985
Mobil 239-707-1603

Corn Beans Squash
Chuck Elam
Florida Seed
Hybrid Vegetable Seed
863-559-3494
Tomato Pepper Watermelon

Thad G. Boatwright
Monsanto Crop Protection
1089 Forsythia Lane
West Palm Beach, FL 33415
Office 561-478-4970 Fax 561-478-4970
Cell 561-719-6820

Justin Cain
Chemical Dynamics
PO Box 486
Plant City, Florida 33564-0486
Office 813-752-4950 Fax 863-638-1383
Mobil 863-581-0431

Chuck Obern
C & B Farm
CR 835
Clewiston, FL 33415
Office 863-983-8269 Fax 863-983-8030
Cell 239-250-0551

Bart Hoopingarner
Cerexagri
11933 73rd St. E
Parrish, FL 34219
Cell 941-737-7444 Fax 941-776-8127
bart.hoopingarner@cerexagri.com

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