



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

October 16, 2009

Hot and dry is the only way to describe the weather of the past few weeks. Following a barest hint of a cool breeze around the first of the month, high temperatures in many interior locations have soared regularly into the mid to upper 90's on a daily basis. The FAWN Weather Station in Immokalee reported a high of 100. Night time lows have been mostly in the low to mid 70's.

Belle Glade, Clewiston and most East Coast sites reported some rain for the period ranging from just over half an inch in Fort Pierce to 2 inches in Bell Glade. West Coast areas have been dry and water levels have been dropping rapidly in ponds and canals. A number of areas are reporting issues with heat stress and crops are looking droopy afternoon. Sun scalding of transplants is also being reported from scattered locations.

FAWN Weather Summary

Date	Air Temp °F		Rainfall (Inches)	Ave Relative Humidity (Percent)	ET (Inches/Day) (Average)
	Min	Max			
Balm					
9/17 – 10/2/09	59.38	99.3	0.01	79	0.14
Belle Glade					
9/17 – 10/2/09	65.71	94.66	2.02	83	0.14
Clewiston					
9/17 – 10/2/09	63.95	94.24	0.62	79	0.13
Ft Lauderdale					
9/17 – 10/2/09	72.21	93.9	1.52	77	0.15
Fort Pierce					
9/17 – 10/2/09	64.89	95.2	0.54	81	0.15
Homestead					
9/17 – 10/2/09	67.32	92.75	1.71	84	0.13
Immokalee					
9/17 – 10/2/09	62.44	100.13	0.01	79	0.15

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

Growers in many areas are continuing to prepare land, plant and perform cultural operations like staking and tying. Crops look good in most SW Florida and in East Coast locations. Many fields in Manatee Ruskin which experienced a lot of weather are bit rougher. Tomato harvest has started in Manatee County with light volume and some short season crops and specialty items including basil are beginning to come to market.

The short-term forecast from the National Weather Service in Miami calls for scattered showers and possibly a few thunderstorms tonight as the cold front begins to move closer to the area. The cooler weather will arrive Saturday with much cooler and drier air moving over the peninsula. South Florida will go from near record highs to near record lows over the next 48 hrs as the high pressure ridge pushes into the southeast states.

Next week, the ridge will gradually spread eastward and into the Atlantic allowing the flow to become easterly. This will increase moisture and gradually raise temperatures ahead of the next cold front moving across the southern plains.

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 Immokalee report that whiteflies are low to moderate depending on location. One grower indicated that there are still more than he would like to see. Some nymphs and eggs are present in older plantings.

Around the Manatee County area respondents indicate whitefly numbers have dropped off in most locations and some farms report little or no whitefly pressure although some reports from the Myakka area indicate they are still terrible in places.

Reports from Palm Beach indicate whiteflies are moving around and numbers vary from low to moderate with some nymphs present in older crops.

Worms

On the East Coast, respondents are reporting high numbers of loopers in eggplant and other crops. They also report low to moderate numbers of beet and southern armyworms and their egg masses. In some locations, beet armyworms are causing problems for tomato and pepper seedlings and other transplants. Melonworm pressure is reportedly increasing in cucurbits.

Around SW Florida reports indicate that worm pressure is increasing in most places with a range of species present. Pressure is still mostly low to moderate and growers report no issues with control.

Growers and scouts in the Manatee Ruskin area report they are finding lots of armyworm, and more cabbage loopers than usual. Scouts note they are finding worm eggs everywhere of all varieties except pinworm.

Broad mites

Respondents in Palm Beach and east Coast locations report that broad mites are everywhere and are causing problems in eggplant, pepper and basil.

Around Immokalee, broad mites are present in a number of locations and some growers are having difficulty bringing them under control.

Broad mites present in pepper in the Manatee Ruskin area.

This destructive pest causes terminal leaves and flower buds to become malformed. The mite's toxic saliva causes twisted, hardened and distorted growth in the terminal of the plant. Mites are usually seen on the newest leaves and small fruit. Leaves turn downward and turn coppery or purplish. Internodes shorten and the lateral buds break more than normal. The blooms abort and plant growth is stunted when large populations are present.

The broad mite has four stages in its life cycle: egg, larva, nymph and adult. Adult females lay 30 to 76 eggs (averaging five per day) on the undersides of leaf surface and in the depressions of small fruit over an eight- to 13-day period and then die. Adult males may live five to nine days.

There are also reports of the broad mite using insect hosts, specifically some whiteflies species, to move from plant to plant

Look for malformed terminal buds and stunted growth on affected plants. Broad mites are very small and difficult to see without a 10X or stronger hand lens

While a number of miticides are labeled for control of this pest; products like sulfur, insecticidal oils or soaps are often effective. Coverage is important. Due to its short life cycle, treatment at 5 days or shorter intervals is important.

Leafminers

Leafminer pressure in the Manatee Ruskin area is increasing but has yet to reach treatment threshold levels on most farms

On the East Coast leafminer activity is increasing is being treated in a few locations.

A few leafminers are also beginning to show up around Immokalee.

Aphids

Scouts in Manatee County report that aphids are beginning to increase in some location but note they are finding more dead aphids than live.

In Palm Beach County, aphid pressure is spotty on pepper, cucurbits and some specialty items like arugula.

Spider mites

Respondents in Palm Beach indicate that spider mites are increasing in crops like eggplants and basil with highest pressure on field margins.

A few spider mites are present in tomatoes and are building in some melons around Manatee and Hillsborough Counties but most of the melons are being harvested and under little threat.

Thrips

A few Florida flower thrips have been reported around the area but are causing no problems.

Diseases

Bacterial leaf spot

In Manatee/Ruskin area, bacterial spot is still an issue on most farms and is still moving. Although there has been little to no rainfall for the past few weeks, the nights have been wet and this is keeping things going. Some of the worst ravaged fields are relatively bare of foliage to the first or second tie.

Respondents in Southwest Florida report that bacterial spot progression has slowed in most places but note that wet nights are allowing a slow creep in infected fields.

Scouts in Palm Beach County report that the bacterial spot situation is stabilizing in pepper and tomato and lesions are mostly dried up.

Target Spot

Around the Manatee Ruskin area, target spot is increasing and is starting to become common and is present low in plant (especially where bottom of bush is gone from bacteria). Some fruit damage is also being reported.

Target spot has also been reported from a few scattered locations around SW Florida where it is just beginning to show up.

Target spot is often a problem on tomatoes in Florida. The disease is caused by the fungus *Corynespora cassiicola*. Target spot is frequently misdiagnosed as in its early stages as leaf lesions are difficult to recognize and may be mistaken for bacterial spot

The name derives from the bull's eye appearance that is often displayed in lesions caused by the disease. Since concentric rings are not always visible and not all lesions with concentric rings are target spot, it is recommended that a laboratory diagnosis be obtained to ensure that a correct diagnosis is made.

The pathogen has several means for survival and spread in the field. It may survive up to 2 years in crop debris. The wide host range of this fungus may also contribute to survival of the fungus in Florida. The primary means spread in the field is by air-borne conidia. Optimum conditions for disease development include temperatures from 68° - 82°F and long periods of free moisture.

On tomato leaves and stems, the disease first appears as small necrotic lesions with light brown centers and dark margins. Some varieties display a pronounced yellow halo around these leaf spots. Individual lesions often coalesce and cause a general blighting of leaves.

On tomato fruit, lesions are more distinct. Small, brown, slightly sunken flecks are seen initially and may resemble abiotic injury such as sandblasting. As fruits mature the lesions become larger and coalesce resulting in large pitted areas. Advanced symptoms include large deeply sunken lesions, often with visible dark gray to black fungal growth in the center. A zone of wrinkled looking tissue may surround the margins of lesions on mature fruit. Placing suspect fruit in a moist environment for 24 hours will often induce the growth of dark gray mycelia providing telltale diagnostic evidence of target spot infection..

In trials, wounding was essential for reproduction of the fruit symptoms. Wind-blown sand is probably important in outbreaks of target spot on tomato fruit in the field. Target spot symptoms, especially in the early stages, can be readily confused with two other tomato diseases, bacterial spot and early blight.

Currently, target spot is controlled primarily by applications of protectant fungicides. It should be noted that tank-mix sprays of copper fungicides and maneb do not provide acceptable levels of target spot control. Recommended fungicides include various chlorothaliniol formulations (Bravo, Echo, Bravo Ultrex, Bravo Weather Stik and Ridomil Gold/Bravo).

Wet Rot

Growers and scouts around Southwest Florida are reporting some problems with Choanephora wet rot on pepper, beans, and cucurbits.

Respondents in Palm Beach and Martin County are also reporting scattered problems with Choanephora in peppers and beans where incidence and severity is low. Some reports indicate big problems in some squash especially in weedy fields that stay wet longer in the morning.

Wet rot or Choanephora blight is caused by the fungus *Choanephora* sp., and can affect many plants under warm wet conditions. It is a weak pathogen which is most aggressive under condition of high heat and humidity and when given the advantage of some type of injury or dead material (spent flowers) to get started on. Hosts include Southern peas, eggplant, yellow squash, and poinsettia and occurrence on bean and pepper plants in Florida is not uncommon.

Outbreaks of Choanephora blight are associated with extended rainy periods and high temperatures. Leaf area may appear water-soaked and margins and leaf tips blighted. Older lesions appear necrotic and dried out. The dark-gray fungal growth is apparent on some lesions. Under magnification, a silvery, spine-like fungus with a dark head is seen. Symptoms may be confused with Phytophthora blight (*Phytophthora capsici*) when young or spray burn on bean plants with older symptoms.

There are few management techniques available, but fungicidal sprays may reduce disease damage although none are specifically labeled for this disease.

TYLCV

Respondents in Manatee/Ruskin area report that new TYLCV infections have slowed down in most areas. In the most severely affected areas, crop losses promise to be high.

Around Immokalee, TYLCV is around at very low levels in scattered fields. Many farms are still TYLCV free.

Growers and scouts around Palm Beach report that TYLCV incidence is very low and is really not an issue at this time.

Southern Blight

Growers and scouts around Manatee County report that Southern Blight is still active in a number of plantings across the area.

Low levels of southern blight on pepper and tomato is being reported from scattered locations around Palm Beach and Martin Counties.

Southern blight is caused by a soil-born fungus, *Sclerotium rolfsii*. Whitish fungal growth develops around the base of herbaceous plants (and some woody plants) at the ground line. Small seed-like structures (sclerotia) are found with fungal growth. They are white at first and later turn dark brown to black.

Disease outbreaks are most severe during periods of wet, warm weather when temperatures range from 80 to 95 degrees.

Plants which have been attacked by southern blight first tend to turn yellow. This stage of the disease is quickly followed by wilting and death of the affected plant after the fungus girdles the stem.

There are several pests which may cause plant yellowing and wilt, however it's easy to determine if southern blight is responsible. A diagnostic symptom of the disease is the presence of white fungus growth on the lower stem and nearby plant debris. This growth is most easily observed several days after a rain. Numerous smooth, round, light tan to dark brown seed-like structures called sclerotia are usually formed in the mat of fungus growth. The sclerotia generally aren't too difficult to locate and are about the same size as mustard seed.

Southern blight can be controlled with cultural and chemical techniques. Residue management is important if the previous crop was a susceptible one such as peanut, cantaloupe, or black eye pea, residue should be buried deep enough to prevent its being brought back up in land preparation and cultivation.

Fumigants can reduce problems with southern blight and fungicides such as Terrachlor may also be applied to the soil on certain crops to inhibit development of the fungus. Planting on raised bed also helps reduce damage on some crops.

Pythium

Growers on the East Coast continue to report some problems from pythium in beans and other crops affecting stand establishment.

Respondents in Homestead also report problems with pythium in new plantings.

Downy Mildew

Around Southwest Florida growers and scouts are beginning to report problems with downy mildew on cucumbers and squash.

Downy mildew is also present on cucurbits in Homestead, Palm Beach and other east Coast location as well as the Manatee/Hillsborough area.

Downy mildew is also causing problems on basil in a number of locations. Basil and lettuce downy mildews continue to be present and management should continue through the end of the season. Dr Rick Raid, Plant Pathologist at UF/IFAS EREC reports that phosphonics can provide good economic control but cannot be solely relied upon for total control. Rotate or tank mix with some of the other registered fungicides.

Powdery mildew

Powdery mildew is present at low levels on squash and cucumbers in several locations around south Florida including Homestead, Immokalee and Palm Beach County.

Phytophthora

A few problems with Phytophthora have been reported in Palm Beach primarily around Loxahatchee in areas with a history of the disease.

Gummy Stem Blight

Reports from around Southwest Florida indicate that gummy stem blight is widespread in melons.

News You Can Use

Survey Reports Food Safety Costs Doubled for California Leafy Greens Growers

Seasonal food safety costs for California leafy greens growers more than doubled in the year after the September 2006 outbreak of E. coli in spinach, according to a survey by the University of California Small Farm Program. On a per-acre basis, these costs were lowest for the largest farms.

Information from the survey will be presented at hearings in consideration of a national leafy greens food safety program, to be held by the U.S. Department of Agriculture beginning Tuesday, Sept. 22.

The UC Small Farm Program survey is the first to ask leafy greens growers specifically about food safety costs after the implementation of the California Leafy Green Products Handler Marketing Agreement (LGMA). The LGMA was created in 2007 as a response to the 2006 E. coli 0157:H7 spinach outbreak. The marketing agreement is a voluntary program for California handlers of lettuce, spinach and other leafy greens. Farmers who want to sell their leafy greens to LGMA handlers must also comply with LGMA food safety provisions. An estimated 99 percent of leafy greens sold in California are covered under the LGMA requirements.

Many small-scale leafy greens growers who only sell directly to consumers, chefs and independent grocers are not subject to the LGMA.

In the survey, growers reported their seasonal food safety costs increased 127 percent, from an average of \$24.04 per acre to \$54.63 per acre. Because it appears that growers may have ignored some costs when responding to the survey — e.g., some labor costs and owner's time — the combined real costs of seasonal and one-time food safety improvements could exceed \$100 per acre.

The survey also found that costs per acre were consistently lowest for the largest-sized growers with revenues over \$10 million, who were also more likely to hire food safety specialists to manage their farms' compliance. "In California, we see that smaller farms are at a cost disadvantage under LGMA to the largest leafy greens growers — specifically those that have annual revenues over \$10 million," said Shermain Hardesty, director of the UC Small Farm Program and co-author of the study.

To view the full study, visit <http://ucanr.org/sfp/leafy-greens>.

DHS Formally Rescinds No-Match

The No-Match rule, which was never implemented, would have forced employers to fire workers based on discrepancies in their Social Security records.

DHS first announced its plan to rescind the rule in July, and with publication of a final rule in the Federal Register, the rescission will go into effect in 30 days. This ends a two-year legal battle between the federal government, business groups, labor organizations, civil liberties, and immigration rights groups.

A federal court blocked the No-Match rule in October 2007, after a lawsuit was filed against DHS, charging that enforcement of the rule would put authorized workers at risk of losing their jobs and would cause discrimination against workers.

Since that time, this regulation has continued to be blocked by the courts. Once this rescission goes into effect, the lawsuit becomes moot and is expected to be dismissed by the courts at that time. According to the Federal Register, this final rule is effective Nov. 6, 2009.

Farm Labor Contractor Registration Renewal and other Labor Reminders

You need to start on this early (at least 60 days before expiration) and you need to include EVERYTHING in one mailing. If you had any problems with the state of Florida (infractions), you might have to re-test to get your Florida registration. Also, Florida WILL NOT issue your state license until your federal registration has been ISSUED (not approved - issued).

You should also recommend using Certified Mail in all packages to Atlanta so you will have proof of timely filing (at least 30 days before expiration).

Your DOT ID Number is not a one-time application. The Federal Motor Carrier Safety Administration requires you update your account at least every two years (bi-annual) with a new application - even if nothing on the form has changed! You can do this by submitting the form MCS-150, either by creating an on-line account and entering all the information on line or by completing the MCS-150 and mailing the form.

There is a hefty penalty for operating without a current application - so please check your last application date.

Go to the following web site

<http://www.fmcsa.dot.gov/registration-licensing/online-registration/onlineregdescription.htm> for answers to your questions and the on-line forms!

The I-9 form has been changed and the latest copy will have the date of 08/07/09 Y on the bottom right with an expiration on the top of 8/31/12. The previous form with the 02/02/09 N on the bottom and the expiration of 6/30/09 will still be accepted - but if you're putting together new season employment packages, the new form is an easy change.

Spot inspections this past season revealed out of date forms being used, forms without the "List of Acceptable Documents" list on the back, and the employer/representative not signing the form. Another serious deficiency is the follow-up for documents you list on the front as reviewed that have upcoming expiration dates. Section 3 must be completed to prove you have reviewed the re-issued document after the original document that was used to authorize employment has passed its expiration date. (See <http://www.uscis.gov/portal/site/uscis> and click on "Forms" for more information).

Hopefully you remembered the minimum wage change from July when the Federal Minimum wage increased to \$7.25, higher than the state of Florida minimum at \$7.21. You need to make sure you have the correct wage on your Terms & Conditions of Employment Forms and that the current Fair Labor Standards Act poster (the federal minimum wage poster) is properly displayed. Thanks to Wes Wurth, Chapps Inc

Weeds Lurk as a Menace to Food Production

It has been said before but needs to be said again: crop loss figures clearly show that weeds should be regarded as growers' No. 1 enemy. That comes as no surprise to weed scientists who agree with the observations of newly retired FAO weed scientist R. Labrada-Romero that weeds pose a huge problem and threat to global food production.

Small farmers spend more than half the time in their fields performing weed control. Yet, if farms are going to increase productivity, one of the first things that must be done is to significantly improve weed management.

"Droughts, insects and diseases are attention grabbers because their effects are dramatic," Labrada-Romero points out. "Weeds are different. They play havoc quietly all year round, year after year." Little wonder weeds are dubbed a huge; largely unnoticed "hunger-maker."

According to Land Care New Zealand, weeds are responsible for \$95 billion a year in lost food production globally, compared to \$85 billion for pathogens, \$46 billion for insects, and \$2.4 billion for vertebrates (excluding human-caused losses). That \$95 billion loss translates into nearly 400 million tons of wheat, or more than half the world's production expected in 2009. - excerpted from an FAO news article.

Growers, Operators and Agricultural Pilots are invited to attend the FAAA/NAAA sponsored Operation S.A.F.E. Program - October 19 & 20, 2009

Growers and Producers are invited to join the Florida Agricultural Aviation Association members, operators and pilots for this unique, no-cost program. On Monday (October 19) the program will be held outdoors at the Clewiston airport with agricultural aircraft flying test patterns for individual analysis.

As aerial application becomes increasingly important to agriculture in Florida, this program will familiarize you with the guidelines and innovations being used to customize applications to the individual needs of the grower. Pattern uniformity and proper droplet size improve application accuracy and reduce the risk of spray drift.

Speakers scheduled on Tuesday (October 20) at the University of Florida/IFAS Everglades REC (Belle Glade) will be presenting topics of interest to everyone in agriculture.

What is Operation S.A.F.E.? Operation S.A.F.E. (Self-Regulating Application & Flight Efficiency) was developed and implemented by the NAAA. Through this program state associations, such as the FAAA, can provide testing, training and instruction to agricultural operators, agricultural pilots, public health licensed pilots and all commercial spray pilots.

An Operation S.A.F.E. fly-in clinic is a unique program in that it includes pattern testing and droplet size testing for the aircraft and equipment along with instructions for pilots. Professional analysis of each aerial application is performed by a trained analyst, who can then provide the pilot with recommended changes to improve performance, application accuracy, and reduced risks of spray drift.

Paul E. Sumner, Extension Engineer with the University of Georgia, will be the analyst conducting the fly-in and testing at the Clewiston airport. Mr. Sumner has a great deal of experience with Operation S.A.F.E. and is licensed by the NAAA.

Agricultural safety and security issues have become increasingly troublesome for farms and farm managers, and thus we highlight Palm Beach County Sheriff's Department who will provide an overview of these issues and how to best protect your operation.

Monday, October 19, 2009 - Clewiston Airport

9:00 – 12:00 pm Fly-in: Test and Analyze Aircraft

12:00 pm Break for Lunch

Paul E. Sumner, Extension Engineer, University of Georgia
Aircraft Calibration and Spray Drift, Understanding Safe Fly-In Reports

1:30 pm – Fly-in resumes until one of the following: darkness, no aircraft, and/or if weather causes termination of operation.

Tuesday, October 20, 2009 - University of Florida Everglades REC, Belle Glade

9:00 - 9:55 am - Detective Michael C. Fincannon, Palm Beach County Sheriff's Department, Agricultural Crimes Unit, Homeland Security Bureau - Agricultural Aviation Security Aircraft, Facilities, Support Equipment & Chemicals, Pesticide Safety, Understanding Labels, & Preventing Pesticide Accidents

10:00 - 10:55 am - Paul E. Sumner, Extension Engineer, University of Georgia - Operation SAFE - Continue discussions of Fly-in analysis results

11:00 - 11:55 am - Mark Ledson, Syngenta Crop Protection - Spray Drift Mitigation - A Chemical Industry Perspective. Minimizing and Preventing Pesticide Drift into the Environment

12:00 - 12:20 pm - Rick Minton, MBM Agricultural Management & Resource Development Specialist - The Future of Agriculture and Agricultural Aviation in Florida

12:20 pm - Lunch (courtesy of Sgt. Mark Bohne, PBSO)

The workshop is being sponsored by Palm Beach County Sheriff's Department, Syngenta Crop Protection, and the Florida Agricultural Aviation Association

4 Aerial CEUs and 2 Core CEUs Approved

To register please Contact Jeff Summersill at 561-722-4502 or email: lindadale1@msn.com so we can include you in our count for lunch.

'Land grants' could lead hunger fight

Gebisa Ejeta says the world will have to increase its production of food more in the next four decades than it has since the dawn of civilization.

Accomplishing that task will require concerted efforts by governments, agribusiness and farmers, says Ejeta, the winner of this year's World Food Prize. The glue holding those parts together may be a revitalization of the land-grant university system.

With the world's population expected to grow from current estimates of 6 billion people to more than 9 billion by 2050, the world's agricultural leaders must figure out a way to double food production during the same timeframe.

"We can do this by revitalizing our agricultural sciences and recommitting to the time-tested, mission-oriented legacies of our land-grant university models and ideas," said Ejeta, a native of Ethiopia who grew up in a one-room thatched hut with a mud floor but went on to earn a Ph.D. in plant breeding and genetics at Purdue University.

Gebisa, who is currently a distinguished professor of agronomy at Purdue, will receive the \$250,000 World Food Prize during ceremonies at the Iowa State Capitol Thursday (Oct. 15). The World Food Prize was founded by Norman E. Borlaug, the universally recognized father of the Green Revolution. Borlaug, a native of Cresco, Iowa, died Sept. 12.

Ejeta, whose own work on the development of higher-yielding and weed-resistant sorghum varieties is believed to have helped feed hundreds of thousands of people in Africa, paid tribute to Borlaug during the annual Norman Borlaug Lecture at Iowa State University Monday night.

“The land-grant model legislated in 19th century helped build this great nation and made 20th Century American agriculture the envy of the world,” said Ejeta “It has succeeded internationally, bringing about the Asian Green Revolution championed by Norm Borlaug and furthered by many others.”

Even in the face of emerging 21st Century issues like climate change and the uncertainty of global energy supplies, Ejeta said, “the land grant model can be counted upon once again to address the challenges of doubling food and feed production.”

Over the last century, the U.S. agriculture sector has become one of the most productive in the world, and citizens of this country as well as the rest of North America and Western Europe have become accustomed to a safe and relatively inexpensive supply of food.

Agricultural research and genetics, crop and animal husbandry, pest and disease control through chemical inputs and integrated pest management, post-harvest technology and value-added products have all spurred the nearly tenfold increase in commodity yields in the United States over the last 100 years.

The first agricultural revolution was brought about by the advent of corn hybrid technology which gave rise to the private seed industry and the associated complex of services and partnerships, he said, noting the role of Iowa State graduate Henry Wallace in those efforts.

“One way the success of modern agriculture is reflected is in how much we pay for food. In the 1933, according to USDA ERS, Americans spent more than 25 percent of their income on food. By 1985, that had dropped to 11.7 percent and, in 2000, below 10 percent for the first time in history.

“In contrast, the poorest nations spend 70 percent or more of their disposable income on feeding their families.”

The success of U.S. agriculture spurred the advent of the Asian Green Revolution, helping Borlaug and other scientists convert countries like India from “basket cases to bread baskets,” said Ejeta. “In my view, the transformative changes brought about by modern agriculture sciences in his native Iowa inspired Norm Borlaug to dream about helping the poor in developing countries overcome hunger with the breakthrough he achieved in wheat genetics.”

Borlaug, he said, saw how the advent of hybrid corn in private sector initiatives in the seed industry and other agribusinesses spurred not only productivity increases on farms but also enhanced the livelihoods of rural Americans. “Fresh from the economic hardship of the great depression this must have been an easy lesson for young Norm to take to heart.”

Ejeta quoted from his testimony before the U.S. Senate Committee on Foreign Relations’ hearing on global food security last March.

“Norm Borlaug, the universally acknowledged father of the Green Revolution, is a hero to me and very many others. I personally admire his single-minded devotion to science and agriculture development and his unending empathy and service to the poor.

“As I reflect on his accomplishments and leadership, however, in my view, the genius of Norm Borlaug was not in his creation of high yield potential and input responsive wheat varieties. Not even in his early grasp of the technology but to a great extent in his relentless attempts to mobilize policy support and encourage the development of the agro-industry complex, to sustain the synergistic affects of technology, education and markets.” - Oct 14, 2009 9:52 AM, By Forrest Laws, Farm Press Editorial Staff

Label Search Help Available

Mark Mossler with the UF/IFAS Pesticide Information Office has extended an offer to assist growers with pesticide label searches on CDMS. You can contact Mark at 352-392-4721 or at plantdoc@ufl.edu

Up Coming Meetings

Palm Beach County

October 19 - 20, 2009 **FAAA/NAAA Operation S.A.F.E. Program**

See full details above

Contact: Jeff Summersill at 561-722-4502 or Email: lindadale1@msn.com

October 23, 2009 **USDA/FDA Small Farm Produce Safety Listening Session** **9:00 AM – 12:00 PM**

Palm Beach County Extension Office
559 Military Trail
West Palm Beach, Florida

Contact David Sui at 561-233-1700

October 27, 2009 **Food Safety Train the Trainer Class** **8:30 AM – 3:30 PM**

Palm Beach County Extension Office
559 Military Trail
West Palm Beach, Florida

Contact David Sui at 561-233-1700

Southwest Florida

October 20, 2009 **WPS Train the Trainer Class**

Hendry County Extension Office
1085 Pratt Boulevard
LaBelle, Florida

Contact 863-674-4092. Registration fee is \$10

October 23, 2009 **USDA/FDA Small Farm Produce Safety Listening Session** **9:00 AM – 12:00 PM**

UF/IFAS Southwest Florida Research & Education Center
SR 29N
Immokalee, Florida

Contact 863-674-4092 for more information or to register.

November 3, 2009 **Vegetable Growers Meeting** **12:00 Noon – 8:00 PM**

UF/IFAS Southwest Florida Research & Education Center
SR 29N
Immokalee, Florida

Contact 863-674-4092 for more information or to register.

November 4, 2009 **Food Safety Train the Trainer Class** **8:30 AM – 3:30 PM**

UF/IFAS Southwest Florida Research & Education Center
SR 29N
Immokalee, Florida

Contact 863-674-4092 for more information or to register. Registration fee is \$20

November 10, 2009 **Agricultural Production and EcoSystem Services** **8 AM - Noon**

UF/IFAS Southwest Florida Research & Education Center
SR 29N
Immokalee, Florida

Cap and Trade, Carbon Markets and Water Quality Credits are some of the topics to be discussed. Speakers from the University of Florida/IFAS, Florida Farm Bureau, and Southern DataStream will be summarizing evolving federal and local legislation concerning carbon emissions and water quality standards, as well as potential opportunities for agricultural producers to participate in emerging markets for carbon and water quality credit markets.

Please call Fritz Roka at 239.658-3400 for more information.

Other Meetings

October 28, 2009 **Florida Ag Expo** **7:30 AM – 4 PM**

UF/IFAS Gulf Coast Research and Education Center
Balm, Florida

For agenda and registration information, go to www.floridaagexpo.com

Opportunities

Research Associate in Phytopathology

Join the winning team at Harris Moran Seed Company, a global leader in vegetable seed; as part of the world's largest independently owned seed company, we offer exciting careers full of challenge, diversity, and growth. The Assistant Plant Pathologist will design, implement and manage, in a team environment, the plant pathology program based in Immokalee, FL. The Florida research station houses a fresh market tomato and a sweet pepper breeding programs, and it is used by other programs including corn, melon, watermelon, squash and bean for trials in hot and humid environment.

Main responsibilities:

- Implement plant pathology tests for diseases that are considered industry standard.
- Put in place new tests with the support of the Business Unit research pathology team.
- Manage the daily activities of the pathology laboratory, growth chamber and greenhouses.
- Establish and maintain a pathogen collection.

Other responsibilities:

- Support breeding, sale and product development in identifying diseases in field samples in coordination with other Business Unit laboratories.
- Supervise the phytosanitary conditions of plants grown at the Immokalee FL station field and greenhouses.

Qualifications:

- M.S. in Plant Pathology or closely related field with 2+ years of relevant experience or B.S. with relevant experience of at least 10 years
- Experience with plant pathology, microbiology and molecular biology is required
- Spanish language skills desirable

Skills required:

- Able to work independently.
- Detail oriented.
- Strong oral and written communication skills.
- Familiarity with MS Word/Excel/Access.
- Willing to take initiative and able to work independently.
- Must be able to multitask, with strong problem solving abilities.
- Some travel required.

Harris Moran is an "at will" employer.

Equal Opportunity Employer.

Drug Free Workplace.

Please send application and resume to:

Harris Moran

PO Box 4938

Modesto CA 95352

USA

or by e-mail to: hr@harrismoran.com

Vice President of Farming Operations

A well established Grower Shipper in Central Florida is looking for a VP of Farming Operations. The ideal candidate will have 5-10 years of agricultural commercial experience (leafy green or produce experience is a plus) and 5-10 years of research experience.

Client has farming operations in 6 east coast states and specializes in two (2) commodities.

The candidate must have a minimum of a M.S. in Horticulture, Agronomy, or a related field, with an emphasis on technology. The candidate will be responsible for the company's total farming operations and have 4 head growers reporting to him/her. The candidate must have experience resolving critical growing issues by generating growing ideas and incorporating technologies. The candidate must have the experience and the ability to hire and lead a group of professionals.

Client is offering a very attractive compensation package based on experience plus full benefits! Client is open to relocation for this position. Please contact Stacey Rouse at JBN & Associates at 480-222-5519 or www.stacey@jbnassociates.com.

Farm Land for Lease

Farm Land for lease in LaBelle area – contact Clyde Lavender at 863-673-2338

Websites

UF/IFAS Vegetable Crops website – This site provides information and a number of aspects of commercial vegetable production including links to the popular Florida Vegetable Production Handbook and the Florida Greenhouse Vegetable Production Handbook. Check it out at http://edis.ifas.ufl.edu/TOPIC_Commercial_Vegetable_Production

UC Davis Small Farm website – This site has lots of info and links to information on specialty crops, food safety, marketing, farm management, agro-tourism and more. Go to <http://www.sfc.ucdavis.edu/>

US FDA Guidance, Compliance and Regulatory Information – links to lots of information of produce food safety including guidance documents on tomatoes, melons and leafy greens. Go to <http://www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/default.htm>

Quotable Quotes

By three methods may we learn wisdom: first, by reflection, which is noblest; second, by imitation, which is easiest; and third by experience, which is the bitterest. - Confucius

Common sense in an uncommon degree is what the world calls wisdom. - Samuel Taylor Coleridge

I saw the angel in the marble and carved until I set him free. - Michelangelo

If everyone is thinking alike, then somebody isn't thinking. - George S. Patton

It's a poor sort of memory that only works backwards. - Lewis Carroll

It's not what you look at that matters, it's what you see. - Henry David Thoreau

On the Lighter Side

Awesome Anagrams

DORMITORY: When you rearrange the letters: DIRTY ROOM

PRESBYTERIAN: When you rearrange the letters: BEST IN PRAYER

ASTRONOMER: When you rearrange the letters: MOON STARER

DESPERATION: When you rearrange the letters: A ROPE ENDS IT

THE EYES: When you rearrange the letters: THEY SEE

THE MORSE CODE: When you rearrange the letters: HERE COME DOTS

SLOT MACHINES: When you rearrange the letters: CASH LOST IN ME

ANIMOSITY: When you rearrange the letters: IS NO AMITY

ELECTION RESULTS: When you rearrange the letters: LIES - LET'S RECOUNT

SNOOZE ALARMS: When you rearrange the letters: ALAS! NO MORE Z 'S

A DECIMAL POINT: When you rearrange the letters: IM A DOT IN PLACE

THE EARTHQUAKES: When you rearrange the letters: THAT QUEER SHAKE

ELEVEN PLUS TWO: When you rearrange the letters: TWELVE PLUS ONE

and for the grand finale: MOTHER-IN-LAW: When you rearrange the letters: WOMAN HITLER

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

Contributors include: Joel Allingham/AgriCare, Inc, Jeff Bethel/Syngenta Flowers, 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/H & R Farms, Loren Horsman/Glades Crop Care, Bruce Johnson/General Crop Management, Barry Kostyk/SWFREC, Dr. Mary Lamberts/Miami-Dade County Extension, Leon Lucas/Glades Crop Care, Mark Mossler/UF/IFAS Pesticide Information Office, Gene McAvoy/Hendry County Extension, Alice McGhee/Thomas Produce, Dr. Gregg Nuessly/EREC Chuck Obern/C&B Farm, 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, Ken Shuler/Stephen's Produce, Crystal Snodgrass/Manatee County Extension, John Stanford/Thomas Produce, Mike Stanford/MED Farms, Dr. Phil Stansly/SWFREC, Dr David Sui/Palm Beach County Extension, Dr Gary Vallad/GCREC , Mark Verbeck/GulfCoast Ag, Alicia Whidden/Hillsborough County Extension, Dr Henry Yonce/KAC Ag Research 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 IV
Regional Specialized Agent - Vegetables/Ornamental Horticulture

Hendry County Extension Office
PO Box 68
LaBelle, Florida 33975
Web: <http://hendry.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

Carol Howard

Mobley Plant World

1351 W Cowboy Way
LaBelle, Florida 33935
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

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.

Cody Hoffman
Syngenta Crop Protection
PO Box 1940
Fort Myers, FL 33902
Cell 321- 436-2591

OmniLytics - AgriPhage
Safe Natural Effective
Vegetable Bacteria Control
Henry Mills - 561-261-1545
Tony Swensen - 801-808-2132

Jason Osborne
Marrone Bio Innovations

239-707-7168 cell
josborne@marronebio.com

Brent Beer
**Beer Leveling &
Land Development**
Office 863-675-1663 863-673-3173 cell
158*17*43857 Nextel

Certis USA
Bio-Pesticides for Crop Production

Joe Craig - 863-291-9203
Chuck Goodowns - 352-538-4471

Scott Houk
Dow AgroSciences LLC

Phone 239-948-3999
Email sehok@dow.com

FMC
FMC Corporation APG
Ron Palumbo
Cell 305-304- 7941
Nextel Agnet 14772
Ronald.Palumbo@fmc.com www.fmccrop.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
863.441.1057
info@biosafesystems.com

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

ORO AGRI
Pesticides and Spreader Oils
OROCIT/ PREV-AM/WETCIT
Jerry Dukes 941-524-1312
UAP/Agriliance/Helena

Valent USA
"Products That Work
From People Who Care"
Sarah Markle 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

UPI- formerly Cerexagri

Jay Hallaron
Chemtura Corporation
321-231-2277 cell 407-256-4667 cell
jay_hallaron@cromptoncorp.com

Matt Arnold
Crop Production Services
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