March 15, 2002

The cold front that passed through the area on March 3 bought a few cool nights to South Florida. Fort Lauderdale, Fort Pierce and Immokalee all recorded at least one night in the forties, while in temperatures in Homestead, bottomed out at 50 degrees. Conditions over the last seven days have returned to more seasonable levels with daytime highs in the low to mid 80’s and lows in the 50’s and 60’s.

Most areas received some precipitation with the passage of a sub-tropical system that moved in off the Gulf last week. Rainfall totals varied widely from a trace in Homestead and Fort Pierce to an inch or more in the Immokalee and Palm Beach areas. Following this system, the heavy winds that had whipped the area for much of the past three weeks dropped off to nearly everyone’s relief. Watermelons in particular suffered vine twisting, stem damage and fruit scarring. Scarring is also apparent on tomato and pepper fruit. The past few days have seen widespread fog in a number of areas.

Crops across the area are in mostly fair to good condition. Growers continue to conduct cultural operations such as staking, pruning, tying and spraying as needed. Vegetables being harvested include tomatoes, peppers, cabbage, Chinese cabbage, celery, eggplant, endive, escarole, lettuce, parsley, potato, radishes, snap beans, squash, sweet corn, strawberries and specialty vegetables. Growers are reporting a significant amount of wind scarred and puffy fruit as the result of the cold windy weather experienced earlier in the season. Expectations are that yields and pack-outs will be below par.

FAWN Weather Summary

<table>
<thead>
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<th>Date</th>
<th>Air Temp (°F)</th>
<th>Rainfall (Inches)</th>
<th>Hours Below Certain Temperature</th>
<th>(hours)</th>
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<td></td>
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<td>Max</td>
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<td>43.4</td>
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The short term forecast from the National Weather Service in Miami indicates that patchy morning fog will persist over the next several days. Skies will remain partly cloudy with a warming trend through next week with daytime highs moving into the upper 80’s and approaching 90 degrees. There will be a slight chance of scattered afternoon showers. For additional information, visit the National Weather Service in Miami website at http://www.srh.noaa.gov/mia/newpage/cgi-bin/master.pl?suite=home

Respondents in Palm Beach report that flower thrips are on the increase and are being found in pepper and tomato blooms. Some reports indicate that populations had reached 2 - 3 per bloom but were knocked down with a single application of SpinTor. Growers are seeing some dimpling and minor scarring on young fruit. A few T. palmi have been found in pepper with some noticeable foliar distortion in pepper at or near first and second pick.

Growers and scouts in southwest Florida report that thrips activity has been on the rise, especially in the past two or three days. Several farms have very high numbers of flower thrips blowing around and have reported counts 5 - 10 per bloom in both pepper and tomato. There have been few reports of crop damage so far but high numbers can cause bloom drop.

Reports from Homestead indicate that Thrips palmi remain high on most crops, especially beans, pepper, and eggplant.

Thrips inflict damage on vegetable crops when feeding and laying eggs. Damage from egg-laying is most common in species that infest blooms such as Florida flower thrips Frankliniella bispinosa. When the eggs are inserted into the pistil walls, scars develop when the fruit expands. In some fruiting vegetables dimple scars develop when the fruit are fully matured. In tomatoes, such scars may result in uneven color development at maturity.

Feeding injuries occur on both fruit and foliage. Thrips infesting blooms typically lay their eggs in the pistil or other flower parts. By the time the larvae hatch, the petals and anther have often dried and fallen. Larvae in such circumstances seek shelter under the fruit's calyx. Several generations of thrips can feed and develop under the calyx of pepper fruit, damaging immature tissues that develop corky or leathery blemishes with maturity.

Melon thrips tend to utilize more of the host plant than other species that occur primarily in the blooms. In peppers and eggplants, Thrips palmi affects both fruit and foliage. The greatest damage occurs when thrips become established in the blooms, and lay eggs around the calyx. Thrips feeding under the calyx of the expanding fruit cause the characteristic scars, which may affect a sizable part of the fruit wall.

In crops, such as snap beans and most of the vine crops, feeding on the foliage causes damage. Foliar feeding often begins inside the tightly rolled leaves at the growing points of the plant. Larvae and adults soon appear on the undersides of the expanding leaves. The combined effect of feeding damage in the growing point and on young leaves can severely stunt and distort sensitive crops, such as peppers.

For more information and photos of thrips, check out the Glades Crop Care Thrips KnowledgeBase at http://www.gladescropcare.com/pg1.html.

Reports from southwest Florida indicate that aphid populations are picking up in many locations. Some farms have experienced large flights of winged aphids and several growers report colonies building in crops. Brassicas, cantaloupe, potato and pepper fields have required treatment.

Respondents in Palm Beach indicate that aphids remain present in low numbers at widely scattered locations. Although some colonies are still being found in pepper, aphids are being seen more commonly in beans and leafy vegetables.
Around Homestead, reports indicate that aphids are increasing on squash and to a lesser extent cucumbers. Associated virus problems have been low but are now increasing.

Whitefly pressure continues to remain steady around Immokalee. Several growers report that they are spraying like “hell” and they just keep coming. One scout reported finding an average of 4 adults per plant on the day following an insecticide application and actually observing them fly in while scouting a field.

Reports out of Homestead indicate that whitefly numbers are also picking up again, more so on young beans than tomato, with both TYLCV and BGMV increasing.

Around Palm Beach whitefly populations continue to buildup on older tomato and eggplant.

Combinations of the following insecticides can be applied where migrating whitefly populations are high: pyrethroids with an organophosphate, Thiodan, or soap with a pyrethroid or Thiodan.

After the efficacy of the soil-applied insecticides begins to decline, whiteflies can be controlled with an insect growth regulator like Knack and Applaud or the insecticides listed above. Since growth regulators interfere with normal growth and development of whiteflies, do not expect immediate response from these materials. They are not toxic on contact with the insect but do cause treated female adults to lay infertile eggs or adversely affect the development of nymphs.

Growers are strongly encouraged to practice good resistance management and avoid applying a second application of imidacloprid (Provado) or thiamethoxam (Actara) or products with similar chemistry if plants have been treated with Admire or Platinum. If you think it is rough now, just consider what it might be like if whiteflies develop resistance to these valuable pest management tools.

Growers are also reminded of the importance of sanitation and rapid destruction of crop residues once harvest is complete. If whitefly counts are high in abandoned fields prior to destruction, growers would do themselves and their neighbors a big favor by spraying the residue before crop destruction to prevent the migration of large numbers of whiteflies to new fields.

Reports from the East Coast growers indicate some increase in leafminer pressure on tomato with sprays being applied for control.

In Homestead, leafminers are increasing on beans again, but most tomato growers no longer spraying for leafminers on picked fields.

Reports from around southwest Florida, indicate that leafminer activity remains relatively low and may be declining.

Growers and scouts across south Florida indicate that there has been some increase in worm pressure but control has been good especially with all the sprays being directed at whiteflies.

Respondents from Palm Beach indicate worm pressure is fairly light with a few southern armyworms, loopers and beet armyworms being found here and there.

In the Homestead area, scouts report increased worm pressure as temperatures increase. Growers are finding a mixed bag of armyworms, loopers, and fruit worms. Reports indicate heavy fall armyworm and silk fly pressure on sweet corn.

Broadmites continue to hang on across south Florida in both pepper and eggplant. Populations are relatively low in most places and are largely under control.
Growers in the Naples area are reporting problems with spider mites on cantaloupe.

**Pepper weevils are still around at mostly low levels.** Reports from the east coast indicate although weevils remain at low levels with some increase in fields where they were already present.

**Around southwest Florida pepper weevil numbers remain below normal for this time of year although there have been some reports of increasing pressure in some locations.**

**Late blight has moved out of Devils Garden and is now widespread on tomato east of Highway 29 in Hendry and Collier Counties.** Incidence and severity is low to moderate. There have been no finds of late blight on potato in southwest Florida nor has any late blight been reported in Palm Beach or Homestead. Reports out of the Manatee/Ruskin area indicate that late blight is widespread.

**Preliminary diagnostic testing indicates that samples taken from Devil’s Garden and around Immokalee is likely the US-17 strain.** Dr Pete Weingartner: Plant Pathologist with UF/IFAS reports that US-17 is usually quite aggressive on tomato and also attacks potato, but less aggressively than tomato.

**Although a few growers have indicated that the late blight situation appears to be in check, Dr Weingartner advises that even if late blight appears to be "in check" this could simply be a short-term lull in the storm.** He indicates that we have ideal conditions for the development after dark nearly every night in southwest Florida... nighttime temperatures in the 60's, high humidity, and heavy dews. He writes that in a sense, bacterial spot might be a salvation because spraying for it is probably inadvertently controlling late blight.

**Since late blight symptoms may be confused with symptoms of other diseases, the following diagnostic pointers may help growers distinguish between the late blight and other diseases.** Late blight symptoms on leaves appear as irregularly shaped brown to purplish lesions with indefinite border lesions can span veins. The lesions may be seen any time of day, on any stage of plant growth and on leaves of any age. Velvety, white fungal growth may appear on the lower surface of affected leaflets early in the morning before leaves dry and/or in the lower canopy.

On stems, purplish lesions may be seen any time of day and may be found any where on the stem. Cottony, white growth of fungus on stems with lesions can often be seen early in the morning and/or in the lower canopy. Stems with lesions are brittle and break easily. Lesions are confined to epidermis and cortex. Leaf rolling and wilting is often associated with stem lesions and purpling of leaflets may occur in some varieties.

**Currently fungicides are the most effective means of controlling late blight and will remain the primary tool until cultivars with resistance to this disease become available.** Trials at UF and elsewhere have shown that products like Mancozeb and Bravo are as effective on late blight as anything else. Fungicides slow the rate at which the disease develops in the field by creating a protective barrier on the foliage. Just applying a chemical, however, does not necessarily equate with effective disease control. The relative effectiveness of a product, coverage, and timing must be factored into the equation for maximum benefit.

**Although growers have been able to effectively control late blight by sanitation, cultural methods and judicious use of fungicides.** This situation became more complicated in recent years by the development of resistance to certain fungicides such as metalaxyl. Dr Weingartner notes that all the late blight isolates we have tested from Immokalee in the past couple of years have been resistant to Ridomil. Growers should be aware of this problem and be careful to incorporate fungicides with diverse modes of action into their spray programs.

**Growers and scouts from Palm Beach report that Anthracnose in pepper is getting worse as it has continued to spread from sites of initial infection into nearby uninfected pepper.** It is being found in fields
Several fungi in the genus *Colletotrichum* cause anthracnose in pepper. At least three species of *Colletotrichum* (*C. gloeosporiodes*, *C. capsici*, and *C. coccodes*) are reported to cause this disease on pepper in Florida.

Anthracnose may appear on all parts of the pepper plant during any stage of plant growth. Fruit lesions are the most economically important aspect of this disease. Fruit symptoms initially begin as water-soaked lesions that become soft, slightly sunken, and become tan. The lesions can cover most of the fruit surface and multiple lesions occur. The surface of the lesion becomes covered with the wet, gelatinous spores from salmon-colored fungal fruiting bodies (acervuli) with numerous black spines (setae). Concentric rings of the acervuli are common within the fruit spots. In some cases, the lesions are brown, not orange, and then black from the formation of setae and sclerotia (a dark, fungal survival structure).

The fungus survives in and on seeds. Anthracnose may be introduced into the field on infected transplants or it can survive between seasons in plant debris or on weed hosts. Alternative hosts include weeds and other plants in Solanaceae (tomato, potato, eggplant) although infections of these hosts are extremely rare in Florida.

Fruit are infected when spores of the fungus or infested debris is splashed onto pepper plants. New spores are produced within the infected tissue and then are dispersed to other fruit. Workers may also move spores with equipment or during handling of infected plants.

Infection usually occurs during warm, wet weather. Temperatures around 80°F (27°C) are optimum temperatures for disease development, although infection occurs at both higher and lower temperatures. Severe losses occur during rainy weather because the spores are washed or splashed to other fruit resulting in more infections. The disease is more likely to develop on mature fruit that is present for a long period on the plant, although it can occur on both immature and mature fruit.

Control of the disease is through integrated management techniques. Only seeds that are pathogen-free should be planted. Transplants should be kept clean by controlling weeds and solanaceous volunteers around the transplant houses. Fields should be well drained and be free of infected plant debris. If the disease was previously present in a field, crops should be rotated away from solanaceous plants for at least 2 years. Sanitation including control of weeds and volunteer pepper plants is important.

Resistance is available in some varieties of chili peppers but not in bell peppers. For bell pepper production, cultivars that bear fruit with a shorter ripening period may allow the fruit to escape infection by the fungus.

Wounds in fruit from insects or other means should be reduced to the extent possible because wounds provide entry points for *Colletotrichum* spp. and other pathogens like bacteria that cause soft rot. For late-maturing peppers, when disease is present, apply a labeled fungicide several weeks before harvest. The disease can be controlled under normal weather conditions with a reasonable spray program. At the end of the season, remove infected plant debris from the field or deep plow to completely cover crop diseases.

Growers and scouts around southwest Florida continue to report that tomato yellow leaf curl virus remains the top disease problem in tomato. Infection rates in several fields have reached the 20–30 percent range with a few fields at or above 50% infection. Many other growers are seeing reported 5–10% infection rates in spring plantings at first to second tie. These levels are much higher than seen before in southwest
Florida. As fields approach harvest many growers have ceased rouging in order to harvest fruit that is already set on the plant.

**Reports indicate that TYLCV and BGMV continue to increase in the Homestead area.**

**Scouts in Palm Beach report SLWF populations are on the increase as is incidence of TYLCV.** In a few fields, reports indicate 5-10% of plants have been infected with TYLCV prior to first pick. A number of these “hot spots” are near old tomatoes, which are being taken out of production.

**Growers should be prepared to use alternative whitefly control measures including IGR's as Admire begins to wear off and whitefly populations increase or where large numbers of adults are migrating into new plantings.** Growers should rogue out infected plants as identified. It is disturbing to see some fairly large infected plants in fields that have apparently been left in place for several weeks or more. A complete IPM approach including sanitation, eradication (roguing) and chemical control of the whitefly vector is essential in controlling this disease.

**Respondents from Palm Beach indicate that the spread of bacterial spot is again on the increase.** Bacterial spot seems to be increasing at a faster rate in tomatoes than in pepper although there have been some reports of moderate levels of infection in pepper. In some tomato fields it can be found throughout the canopy, top to bottom; however, not many lesions are being found on the fruit. Maneb/mancozeb and copper sprays are still being used for control.

**Growers and scouts around Immokalee are also reporting an increase in the incidence and severity of bacterial spot with some fruit lesions being noted.**

**Target spot and early blight continued to be reported from widely scattered locations across south Florida.** Incidence and severity is mostly low. There have been some reports of target spot on tomato fruit around Immokalee.

There have been some scattered reports of gray leaf mold on tomato in the Immokalee area.

**Some scouts in Palm Beach have noted that Phytophthora appears to be on the increase in pepper in some areas while others indicate it is slowing in other places.**

**Powdery mildew remains active on squash around Immokalee.** Powdery mildew is widespread in older cucurbits especially squash. Incidence and severity is generally low to moderate although some severe infections have been noted in older plantings.

**Reports from Palm Beach indicate powdery mildew continues to increase slightly in pepper and is also being found in cucumbers and squash. Sprays are being targeted for control.**

**Scouts in Homestead are reporting heavy infestations of powdery and downy mildew on cucurbits.**

**Downy mildew is widely present in older squash plantings around Immokalee and has been found on watermelon at low levels in the Devil’s Garden area.**

**Fusarium crown rot in tomato remains widely present around southwest Florida.** Reports from Palm Beach County indicate that Fusarium continues to progress slowly.

**Fusarium wilt is beginning to show up widely on watermelon across southwest Florida as vines begin to run.** Incidence and severity is mostly low.
Rust is widely present on snap beans in the Devil's Garden area and on certain corn and bean varieties around Homestead.

Rhizoctonia is present on beans around Immokalee and has caused significant stand reduction in some fields.

Gummy stem blight is widely present on watermelon southwest Florida. In most cases incidence and severity remains relatively low but in some places, the disease has reached moderate to severe levels and has reduced stands causing growers to have to reset plants. Progression of the disease has appears to have slowed substantially over the past two weeks.

Growers and scouts on both coasts report that Sclerotinia and Botrytis activity in pepper and tomato has slowed down in recent days.

ATTENTION ALL FARMERS, NURSERIES, PEST CONTROL OPERATORS, and GOLF COURSES, bring your cancelled, suspended, and unusable PESTICIDES for FREE DISPOSAL, no questions asked!

Dr Norm Nesheim has passed on the following information from Burt McKee, the coordinator for the Cleansweep pesticide collection program for canceled/suspended or otherwise unusable pesticides.

This program, funded by the State, has been collecting these pesticides disposing of them at no cost to the people who bring them in. The program has been focusing on N. Florida this year, but finds that it will have some funds to be able to come to SW Florida later this spring. It may be sometime before this program is available in your area again.

Cleansweep is NOT FOR RESIDENTS. If homeowners show up, they will be directed to their county Household Hazardous Waste Program or to the Solid Waste Department. Growers, who bring other hazardous waste, i.e. auto batteries or used oil, will also be directed to their county HHW or Solid Waste Department.

A web site with details on the Cleansweep program can be found at:
http://www.dep.state.fl.us/waste/categories/cleansweep-pesticides/

The following SW Florida Collection Events have been added to the schedule:

Collier/Lee/Hendry - April 23, 2002
Location: Immokalee Landfill
700 Stockade Road (off Hwy 846)
Immokalee, FL
Contact: Gary Morocco, Collier County Solid Waste (941) 732-2508

Charlotte/Sarasota (Glades?) - April 24, 2002
Location: Charlotte Zemel Road Landfill,
Zemel Road
Punta Gorda
Contact - Barbara Kula (941) 764-4380

For more information about Florida’s Operation Cleansweep, you may contact Jack Price at (850) 488-0300.

This is a great opportunity – don’t miss it, as it may be several years before it comes around again.
Up Coming Meetings

Palm Beach

April 11, 2002  Questions and Answers About OSHA Regulations - 1:30 - 3:00PM
Vergie Bain, OSHA Compliance Specialist
Everglades Research and Education Center Conference Center, Belle Glade
Contact Laura Andrews, 561-996-1657

April 17, 2002  Pesticide Applicator Training and Testing (Note: testing can be done anytime; but time is specifically allowed after training for testing)
General Standards/Core Test Review - 2 CEU’s - 8AM - 10 AM
Private Applicator Test Review - 2 CEU’s - 1PM - 3PM
Belle Glade Extension Office, 2976 State Road 15, Belle Glade
Call Chris Sullivan or Laura Andrews, 561-996-1655, to preregister

April 8, 2002  Community Supported Agriculture - 2:00 PM
Palm Beach County Extension Office
531 North Military Trail - Mounts Blvd.
West Palm Beach, Florida
Contact Tony Young: FDACS at 850-487-4322 for more information.

April 9, 2002  Community Supported Agriculture - 9:30 AM
Indian River County Extension Office
8400 Picos Road, Suite 101
Ft. Pierce, Florida
Contact Tony Young: FDACS at 850-487-4322 for more information. . See announcement below.

Southwest Florida

March 19, 2002  Restricted Use Pesticide License CORE Training (Spanish)
Hendry County Extension Office
1085 Pratt Boulevard
LaBelle, Florida
(Note: test will be in English)
Contact 863-674-4092 for more information.

March 20, 2002  Restricted Use Pesticide License Private Applicator Training (Spanish)
Hendry County Extension Office
1085 Pratt Boulevard
LaBelle, Florida
(Note: test will be in English)
Contact 863-674-4092 for more information.

March 28, 2002  WPS – Train the Trainer
Hendry County Extension Office
1085 Pratt Boulevard
LaBelle, Florida
Contact 863-674-4092 for more information.
April 9, 2002  Restricted Use Pesticide License Training and Testing
(CORE, Private, Row Crop)
Hendry County Extension Office
1085 Pratt Boulevard
LaBelle, Florida
Contact 863-674-4092 for more information.

April 10, 2002  Restricted Use Pesticide License Training and Testing
(Aquatic, Tree Crop)
Hendry County Extension Office
1085 Pratt Boulevard
LaBelle, Florida
Contact 863-674-4092 for more information.

April 22  Community Supported Agriculture - 9:30 AM
Lee County Extension Office
3406 Palm Beach Blvd.
Fort Myers, Florida
Contact Tony Young: FDACS at 850-487-4322 for more information. See announcement below.

Charles H. Bronson: Commissioner of Agriculture invites you to attend an informational seminar on “Community Supported Agriculture.” This alternative Marketing Method, also known as Subscription Farming, can reduce production and marketing risks for growers.

Topics to be covered include:

- Types of subscription farming enterprises
- Recruiting shareholders
- Developing an accounting system
- Deciding on a distribution system
- Volunteers
- Marketing your products & publicity

For more information, call Tony Young at 800-357-4273

Announcements

Mike Harowitz is now southeastern Sales Director for FarmSaver.com. FarmSaver produces and supplies their own branded generic pesticides. These products are offered over the Internet direct to growers and dealers. Their product line is limited at this stage but many new products are in the pipeline. His email address is mharowitz@farmsaver.com.

Job Opportunity

C&B Farms is seeking to recruit a hardworking, bright, ambitious individual that is interested in a career in vegetable production with one of the more progressive diversified vegetable operations in the state. A degree in horticulture is preferred. This is a position with definite growth potential for the right person. Contact Chuck Obern at C & B Farms, PO Box 1649, Clewiston, Florida 33440. Tel: 941-250-0551.
Websites

**USDA Whitefly Knowledgebase** - Developed at the University of Florida in cooperation with scientists at: Texas A&M University, University of California and Cotton Incorporated, this site embodies much of the current information on this pesky little critter  [http://whiteflies.ifas.ufl.edu/](http://whiteflies.ifas.ufl.edu/)

**Life: The Best of the Internet Humor** – Dave Stewart has archived a pretty good collection of jokes at this online site. While they might not all be suitable for inclusion in the hotline – you can go here if you are in the mood for a chuckle.  [http://www.ee.umd.edu/~dstewart/joke/](http://www.ee.umd.edu/~dstewart/joke/)

Quotable Quotes

When I was a boy I was told that anybody could become President. Now I'm beginning to believe it. -- Clarence Darrow

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

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

If I had only known, I would have been a locksmith. -- Albert Einstein

The Lighter Side

**Bureaucracy Gone Wild?**

The US standard railroad gauge (distance between the rails) is 4 feet, 8.5 inches. That's an exceedingly odd number. Why was that gauge used? Because that's the way they built them in England, and English expatriates built the US Railroads.

Why did the English build them like that? Because the first rail lines were built by the same people who built the pre-railroad tramways, and that's the gauge they used. Why did "they" use that gauge then? Because the people who built the tramways used the same jigs and tools (to convert wagons into trams) that they used for building wagons, which used that wheel spacing. Okay! Why did the wagons have that particular odd wheel spacing? Well, if they tried to use any other spacing, the wagon wheels would break on some of the old, long distance roads in England, because that's the spacing of the wheel ruts.

So who built those old rutted roads? Imperial Rome built the first long distance roads in Europe (and England) for their legions. The roads have been used ever since. And the ruts in the roads? Roman war chariots formed the initial ruts, which everyone else had to match for fear of destroying their wagon wheels. Since the chariots were made for Imperial Rome, they were all alike in the matter of wheel spacing. The United States standard railroad gauge of 4 feet, 8.5 inches is derived from the original specifications for an Imperial Roman war chariot. And bureaucracies live forever. So the next time you are handed a specification and wonder what horse's rear came up with it, you may be exactly right, because the Imperial Roman war chariots were made just wide enough to accommodate the back ends of two war horses.

Now the twist to the story... When you see a Space Shuttle sitting on its launch pad, there are two big booster rockets attached to the sides of the main fuel tank. These are solid rocket boosters, or SRBs. The SRBs are made by Thiokol at their factory at Utah. The engineers who designed the SRBs would have preferred to make them a bit fatter, but the SRBs had to be shipped by train from the factory to the launch site. The railroad line from the factory happens to run through a tunnel in the mountains. The SRBs had to fit through that tunnel. The
tunnel is slightly wider than the railroad track, and the railroad track, as you now know, is about as wide as two horses' behinds. **So, a major Space Shuttle design feature of what is arguably the world's most advanced transportation system was determined over two thousand years ago by the width of a horse's behind.**

**Contributors** include: Joel Allingham/AgriCare, Inc, Karen Armbrester/SWFREC, Jim Connor/SWFREC, Bruce Corbitt/West Coast Tomato Growers, Fred Heald/Farmers Supply, Sarah Hornsby/AgCropCon, Cecil Howell/H&R Farm, Loren Horsman/Glades Crop Care, Bruce Johnson/General Crop Management, Leon Lucas/Grades Crop Care, Gene McAvoy/Hendry County Extension, Alice McGhee/Thomas Produce, Jimmy Morales/Pro Source One, Tim Nychk/Nychk Bros. Farm, Chuck Obern/C+B Farm, Dr Ken Pernezny/EREC, 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/Palm Beach County Extension, Ben Stanaland/Pacific Tomato Growers, John Stanford/LNA Farm, Mike Stanford/MED Farms, Dr. Phil Stansly/SWFREC, Eugene Tolar/Red Star Farms, Dr.Charlie Vavrina/SWFREC, Donna Verbeck/Gulf Coast Ag. and Mark Verbeck/Bayer Crop Protection.

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.

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