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SOUTH FLORIDA

VEGETABLE PEST AND DISEASE

#### HOTLINE

# March 14, 2011

**Temperatures across South Florida rebounded to above normal for most of February and early March favoring the growth and recovery of crops affected by this winter’s freezes.** High winds over the past week to 10 days have battered crops tattering foliage, scarring fruit, knocking off blooms and sand blasting young plants.

**Daytime highs have been in the mostly 70’s and 80’s with a number of days reaching into the mid 80’s, nighttime lows have ranged between the upper 40’s, and low 60’s.** A cold front that moved through the area this past weekend dropped temperatures into the mid 40’s with some normally colder areas reporting lows in the mid 30’s. Light patchy frost was reported in Glades and Hendry Counties and interior locations to the north.

**Despite a few showers over the past few weeks, most of South Florida remains in the grip of a severe.**

###### FAWN Weather Summary

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date** | **Air Temp °F** | **Rainfall** | **Ave Relative Humidity** | **ET (Inches/Day)** |
|  | **Min** | **Max** | **(Inches)** | **(Percent)** | **(Average)** |
| Balm |  |  |  |  |  |
| 2/14 – 3/14/11 | 34.76 | 85.21 |  1.58 | 74 | 0.1 |
| **Belle Glade** |  |  |  |  |  |
| 2/14 – 3/14/11 | 43.51 | 86.47 | 1.26 | 79 | 0.11 |
| **Clewiston** |  |  |  |  |  |
| 2/14 – 3/14/11 | 40.93 | 88.03 | 1.26 | 78 | 0.11 |
| **Ft Lauderdale** |  |  |  |  |  |
| 2/14 – 3/14/11 | 49.19 | 88.02 | 0.55 | 73 | 0.11 |
| **Fort Pierce** |  |  |  |  |  |
| 2/14 – 3/14/11 | 37.45 | 86.59 | 1.41 | 77 | 0.1 |
| **Homestead** |  |  |  |  |  |
| 2/14 – 3/14/11 | 43.82 | 87.73 | 0.67 | 78 | 0.11 |
| **Immokalee** |  |  |  |  |  |
| 2/14 – 3/14/11 | 36.37 | 87.57 | 0.97 | 76 | 0.11 |

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**drought with the South Florida Water Management District reporting the driest October-to-February period since District recordkeeping began 80 years ago.**

**All areas received significant precipitation for the period ranging from just over a half inch in Fort Lauderdale to a little better than an inch and a half in Balm.** Foggy mornings have kept diseases active in a number of areas although mostly drier conditions over the past week or so have helped to reduce pressure.

**Volumes remain low but growers report that they are beginning to work through crops damaged by this winter’s cold weather and volumes and quality are increasing weekly.** Light supplies of snap beans, broccoli, cabbage, celery, sweet corn, endive, escarole, bell peppers, radishes, squash, tomatoes, and strawberries and specialty vegetables are moving to market. Prices have been strong on most items.

**The short-term forecast from the National Weather Service in Miami indicates that mild weather will prevail across south Florida through week’s end as high pressure dominates the area.** Weather will be clear and sunny with daytime temps in the low 80’s and night temps in the low to mid 50’s.

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

## Insects

**Thrips**

**Dr Gregg Nuessly, Entomologist at EREC advises that thrips are on the move coming out of citrus and coming to a vegetable field near you.**  He reminds growers to keep on eye out for thrips on tender leaves, blooms, fruit and pods.  While spinetoram remains a very effective insecticide for controlling thrips, other insecticides also work well and growers should be rotating among insecticides with different modes of action (MOA) to reduce the chances for development of resistance to the best compounds.

**David Sui, Vegetable Extension Agent reports that thrips are swarming in a number of locations in Palm Beach County. He notes that w**estern flower thrips are a particular concern now as the weather is getting warmer and numbers really depend on how well a farm practices IPM. He notes that in recent sampling, two farms in Boca and Delray had only 1-4 WFT per 10 flowers while another farm in Boynton had over 100 WFT per 10 flowers, way beyond the UF/IFAS economic threshold which at 8 per 10 flowers.

**In the Homestead area, Dr Dak Seal reports that flower thrips and melon thrips are present in mostly low numbers with an increasing trend given the current favorable weather conditions.** Growers should be concerned with flower thrips due to the significant threat of virus transmission.

**Growers should use insecticides in rotation and use a non-ionic surfactant with insecticide.** Materials including Radiant, Lannate, Vydate, Agrimek, Provado, Trilogy, and Requiem should provide control. If the minute pirate bug population is high, growers should consider not spraying or leave some area in the field without spray to facilitate their population increase and avoid the use of harsh chemicals.

**Around Southwest Florida, thrips are increasing, dramatically in some locations but populations remains mostly Florida flower thrips (*Frankliniella bispinosa*)**. Some growers are spraying for thrips and scattered incidence of GRSV has been noted in tomato.

**Reports from Manatee County indicate that thrips remain low.**

**Leafminers**

**Reports from the Glades indicate that Dipterous leafminers are causing more problems in vegetables this spring than in the last several years; requiring specific control actions to reduce damage from stippling and mining of the leaves.**  Dr Gregg Nuessly notes that care should be used in selecting insecticides for controlling these flies due to long term stable resistance to insecticides.

**Leaf miners are active around Palm Beach County, attacking peppers, eggplants, tomatoes, and lettuce.**

**Leafminers are mostly low around the Manatee Ruskin area but growers and scouts have reported stippling on tomatoes and melons.** Numbers have reached threshold levels in a number of areas and growers are treating as necessary.

**Around Homestead, leafminers are moving from non-vegetable hosts (nursery) to vegetable hosts but remain mostly low.** Dak Seal reports that naturally occurring wasp parasitoids of leafminers are abundant in all fields and reminds growers that non-judicial use of insecticides may disrupt naturally occurring beneficial insects.

**Around Southwest Florida, leafminers pressure is variable and numbers have reached thresholds in some fields and growers are treating some tomato and watermelon fields**.  Higher numbers have been reported on tomato in Devil’s Garden. Growers report good results with Coragen, Radiant, Agrimek, and Trigard. Be sure to follow label instructions.

**Spider mites**

**Around Southwest Florida, spider mites are really starting to flare up in a number of locations on a variety of crops including eggplant, tomato and cucurbits and scouts report finding new infestations nearly every day.**

**Reports from Palm Beach County indicate that spider mites are present in a variety of crops especially eggplant.**

**Growers and scouts around Homestead report that two-spotted mites are distributed in an aggregated pattern in vegetable fields and that numbers have been showing increasing population trend in recent days.**

**Aphids**

**Respondents in the Homestead area report that aphids are increasing a wide variety of crops including beans, eggplant, peppers, squash, and tomatoes.**

**Growers and scouts in the Glades report that aphid numbers have increased over the past two weeks and scouts report finding significant populations of red lettuce aphid as well as green peach aphid on a number of leafy crops.**

**Around Palm Beach County, aphids are still plentiful on peppers, tomatoes, lettuce, Chinese vegetables, and others with pressure varying from low to medium depending on the crop and location.**

**Around Southwest Florida, winged aphids are still moving around and occasionally becoming established in some locations.** In squash, virus transmission is a concern and some fields have reached up to 30% mosaic virus.

**In the Manatee/Ruskin area, respondents report that aphid numbers are on the rise.**

**For the most effective control, time applications of insecticides early in infestation so as not to kill beneficials.** Time the application of insecticidal soaps when the maximum numbers of wasps are still in the aphid mummies.

**Insecticide applications specifically for aphids are usually only needed when high populations**

**(> 50/plant) are present on very young seedlings/transplants, or near harvest-as a contaminant/marketability concern.** Early to mid-season treatment decision for aphids should decided upon the abundance of beneficial insects, plant growth stage and weather conditions.

**Softer pesticides including insecticidal soaps such as M-Pede), nicotinoids like Admire, Actara, Platinum, Provado, Assail and others including Belay, Beleaf, Movento and Fulfill will provide good control and help reduce impact on beneficials.**

**Whiteflies**

**Respondents around SW Florida are reporting variable whitefly populations, with numbers ranging from almost nonexistent to horrible especially along County Line Road between Collier and Hendry Counties and in Devils Garden.**  Growers and scouts report finding 5-20 adults per plant with pupae in some fields along with a big jump in TYLCV in this area. Scouts report that nymphs are building up in some older fields.

**Growers and scouts in Homestead are seeing mostly low numbers of whiteflies on squash, beans, eggplant and tomato**. Dak Seal advises growers that on tomato if they shake 10 plants at a distance of 6-8 steps from each other, they should be prepared to spray if they see 3-5 whitefly adults especially given the importance of whitefly transmitted virus.

**Reports from Manatee County indicate that whiteflies remain mostly low in tomato plantings but numbers are rising and have warranted treatment in some locations.**

**Growers and scout report movement of whitefly and thrips from tomato fields that were severely damaged by the freezes and abandoned and not properly cleaned up.** Both pests are building in resprouts and moving to adjacent fields often carrying virus.

**In addition, in response to strong market prices many of the older fields around that were slated for destruction are now being brought back into production.** Growers are wise to consider the risk of leaving old crops set around unsprayed.

**Worms**

**Growers and scouts in the Glades report increased egg-laying by both beet and fall armyworm in corn in recent days.**

**Respondents in Southwest Florida report that worms have been mostly low for the past few weeks but report finding a few egg masses over the past couple of days.** Some diamondback moths are present in crucifers and growers report finding an occasional looper as well as few beet and Southern armyworms.

**In Palm Beach and the Glades, reports indicate that diamondback moths remain active on Chinese vegetables, lettuce, and other leafy greens.** Reports indicate that pressure has been increasing.

**Respondents report that cut worms have been terrible on Chinese vegetables especially Napa in some locations around Palm Beach County.** Plants often looks fine on the outside, but when you push down the top leaves the worm damage and frass showed along with big, dark cutworms.

**Around Homestead, respondents report that a variety of w**orm pests, including fall armyworm, beet armyworm and diamondback moth are increasing rapidly with rising temperatures.

**Growers should rotate insecticides and should not use any insecticide more than one time.** Good results have been obtained with the following materials: Dipel, Xentari, Radiant, Synapse, Avaunt, Coragen, Voliam Flexi, Voliam Xpress, Rimon, and Proclaim.

**Dak Seal, Entomologist at the UF/IFAS Tropical Research and Education Center in Homestead reminds growers that *Bacillus thuringiensis* based insecticides (Dipel, Xentari) are excellent in controlling worms at early stage and encourages growers to use Bt in their rotation.**

**Corn Silk Fly**

**Respondents around Homestead report that silk fly has just stated to appear in corn fields**. Milkweed assassin bugs and minute pirate bugs are potential predators of corn silk fly. Growers should keep these naturally occurring beneficials in mind when spraying insecticides.

**Pepper Weevil**

**Growers and scouts in all areas of South Florida report that pepper weevils survived the cold weather and have mounted a comeback and are causing problems in pepper fields.** In addition to adults, growers are reporting infested fruit in some places. Good results have been reported with Cryolite in combination with Pounce at low volume; rotate with Vydate, Actara, and Belay.

**Stinkbug**

**Around Palm Beach County, growers are reporting major problems with stink bugs in shade houses where they are particularly bad on fruiting vegetables, tomatoes, peppers, eggplants, cukes, and squash.** Nearby open field grown crops do not have much of a problem.

**Around Southwest Florida, growers continue to report some issues with stinkbugs, which are increasing in numbers in the older damaged vines.** Organic growers in particular are having difficulty in obtaining control and are experiencing significant damage.

**Broad Mites**

**Broad mites are widely present at mostly low around South Florida but numbers are increasing in a variety of crops including eggplant, pepper and squash.**

**Cucumber beetle**

**Growers and scouts indicate that cucumber beetles are still causing problems in several locations around South Florida.**

**Yellow margin leaf beetle**

**Yellow margin leaf beetle, *Microtheca ochroloma* has been found in Chinese cabbage in the Glades.** Both adults and immatures are present and infested plants have a "shotgun blasted look".

**Diseases**

**Black mold**

**Growers across South Florida have been experiencing extremely high cull rates and significant postharvest losses from black mold in tomatoes that survived this winters freezing weather.**

**Several different pathogens may cause black mold rots.** *Alternaria alternata*, *Alternaria arborescens*, *Stemphyllium botryosum* or *S. consortiale* are all reported to cause black mold in tomato, although samples pulled from fields around South Florida indicate that *Alternaria alternata*, has been the primary pathogen isolated.

**Identification**

• Initially, small, irregular tan lesions develop on the tomato fruit

• These may develop into large, sunken, black lesions

• In warm, humid weather, a black, velvety layer of spores may be produced

• Black fungal growth may also develop on existing wounds or lesions

**The lesions are initially sunken or flattened areas associated with a crack or other injury that quickly become covered with a dark brown to black mold.** Black mold rot often appears on the shoulders, by the stem scar or on the blossom end of fruit that has been injured by chilling, calcium deficiency, sun exposure, climatic factors that cause fruit cracking (e.g., high temperatures and high rainfall), pesticide phytotoxicity or imperfectly closed blossom-end pores (catfacing), and, perhaps harvest during cold weather.

**Close inspection of most fruit affected indicate that chilling injury is the primary cause in most instances observed this season.**

**Internal lesions may develop from an infected stylar pore or vascular strand connected to the stem scar.** In particular, dry locular cavities that have lost their gel due to a severe internal bruise are likely to develop internal blackspot. This disease usually does not spread from fruit to fruit in boxes. Green fruit are typically quite resistant unless exposed to chilling temperatures, blossom-end rot or damage by certain spray mixtures.

**Growers and scouts report that the problem is beginning to abate as harvest moves to plantings less affected by cold weather or which had not yet formed fruit when exposed to chilling temperatures.**

**Late Blight**

**Leon Lucas of Glades Crop Care reports finding late blight earlier this past week on tomatoes in Collier County.** The site of infection is small but the disease has been confirmed by Dr. Pam Roberts at UF/SWFREC in Immokalee.

**Given the limited scope of the infection and location we are not anticipating finding it across the area.** Rainy weather late last week may have created favorable conditions for additional infections but warm dry weather this week is not expected to be favorable the disease to spread widely.

**Growers and scouts may want to increase scouting efforts and examine their fungicide programs.**

**Bacterial speck**

**Bacterial speck which had been confirmed in a number of places around Immokalee over the past few weeks as slowed down in response to recent warm dry weather although growers and scouts report continuing to find a few new infections.** Very few fruit infections have been reported.

Tentative field diagnosis of bacterial speck is best accomplished by inspection of fruit symptoms. Speck lesions on green fruit are small, sunken, black spots surrounded by darker green haloes. On ripe fruit, spots are dark brown to black, superficial flecks.

**Foliage symptoms of bacterial speck are much more difficult to distinguish from other diseases.** The leaf spots are small, black lesions surrounded by prominent chlorotic (yellow) haloes. These haloes are quite large, averaging twice the size of the necrotic tissue they surround. Bacterial speck lesions are very superficial and do not crack or become scaly like spot.

**Lesions in the stems may be dark brown to black and shaped like elongated ovals.**

**Bacterial speck is favored by cool, moist environmental conditions.** The virulent bacteria are spread mechanically and by wind-driven rain. A period of stormy weather; followed by overcast days with cool temperatures increases risk of outbreaks.

**At present few products are registered specifically for bacterial speck.** Pesticides applied for bacterial spot control, should also provide some bacterial speck control. Resistance to copper exists, and therefore copper/manzate may be only partially effective in reducing the impact of susceptible strains. In the current outbreak, there has been little or no visible control on plants treated with copper.

**Dr Jeff Jones advises that Actiguard (Syngenta) may help reduce or prevent infections in uninfected fields.** Recommended rate is 1/3 oz per acre and should be applied weekly. In fields where infections are widespread and severe, it may provide little or no benefit.

**Oxidate may provide some assistance in drying up bacterial speck lesions when used in a rotation.** REI and PHI once sprays dry.

**Omnilytics produces a strain of AgriPhage specifically formulated for speck.**

**Regalia is also labeled for tomatoes and peppers for both Xanthomonas (bacterial spot) and Pseudomonas (bacterial speck) control.** Regalia has a 0 day PHI and a 4 hour REI, is NOP compliant and OMRI approved.

**Growers should also practice good sanitation as movement of people, equipment and harvest aids between infected fields and none infected fields could potentially move infections from field to field.**

**Bacterial leaf spot**

**Growers and scouts around South Florida report that recent warmer drier weather has helped slow bacterial leaf spot in most places but report foggy morning have helped keep it active in some locations.**

**Respondents in the Homestead area report that bacterial spot remains a problem in tomato and pepper.**

**Dr Rick Raid reports that no bacterial leaf spot on lettuce has been reported yet in commercial production.**  But he notes growers should remain vigilant.

**Around Homestead, Dr Shouan Zhang reports that bacterial diseases remain a major problem in beans.**

**TYLCV**

**Growers and scouts around Southwest Florida remains mostly low but has increased sharply in some older tomatoes with some hotspots up to 50% infection and a few isolated fields where it has reached 90-100 percent infection.**

**Scouts report some major problems with viruliferous whiteflies moving out of abandoned fields.** In some cases these are fields that had been badly damaged by the freezes and are now showing some resprouts and whiteflies are moving from these to nearby fields. Growers are reminded to practice sanitation and clean up abandoned fields.

**Around Dade County, TYLCV incidence is increasing in tomato as whiteflies become more active.**

**Common rust and northern corn leaf blight**

**Dr Rick Raid reports that common rust and northern corn leaf blight are definitely beginning to pick up on sweet corn grown in the Glades.**   Dr Raid advises that a strobilurin is definitely the compound of choice for if rust is the predominant disease and either a triazole or strobilurin are effective against northern corn leaf blight.  Pre-mixtures of the two classes are excellent choices against both.  It is wise to spray somewhat preventatively if you know a variety is particularly susceptible to disease, keeping disease and inoculum pressures low.  The aforementioned fungicide classes should be alternated with each other, or with a broad spectrum protectant such as mancozeb or chlorothalonil.

**Downy Mildew on Lettuce**

**Growers and scouts in the Glades report that they have been battling lettuce mildew around Belle Glade area and in Devils Garden for several weeks now.**

Dr Rick Raid reports that lettuce downy mildew is present in the Glades although warm temperatures have been a bit above optimum recently.  He advises that Maneb and phosphites, particularly tank-mixed, give excellent control and can be alternated with some of the more specific oomycete fungicides to optimize control.  Reason, Revus, Presidio, Ranman, Previcur Flex, and Forum have all performed well in trials.

**Resistance in *B. lactucae* to the fungicide metalaxyl was reported in Florida during 1989, and therefore its efficacy may be somewhat reduced.** Due to downy mildew demonstrated ability to develop resistance, growers are advised to rotate chemistries to avoid problems - FRAC numbers on labels will help avoid using similar active ingredients repeatedly.

**Symptoms of downy mildew appear initially as chlorotic yellow spots on the upper leaf surface.** Under favorable conditions, a white cottony-like fungal growth indicative of sporulation may be seen on the lower leaf surface.

**During the early stages, leaf spots are often delineated by the veins of the leaf, giving an angular appearance.** Lesions become increasingly chlorotic and eventually turn brown. Although downy mildew is most severe on the older outer leaves, the disease may become systemic over time, infecting heads internally. Lesions may also provide entry for secondary fungi such as Botrytis.

**Downy mildew is spread by spores called conidia or sporangia.** These may be rain-splashed or windblown to uninfected tissue, inciting new infections. Although rain-splash dissemination normally ranges from several inches to several feet, sporangia may be windblown tens to hundreds of miles and still maintain their infectivity.

**Sclerotina**

**Growers and scouts around Southwest Florida continue to report finding low levels of Sclerotinia in pepper, potato and tomato but note that the incidence of new infections has dropped off dramatically recently.**

**In the Glades, Sclerotinia on lettuce has fallen off due to the warm temperatures and generally dry conditions.**

**Septoria Leafspot**

**Around Belle Glade,** Septoria and Alternaria leaf spot persist on parsley.  Being a rain-splashed disease, if present, Septoria will definitely flair up following any rainfalls unless fungicides are utilized.  Growers must make certain they are in place ahead of the rain.

**Septoria leaf spot (*Septoria petroselini)* is an important disease of parsley and occasionally occurs on other herbs such as coriander.**

**Typical early symptoms on parsley and coriander are brown sunken leaf spots sometimes with yellow haloes, on leaves and cotyledons.** As the leaf spots age, the centers turn tan or light grey and tiny black fungal pycnidia are often visible, which is a useful diagnostic feature for this disease. When infection is severe, leaves may die and drop off, and lesions may develop on petioles.

**The fungus is seed-borne (at least for parsley and coriander).** Pycnidia are sometimes visible on the seed surface but infection may also be more deep-seated within seeds.

**Septoria from parsley can survive on crop debris for at least three years and also on volunteer or overwintered plants.** There is also a risk of cross-infection between neighboring crops (e.g. with sequential planting).

**Crops are most at risk after long periods of leaf wetness, particularly at warm temperatures and high relative humidity.** Disease development is highly dependent on the presence of water for the pycnidia to swell and release spores, for splash dispersal of spores between plants and for leaf infection to occur. Spores are readily spread by overhead irrigation and also by people and machinery. Under optimum conditions (25°C, 100% RH), symptoms can develop on parsley after only 9 days.

**As the fungi can be seed-borne, use of clean seed is important for disease avoidance**. Hot water treatment for control of septoria on seed is useful but the temperature and soak duration are critical (48°C, 30 min) to maintain seed viability.

**The use of strobilurin fungicides like Amistar (azoxystrobin) should assist in controlling this disease**.

**Botrytis**

**Growers and scouts report that botrytis remains a problem in some older tomatoes.**

**Switch is now also registered and is an excellent botrytis material; it is the standard in strawberries. Syngenta also recently registered Inspire Super for tomatoes.** This is a combination of the fungicides Difenoconazole & Cyprodinil (one of the a.i.’s in Switch). It now has a specific label claim for B. cinerea in tomatoes.

**Phytophthora**

**Growers and scouts in Palm Beach County continue to report problems with phytophthora in pepper along 441 Corridor.** In some fields, 60 -80% plant loss has been reported.

**Around Southwest Florida, phytophthora is also causing some problems in pepper and cucurbits.**

**Groundnut ringspot virus**

**Groundnut ringspot virus continues to be identified from locations around South Florida but overall incidence is low and occurrence remains sporadic with few new infections being identified.** Around Palm Beach County, GRSV which was present on tomatoes earlier in the season has now have been found on peppers in nearby fields, occurrence remains low. A few new infections have also been reported around SW Florida but incidence remains low.

**Fusarium**

**Around Southwest Florida, some Fusarium crown rot starting to show in older tomatoes but overall levels are very low.**

**Powdery Mildew**

**Powdery mildew is being reported in squash around South Florida**. Pressure is high in some older plantings.

**Around SW Florida, powdery mildew has also been reported on cucumber, and cantaloupe in several locations.** Scouts report that these have been fast moving infections that are responding positively to the windy conditions.

**Downy Mildew**

**Basil growers in all areas continue battle downy mildew.**

**Downy mildew has been reported on cucumbers in Homestead as well as a few fields around Immokalee and in Palm Beach County.**

**Pythium**

**Around Southwest Florida, some older watermelons are exhibiting pythium problems where recent winds have twisted vines causing lesions at growth level.**

**Around Homestead, respondents report some problems with pythium in young okra.**

**Target Spot**

**Growers and scouts around Immokalee report that target spot is present on the inner foliage of some older tomatoes but is not a major problem.**

**Alternaria**

**Respondents from around Immokalee report early blight continues to affect tomato and potato with much of it starting on old cold injured leaves and mostly remaining low on the vines.**

**Disclaimer:** Pesticide applicators must follow all current label directions for the specific pesticide being used. No endorsement is intended for products mentioned, nor is criticism meant for products not mentioned. The author and University of Florida IFAS Cooperative Extension Service assume no liability resulting from the use of these recommendations.

###### News You Can Use

**South Florida Water Managers Call for Water Use Reductions as Dry Conditions Worsen**

March 10, 2011, West Palm Beach, FL — As below-average rainfall causes water levels across Central and South Florida to continue declining, the South Florida Water Management District (SFWMD) Governing Board today took action to protect regional water supplies. A water shortage warning approved by the Governing Board encourages residents and businesses throughout the District’s 16-county region to voluntarily reduce water use. Under a separate water shortage order, specific permitted water users in the L-8 Basin of Palm Beach County are required to reduce withdrawals by 15 percent.

“With water levels falling and the peak of the dry season yet to come, we must take every prudent precaution,” said Tommy Strowd, SFWMD Deputy Executive Director of Operations and Maintenance. “Today’s actions are a step toward safeguarding the regional water supply against the effects of an already record-setting dry season. We are asking South Florida’s residents and businesses to do their part to help the region cope with extreme dry conditions by reducing their water use,” as they have done in the past.

The Governing Board action follows the driest October-to-February period since District recordkeeping began 80 years ago.

To protect water resources, conservation measures now in place include:

* Residents across Central and South Florida are being asked to increase water conservation efforts and continue following year-round landscape irrigation measures. Today’s warning does not apply to indoor water use or car or boat washing.
* Because of significantly low water levels in the L-8 Canal, a 15 percent reduction in water withdrawals is in place for permitted water users, such as agriculture, improvement districts and water suppliers, within the L-8 Basin — which includes central and eastern Palm Beach County.
* A water shortage warning issued in November for the Lake Okeechobee Service Area, Lake Istokpoga and Indian Prairie Basin remains in place. The warning calls for permitted water users — mostly agricultural users — to reduce water use through voluntary limits.

The SFWMD will continue to monitor water levels to determine if additional steps need to be taken in the coming weeks.

Low Rainfall and Dry Conditions

District-wide rainfall for February registered 0.34 inches for a deficit of 1.93 inches, or only 15 percent of the historic average for the month. This is the third-driest February in the District’s 16-county region since recordkeeping began in 1932.

None of the basins in the District received more than 29 percent of their historical average rainfall in February. The most severe deficits were in Broward and Miami-Dade counties and Water Conservation Area 3, where less than 6 percent of average rainfall was recorded.

February continued a dry trend that began with a record rainfall deficit in October, which signaled an early start to the 2010-2011 dry season along with moderate strength La Niña conditions. La Niña is a weather phenomenon that often generates below-average rainfall during the dry season.

From October through February, the District’s 16-county region has received a total of 5.69 inches, less than half the average rainfall for that five-month period, or 6.46 inches below average. Eastern Palm Beach County has faced the biggest deficit during that period with a shortfall of 12.43 inches, or only 32 percent of its average rainfall.

Lake Okeechobee is currently at 11.92 feet above sea level — more than two feet below the historical average for this time of year — and is dropping rapidly. Rainfall in the first week of March provided a negligible reprieve. Without significant rainfall in the coming weeks, lake levels are expected to dramatically decline as temperatures rise and evapotranspiration rates increase.

**Warm February Ends Cooler and Drier than Normal Winter in South Florida**

After a record-cold December and a slightly cooler than normal January, temperatures in February rebounded to above normal levels over all of South Florida. The persistent low pressure area over the eastern United States in December and most of January began to relax and transition into an area of mid/upper atmospheric high pressure over the southeastern United States. This pattern shift lead to milder Atlantic air influencing South Florida and less intrusions of continental or Arctic air masses in February versus early in the winter. This milder pattern is most commonly observed during La Niña episodes such as the one currently in place.

Despite the warm February, winter temperatures over South Florida averaged well below normal at all main climate sites, heavily weighed by the coldest December on record when all sites averaged 9 to 11 degrees below normal. This resulted in the winter of 2010-2011 being as cool if not slightly cooler than last year’s chilly winter. December 2010 to February 2011 ended up about 2 to 3 degrees below normal.

The winter of 2010-2011 will be remembered for the very cold December in which three separate freeze events occurred over South Florida, something not seen in this area since records began in the late 1800s and early 1900s. These exceptionally cold periods severely impacted the agricultural community in South Florida, with total losses directly related to the December freezes estimated at well over $250 million.

Coldest temperature readings observed this winter ranged from the lower 20’s over portions of Glades County to the lower and mid 30’s over the metro areas along both the Atlantic and Gulf coasts. Freezing temperatures were observed over all but the immediate coastal sections of South Florida.

**Fast Feeders Serve Up Fresh Buzzwords**

Chains Attempt to Imply 'Health' Without Turning Off Consumers, Upsetting Regulators

Wholesome. Fresh. Natural. Local. Premium. Those are the food-marketing buzzwords that have gained on phrases like low-fat, low-carb and low-calorie. For fast feeders, the benefits are two-fold - the descriptors don't bring the regulatory scrutiny other health-related claims do and, even better, consumers are buying into the hype.

"More traditional health claims on the menu tend to get an adverse reaction by the customer because they associate healthy claims like low-fat with less taste," said Darren Tristano, exec VP at Technomic. "Newer descriptions are designed around the idea that the food is better for you, is of better quality, but is still food. When you start to say low-fat or low-carb, consumers think of diet."

Buzzwords such as low-fat, low-carb and low-calorie were previously popular because consumers were looking for ways to lose weight. But, according to Mr. Tristano, today's consumers are more educated about nutrition and are looking for ways to live healthier lifestyles as opposed to just dieting.

Words such as "wholesome" and "fresh" are also vague, which could be a problem for consumers, but a boon for marketers -- there's no set definition for these words in marketing, said Mr. Tristano.

"That's the strategy behind this level of promotion," he said. "It's focusing on buzzwords that are vague but that still evoke a positive feeling toward the food and toward the restaurants. The perception is driving the reality."

"Any time operators can position themselves as healthy, they should," said Bonnie Riggs, restaurant-industry analyst at NPD Group. "But they have to be careful with the words they choose."

Take Arby's, part of the Wendy's/Arby's Group until the parent company divests the chain. It's one of the more recent fast feeders to position itself with buzzwords such as "wholesome" and "premium," and last week launched a new campaign, the first for its agency, Omnicom's BBDO Worldwide, centered on the idea that Arby's has wholesome food that puts people in a good mood. Arby's declined to comment.

"This campaign is focused on our target audience, Balance Seekers, who want and need to eat fast food because of their busy lifestyles, but do not want to feel guilty about eating it," Arby's CMO Steve Davis said in a statement. "They're telling us that Arby's has something over other fast-food restaurants ... a balance of higher quality, more wholesome food that they can feel good about eating."

The campaign highlights the Angus Three Cheese & Bacon sandwich, described by Arby's as its first premium Angus-beef offering. Wholesome maybe, but certainly not healthful.

Mr. Tristano said that while many consumers don't think Arby's provides fresh food, the chain is "trying to promote the fact that they serve freshly sliced meat. They're not changing what they do; they're changing the way they promote what they do."

Then there's Subway, whose slogan is "Eat Fresh." Mr. Tristano pointed out that it has the reputation for being one of the more-healthful fast feeders on the market. Patrons can customize sandwiches for healthful options, but it's just as easy to order an indulgent item.

Even so, the message resonates with many consumers. Ms. Riggs said that in the case of Subway, consumers define the chain as offering fresh, quality food in part because consumers can see the sandwiches being made in front of them. She added that in a recent NPD study, where survey subjects were shown a list of fast-food restaurants, 33% of them chose Subway -- a higher percentage than the other restaurants listed -- when they are looking to eat a healthful lunch or dinner.

Ms. Riggs said Wendy's, because of its "fresh, never frozen" and "you know when it's real" messaging, and McDonald's, due in large part to its oatmeal, accompanied by a "bowl full of wholesome" positioning, also resonate with health-conscious consumers.

"McDonald's has been doing a lot in terms of having perceived healthy options on their menu, thanks to their oatmeal and smoothies. Those products appeal to women, and they're not even the heaviest users in the morning at McDonald's." Of course, as The New York Times' Mark Bittman pointed out last week, an order of McDonald's oatmeal "contains more sugar than a Snickers bar and only 10 fewer calories than a McDonald's cheeseburger or Egg McMuffin" -- foodstuffs few consumers would categorize as "wholesome."

Still, oatmeal in particular is a fast-growing item. From 2009 to 2010, the number of oatmeal servings at fast-food restaurants jumped to 108 million from 88 million in 2007, or 23%, according to NPD.

Fast feeders run a risk when trying to position themselves with healthful options -- something they're not known for, historically. If they place more attention on their ostensibly healthful options, they could be risking the success of their core menu items. "They could be making a mistake by trying to appeal to everybody," said Al Ries, chairman of marketing consultancy Ries & Ries. "It's going to take a long time, but we are definitely moving toward healthy, and those companies that are trying to offer both are destroying what they've been known for."

On the horizon is the impending federally-mandated menu-labeling for all restaurant chains with more than 20 locations. Restaurants will be required to list calorie counts on all menus, and must be able to provide additional nutrition information upon consumer request.

It's unlikely the Federal Trade Commission will crack down on marketers using these buzzwords, unless it views the advertising as deceptive, or if the fast feeders make questionable claims about health benefits. The FTC in 2004 settled charges with KFC for deceptive advertising after the fast feeder ran ads touting the relative health and weight-loss benefits of its fried chicken. More recently, the FTC has gone after juice-maker Pom Wonderful for making false claims that its products will prevent or treat heart disease and prostate cancer, as well as Dannon's Activia yogurt brand for advertising that allegedly exaggerated its health benefits.

Adage, March 07, 2011

<http://adage.com/article/news/fast-feeders-serve-fresh-buzzwords/149264/>

**Pesticide Potpourri**

* Syngenta Crop Protection advises that effective immediately Botrytis control in tomatoes has been added to the Inspire Super label.
* Effective March 1st, Bacterial Spot (*Xanthomonas perforans*) in tomatoes has just been added thru a supplemental label to Natural Industries' Actinovate AG. Iin the fall of 2010. Dr. Vallad conducted trials at the University of Florida, GCREC in Wimauma using Actinovate Ag at 3 oz per acre tank mixed with Actigard 50 WG at .33 oz per acre, Actinovate AG plus a very low rate of Acibenzolar-S-methyl (Actigard) outperformed a high rate of the chemical alone. ActinovateR AG can be applied up to and including the day of harvest with the restricted entry interval (REI) of one (1) hour or until solution has dried.

**Follow SW Florida Vegetable Grower on Facebook**

SW Florida Vegetable Grower is now on Facebook providing up-to-date news for vegetable growers and industry reps on the go!

This is the place to find what you need to know about growing vegetables in SW Florida. Bringing you the most up-to-date news; about varieties, pest control tactics, tips and breaking news, to help make you a more successful grower.

Relevant, timely information and discussion topics that help the fruit and vegetable industry understand how to succeed in this dynamic and ever-changing business.

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Facebook is a social networking website with more than 500 million active users in July 2010, which is about one person for every fourteen in the world. In the US, almost over 100 million people use Facebook. For the younger crowd (whether in age or spirit), its use is nearly universal. Your kids are on it, many of your friends too. Check it out and get with the times!

**South Florida Vegetable Pest and Disease Hotline** – if you get the hotline second hand from another source you may be missing the Quotable Quotes and the Lighter Side – to subscribe direct – email gmcavoy@ufl.edu

**Up Coming Meetings**

**Manatee County**

**April 5, 2011 CORE and Private Applicator Training** CORE – 9 – 11 AM

 Private – 1 – 3 PM

Manatee County Extension Service

1303 17th St. West

Palmetto, Fl 34221

For More information call Jennifer at (941) 722-4524 or e-mail: jeglass@ufl.edu

**Palm Beach County**

**April 7, 2011 Everglades Research and Education Center Field Day**

UF/IFAS EREC

3200 East Palm Beach Road

Belle Glade, FL 33430

• Disease Management Efforts on Sweet Corn and Other EAA Vegetables

 • Fertilizer Management and Soil pH Amendments for Lettuce

• Sweet Corn Breeding

• Influence of Phosphorous on critical period of weed control in lettuce

• Improvements in Sugarcane Nutrition

• Performance of new lettuce cultivars on organic soils

 RSVP requested for the lunch and tour:

RSVP website: <http://erecfieldday2011.eventbrite.com>

Phone: 561-993-1500

Fax: 561-993-1582

Email: klkr@ufl.edu

**Southwest Florida**

**March 31, 2011 Food Safety Workshop 8:30 AM – 4 PM**

 UF/IFAS Southwest Florida Research & Education Center

 2686 SR 29 N

Immokalee, Fl 34142

This is a Train the Trainer Course for Packinghouse Managers and supervisors.

COST IS $60

For information or to register, call Debra Cabrera at 863-674-4092

**Other Meetings**

**March 23, 2011 Sustainable Cabbage /Crucifer Production Field Day 9:30 AM – 1 PM**

 University of Florida Station

 9500 Cowpen Branch Road

 Hastings, FL

 For information call904-484-6097

**April 7 -9, 2001 2nd Annual International Watermelon Conference**

Eden Roc Renaissance Resort & Spa

 4525 Collins Ave

 Miami Beach, FL

 For more information, or to register, visit <http://www.internationalwatermelon.com.>

**April 14 -15, 2011 Applying HACCP to Produce**

UF/IFAS Southwest Florida Research & Education Center

 2686 SR 29 N

Immokalee, Fl 34142

UF/IFAS and Environ Health Associates, Inc. Presents an Accredited HACCP Course

Applying HACCP Principles™ to Produce - this is a one and 1/2 day intensive course

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• Reduce Risk and Improve Efficiency

• Earn Recognition of HACCP Competency

Persons taking this course include produce facility managers, production supervisors, quality assurance staff, trainers, food safety and HACCP consultants, regulators and auditors responsible for food safety inspection.

Please download the PDF registration form at <http://www.haccpprinciples.com/assets/files/HACCP_Registration_030211.pdf> and FAX completed form to 1.888.227.1022

For more info go to <http://www.haccpprinciples.com/assets/files/HACCP%20Flyer_030211.pdf>

**You must pre-register as payment will not be accepted at the door**

**Opportunities**

**Bees for Pollination**

600 - 700 beehives available for March pollination - Immokalee/SW Florida area. Contact Esli - 239-265-2734 begin\_of\_the\_skype\_highlighting   end\_of\_the\_skype\_highlighting

**Farm Land for Lease**

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

Farm Land for lease on Babcock Ranch, Hwy 31, Charlotte County. Rotational fields or permanent locations, phone 941-639-3958

15 acres along Highway 17 available for rent or lease.  Please contact Lora Allison at 941-920-5728 (cell) or email at medsolla@verizon.net

**Help Wanted:**

**Field Research Position**

Job Responsibilities: Work with the US team of research and development scientists in agricultural production, seed testing and environmental sciences to:

* Plan, design, and execute bioefficacy (Pest Control and Crop Variety-GMO testing) and GLP (Good Laboratory Practices) Studies, such as Plant and soil residue, soil dissipation, foliar, crop rotation, residue build-up, import tolerance.
* Select sites for conducting trials and apply all necessary agronomic practices. Take soil samples, plant samples, spray various pesticides, regulators and fertilizers for pest/weed control and crop growth.
* Establish crops, manage irrigation and applications of plant food and crop protection pesticides on a timely basis as requested by protocol.
* Take assessment of agronomic parameters related to growth and health of crops, collect needed plant samples, harvest plots and keep plots clean of pests.
* Enter data into computer programs, generate reports and prepare plant and soil samples for shipment and laboratory testing.
* Be physically able and willing to work in field conditions of FL/South East US.

Requirements and Skill

* Minimum of M.S. in Agricultural sciences (preference in Pest Management, Agronomy, Plant Sciences, Weed Science, Entomology, Plant Pathology, Pesticide residue, soil science and Seeds). Preference will be given to those with experience in testing agrochemical and seeds products in Agricultural or Environmental Sciences.
* Have a good knowledge of the computer and data entering.
* Have a good writing reports skill.
* Fluent in English writing, reading and speaking.
* Be flexible and willing to work with the team

Compensation: Will be based on qualification and experience of applicant.

Location: Florida

To Apply: Email resume to Kate Eiford at kate@mrlynden.com

**Websites**

**In the Field Magazine** - was launched in November 2004 and now covers much of the heartland of South and Central Florida teaming up with Farm Bureau with the intent to raise awareness of agriculture, the farmer, rancher and what goes into getting food on your table daily.  Check it out at <http://inthefieldmagazine.com/www.inthefieldmagazine.com/Welcome_to_In_The_Field_Magazine._Your_Agriculture_Magazine.html>

**UF/IFAS County Reports** – Click on any county in the state to see the impact of agriculture on the county’s economy as well as a summary of Extension activities - <http://ifas.ufl.edu/reports.html>

**Quotable Quotes**

True friendship is like sound health; the value of it is seldom known until it is lost. - Charles Colton

Friends are flowers in life's garden. - Anon

A tart temper never mellows with age, and a sharp tongue is the only edged tool that grows keener with constant use. - Washington Irving

The Lord gave us two ends - one to sit on and the other to think with. Success depends on which one we use the most. - Ann Landers

Old age is like everything else. To make a success of it, you've got to start young. - Theodore Roosevelt

**On the Lighter Side**

**Historical Trivia**

Did you know the saying "God willing and the Creek don't rise" was in reference to the Creek Indians and not a body of water?  It was written by Benjamin Hawkins in the late 18th century.  He was a politician and Indian diplomat.  While in the south, Hawkins was requested by the President of the U.S. to return to Washington.  In his response, he was said to write, "God willing and the Creek don't rise."  Because he capitalized the word "Creek" it is deduced that he was referring to the Creek Indian tribe and not a body of water.

In George Washington's days, there were no cameras. One's image was either sculpted or painted.  Some paintings of George Washington showed him standing behind a desk with one arm behind his back while others showed both legs and both arms.  Prices charged by painters were not based on how many people were to be painted, but by how many limbs were to be painted.  Arms and legs are 'limbs,' therefore painting them would cost the buyer more.  Hence the expression, 'Okay, but it'll cost you an arm and a leg.'   (Artists know hands and arms are more difficult to paint)

In the late 1700's, many houses consisted of a large room with only one chair. Commonly, a long wide board folded down from the wall, and was used for dining. The 'head of the household' always sat in the chair while everyone else ate sitting on the floor.   Occasionally a guest, who was usually a man, would be invited to sit in this chair during a meal. To sit in the chair meant you were important and in charge.  They called the one sitting in the chair the 'chair man.' Today in business, we use the expression or title 'Chairman' or 'Chairman of the Board.'

Common entertainment included playing cards. However, there was a tax levied when purchasing playing cards but only applicable to the 'Ace of Spades.'  To avoid paying the tax, people would purchase 51 cards instead.  Yet, since most games require 52 cards, these people were thought to be stupid or dumb because they weren't 'playing with a full deck.'

At local taverns, pubs, and bars, people drank from pint and quart-sized containers. A bar maid's job was to keep an eye on the customers and keep the drinks coming.  She had to pay close attention and remember who was drinking in 'pints' and who was drinking in 'quarts,' hence the phrase 'minding your 'P's and Q's'.

**Puzzled**

A little silver-haired lady calls her neighbor and says, "Please come over here and help me. I have a killer jigsaw puzzle, and I can't figure out how to get started."

Her neighbor asks, "What is it supposed to be when it's finished?"  The little silver haired lady says, "According to the picture on the box, it's a rooster."

Her neighbor decides to go over and help with the puzzle.

She lets him in and shows him where she has the puzzle spread all over the table. He studies the pieces for a moment, then looks at the box, then turns to her and says, "First of all, no matter what we do, we're not going to be able to assemble these pieces into anything resembling a rooster."

He takes her hand and says, "Secondly, I want you to relax. Let's have a nice cup of tea, and then," he said with a deep sigh, "Let's put all the Corn Flakes back in the box."

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

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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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