



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

May 15, 2008

Mostly hot dry conditions have prevailed for the past few weeks with daytime temperatures regularly reaching the upper 80's and low to mid 90's in most areas. Nighttime temperatures have been in the 50's, 60's and 70's.

Most South Florida growing areas received very little precipitation for the period with all reporting less than an inch. Crops are showing signs of moisture stress on hot afternoons and water levels in ponds are starting to drop rapidly. The hot dry wind of the past few weeks is really taking a toll on plants.

FAWN Weather Summary

Date	Air Temp °F		Rainfall (Inches)	Ave Relative Humidity (Percent)	ET (Inches/Day) (Average)
	Min	Max			
Balm					
4/25 – 5/17/08	54.05	90.48	0.02	66	0.18
Belle Glade					
4/25 – 5/17/08	52.25	94.33	0.25	70	0.17
Clewiston					
4/25 – 5/17/08	55.80	94.10	0.36	66	0.18
Ft Lauderdale					
4/25 – 5/17/08	61.68	94.55	0.01	68	0.19
Fort Pierce					
4/25 – 5/17/08	53.33	92.64	0.96	61	0.20
Homestead					
4/25 – 5/17/08	57.72	91.78	0.52	69	0.19
Immokalee					
4/25 – 5/17/08	49.71	92.34	0.20	63	0.19

Wishing you all the best for a safe and restful summer break.

The Institute of Food and Agricultural Sciences is an Equal Employment Opportunity – Affirmative Action Employer authorized to provide research, educational, information, and other services only to individuals and institutions that function without regard to race, color, sex, age, handicap or national origin.
COOPERATIVE EXTENSION WORK IN AGRICULTURE, FAMILY AND CONSUMER SCIENCES, SEA GRANT AND 4-H YOUTH, STATE OF FLORIDA, IFAS, UNIVERSITY OF FLORIDA, U.S. DEPARTMENT OF AGRICULTURE, AND BOARDS OF COUNTY COMMISSIONERS COOPERATING

Vegetables coming to market include: snap beans, cabbage, cantaloupe, eggplant, pepper, radishes, squash, sweet corn, tomatoes, watermelon and various specialty items. Watermelon volumes are off due to disease issues and unfavorable weather earlier in the season.

The season is winding down fast. Palm Beach, Southwest Florida and Homestead are just about finished up and the south-Ruskin area is winding down fast. Over all it was a tough spring with all the cold and rain.

The short-term forecast from the National Weather Service in Miami indicates a weak front may try to push south over the weekend slightly increasing chance of rain but will probably not make it all the way to south Florida. Toward the middle of the week, a stronger upstream trough and deep upper low over the northeast/great lakes region will begin to lift northeastward. This will place south Florida back in weak south flow for the middle/latter portions of next week bringing slightly cooler temperatures and improving rain chances. For additional information, visit the National Weather Service in Miami website at <http://www.srh.noaa.gov/mfl/newpage/index.html>

Insects

Whiteflies

Growers and scouts around Southwest Florida report that most growers with crops still in the ground have a whitefly issue now, especially on tomatoes. Dr Phil Stansly reports he has seen a real jump in whiteflies on sticky cards indicating that folks are finishing up and whiteflies are cutting loose.

Around Manatee County respondents indicate that whitefly numbers are really starting to escalate over the past few weeks and reports indicate that nymphs and pupae are present in a number of places.

On the East Coast reports indicate that whitefly pressure continues to be heavy in remaining crops.

Pepper Weevils

Growers and scouts in Palm Beach report that remaining pepper plantings have been overrun with pepper weevils are horrible.

Respondents around Southwest Florida report that pepper weevil numbers have reached high levels in most fields

Reports from the Manatee County area indicate that pepper weevils are active in a number of locations.

Weevils are also causing problems around Homestead where reports indicate they are a constant problem.

Growers and scouts in all South Florida growing areas indicate that it is difficult to remember a season with constant high pressure experienced this past season.

Worms

Around Belle Glade, the past two weeks have seen heavy egg-laying by both Southern and beet armyworms, with a scattering of fall armyworm in corn. Hot weather has also increased diamond back moth activity in remaining crucifers.

Respondents in Manatee County reports that worm activity and egg-laying has also spiked upward. Growers are seeing a mixed bag of hornworms, loopers, beet and southern armyworm. Worm pressure has

reportedly been steady since the last full moon. Some reports indicate that growers are having a tough time with pinworm in Myakka area but they not too bad elsewhere.

Around Southwest Florida, reports indicate that worms are increasing and seem to have a taste for watermelon rinds right now. Scouts report finding mostly beet and fall armyworms

In Palm Beach County pinworm numbers are variable - high in some locations in eggplant in tomato with lower numbers in other areas. Some beet armyworms and loopers are also present.

Thrips

Reports from East Coast indicate that growers continue to battle western flower thrips in remaining crops.

Respondents around Southwest Florida report that western flower thrips have become quite common across the area.

Respondents note that thrips are causing some dimpling and flecking of tomato fruit, and discoloring the calyx in eggplant fruit.

Around Manatee County reports indicate thrips have been the heaviest in a long time and seem to be sticking around longer.

Managing Western Flower Thrips

Thrips are tiny insects with fringed wings. There are over 5,000 described species with about 87 species of thrips that are pests of commercial crops due to their feeding on leaves, fruits, and flowers causing discoloration, deformity, and reduced marketability.

The western flower thrips (*Frankliniella occidentalis*) was spread over many parts of the world during the 1980's and 1990's due to the global trade in ornamental plants. Originally from the southwestern US, it is now largely cosmopolitan, and it is the key vector of *Tomato spotted wilt virus*. The insect and the virus have become the key pest problems of tomato, pepper, and other crops in northern Florida, but they were not, until 2006, serious pests in central and southern Florida. In northern Florida, the eastern flower thrips (*Frankliniella tritici*) is more common than the western flower thrips. In central and southern Florida, the Florida flower thrips (*Frankliniella bispinosa*) is the more common. All of the above-mentioned species of thrips have a broad host range that includes many crops, weeds and other plants in and around crop fields.

The pest status of individual species of flower thrips differs in tomato and pepper. The adults of the western flower thrips inhabit the flowers where they feed on pollen and flower tissues. The females lay eggs individually on the small developing fruit in the flower, and the larva hatches in about six days. A small dimple sometimes surrounded by a halo remains on the developing fruit of pepper and tomato. Direct feeding by the western flower thrips larvae also can cause cosmetic fruit damage referred to as 'flecking'. Both types of damage can result in cull-out and lowering of grade of the harvested fruit, with tolerance based on price and demand in the marketplace.

Producers in central and southern Florida will need to begin considering western flower thrips as a key pest. At this time, tomato spotted wilt is not a serious pest.

Specific recommendations for the management of western flower thrips in fruiting vegetables include the following:

- Plant and maintain refugia such as sunflowers. Some weeds such as Spanish needle (*Bidens* species) also are good refugia. These refugia are a source for minute pirate bugs to invade peppers and other suitable crop hosts and a sink for thrips leaving tomato or pepper to be eaten by predators. There are other benefits of refugia as well.
- Identify the thrips in crops as the western flower thrips is a damaging pest and the Florida flower thrips is not damaging. Also, the Florida flower thrips competes with the western flower thrips.
- Scout and use established economic threshold for western flower thrips as appropriate for individual crops. Thresholds should include the impact of the minute pirate bug and the predator's ratio relative to the number of thrips.
- Use reduced-risk insecticides to conserve populations of minute pirate bugs in pepper, eggplant, and strawberries. Minute pirate bugs will not invade tomato in sufficient numbers to suppress thrips.
- Use ultraviolet-reflective mulches when possible (aluminum layered mulches reflect the most)
- Do not use insecticides known to induce western flower thrips.
- Rotate insecticides with different modes of action as a resistance management strategy. Do not rotate Radiant with SpinTor, because they are in the same class of chemistry. Multiple plantings of susceptible crops from fall to spring on the same farm creates many problems. Western flower thrips can move from one planting to another. In some locations especially southeastern Florida, populations of western flower thrips are treated with Radiant on one planting and then move to the adjacent planting and get sprayed again. This results in the same thrips population getting sprayed multiple times. Multiple applications can result in the thrips population developing tolerance to the spinosyn chemistry and thus poor performance. Adjacent fields should be planted and destroyed at the same time, so that they can be managed together. Therefore, there should be communication between growers in an area-wide knowledge-based approach.
- Do not make more than two consecutive applications of Group 5 insecticides (Radiant and SpinTor). If additional treatments are required after two consecutive applications, rotate to another class of effective insecticide for at least one application. Do not apply more than 34 oz or 6 applications of Radiant per calendar year.

In some cases, additional management efforts are needed to manage western flower thrips and other difficult pests in space and time. Management of the pepper weevil (*Anthonomus eugenii*) is proving a challenge to pepper growers trying at the same time to manage western flower thrips. Growers need to emphasize sanitation and other cultural tactics over broad-spectrum insecticides that kill minute pirate bugs or induce western flower thrips in other ways.

In summary, western flower thrips can not be controlled by the used of insecticides alone. A knowledge-based integrated approach to manage this pest is required.

Contributed by Dr. Joe Funderburk, Entomologist UF/IFAS NFREC, Quincy, FL and Mr. Tony Weiss, Dow AgroSciences, Brandon, Florida

Leafminer

Respondents in Manatee County report they are still finding a few leafminer in isolated fields particularly where whiteflies are being targeted.

Spider Mites

Respondents from Palm Beach note some scattered problems with spider mites on cucumbers and squash.

Growers and scouts around Southwest Florida report that spider mite numbers are flaring in a number of places which is not surprising with the hot dry weather of the past few weeks.

Aphids

Respondents around Manatee County reports finding that aphids are present in scattered locations.

Diseases

Watermelon Vine Decline

Watermelon vine decline is now being reported widely from scattered locations across southwest Florida where it is hitting melons approaching maturity. It has been reported around Arcadia and Hardee County. Squash vein yellowing virus (SqVYV) is a whitefly transmitted virus that has been identified as the cause of watermelon vine decline.

No reports of vine decline have been received from the Manatee Ruskin area.

TYLCV

On the East Coast, reports indicate that TYLCV is bad in places reaching 100% in some scattered older plantings but remains low to moderate in many others.

Around Southwest Florida, tomato yellow leaf curl virus continues to increase in many fields with remaining fields reaching a 50% infection rate but most crops are past the point of concern.

Respondents in Homestead indicate that tomato yellow leaf curl virus is widely present and is a major problem in remaining fields.

Around Manatee County, reports indicate that tomato yellow leaf curl virus is increasing across the Manatee Ruskin area but is still present at mostly low to moderate levels. Respondents indicate that infection rates appear to be lower than in past years at this stage of growth.

Late Blight

Respondents in Manatee County report that late blight is lingering around the area and can still be found sporadically in tomato fields although dry weather has helped dry down lesions on infected plants.

Downy Mildew

Growers and scouts around Southwest Florida report that downy mildew is widely present in cantaloupe and watermelon with incidence and severity varying widely between locations.

Growers and scouts on the East Coast indicate that downy mildew remains a big concern in cucumber. Downy mildew is also present in some watermelons at low levels. Dr Ken Pernezny, Pathologist at UF/IFAS EREC reports the downy mildew is completely off the scale in his winter squash plots and is some of the heaviest downy mildew on squash he has ever seen.

Around Manatee County, Dr Gary Vallad, pathologist at UF/IFAS GCREC reports heavy dews have kept the downy mildew going on most cucurbits, less so on muskmelon and watermelon.

Bacterial Spot

Around Southwest Florida, bacterial spot has slowed way down and just about disappeared in most places.

Respondents in Homestead report that bacterial spot continues to cause some problems in remaining tomato.

Growers and scouts on the East Coast report that bacterial spot progress is slowing in response to drier weather.

Reports from Manatee County indicate that heavy morning dews last week created a favorable environment for continued bacterial leaf spot activity.

Powdery Mildew

Around Immokalee, powdery mildew widely present in cucurbits at varying levels.

On the East Coast, powdery mildew is causing problems squash and cucumbers.

In Manatee County reports indicate that there is plenty of powdery mildew on all cucurbits.

Powdery mildew is wide spread in squash in Homestead.

Phytophthora

Around Palm Beach, the cooler wetter weather experienced this winter/spring has favored Phytophthora in a number of crops and growers are experiencing losses on eggplants and other crops.

Dr Ken Pernezny, Pathologist at UF/IFAS EREC reports diagnosing Phytophthora blight on eggplant fruit. He notes that lesions are a sort of off-white and slightly sunken and the tissue can be soft. No pycnidia can be found as one would expect with Phomopsis blight. It is important to differentiate the two diseases.

Profuse growth of the Phytophthora on fruit held overnight in a moisture chamber (100% humidity) can also be observed. The lack of crosswalls in the mycelium helps differentiate this Phytophthora from other fungal pathogens. Not much can be done for the mature plants at/near harvesting. For the next crop, starting treatment rotation from flowering stage may provide more meaningful protection to yield and marketability.

Phomopsis Blight

Growers and scouts report that phomopsis blight is causing some problems on eggplant around Southwest Florida.

Phomopsis blight, caused by the fungus *Phomopsis vexans*, is a destructive disease of eggplant worldwide, but is particularly important in tropical and subtropical areas. All parts of the plant are affected. Young seedlings can be attacked soon after emergence. Dark lesions may form slightly above the soil line, become sunken, and eventually result in cankers that girdle the stem. Seedlings affected in this manner will typically collapse and die.

The fungus will attack leaves throughout crop development; older leaves are most susceptible. Lesions are usually circular, gray to brown, and develop a light center as they mature. Numerous fruiting bodies of the fungus, called pycnidia, can often be seen in the center of the older lesions. They appear as tiny, black pimples embedded in the host tissue. Affected leaves may turn yellow and drop prematurely. Spots and cankers can also form on mature stems and branches.

The most important symptoms are those that occur on the fruit, as these render the fruit unfit for market. Injury begins as pale, sunken, circular to oval areas on the surface. These later enlarge, and become markedly depressed.

Several spots may coalesce, affecting large portions of the fruit. The key to diagnosis of Phomopsis fruit rot is the observation of the pycnidia or fruiting bodies embedded in the flesh of the lesion interiors. These black pimple-like structures are often arranged in a roughly concentric pattern. The causal fungus probably survives between crops in plant debris in the soil. The non-cropping season in southern Florida is very short, enhancing the survival potential of the pathogen. Spores of the fungus ooze out of the pycnidia in a sticky matrix. The major means of spread of the pathogen is in splashing rain.

Wind dispersal is considered to be of relatively minor importance. Phomopsis blight is favored by hot, wet weather. The optimum temperature for growth of the fungus is 84°F (29°C). It grows well up to 90°F (32°C).

Since Phomopsis persists on and in seed, and overwinters in residue from diseased plants prompt destruction of infected plant material after the cropping season is important in reducing initial inoculum. In transplant production use of certified seed and pathogen-free planting media is essential. Growers should ensure that transplants taken to the field are free of disease. Two eggplant varieties, 'Florida Market' and 'Florida Beauty', have good resistance to the seedling canker stage of the disease but are still fairly susceptible to the leaf, stem, and fruit infection stages. A spray program with a protectant fungicide is necessary to maintain yield and quality.

Southern Blight

Reports from growers and scouts indicate that southern blight is causing scattered problems on a variety of crops around Manatee County.

Tomato Chlorosis Virus

Tomato chlorosis virus (ToCV) is a relatively new disease in Florida that is being seen with increasing frequency in some areas. The leaves of plants infected with tomato chlorosis virus (ToCV) become yellow or red between the veins, stunted, and rolled.. Onset of disease appears to occur during the short day-length period of late December-February. Symptoms are typically most apparent on middle to lower parts of plants, while new growth may appear normal. Lower leaves develop a progressive, interveinal chlorosis, often with necrotic flecking. Symptoms resemble these caused by magnesium deficiency in tomato but are less uniform within a leaflet or among leaflets on a leaf. As the disease progresses, interveinal necrosis can occur and the leaves become characteristically brittle, thick, and crisp. No fruit abnormalities have been observed. Fruit size and number appear reduced by virus infection.

ToCV is common in the southeastern United States and also has been found in Puerto Rico. Outbreaks of this disease are unpredictable from year to year and for various geographic locations. This virus is transmitted by various species of whitefly. Studies indicate that the banded wing whitefly (*Trialeurodes abutilonea*) and silverleaf whitefly (*Bemisia tabaci* biotype B) are highly efficient vectors of ToCV. *B. tabaci* biotype A and *T. vaporariorum* are less efficient vectors.

Although the disease has the potential to cause severe losses to both fresh market and greenhouse-grown tomatoes, it generally causes minor losses. In Italy, no economic losses are reported, however in California, severe yield losses have been reported; losses of more than 2 million dollars were reported in tomato fields of Orange County, in one season.

In addition to tomato, this virus infects a wide array of weeds, crops, and ornamentals, including groundsel, sowthistle, shepherd's-purse, artichoke, lettuce, potato, zinnia, petunia and others.

Currently, the major way to reduce losses from criniviruses in tomato is insecticide-based control. Neonictinoid based products are most frequently used for whitefly control, and can be applied as a foliar spray, a seed treatment or through drip application. While insecticides effectively reduce whitefly populations, such control methods are relatively inefficient for control of viruses, since whiteflies can transmit a virus before being killed by an insecticide. Unfortunately, most whitefly-transmitted criniviruses do not produce symptoms until 3 to 4 weeks after infection occurs. Therefore infection can be widespread by the time symptoms are observed and control measures are implemented.

Growers can also minimize exposure to this virus by avoiding overlap with other susceptible crops. Avoid using infected transplants. Roguing of infected plants and general whitefly control may help reduce virus spread.

Gummy Stem Blight

Around Southwest Florida and the center of the state, gummy stem blight remains a major problem in watermelons and has impacted yields in a number of places.

Respondents in Palm Beach County report that gummy stem is present on cucurbits in a number of places.

Rust

Some very low levels of common rust are present in summer sweet corn plantings in Belle Glade.

Mosaic

Reports from Homestead indicate that mosaic is widespread in squash.

Mosaic is widely present on squash around Southwest Florida.

Reports indicate that mosaic is slowly increasing in watermelon around SW Florida.

Fusarium

Reports from SW Florida note some increase in Fusarium crown rot following the recent rains.

Respondents in Manatee County report continuing problems with fusarium crown rot and fusarium wilt race 3 following recent rains.

Cucurbit Leaf Crumple Virus

Cucurbit Leaf Crumple Virus is becoming more widespread around south Florida and is present in cucurbits at several locations from Immokalee to Manatee County.

Sanitation, Sanitation, Sanitation...

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

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

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

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

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

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

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

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

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

The use of cover crops and summer fallowing of fields are also effective tools in reducing weed populations that can cause problems in the subsequent crop. The role of summer fallow in weed

management is often overlooked. Summer fallow keeps new weed seeds from being added to the soil seed-bank. It also reduces the increases in asexual propagated plants such as nutsedge. Yellow nutsedge can put out 70 new tubers (nuts) every two months. Keeping the weeds from propagating will reduce the weed problems encountered during the next cropping season and help reduce insects and diseases that may over summer in weedy fields.

Chemical fallowing is a twist on the traditional method of fallowing that depends on disking fields through out the summer period to reduce weed pressure in subsequent crops. One approach uses Roundup to kill weeds during the crop free period.

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

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

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

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

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

Be a good neighbor and clean up!

News You Can Use

Farm bill described as 'real win' for Florida

Facing a presidential veto, the House passed a five-year, \$290 billion farm bill Wednesday that would provide new federal support for specialty crops and additional benefits for the domestic sugar industry.

The 318-106 vote exceeded the 291 votes needed to override a presidential veto if all members are present. Bush has said he will veto the bill because of widespread subsidies in the legislation. The Senate also is considering the bill, which the two houses have labored over for past six months, and a vote could come today. Supporters said the bill would reform payments to farmers and provide more support for specialty crops, alternative energy, conservation and food assistance to the poor.

Critics argued it did not go far enough to reform the subsidy program.

The bill also would increase spending on food stamps and other forms of food assistance by \$10 billion, expand the school snack program for low-income students to all 50 states and boost cellulosic ethanol research and production. Cellulosic energy is produced from byproducts of food production, such as cane stalks and orange peels.

The bill also would provide nearly \$8 billion for conservation, including \$1.4 billion for wetlands preservation.

Rep. Tim Mahoney, D- Palm Beach Gardens, the only member of the Florida congressional delegation on the House Agriculture Committee, praised the bill and said its cellulosic ethanol section "means more jobs for our state."

Mahoney said he is pleased that the bill did not require any tax increases or additional federal debt.

Mike Stuart, president of the Florida Fruit & Vegetable Association, noted that the bill has more than \$2.5 billion for specialty crop programs including research, promotion, disease protection and increased competitiveness.

Florida would receive about 11 percent of the \$466 million designated for state specialty crop block grants over five years, the second-highest portion after California.

"It's a real win for the state of Florida," Stuart said.

By Larry Lipman
Palm Beach Post Washington Bureau
May 14, 2008

UF/IFAS hires New Vegetable Agents in South Florida

Two new vegetable Extension Agents have been hired to fill vacant positions in South Florida. Ms. Crystal Snodgrass is located at the Manatee County Extension Office. She is a graduate of the University of Florida and has worked in the vegetable industry as a scout before joining extension. Dr David Sui is located at the Palm Beach County Extension Office and worked for A&L Laboratories before joining Extension.

I hope you will join in welcoming these two vegetable new agents. Contact information is as follows:

Crystal A. Snodgrass
University of Florida
Manatee County Extension Service
1303 17th Street West
Palmetto, FL 34221
941-722-4524
FAX: 941-721-6608

David Sui, PhD
Extension Agent for Vegetables & Tropical Fruits
UF/IFAS Palm Beach County Cooperative Extension
559 N. Military Trail
West Palm Beach, FL 33415-1311
(561) 233-1718 - Office
(561) 233-1768 - Fax
dsui@ufl.edu

Lake Okeechobee Report

The water level in Lake Okeechobee as of May 15, 2008 was 9.96 ft, about 3 ft. below the historical average for this time of year. A wildfire continues to burn in the littoral zone near Observation Island on the southwest side of the lake. At least 5,000 acres have burned and smoke has affected large portions of SW Florida.

Opportunities

Hiring scouts for 2008-2009 season. Prefer experience but will train with right background. Full or Part time, can work out of Hillsborough/Manatee area or Collier/Hendry area. Fax resumes to 941-776-1122, email to AgCropCon@aol.com or call 941-812-6561 for more information.

Farm Land for Lease

Farm Land for lease in LaBelle area – contact Greg Jones at 863-675-0545

Pesticide Potpourri

Revus Top™ Fungicide Receives Florida Label Approval

Syngenta Crop Protection announced registration by the Florida Department of Agriculture and Consumer Services (FDACS) of Revus Top™ fungicide, a powerful premix of two active ingredients, mandipropamid and difenoconazole, for use on tomatoes and potatoes against destructive oomycete pathogens.

Revus Top, a 1-to-1 combination of mandipropamid, a carboxylic acid amide (CAA) fungicide, and difenoconazole, a triazole fungicide (sterol inhibitor), provides protection against early blight and late blight, as well as a broad-spectrum of other tough diseases including black mold, black dot, Septoria leaf spot, anthracnose and other damaging diseases. Conveniently pre-mixed for ease of use, Revus Top provides economical disease control. In addition, Revus Top exhibits excellent crop safety, good tank mix compatibility, and works effectively well in integrated pest management (IPM) programs.

DuPont Announces Registration Approvals for Altacor® and Coragen

DuPont has received registration approvals from the U.S. Environmental Protection Agency and the Canada Pest Management Regulatory Agency (PMRA) for Altacor® and Coragen®, two new insecticides that offer growers long-lasting control of a wide range of important pests. Altacor® and Coragen® are powered by Rynaxypyr®, a new breakthrough mode of action insecticide that delivers fast-acting and long-lasting protection to help growers achieve high-quality, high-yielding fruit and vegetable crops.

Rynaxypyr® has an outstanding environmental profile, making both Altacor® and Coragen® an excellent fit in integrated pest management programs. The new technology provides highly effective control of target pest species at low use rates, but with minimal impact on beneficial species.

QRD 416 Looks Promising in Trials

AgraQuest's new insecticide QRD416 has performed well in trials in southwest Florida and elsewhere for control of whiteflies. It has also demonstrated a reduction of watermelon vine decline which is vectored by whiteflies. In trials by Dr Pam Roberts and Dr Phil Stansly in Immokalee results indicated that watermelon plots treated with QRD416 showed significantly less watermelon decline than the other treatments. This is the second watermelon vine decline trial in which QRD416 has shown excellent activity in decreasing the incidence and severity of the disease.

AgraQuest expects a food crop registration in the 4th quarter of 2008

Up Coming Meetings

Hillsborough County

May 20, 2008

**Methyl Bromide Alternatives
and the future of Fumigation in Florida**

12:00 PM until 2:00 P.M.

FL Strawberry Growers Conference Room - Lunch
13138 Lewis Gallagher Road
Dover, Florida

Call Alicia Whidden at 813-744-5519 for more information.

Manatee County

May 21, 2008

**Methyl Bromide Alternatives
and the future of Fumigation in Florida**

12:00 PM until 2:00 P.M.

Popi's Restaurant - Lunch
3911 US Hwy 301
Ellenton, Florida

Call Crystal Snodgrass at 941-722-4524 for more information.

Palm Beach County

May 29, 2008

**Methyl Bromide Alternatives
and the future of Fumigation in Florida**

12:00 PM until 2:00 P.M.

Duffy's Sports Grill

NW Corner of Boynton Bch. Blvd and Jog Rd.
Boynton Beach, Florida

Call David Sui at 561-233-1725 for more information.

Southwest Florida

May 27, 2008

WPS Train – the Trainer Class (English)

8:30 AM – 12:00 PM

Hendry County Extension Office
1085 Pratt Boulevard
LaBelle, Florida

Call 863-674-4092 to register

May 27, 2008 **WPS Train – the Trainer Class (Spanish)** **8:30 AM – 12:00 PM**

Hendry County Extension Office
1085 Pratt Boulevard
LaBelle, Florida

Call 863-674-4092 to register

May 28, 2008 **Fumigation Certification
and License Prep Class** **1:00 PM – 3:00 PM**

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

Contact Gene McAvoy at 863-674-4092 for details

May 28, 2008 **Methyl Bromide Alternatives Workshop
and Demonstration** **3:00 PM – 8:00 PM**

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

Contact Gene McAvoy at 863-674-4092 for details

Other Meetings

June 1-3, 2008 **Florida State Horticulture Society Annual Meeting**

Fort Lauderdale Marriott North
Fort Lauderdale, Florida

Go to <http://www.fshs.org/> for information and registration

September 7 – 10, 2008 **19th International Pepper Conference**

Atlantic City, New Jersey

Go to <http://njveg.rutgers.edu/NJpepperconference/> for more information.

Websites

Polish Digital Clock – University of Poland science students have finally finished the digital clock they have been working on for the past 4 years. Check it out at <http://www.yugop.com/ver3/stuff/03/fla.html>

Color Pictures of Mineral Deficiencies in Tomatoes – photos depicting visual symptoms of nutrient deficiencies in tomatoes – good reference and links to other crops.

Go to <http://www.hbci.com/~wenonah/min-def/tomatoes.htm>

Quotable Quotes

Good manners will open doors that the best education cannot. - Clarence Thomas

Politeness and consideration for others is like investing pennies and getting dollars back. - Thomas Sowell

A man cannot be too careful in the choice of his enemies. -Oscar Wilde

Always do sober what you said you'd do drunk. That will teach you to keep your mouth shut. - Ernest Hemingway

Good judgment comes from experience, and experience comes from bad judgment. -Barry LePatner

No act of kindness, no matter how small, is ever wasted. -Aesop

On the Lighter Side

\$20.00

A well-known speaker started off his seminar by holding up a \$20.00 bill. In the room of 200, he asked, 'Who would like this \$20 bill?'

Hands started going up. He said, 'I am going to give this \$20 to one of you but first, let me do this. He proceeded to crumple up the \$20 dollar bill.

He then asked, 'Who still wants it?' Still the hands were up in the air.

Well, he replied, 'What if I do this?' And he dropped it on the ground and started to grind it into the floor with his shoe.

He picked it up, now crumpled and dirty. 'Now, who still wants it?'

Still the hands went into the air.

My friends, we have all learned a very valuable lesson.

No matter what I did to the money, you still wanted it because it did not decrease in value.

It was still worth \$20.

Many times in our lives, we are dropped, crumpled, and ground into the dirt by the decisions we make and the circumstances that come our way.

We feel as though we are worthless. But no matter what has happened or what will happen, you will never lose your value.

Dirty or clean, crumpled or finely creased, you are still priceless to those who do love you. The worth of our lives comes not in what we do or who we know, but by who we are and whose we are.

You are special - Don't ever forget it.' Count your blessings, not your problems.

Noah's Ark

Everything you need to know about life, you can learn from Noah's Ark

One: Don't miss the boat.

Two: Remember that we are all in the same boat.

Three: Plan ahead. It wasn't raining when Noah built the Ark.

Four: Stay fit - when you're 600 years old, someone may ask you to do something really big.

Five: Don't listen to critics; just get on with the job that needs to be done.

Six: Build your future on high ground.

Seven: For safety's sake, travel in pairs.

Eight: Speed isn't always an advantage. The snails were on board with the cheetahs.

Nine: When you're stressed, float a while.

Ten: Remember, the Ark was built by amateurs; the Titanic by professionals.

Eleven: No matter the storm, when you are with God, there's always a rainbow waiting...

This will be the last regular Pest and Disease Hotline issued for this season. Publication will resume with the start of the 2008 –2009 vegetable season. I would like to acknowledge and extend my sincerest thanks to all of the many contributors who graciously shared valuable information, which has made the hotline so successful and also for the generous support of all our sponsors with out which publication of the hotline would not be possible.

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.**

Contributors include: Joel Allingham/AgriCare, Inc, Bruce Corbitt/West Coast Tomato Growers, 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, 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, Dr.Gregg Nuessly/EREC Chuck Obern/C&B Farm, Teresa Olczyk/ Miami-Dade County Extension, Dr. Aaron Palmateer/TREC, Dr. Ken Pernezny/EREC, Dr. Rick Raid/ EREC, Dr Ron Rice/Palm Beach County Extension, Dr Pam Roberts/SWFREC, Dr. Nancy Roe/Farming Systems Research, Wes Roan/6 L's, Dr. Dak Seal/ TREC, Kevin Seitzinger/Gargiulo, 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, , Mark Verbeck/GulfCoast Ag, Alicia Whidden/Hillsborough County Extension and Dr. Shouan Zhang/TREC.

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

Gene McAvoy

County Extension Director / 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

2863-673-5939 mobile - Nextel 159*114449*

863-674-4097 fax

GMcAvoy@ifas.ufl.edu

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

Thomas Produce Company

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

Robert Murray

Wedgworth's Inc

Big W Brand Fertilizer
Phone 561-996-2076 Cell 239-707-2272

Wes Mathis

Triangle Chemical Company

2821 Old State Road 8
Venus, Florida 33960
Toll Free 866-893-7848 Cell 863-673-2892

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

Mark Myers

Agriliance/ProSource One

Immokalee, Florida
Phone 239-657-8374 Mobile 239-253-6631
E-mail: memyers@agriliance.com

Dr. Nancy Roe

Farming Systems Research

5609 Lakeview Mews Drive
Boynton Beach, Florida 33437
Phone 561-638-2755

Ed Early

Dupont Agricultural Products

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

Glades Crop Care, Inc.

**Leaders in Crop Health
Management**

Charlie Mellinger, Ph.D.
Phone 561-746-3740 Fax 561-746-3775

Rachel Walters

Bayer CropScience

32871 Washington Loop Road
Punta Gorda, FL 33982
Phone 941-575-5149 Cell 239-707-1198

Glen Kaufman

Paramount Seeds, Inc.

PO Box 1866
Palm City, Florida 34991
Phone 772-221-0653 Fax 772-221-0102

Farmer Mikes LLC

Mike Clevenger J.J. Black
15960 CR 858
Immokalee, FL 34142
Office 239-658-0592 Fax 239-658-0593

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

Jim Cartwright
Syngenta Crop Protection
PO Box 960639
Miami, FL 33296
Office 305-3800492 Cell 305-439-5968

OmniLytics - AgriPhage
Safe Natural Effective
Vegetable Bacteria Control
Brett Jackman 801-541-4244
Aaron Johnson 801-746-3461

PRODUCTION SOILS LLC
A Superior Alternative To Compost

Sam Hipp 954-296-9203

Scott Allison
DIAMOND R FERTILIZER
1155 Commerce Drive
LaBelle, Florida 33935
Phone 863-675-3700 Cell 239-851-0613

John Frieden
Abacus (Abemectin)
Rotam USA LLC
Valdosta, Georgia 31602
Office 229-253-1646 johnfr@rotam.com

Chip Giles
Dow AgroSciences LLC

Phone 239-707-0197
AgNet 158*17*15098

Bobby Hopkins
SIPCAM AGRO USA
Phone 1-800-295-0733 or 770-587-1032
Cell 678-576-4549
www.sipcamagrousa.com
Lrhopkins3@aol.com

Steve Mike Dave
Jamerson Farms

Growers, Packers and Shippers of
Florida's Finest Vegetables
Phone 239-229-5734 Fax 239-368-0969

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

OxiDate® BioSafe Systems LLC
TerraClean® Luis Hansen 305.793.9206
StorOx® Sim NiFong
info@biosafesystems.com 863.441.1057

AgraQuest Inc

Steve Melchert
Eastern Divisional Manager
239-633-2403 cell

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

Garry Gibson
BASF Corporation
1502 53rd Avenue
Vero Beach, Florida 32966
Office 772-778-4646 AGNET 21726
w.garry.gibson@basf.com

PREV AM
Vegetable Pest/Disease Control
Darrell Thorpe 352-483-6569
Jerry Dukes 941-524-1312

UAP – AGRILIANCE - TRIANGLE/CPS

Valent USA

"Products That Work
From People Who Care"

Sarah Hatton 863-673-8699

Jack Kilgore
239-707-7677
Natural Industries Inc
info@naturalindustries.com
Actinovate® AG
Biological Fungicide

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

Bart Hoopingarner
UPI- formerly Cerexagri
3605 162 Ave E
Parrish, FL 34219
Cell 941-737-7444 Fax 941-776-1844
bart.hoopingarner@uniphos.com

Jay Hallaron
Chemtura Corporation

321-231-2277 cell 407-256-4667 cell
jay_hallaron@cromptoncorp.com

Matt Arnold
United Agri Products
116 Jerome Drive
Immokalee, Florida
239-657-3168 office 239-464-5763 cell

Dr. Henry Yonce
KAC Agricultural Research
Scouting, Consulting
Research
386-736-0098 work 386-527-1124 cell
HDYONCE@msn.com

Richard Roles
Roles Marketing International
Distributors of Agrigro and Super Cal
10% Calcium
richard@rmiint.com www.rmiint.com
Cell 561-644-3511

PUT YOUR NAME HERE

PUT YOUR NAME HERE

NOTE: The acknowledgement of sponsorship in no way constitutes or reflects an official endorsement of these businesses or their products or services by either the University of Florida, IFAS, the Florida Cooperative Extension Service, or the Hendry County Extension Office. Sponsors have no control over the content of this publication