



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 14, 2004

**High winds have buffeted South Florida relentlessly for most of the past few weeks.** Growers report that nearly daily winds of 10 - 15 mph and higher with pan evapotranspiration rates between 0.15 and 0.20 inches per day have caused moisture stress in some plantings as they struggle to keep up with irrigation requirements.

**Temperatures have averaged 2 – 3 degrees above normal as daily high and lows continue their climb to sultry summer levels.** Daytime temperatures have been mostly in the mid to upper 80's with a few days topping the 90 degree mark in interior districts. Nighttime lows continue to range in the 60's and upper 50's, Most locations received significant amounts of rainfall for the period with totals ranging from just under an inch in Fort Pierce to over 3 inches in Homestead.

**Strong winds have battered many fields and will lower yield prospects in some situations.**

### FAWN Weather Summary

Date	Air Temp (°F)		Rainfall (Inches)	Hours Below Certain Temperature (hours)							
	Min	Max		40°F	45°F	50°F	55°F	60°F	65°F	70°F	75°F
<b>Bradenton</b>											
4/26 - 5/14/04	54.2	88.4	1.08	0.0	0.0	0.0	1.5	17.3	3.9	34.8	89.2
<b>Ft Lauderdale</b>											
4/26 - 5/14/04	63.9	90.8	1.14	0.0	0.0	0.0	0.0	0.0	2.0	1.5	32.2
<b>Fort Pierce</b>											
4/26 - 5/14/04	55.2	87.4	0.83	0.0	0.0	0.0	0.0	18.9	1.1	14.3	51.7
<b>Homestead</b>											
4/26 - 5/14/04	60.3	87.7	3.14	0.0	0.0	0.0	0.0	0.0	14.8	18.6	38.5
<b>Immokalee</b>											
4/26 - 5/14/04	56.6	88.7	1.48	0.0	0.0	0.0	0.0	18.0	6.1	101.5	82.6

**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

**Watermelon harvest is in full swing in many central and southern Peninsula production areas with some of the earliest fields already completed around Immokalee.** Vegetables and non-citrus fruit coming to market include snap beans, blueberries, cabbage, cantaloupes, celery, sweet corn, cucumbers, eggplant, endive, escarole, okra, peppers, squash, tomatoes and watermelon. Quality is mostly good with some wind scarring reported.

**The short-term forecast from the National Weather Service in Miami indicates that several weak low level troughs are working their way toward south Florida and that a high pressure ridge presently over the area will give way bringing increased cloudiness and an increased showers over the next few days.** Drier air will return next week and temperatures should remain in the mid – upper 80's during the day and mid 60's at night.

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

## **Insects**

**Insect pressure is reaching seasonal high levels in many areas as crops near termination and growers curtail control efforts.**

### **Whiteflies**

**Reports from the Manatee/Ruskin area indicate that silverleaf whitefly adults are on the increase in many fields but in general numbers are still low for the most part.**

**Growers and scouts around Southwest Florida indicate many of the remaining tomatoes now have high whitefly populations but most fields are close enough to the end that growers are not making wholehearted attempts at control.** Those that are continuing an aggressive spray program are doing good to maintain current levels. Watermelon growers have seen a rapid increase in whitefly adults over the past two weeks with some growers reportedly treating crops every 48 hours to try and keep numbers below damage levels. Some respondents indicate problems with honeydew on rinds. Some pepper and eggplant fields are also being colonized, with resulting honeydew and sooty mold buildup on fruit.

**Growers and scouts in Palm Beach County and Miami-Dade County that most crops have been terminated or are on the way out and control is largely limited to getting final harvest off.**

**Growers in all areas are urged to practice good sanitation measures after harvest including a strong emphasis on PROMPT destruction, block by block, as harvest is completed, including oil with herbicide for quick burndown and control of existing whiteflies in those blocks, thus minimizing movement out to other blocks.**

**Current whitefly resistance management guidelines include the following practices:**

- 1) Prompt and efficient crop destruction to decrease whitefly numbers and sources. A two-month crop free period during the summer is recommended.
- 2) Use a burn down herbicide such as Paraquat or Diquat in conjunction with a heavy application of oil (2-4% solution) to quickly kill whiteflies. IFAS research also indicates that a maximum of 75 gal/A of spray solution should be used with the highest labeled rate of herbicide. Using more water per acre may dilute the herbicide and reduce burndown efficacy, resulting in less than satisfactory crop destruction. The water volume issue may be more relevant in the fall, since crop destruction is occurring during a period of cooler temperatures. Typically, the temperatures and other environmental conditions for spring crop burndown allow a more efficient plant kill.

- 3) Time burn down sprays to avoid crop destruction during windy periods, especially when prevailing winds are blowing whiteflies toward adjacent plantings.
- 4) Destroy crops block by block as harvest is completed rather than waiting and destroying the entire field at one time.
- 5) Avoid u-pick or pin-hooking operations unless effective whitefly control measures are continued.

**Phyllis Gilreath notes that if growers have large populations of whiteflies, Dr. Dave Schuster is interested in obtaining silverleaf whitefly nymphs for resistance management testing.** Please contact your county agent if you have large immature populations in any blocks.

### **Worms**

**Growers and scouts around southwest Florida report that pinworms are building in a number of locations with a few older fields reaching high levels.** There have been some reports of low levels of fruit damage from pinworms. Growers should be aware that tomato volunteers and regrowth in double crop watermelons could allow pinworms (as well as leafminer and whiteflies) to build up affecting nearby fields. To avoid problems, volunteers and regrowth should be scouted and controls applied as necessary.

**In the Manatee/Ruskin area reports indicate that pinworm numbers have increased along with rising temperatures.**

**East Coast producers report increasing problems with pinworms in eggplant and tomato with some fairly high populations building in places.**

**Around Southwest Florida, reports indicate that pinworm pressure is high in tomatoes, much higher than has been experienced in the past several seasons.** Pinworms are also present in eggplants but seem to stay on foliage only. Some low-level rindworm damage has been noted in melons particularly in fields with significant weeds or spray coverage issues.

**Diamondback moths have been reported in collards and specialty brassicas around South Florida.** Reports indicate that pressure has been particularly severe in oriental brassicas in Palm Beach County with some growers reporting significant losses.

**Growers and scouts around South Florida continue to report major problems with melon/pickleworms in some areas.**

### **Pepper Weevils**

**Respondents in a number of locations around South Florida indicate that pepper weevils are becoming abundant in the remaining pepper fields.** Pepper weevils can also infest eggplant. In eggplant damage is seen mostly as feeding punctures in flower buds and growing points. Multiple feeding punctures to growing points will result in new leaves with holes that resemble worm damage.

**Reports from the Ruskin area indicate that pepper weevil numbers have increased slightly with a 2-5% infection rate of infestation in some plantings.**

### **Thrips**

**Reports from Hillsborough County indicate that high numbers of western flower thrips are being seen in some areas.** The western flower thrips is an efficient vector of tomato spotted wilt virus.

## Leafminers

**Growers and scouts around Manatee County report some increase in leafminer but they remain at mostly low levels.**

## Mites

**Reports from the Manatee Ruskin area indicate that mite problems have been noted in some fields with both tomato russet and two spotted mites being reported and tentatively identified.** In some fields, mite levels are extremely high, resulting in dieback in tops of plants. Interestingly, varietal differences have been observed in terms of damage levels even within the same block.

**While most growers are familiar with the two spotted mites, russet mites are less commonly seen.**

According to the literature, “Foliar surface feeding produces a bronzing or russeted appearance on both the stems and leaves. Infested leaves first curl up at the leaf edges, then become dry and drop from the plant. They feed readily on the upper surface of leaves and tolerate direct sunlight. Fruit and blossoms are rarely infested, but fruit may be suffer sunscald from lack of foliage. Injury is usually first observed in small patches of the field, but wind-borne dispersal of the mites soon results in widespread infestation. These mites are barely visible without magnification, making field scouting difficult. Thus, most monitoring is done by watching for damage, with confirmation of mite presence accomplished microscopically. Mite infestations are usually detected when fruit are present but still small. Mites are readily dispersed by people and equipment, so care should be taken to minimize traffic within infested fields. There is some indication of differences in susceptibility among commercially available tomato cultivars. Sulfur has long been used for mite suppression but other insecticides are also available” (From: Handbook of Vegetable Pests, J. Capinera.)

**Gregg Nuessly reports that while there are a number of miticides available, most do not have ovicidal properties so good control will require at least 2 applications about 5 days apart.** Sulfur is an old standby, which gives very good control of tomato russet mite with the added benefit that, in the absence of rain; it seems to stay around longer with the ability to control newly hatching larvae. Other materials that have mites on the label and a reasonable PHI include Malathion, Kelthane, Capture, Acramite and of course the oils and soaps.

**Acramite is a fairly new product for tomatoes but has reportedly been very effective in berries.**

According to the label it has ovicidal properties against spider mites but is not effective against broad mites, rust mites or flat mites, thus it may not be effective against russet mites. The manufacturer recommends using silicon-based surfactant with Acramite. Growers need to consider both the possibility of burn that may occur with some of the above materials and the PHI. Price may also be a factor on older crops.

**Some broadmites are also present in pepper in west central Florida.**

**Around Southwest Florida, spidermites are starting to build rapidly; rebounding after the rain showers experienced a couple of weeks ago.**

## Diseases

**Growers and scouts report that disease pressure remains low to moderate in most locations.**

## Watermelon Vine Decline

**Over the past few weeks “vine decline” similar to that seen around the area last season has spread rapidly affecting upwards over 50% of the watermelon acreage in Southwest Florida.** Severity ranges from low to severe depending on the location.

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

**Investigations to date have been inconclusive for identifying a cause.** No pathogen has been consistently associated with the symptoms nor have any cultural or environmental factors identified as the cause. IFAS has allocated funds to research this problem and Dr Pam Roberts is leading an IFAS Task Force to try and identify the cause of the disorder. To date several plant pathologist from leading watermelon producing areas around the country have been brought in to look at the problem, unfortunately no ready answers are forthcoming.

**If you see or suspect a problem, please notify your county extension agent or the Plant Disease Clinic in Immokalee so we can begin collecting samples and information to try and pinpoint a cause.** Under the leadership of Dr. Pam Roberts at Immokalee, we now have additional manpower and funding to follow-up more closely on disease reports and to address this problem if or when it appears this season. A significant number of melons have been lost to this problem and we need to find a solution.

### **Tomato Yellow Leaf Curl Virus**

**In the Manatee Ruskin area, respondents indicate TYLCV virus incidence has leveled off but some new virus has been seen sporadically in the tops of plants in younger settings.**

**Around South Florida, tomatoes are well beyond or concern for new infections.** Infection rates vary widely in remaining plantings.

### **Fusarium crown rot**

**Around Southwest Florida, fusarium crown rot continues to increase in older tomatoes with many wilting plants and dying plants present in a number of fields.**

**Reports from Bradenton indicate that fusarium crown rot is higher than normal in a number of fields in the area. Incidence appears worse in seep-irrigated fields, which are kept on the wet side.** The cooler weather this spring may also have played a role since Fusarium crown rot is favored by cool soil (68-72 F).

### **Fusarium Wilt**

**Fusarium wilt is present in number of widely scattered locations in watermelon over the past few weeks.** Incidence and severity varies but is moderate to high in a number of locations.

**Reports from the Bradenton area indicate that fusarium wilt is present in melons in a number of widely scattered locations.**

### **Bacterial wilt**

**Reports from Manatee County indicate that bacterial wilt is also higher than normal in a number of fields.** Incidence appears worse in seep-irrigated fields that are kept on the wet side. Survival of the bacterial wilt bacterium is promoted by moderate to high soil temperatures and a low to moderate pH. Well-drained soils with good water retention characteristics are conducive and soils that allow desiccation of the pathogen are detrimental to its survival.

### **Gummy stem blight**

**Respondents in Manatee County report that gummy stem blight is problem in some mature melon fields.**

### **Downy Mildew**

**Reports indicate that downy mildew has moved aggressively into a number of watermelon field mostly in field where fungicide applications have been reduced or ceased to accommodate harvest operations.**

### **Powdery mildew**

**Reports from around Immokalee indicate that powdery mildew is present at low levels in watermelon.**

### **Phytophthora**

**Reports indicate that Phytophthora is responsible for belly rot in watermelon fruit in a few locations around Southwest Florida. Incidence and occurrence is low.**

### **Mosaic**

**Mosaic is widely present on in most watermelon fields around Southwest Florida at this time.**

**Results of this spring's mosaic virus survey in Southwest Florida conducted by Dr Susan Webb indicate that watermelon samples were mostly positive for PRSV-W. Two samples had watermelon leaf mottle virus, and one was positive for WMV-2 (not very common in this area). Squash samples taken around Clewiston were all PRSV-W. Squash sampled near Immokalee had 32 of 40 samples positive for ZYMV and 20 for PRSV-W.**

**Darrin Parmenter, Vegetable Extension Agent in Palm Beach County reports that a growers meeting was recently held in Belle Glade to discuss the presence of viral activity in the lettuce production areas (EAA). Initially, there was a scare that lettuce mosaic virus (LMV) was diagnosed in the EAA, however after numerous samples being sent to DPI, the primary virus seen was Bidens Mottle Virus (BMV). The increased aphid pressure seen in the area was the most likely vector of the virus. Although no large outbreaks were seen, this does emphasis how important it is to keep alternative hosts (i.e. weeds) under control, even through the summer months.**

### **Sanitation, Sanitation, Sanitation...**

**As we near the end of the 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 over looked 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.

**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 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 nutsedges. 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!**

## **Up Coming Meetings**

### **Palm Beach County**

<b>June 9, 2004</b>	<b>General Standards/Core Test Review</b>	8 AM - 12 Noon
	<b>Agricultural Row Crop Test Review</b>	1 PM – 3 PM

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

Contact Laura Powell at 561-996-1655

### **Southwest Florida**

<b>May 20, 2004</b>	<b>Spring Vegetable Field Day</b>	10 AM - Noon
---------------------	-----------------------------------	--------------

UF/IFAS - SW Florida Research and Education Center  
Hwy 29 N  
Immokalee, FL

Contact 863-674-4092 for details

<b>June 5, 2004</b>	<b>UF/IFAS Farm Safety Day</b>
---------------------	--------------------------------

UF/IFAS - SW Florida Research and Education Center  
Hwy 29 N  
Immokalee, FL

Contact Barbara Hyman at 239-658-3400

<b>June 10, 2004</b>	<b>Nutrient Management and Soil/Water Management CCA Seminar</b>
----------------------	--

UF/IFAS - SW Florida Research and Education Center  
Hwy 29 N  
Immokalee, FL

Earn 8 CCA CEUs – cost is \$80 dollars

Contact Mary Hartney at 863-293-4827 or e-mail: [mhartney@ffaa.org](mailto:mhartney@ffaa.org)

## Other Meetings

June 21-24, 2004

**1st International Symposium on Tomato Diseases and 19th Annual Tomato Disease Workshop**  
Grosvenor Resort at Walt Disney World  
Orlando, Florida

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

November 14 – 16, 2004

**17<sup>th</sup> International Pepper Conference**

Naples Beach Hotel and Golf Resort  
Naples, Florida

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

## Websites

**The National Pesticide Information Center** at <http://npic.orst.edu/> or 1-800-858-7378 is an excellent source of information and links for professionals and home pesticide users.

**EXTOXNET** <http://extoxnet.orst.edu/> is another web site maintained by Oregon State U. You can easily find information about environmental and health effects associated with specific pesticides.

**Crop Data Management Systems** <http://www.cdms.net/manuf/manuf.asp> maintains a good source for pesticide labels and Material Data Safety Sheets. If this site does not have the desired label or MSDS, you can probably find it with an Internet search.

**EPA** [www.epa.gov/pesticides](http://www.epa.gov/pesticides) has a great deal of regulatory, safety, and other information about pesticides.

## News You Can Use

### Vegetable Labels

**Acramite 50-WS** (bifenazate) is a new miticide for vegetables (**cucurbit vegetables, fruiting vegetables (except tomatoes that produce fruit equal to or less than one inch in diameter), okra, and strawberries**). According to the label, it is a selective miticide that provides quick knockdown through contact and has a long residual. It is not systemic. It is relatively inactive against beneficial or predacious mites and insects. It is NOT effective against rust mites, broad mites, or flat mites. It affects mainly motile stages but has some ovicidal activity against spider mites. There is a 30-day plant back restriction. Only one application is allowed per season, except for strawberries (2 applications at least 21 days apart). The REI is 12 hours and the PHI for vegetables is 3 days (strawberries, 1 day).

**Dimilan 25W** (diflubenzuron) is registered for use on peppers. It is an insect growth regulator that controls leaf-feeding caterpillars. PHI is 7 days, REI is 12 hours, and there is a limit of 5 applications per season.

**Dimethoate** is no longer labeled for some vegetable crops, including head lettuce, spinach, chard, tomatillo, broccoli raab, and fennel. The cancellations were effective January 28, 2004. Product with the old label can be sold for a year after this date. Growers can use existing stocks according to the old label until the supply with the old label is gone.

**Lorsban 75WG** is a new formulation of chlorpyrifos. The label includes all crops that are on the 4E and 50W labels. It is made by Dow AgroSciences but marketed by Gowan. Formulated as a water-dispersable granule, it is easier and safer to handle, has lower odor, and increased rain fastness. Dow's field trials indicate efficacy as good or better than that obtained with the 4E or 50W formulations. PHIs and REIs vary by crop and type of application. The product can be applied to the soil or to foliage, depending on crop and pest problem.

### **Glades Crop Care Expands Food Safety Services**

Glades Crop Care, Inc. continues to expand services in the food safety arena. Beginning with the Food Safety Initiative, which was implemented jointly with FFVA many growers were introduced to the issue of food safety and received assistance in developing a food safety program tailored to their operation. Glades Crop Care now offers training videos to continue the education process with training for packing house employees.

Two new food safety-training videotapes are now on the market. These are designed to help train workers in food safety practices. The videotapes are in VHS format, and are presented in both Spanish and English.

The first video is aimed at harvest crews and covers worker hygiene, drinking water, field sanitation, moving portable toilets, injuries, illness, REI's and PHI's. The video dovetails nicely with the widely used EPA Worker Protection Standards video.

The second tape is designed for packinghouse workers, and includes information on hygiene, restroom use, hand washing, reporting illness or injury, cleaning and sanitizing the facility, methods to prevent contamination of packing materials, and what to do if broken glass or other foreign contaminants are discovered.

The tapes were filmed and produced here in Florida by Glades Crop Care, Inc., so workers will be able to relate to them easily, which will greatly enhance knowledge retention. Each tape retails for \$165.00 + S&H, and if you say you heard about them in the Hotline, GCC will take 10% off the purchase price. Call 561-746-3740 to order them, and mention promotional code GMH. If you need several copies for all your farms or facilities, volume discounts are also available.

Comments from growers and packers include the following statements:

"We need to show this to all our employees, every employee." - Gene Duff, Pioneer Growers Co-operative

"This is so much better than what we have. It's exactly what we need." - Sunni Davis, Food Safety Manager, Pioneer Growers Co-operative

"Great video, very relevant to our actual operation and workers. It covers all the important points without excessive detail. This is going to make my job so much easier." - Steven Basore, TKM Farms/Cypress Cooling

### **Study Relieves Produce of Blame For Foodborne Illness**

Not only have cases of the most common foodborne pathogens significantly declined, but research also shows that most foodborne illnesses in the U.S. between 1990 and 2001 have been traced to foods other than fresh fruits and vegetables.

According to foodborne illness surveillance data released at the end of April by the Centers for Disease Control and Prevention, the Food and Drug Administration and the U.S. Department of Agriculture, E. coli infections dropped 35% last year. This is the second year in a row that E. coli incidences have dropped by double digits. Since 1996, incidences of yersinia, campylobacter and salmonella have dropped by 49%, 28% and 17%, respectively.

Occurrences of two foodborne pathogens remained unchanged — listeria, which is found in seafood and unpasteurized milk, and shigella, which is found in dairy. One pathogen increased significantly. Vibrio found in coastal waters and able to infect humans through wounds or seafood, increased 116%.

The research comes from FoodNet, an illness tracking system in nine states that comprise 14% of the U.S. population. California, Colorado, Connecticut, Georgia, Maryland, Minnesota, New York, Oregon and Tennessee are the states in the system.

## **JUST 2%**

The Alliance for Food & Farming delved further into the CDC report to determine how prevalent foodborne pathogens are in fresh produce. Using government statistics, the organization came up with an answer that reflects the time and money grower-shippers put into food safety practices.

“Of all foodborne illness outbreaks, only 2% can be traced to an on-farm, produce-related cause,” said Teresa Thorne, spokeswoman for the alliance.

In fact, 88% of foodborne illnesses were traced to products other than produce. The remaining 10% of foodborne illnesses were related to improper handling of produce after the product left the farm, she said.

The alliance’s study is based on an analysis of the CDC U.S. Foodborne Disease Outbreaks Report annual databases for 1996-2001 and of the CDC’s U.S. Foodborne Disease Outbreaks report searchable database for 1990-95.

“From 1990 to 2001 — and just to segment it out, 1997 was when GAP (good agricultural practices) was introduced — incidences of foodborne illnesses related to produce decreased by 131%,” Thorne said.

Thorne said the alliance study and the CDC’s figures contradict information put out by activist groups such as the Center for Science in the Public Interest.

Since research shows that the produce industry is doing an increasingly better job of promoting food safety, Thorne said. However, industry groups need to pass on that information to consumers.

Looking at just produce-related foodborne illnesses, 83% were because of improper consumer or foodservice handling, while 17% were tied to grower-related problems. Yet an alliance survey conducted this spring shows that 51% of consumers attribute the main cause of produce-related outbreaks to grower error.

“That’s something we need to work on in terms of educating the consumer and the food handlers,” Thorne said. “This is a commodity that needs to be handled with care.”

Excerpted from the Packer, 5/7/04

## **Operation Cleansweep**

Have a bunch of pesticides or other toxic products you want to get rid of? The State of Florida may be able to assist you.

After holding Cleansweep one-day collection events that served 62 of Florida’s 67 counties between December 2000 and May 2002, FDACS has retooled the program to offer free pick-up and disposal of cancelled, suspended and unusable pesticides. There will no longer be collection events. Now, a contractor will come to your site, package, transport and dispose of your cancelled, suspended and unusable pesticides.

Between April and June 2003, Operation Cleansweep provided this pickup and disposal service to more than 110 participants in 33 counties and will continue to offer this pickup and disposal service statewide through June 2004.

The Florida Department of Agriculture and Consumer Services, with the help of county ag agents, county solid waste personnel, product dealers and trade associations, will collect names, addresses, quantities and types from participants and verify this information. When they have a sufficient quantity of product in a defined area, we will dispatch the contractor to each participant's farm or business facility to pick up the pesticides. For more information or to sign up for the program, you may call Keith Myhre of the Department of Agriculture and Consumer Services toll-free at 877-851-5285 or email [myrhek@doacs.state.fl.us](mailto:myrhek@doacs.state.fl.us)

## **Quotable Quotes**

Only two things are infinite, the universe and human stupidity, and I am not sure about the former – Albert Einstein

Not everything that can be counted counts and not everything that counts can be counted - Albert Einstein

Some people are born on third base and go through life thinking they hit a triple. - Barry Switzer

Delusions of grandeur make me feel a lot better about myself. - Jane Wagner

It may be that your sole purpose in life is to serve as a warning to others. - Unknown

## **On the Lighter Side**

### **Man of the House**

A mild-mannered man was tired of being bossed around by his wife; so he went to a psychiatrist. The psychiatrist said he needed to build his self-esteem, and gave him a book on assertiveness, which he read on the way home. He had finished the book by the time he reached his house.

The man stormed into the house and walked up to his wife. Pointing a finger in her face, he said, "From now on, I want you to know that I am the man of this house, and my word is law!

I want you to prepare me a gourmet meal tonight, and when I'm finished eating my meal, I expect a sumptuous dessert afterward. Then, after dinner you're going to draw me my bath so I can relax. And when I'm finished with my bath, guess who's going to dress me and comb my hair?"

"The funeral director," said his wife.

### **Confused English**

1. IN AN OFFICE Would the person who took the step ladder yesterday please bring it back or further steps will be taken.
2. OUTSIDE A SECOND HAND SHOP We exchange anything - bicycles, washing machines etc. Why not bring your wife along and get a wonderful bargain.

### **The Moral of the Story**

A teacher gave her students a homework assignment ask their parent to tell them a story with a moral.

The next day the kids came back and one by one began to tell their stories. As the last student was reached Ms Jones asked, "Johnny, do you have a story to share?"

"Yes, ma'am, my daddy told a story about Aunt Carol. Aunt Carol was a pilot in Desert Storm and her plane got hit. She had to bail out over enemy territory and all she had was a small flask of whiskey, a pistol and a survival knife.

She drank the whiskey on the way down so it wouldn't fall in to enemy hands and then her parachute landed right in the middle of twenty enemy troops. She shoot fifteen with the gun until she ran out of bullets, killed four more with the knife, til the blade broke and then she killed the last one with her bare hands."

"Good heavens," exclaimed the horrified teacher, "What kind of moral did your Daddy teach you from that horrible story?"

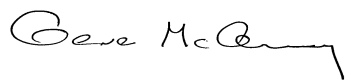
"Stay the hell away from Aunt Carol when she 's been drinking."

**This will be the last regular Pest and Disease Hotline issued for this season.** Publication will resume with the start of the 2004 –2005 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.

**Hope that you all have a great summer and get some well-deserved rest and relaxation.**

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

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



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

863-674-4092 phone  
239-860-8811 mobile - Nextel Agnet 28950  
863-674-4097 fax  
[GMcAvoy@mail.ifas.ufl.edu](mailto:GMcAvoy@mail.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  
***Florida Favorite Fertilizer***

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

***LaBelle Plant World, Inc.***

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

Fred Heald  
***Farmers Supply Inc***

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

***Gargiulo***

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

Damon Shelor  
***ProSource One***

Immokalee, Florida  
Office 239-657-8374 Cell 239-707-6142  
E-mail: [dshelor@ProSourceOne.com](mailto:dshelor@ProSourceOne.com)

Ted and Trudy Winsberg  
***Green Cay Farms, Inc.***

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

Ed Early  
***Dupont Agricultural Products***

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

Donna Muir Strickland  
***Monsanto Crop Protection***

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

Cameron Sutherland  
***Enza Zaden NA Inc***

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

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

***Glades Crop Care, Inc.***

**Total FOOD SAFETY Education  
and Training**

Charlie Mellinger, Ph.D.

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

Rachel Walters

***Bayer CropScience***

5243 Tamiami Court

Cape Coral, Florida 33904

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

Glen Kaufman

***Paramount Seeds, Inc.***

PO Box 1866

Palm City, Florida 34991

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

Walter Preston

***Manatee Fruit Company***

PO Box 128

Palmetto, Florida 34220-0128

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

Robert F. Gregg

***Syngenta Crop Protection***

11051 Championship Drive

Fort Myers, FL 33913

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

***CERTIS USA***

Dr. Adam Muckenfuss 772-781-2233

Sales: Joe Craig 863-424-5412

Ed Dickinson 863-318-9004

**Javelin® Agree® Crymax® Lepinox®**

***PRODUCTION SOILS LLC***

Applied Microbiology  
for Commercial Growers

Soils Foliar

Sam Hipp 954-296-9203

Scott Allison

***DIAMOND R FERTILIZER***

1155 Commerce Drive

LaBelle, Florida 33935

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

***Bill Hunt Company, LLC***

Agricultural Spray Technology

Miami, Florida USA

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

[bilihun@spraytec.com](mailto:bilihun@spraytec.com) [www.spraytec.com](http://www.spraytec.com)

Meghan Zielinski

***Dow AgroSciences LLC***

9330 Zionsville Road

Indianapolis, Indiana 46268

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

Bobby Hopkins

***SIPCAM AGRO USA***

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

Cell 678-576-4549

[www.sipcamagrousa.com](http://www.sipcamagrousa.com)

[Lrhopkins3@aol.com](mailto: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

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

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

Gaylon Pfeiffer  
***BASF Corporation***  
11806 Marblehead Drive  
Tampa, Florida 33626  
Office 813-818-9594 Fax 813-818-8694  
Mobil 813-967-0024

Nancy Roe  
***Farming Systems  
Research***  
PO Box 741112  
Boynton Beach, Florida 33474

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

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

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

Bart Hoopingarner  
***Cerexagri***  
11933 73<sup>rd</sup> St. E  
Parrish, FL 34219  
Cell 941-737-7444 Fax 941-776-8127  
[bart.hoopingarner@cerexagri.com](mailto:bart.hoopingarner@cerexagri.com)

***Valent USA***  
  
"Products That Work  
From People Who Care"  
  
Sarah Hatton 863-673-8699

**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