The combination of a stalled front to our north and a tropical disturbance in the Gulf of Campeche resulted in a flow of deep tropical moisture across the peninsula resulting in several days of cloudy rainy weather across most of south Florida from September 26 – October 1. Precipitation varied widely across the area. All areas received an inch or more, with heaviest totals recorded in southwest Florida. Some growers around Naples and south and west of Immokalee were inundated with up from 13 to 15 inches total rainfall being reported for the period.

Temperatures have been near normal with daytime high in the high 80’s and lower 90’s. Nighttime temperatures have been mostly in the low to mid 70’s.

Fall planting and land preparation continues across south Florida. Heavy rains, this past weekend, disrupted planting schedules in a number of areas. A few problems with salt related injury have been reported in areas most heavily impacted by recent heavy rains and growers are looking for some drier weather to perk up plants. Okra harvest continues in Dade County and reports from St Lucie County indicate that some early peppers should be coming off in the next few weeks.

### FAWN Weather Summary

<table>
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<th>Date</th>
<th>Air Temp (°F)</th>
<th>Rainfall (Inches)</th>
<th>Hours Below Certain Temperature (hours)</th>
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<td>70.7</td>
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<td>4.02</td>
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The short-term forecast from the National Weather Service in Miami calls for drier conditions over the next few days as dry high pressure to our north becomes the primary influence on south Florida weather regime over the next few days. Daytime highs will remain in the upper 80’s with nighttime lows in the low 70’s. Skies will be partly cloudy with a 30 % chance of scattered showers and thunderstorms on Saturday. Chance of rain will increase into the early part of the week.

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

Insects

Growers and scouts report mostly light insect pressure across the area.

Worms

Growers and scouts in Homestead report that worms are beginning to increase, with mostly beet, southern, and hornworms being reported so far.

Further north in Palm Beach, Martin and St Lucie counties, respondents also note a moderate increase in worm pressure with combination of loopers, in addition to beet armyworm on pepper and southern armyworm on tomato. Growers are also report finding a few melon worms on squash and cukes and low to moderate numbers of armyworms in corn. A few bean leaf rollers continue to be noted.

Around southwest Florida, growers report seeing a few more worms and worm eggs this past week. A number of growers report problems getting sprayers across the acreage due to wet weather resulting in higher worms pressure. Observers report a mixed bag of southern armyworms, beet armyworms, fall armyworms, fruitworms, hornworms, loopers and a few leaf tiers. A few reports of melon worms showing up in squash continue to come in.

Reports from the Manatee/Ruskin area indicate that worm activity is picking up as the density the plant canopy and fruit load increases on bushes. Scouts report finding mainly beet armyworm, loopers, and a few hornworms.

Whiteflies

Respondents in west central Florida, report mostly low whitefly numbers with occasional higher numbers in some fields in spite of the rainy weather. A few nymphs are being found on older plantings with numbers in some blocks reaching threshold levels resulting in growers making IGR applications.

On the east coast, respondents indicate that whitefly populations remain low in most places. Some silverleaf has been reported on squash.

Around Homestead, growers and scouts indicate whiteflies remain low overall, with a few hot spots in squash fields next to old okra and tomato plantings.

In southwest Florida, whiteflies remain low with the exception of some field margins. In a few instances, scouts report experiencing a spike in the number of adults appearing in counts over a short period of time.

Dr Dave Schuster, Entomologist, UF/IFAS GCREC – reminds growers of the importance of resistance management in efforts to control whiteflies. This is especially important given the increase in RS_{50} values,
which Dave has documented over the past three seasons suggesting reduced susceptibility of whiteflies to nicotinoid insecticides – Admire, Platinum, Assail, Actara, and Provado.

**Nicotinoid Resistance Management Recommendations**

- Reduce overall whitefly populations by strictly adhering to cultural practices including:
  - Plant whitefly-free transplants
  - Delay planting new crops as long as possible and destroy old crops immediately after harvest to create or lengthen a tomato free period
  - Do not plant new crops near or adjacent to infested weeds or crops, abandoned fields awaiting destruction or areas with volunteer plants
  - Use UV-reflective (aluminum) plastic soil mulch
  - Control weeds on field edges if scouting indicates whiteflies are present and natural enemies are absent
  - Manage weeds within crops to minimize interference with spraying;
  - Avoid u-pick or pin-hooking operations unless effective control measures are continued
  - Do not use a nicotinoid like Admire on transplants or apply only once 7-10 days before transplanting; use other products in other chemical classes, including Fulfill, before this time;
  - Apply a nicotinoid like Admire (16 ozs/acre) or Platinum (8ozs/acre) at transplanting and use products of other chemical classes (such as the insect growth regulators Knack® or Courier®) as the control with the nicotinoid diminishes
  - Never follow an application (soil or foliar) of a nicotinoid with another application (soil or foliar) of the same or different nicotinoid on the same crop or in the same field within the same season (i.e. do not treat a double crop with a nicotinoid if the main crop had been treated previously);
  - Save applications of nicotinoids for crops threatened by whitefly-transmitted plant viruses or whitefly-inflicted disorders (i.e. tomato, beans or squash) and consider the use of chemicals of other classes for whitefly control on other crops.

Additional suggestions for breaking the whitefly cycle can be found in an article by Dr. Jane Polston in last year's Tomato Institute Proceedings, available online at the SWFREC website at [http://www.imok.ufl.edu/veghort/docs/tom_inst_2002_091202.pdf](http://www.imok.ufl.edu/veghort/docs/tom_inst_2002_091202.pdf)

**Mites**

Respondents in Palm Beach continue to report the presence of broadmites on eggplant and pepper in scattered locations. Levels and occurrence appears to be very similar to last year at this time.

Around southwest Florida, low levels of broadmites are beginning to show up on pepper and eggplant in a few places.

Scouts in the Homestead area report finding low levels of broad mites on pepper but none have been found on eggplant yet.

**Leafminers**

Reports from Manatee County indicate a slight increase in leafminer activity with growers reporting a few adults and some stippling but not enough to treat for to date.

In the Homestead area, respondents indicate leafminers starting to build on squash, beans, eggplant and to a lesser extent tomato.
Around the Immokalee area, reports indicate that leafminers remain at low levels.

Growers and scouts in Palm Beach report some mostly light leafminer activity in a variety of crops. A few reports note leafminer exceeding threshold levels with controls being applied.

**Pepper Weevils**

Moderate to severe pepper weevil pressure has been reported on young pepper in isolated fields around southwest Florida. In these fields, weevils are showing up prior to fruit set and feeding on foliage and flowers. Growers report having to apply multiple sprays for control.

A few pepper weevils have also been reported around Martin County.

**Misc. pests**

Scouts in Palm Beach continue to note finding feeding injury consistent with *Thrips palmi* on pepper. Occurrence has been isolated and damage has been minimal.

A few winged aphids are being seen in the Manatee/Ruskin area.

**Diseases**

Some increase in disease pressure has been noted following recent rains but it is still a little too early to evaluate the full effects of this week's rains.

**Bacterial Spot**

Reports from the Manatee/Ruskin area indicate bacteria still around and quite variable depending on location. Growers are hopefully that cooler drier weather will provide some relief.

Respondents in the Homestead area report new bacteria this week on beans, tomato, pepper, and corn but indicate that incidence and severity remains low considering the weather.

Around Immokalee, bacterial spot is widely present on tomato and to a lesser extent on pepper. Reports indicate bacterial spot is at moderate to severe levels in a few fields with infection appearing on flowers and young fruit. However, there are still some clean fields around where spot has not been found to date.

Reports from Palm Beach and Martin counties, indicate that bacterial spot is widely present at mostly low levels. A few reports note some local flair ups in tomato with incidence and severity approaching moderate levels in few fields. Growers and scouts report that some plants are arriving from the plant house with bacterial spot infections.

Dr. Pam Roberts indicates that the severity of bacterial spot of pepper and tomato caused by *Xanthomonas campestris* pv. *vesicatoria* can by affected by the nutritional status of the plant. The most clear-cut response is the effect of magnesium (Mg) on bacterial spot of pepper. An increase in foliar disease severity was seen by application of magnesium (Mg) to pepper leaves by foliar spray or soil applications. Therefore, caution should be exercised in foliar feeding of bell peppers with Mg so as not to enhance disease severity.
The effect of nitrogen (N) and potassium (K) on disease is not as definite as Mg. On other crops, high N and/or low K favored development of diseases on such as bacterial spot on peach, bacterial blight on lima bean, and angular leaf spot of cucumber.

On tomato, one study showed that high N with either low or high K reduced disease severity of bacterial spot (Nayudu and Walker, 1960). However more recent studies (Jones et al. 1983; Csizinszky et al. 1988; Jones et al. 1988) looked at both the effect on disease severity and yield. These studies found that increased N resulted in decreased disease severity but yield was relatively unaffected. Increased K had little to no effect on disease severity of bacterial leaf spot and yield was decreased or unaffected.

In summary, higher levels of N can reduce the amount of disease seen but this reduction in disease symptoms may not be expressed as increased yield. Higher levels of K did not greatly affect either disease symptoms or yield. Magnesium definitely increases the amount of disease symptoms of bacterial leaf spot. Yield data is unavailable for Mg.

**Bacterial Wilt**

Some bacterial wilt has been noted in scattered locations around west central Florida. Incidence and severity is generally low.

**Pythium**

East Coast correspondents report a small increase in damping off due to pythium following recent rains but still below levels experienced in recent years.

Some limited stand loss from pythium continues to be reported in the Homestead area.

Around Bradenton, growers and scouts report some scattered problems with pythium on pepper and tomato especially in wetter locations.

Growers and scouts around Immokalee report seeing an increase in damping off from pythium following the past weeks rainy weather.

**Tomato Yellow Leaf Curl Virus**

In the Manatee Ruskin area, tomato yellow leaf curl virus remains generally low with most fields at 1% or less although reports indicate a few older blocks are approaching 5%. Phyllis Gilreath comments that the early rains that affected the area in June, may have helped reduce potential sources of inoculum in the fall crop by cutting the grape tomato season short, thus providing a slightly longer crop free period this summer.

In the Immokalee area, growers and scouts report finding a few scattered TYLCV infected plant. Incidence is well below 1% and in most cases respondents report finding only a few plants across a several hundred acres.

Growers and scouts on the east coast report a similar situation, although one report from St Lucie County indicates an isolated case where the incidence of tomato yellow leaf curl has reached 10 – 15% in one field. This would indicate a source of infected whiteflies in the area.

**Southern Blight**

Respondents around Bradenton report finding a little more southern blight than normal in tomato, but feel it can be attributed to the wet fall weather that has been experienced.
Growers and scouts around southwest Florida and in east coast growing areas are also reporting a moderate increase in the incidence and occurrence of southern blight following recent rains.

**Wet rot**

Wet rot or Choanephora blight, caused by the fungus Choanephora sp., continues to be reported on bell pepper in fields in Southwest Florida. Incidence and occurrence remains low although some infections have been noted.

Wet rot is also being seen on pepper around Palm Beach County.

Outbreaks of Choanephora blight are associated with extended rainy periods and high temperatures. Symptoms on pepper consists of a dark water soaked wet rot that may start on a leaf and continue down the branch. The dark-gray fungal growth is apparent on some lesions. Under magnification, a silvery, spine-like fungus with a dark head is seen.

**Downy mildew**

Downy mildew has been reported on squash in Palm Beach County.

**Angular Leaf Spot**

A little angular leaf spot has been reported on melons in west central Florida. Incidence and occurrence is low. Field diagnosis of this disease are aided by the angularity of foliar lesions typically confined to interveinal areas and the shiny, shellac-like appearance of the leaf surface due to dried bacterial ooze.

**Gummy stem blight**

Growers and scouts report that gummy stem blight has been reported on watermelons in southwest Florida.

**Rhizoctonia**

Low levels of Rhizoctonia have been reported on beans in Homestead and in scattered locations around southwest Florida. Seedlings infected by Rhizoctonia typically display a reddish brown discoloration. The use of high quality, fungicide-treated seed will reduce the risk of disease as will the use of in-row soil treatment with fungicides such as Terrachlor to reduce the level of rhizoctonia in the field.

**Phytophthora**

A few reports of Phytophthora capsici on pepper and tomato continue to be noted in the Palm Beach area. Although infection can occur at any height on stems, it is most common at the soil line, and starts as a dark, water-soaked area. Stem lesions become dark brown to black and may result in girdling and plant death. Infected roots are dark brown and mushy. Infected stems are often bordered by a collar of white fungal growth at the soil line during wet periods.

**Alternaria**

Respondents in Homestead indicate that early blight active on several crops.
Up Coming Meetings

Bradenton

October 7, 2003  
**Whitefly Management and Resistance Issues and VIF Update and Role in the MBr Phaseout**  
4 – 5 PM  
UF/IFAS GulfCoast Research and Education Center  
5007 60th Street E  
Bradenton, Florida  
Call 941-722-4524 for information

October 16, 2003  
**Organic Agricultural Marketing, Regulations, and Certification Cost Share**  
7 PM  
UF/IFAS GulfCoast Research and Education Center  
5007 60th Street E  
Bradenton, Florida  
Call David Schuster at 941-751-7636 ext. 247 for information

Hillsborough County

November 7, 2003  
**WPS - Train the Trainer**  
10 AM - Noon  
Hillsborough County Extension Office  
5339 S CR 579  
Seffner, Florida  
Contact Traci Buck at 813-744-5519, ext.104

Miami-Dade County

October 9, 2003  
**Second Annual Workshop on Staying Competitive in Agriculture: Understanding Your Market**  
8AM - Noon  
John D. Campbell Ag Center  
18710 SW 288th Street  
Homestead, Florida  
Call 305-248-3311 for information
### Palm Beach County

**October 6, 2003**
- **General Standards/Core Test Review**  
  8 AM - 10 AM
- **Aquatic Weed Control Test Review**  
  1 PM - 3 PM

Clayton E Hutchinson Agricultural Center  
559 North Military Trail  
West Palm Beach, Florida

Contact Laura Powell at 561-996-1655.

**October 15, 2003**
- **General Standards/Core Test Review**  
  8 AM - 10 AM
- **Private Applicator Test Review**  
  1 PM - 3 PM

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

Contact Laura Powell at 561-996-1655.

### Southwest Florida

**October 9, 2003**
- **Roundup Herbicide and Vegetable Application Updates**  
  6:00 PM

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

Contact Gene McAvoy at 863-674-4092

**October 28, 2003**
- **Plant Pathology and SipCam Agro**  
  6:00 PM

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

Contact Gene McAvoy at 863-674-4092

### Other Meetings

**March 23-27, 2004**
- **ISHS International Symposium on Protected Culture in a Mild-Winter Climate**  
  Orlando, Florida, USA.

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

**June 21-24, 2004**
- **1st International Symposium on Tomato Diseases and 19th Annual Tomato Disease Workshop**

Grosvenor Resort at Walt Disney World  
Orlando, Florida

For more information, visit [http://plantdoctor.ifas.ufl.edu/istd.html](http://plantdoctor.ifas.ufl.edu/istd.html)
Websites

**Sunbelt Agricultural Expo** - the annual pilgrimage to Moultrie, GA will soon be in full force. Some 200,000 people are expected to travel there from October 14-16, 2003 for the Sunbelt Agricultural Expo billed as North America’s premier farm show. This event gets bigger and better every year, check out their website at [http://www.sunbeltexpo.com](http://www.sunbeltexpo.com)

Business Opportunity

Wholesale produce broker seeks smaller grower to supply tropical eggplant. Contact Diallo at Tropical Produce, 617 Jefferson Street, Suite 103, Washington DC for more information. Phone 202-409-0977.

News You Can Use

**Agriculture and the Economy**

Two articles in the September - October issue of The Futurist reveal some trends that will most certainly affect agriculturalists. Carl Zulauf in "Farming's Changing Role in the Economy," says that rapid technological change has contributed to a decline in food prices by as much as two thirds since 1910, while per capita income has increased. This has allowed U.S. consumers to spend more on other products and services.

The "bad" news is that this trend is now over, mostly due to rapid increases in medical expenses. Thus Dr. Zulauf sees competition among agricultural and medical sectors to increase, but there is a bright side to this, as genetic engineering will blur the line between traditional agricultural, medical and energy pursuits. Thus, he concludes that while negative forces exist farming's role may actually increase, branching beyond food to "meet the demands of the new dynamic at play among the various U.S. economic sectors."

Graham T.T. Molitor looks at trends in food and agriculture, rethinking our paradigms:

Demography: World population will grow to 9 billion by mid century. Over consumption may be taken up by the less affluent as their lifestyles change.

Economics: Agribusiness represents some 30-35% of U.S. GDP, but most of this activity is off the farm. Americans spend about half their food budgets eating away from home.

Environment: Less land is needed to produce food; more will be used to produce energy (sugar cane and corn). Water will be the resource of the future; there may be wars over it. Technological advances may cause less to be used.

Government: Taxpayers and voters my oppose attempts by government to regulate genetic engineering, foreign aid, and subsidies and trade.

Society: Food consumption may be a major part of leisure-time activities. Values will come into conflict, however, as various groups (vegans, animal rightists, those concerned with GMOs, organic gardeners) vie for control.

Technology: Agriculture biotechnology promises a lot in enhancing production, safety and health of food, but there are mounting forces against this.
U.S. Is On The Verge Of Becoming Net Ag Importer

For more than 40 years the United States has exported more agricultural products than it has imported. That could change within a few years, said two Purdue University agricultural economists.

The gap between American export and import values is narrowing, said economists Phil Paarlberg and Phil Abbott. They predict imports could overtake exports by 2007, if current trends continue.

U.S. agricultural exports are projected to climb by $500 million in the coming fiscal year, which begins in October, to $56.5 billion. Imports are estimated to jump as much as $3.5 billion in 2003-04.

"What we've seen in the last several years is that agricultural exports have been relatively flat in real dollars while imports have been rising quite rapidly, even through our so-called recession," Paarlberg said. "A couple of years back imports were $41 billion, and last year they were $45 billion. We expect them in the coming year to climb to $47 billion or $48 billion. "The last time we were a net ag importer was in the 1950s."

Quotable Quotes

I was not the lion, but it fell to me to give the lion’s roar. - Winston Churchill

He who can no longer pause to wonder and stand rapt in awe is as good as dead; his eyes are closed. - Albert Einstein

Farming looks mighty easy when your plow is a pen and you are a thousand miles from the cornfield. - Dwight D. Eisenhower

Beware of little expenses. A small leak will sink a great ship. - Ben Franklin

On the Lighter Side

Bud “Wiser”

When things in your life seem almost too much to handle, when 24 hours in a day are not enough, remember the mayonnaise jar ... and the beer.

A professor stood before his philosophy class and had some items in front of him. When the class began, wordlessly, he picked up a very large and empty mayonnaise jar and proceeded to fill it with golf balls. He then asked the students if the jar was full.

They agreed that it was. So the professor then picked up a box of pebbles and poured them into the jar. He shook the jar lightly. The pebbles rolled into the open areas between the golf balls. He then asked the students again if the jar was full.

They agreed it was.

The professor next picked up a box of sand and poured it into the jar. Of course, the sand filled up everything else. He asked once more if the jar was full. The students responded with a unanimous "yes."

The professor then produced two cans of beer from under the table and poured the entire contents into the jar, effectively filling the empty space between the sand. The students laughed.
"Now," said the professor, as the laughter subsided,

"I want you to recognize that this jar represents your life. The golf balls are the important things--your family, your children, your health, your friends, and your favorite passions--things that if everything else was lost and only they remained, your life would still be full. "The pebbles are the other things that matter like your job, your house, your car. The sand is everything else--the small stuff.

If you put the sand into the jar first," he continued, "there is no room for the pebbles or the golf balls. The same goes for life. If you spend all your time and energy on the small stuff, you will never have room for the things that are important to you.

Pay attention to the things that are critical to your happiness. Play with your children. Take time to get medical checkups. Take your partner out to dinner. Play another 18. There will always be time to clean the house, and fix the disposal. "Take care of the golf balls first, the things that really matter. Set your priorities. The rest is just sand."

One of the students raised her hand and inquired what the beer represented. The professor smiled. "I'm glad you asked. It just goes to show you that no matter how full your life may seem, there's always room for a couple of beers."

Contributors include: Joel Allingham/AgriCare, Inc, Karen Armbrester/SWFREC, Kathy Carbiener /Agricultural Pest Management, Jim Connor/SWFREC, Bruce Corbitt/West Coast Tomato Growers, Dr. Phyllis Gilreath/Manatee County Extension, 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 McAvoi/Hendry County Extension, Alice McGhee/Thomas Produce, Jimmy Morales/Pro Source One, 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/ERE, Dr. Pam Roberts/SWFREC, Dr. Nancy Roe/Farming Systems Research, Wes Roan/6 L's, Kevin Seitzinger/Gargiulo, Jay Shivler/ F& F Farm, 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, and Alicia Whidden/Hillsborough County Extension.

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

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