



UNIVERSITY OF
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E X T E N S I O N

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SOUTH FLORIDA VEGETABLE PEST AND DISEASE HOTLINE

February 11, 2013

South Florida's warm and dry winter pattern of 2012 - 2013 continued in January. Average temperatures in most locations averaged four to six degrees above normal. These values placed each site among the top 10 warmest on record for the month of January. Warm temperatures have accelerated crop growth with some early planted watermelons and other crops well ahead of schedule.

Conditions have been mostly dry with most places reporting less than a half inch of rain for the period. National Weather Service reports that most of South Florida is abnormally dry. Warm weather and foggy mornings have kept insects and diseases active.

Crops coming to market include cucumbers, eggplant, green beans, herbs, leafy greens, peppers, sweet corn, squash, tomatoes, and various specialty items. Volumes have been moderate and prices have been

FAWN Weather Summary

| Date | Air Temp °F | | Rainfall (Inches) | Ave Relative Humidity (Percent) | ET (Inches/Day) (Average) |
|----------------------|-------------|-------|----------------------|------------------------------------|------------------------------|
| | Min | Max | | | |
| Balm | | | | | |
| 1/8 – 2/11/13 | 34.71 | 85.1 | 0.16 | 76 | 0.08 |
| Belle Glade | | | | | |
| 1/8 – 2/11/13 | 36.66 | 83.86 | 0.05 | 82 | 0.08 |
| Clewiston | | | | | |
| 1/8 – 2/11/13 | 40.4 | 85.1 | 0.08 | 79 | 0.08 |
| Ft Lauderdale | | | | | |
| 1/8 – 2/11/13 | 47.86 | 86.68 | 0.23 | 76 | 0.08 |
| Fort Pierce | | | | | |
| 1/8 – 2/11/13 | 35.84 | 82.53 | 0.57 | 81 | 0.08 |
| Homestead | | | | | |
| 1/8 – 2/11/13 | 45.57 | 84.45 | 0.16 | 82 | 0.08 |
| Immokalee | | | | | |
| 1/8 – 2/11/13 | 35.05 | 88.38 | 0.09 | 76 | 0.08 |

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decent. Some quality issues due to wind damage and sand blasting have been reported.

The National Weather Service forecast calls for dry weather through middle week before some rainfall late this week and colder temperatures by next weekend.

In the short term, low level moisture will also be working into South Florida today into Tuesday night allowing for potential fog development over the interior and west coast.

Long range models show a stationary front over South Florida late this week. Short waves will move along the front keeping moisture in place over South Florida late this week and allow for scattered showers and even a few thunderstorms to affect the region later in the week.

Models are showing a strong cold front to move through South Florida sometime late Friday night into Saturday morning with high pressure building into the area late this weekend into early next week from the northern plain states. This will push moisture southward and allow for cooler to colder air to work into the area from the north this weekend into early next week.

Highs this weekend are forecast to be in lower to mid-70s with lows Sunday morning to be in the 40s except 50s east coast metro areas and around 40 degrees west of lake Okeechobee. However, it could be as much as 10 degrees colder or warmer than forecast at this time due to the spread in the ensemble models guidance, so continue to check the latest forecast throughout the week for this weekend temperatures.

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

Insects

Whiteflies

Growers and scouts in Southwest Florida report that whitefly pressure has been persistent and is increasing in most places. Scouts indicate large numbers of adults with very high counts reported in some fields and note that adults seem to be blowing in the wind regardless of what direction it blows. Whiteflies are present on tomatoes, peppers, eggplant, squash and melons. Reports indicate growers are spraying like crazy for whitefly control. Some growers attribute high numbers to the lack of cold weather this winter.

Reports from Homestead indicate that whitefly numbers are high in a number of crops

Respondents in Palm Beach indicate that whitefly numbers are generally low but are increasing on a variety of crops and scouts report finding some “hot” spots with high numbers present.

Reports from around Manatee County indicate that whitefly numbers are mostly low but scouts note finding

As crops reach completion growers should strive to disrupt the virus-whitefly cycle in winter by creating a break in time and/or space between fall and spring crops, especially tomato by destroying the crop quickly and thoroughly, killing whiteflies and preventing re-growth.

a. Promptly and efficiently destroy all vegetable crops within 5 days of final harvest to decrease whitefly numbers and sources of plant begomoviruses like TYLCV.

b. Use a contact desiccant (“burn down”) herbicide in conjunction with a heavy application of oil (not less than 3 % emulsion) and a non-ionic adjuvant to destroy crop plants and to kill whiteflies quickly.

c. Time burn down sprays to avoid crop destruction during windy periods, especially when prevailing winds are blowing whiteflies toward adjacent plantings.

d. Destroy crops block by block as harvest is completed rather than waiting and destroying the entire field at one time.

For more information on control see Management of Whiteflies, Whitefly-Vectored Plant Virus, and Insecticide Resistance for Vegetable Production in Southern Florida at <http://edis.ifas.ufl.edu/in695>

Leafminers

Around Immokalee, leafminer pressure is variable between locations and can increase very quickly if not monitored. Several growers have made recent treatments for leafminers in tomato and watermelons.

Some reports indicate that while Coragen is still working it seems to be missing some and growers report uptake appears to be affected by cold nights. Field reports indicate that Trigard is still performing well.

Reports from the East Coast indicate that leafminer pressure is leveling off in tomato, eggplant and other crops.

As we approach the time of year that leafminers become more prevalent, growers and scouts should be aware that leafminer populations tolerant to chlorantraniliprole, the active ingredient in Coragen and other products, have been detected in a number of places including SW Florida.

Dr. Phil Stansly, Entomologist at UF/IFAS SWFREC writes it is important to realize, that Coragen, just like all other insecticides, is subject to selection for resistance.

Phil advises that it is a good rule of thumb not to use it more than once in a crop and not to apply it to successive generations of pests. Coragen is a terrific product and as such has been used frequently by many growers. The result is that we are seeing some tolerance to the product cropping up in vegetable leafminer populations. The best strategy would be to not make that second application of Coragen or any other product containing chlorantraniliprole such as Voliam Flexi or Durivo or other group 28 products such as Belt. In addition, he reminds growers that the next generation of group 28 products containing cyantraniliprole will soon be available but could likely be compromised by the over-exposure of pest populations to chlorantraniliprole.

Aphids

Growers and scouts around Southwest Florida report that aphids are still moving around and are forming colonies in pepper, potato, eggplant and cucurbits if left untreated.

Respondents report high aphid numbers on host crops around the Homestead area.

Around Palm Beach County, winged aphids remain active and increasing in a variety of crops including eggplants, peppers, cilantro and other herbs as well as variety of leafy greens.

As aphid densities increase on host plants, winged forms are produced, which then disperse to alternate hosts. Winged green peach aphids attempt to colonize nearly all available host plants. They often deposit a few young and then again take flight. This highly dispersive nature contributes significantly to their effectiveness as vectors of plant viruses.

In Florida, this cycle repeats continuously, though in the northern areas of the state the aphid development rate slows greatly during the winter.

The life cycle varies considerably. Development can be rapid, often 10 to 12 days for a complete generation, and over 20 annual generations per year may occur in mild climates.

Parthenogenic reproduction is favored where continuous production of crops provides suitable host plants throughout the year, or where weather allows survival on natural (noncrop) hosts. The average temperature necessary for survival of active forms of green peach aphid is estimated at 4 to 10° C. Plants that readily support aphids through the winter months include beet, Brussels sprout, cabbage, kale, potato, and many winter weeds.

Broadleaf weeds can be very suitable host plants for green peach aphid, thereby creating pest problems in nearby crops. Common and widespread weeds such as field bindweed, lambsquarters, and redroot pigweed are often cited as important aphid hosts

Because some of the virus diseases transmitted by green peach aphid are persistent viruses, which require considerable time for acquisition and transmission, insecticides can be effective in preventing disease spread in some crops.

Transmission of nonpersistent viruses such as cucumber mosaic virus can sometimes be reduced by coating the foliage with vegetable or mineral oil. Oil seems to be most effective when the amount of disease in an area that is available to be transmitted to a crop is at a low level. When disease inoculum or aphid densities are at high levels, oils may be inadequate protection.

Hundreds of natural enemies have been recorded and these are value in reducing damage potential.

Excessive and unnecessary use of insecticides should be avoided. Early in the season, aphid infestations are often spotty, and if such plants or areas are treated in a timely manner, great damage can be prevented later in the season. In some cases, use of insecticides for other, more damaging insects sometimes leads to outbreaks of green peach aphid.

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

Resistance to some insecticides has been reported in some aphid populations. Rotating pesticide materials may effectively help slow the development of resistance.

Worms

Around Southwest Florida report indicate that worm pressure is mostly low but scouts are still finding new hatches of armyworms, loopers, fruitworms, and melonworms.

Due to widespread spraying for whiteflies, worms have not been a major issue in most places.

Reports from the Glades indicate that fall armyworm worms are active and pressure remains steady.

Around Palm Beach County reports indicate that warmer temps over the past few weeks have resulted in an increase in armyworm egg laying activity and new hatches on a range of crops.

Broad Mites

Broad mites continue to flare up in peppers and eggplants around SW Florida, possibly due to warmer temperatures.

On the East Coast, broad mites remain a problem in pepper and to a lesser extent on eggplant. They have reached moderate to high levels in a number of places.

Pepper Weevils

Growers and scouts report that pepper weevil is now established in several pepper around SW Florida and have reached serious levels in some older pepper and are now beginning to show up into younger plantings.

Reports from East Coast growing areas indicate that pepper weevils remain mostly low but pressure has been constant.

Low numbers of weevils are present on pepper around Hillsborough County.

Thrips

Growers and scouts report that western flower thrips are beginning to show up on some farms in Palm Beach and are “bad” in some locations. Crops affected include pepper and eggplants and respondents indicate they are also starting on some tomatoes.

Around Plant City, thrips including Chili thrips are increasing on strawberries.

Elsewhere, thrips are beginning to increase but remain mostly low.

Regular field scouting is essential as western flower thrips are difficult to detect and control because of their small size and tendency to hide in protected plant parts.

Adults can move long distances on air currents to find new food. Adults and larvae also can be transported on transplants.

Few insecticides are effective in controlling western flower thrips - *F. occidentalis*. The key to managing resistance is to reduce selection pressure by rotating between insecticides with different modes of action and reducing the number of insecticide applications.

Western flower thrips have been known to develop resistance rapidly on repeated exposure to one class of insecticide. If poor control is encountered after an insecticide application, do not simply apply the same product again at a higher rate or shorter spray interval and hope for better control. Determine if poor control resulted from application error, equipment failure or unfavorable environmental conditions during or after application. If none of these occurred, the population may be developing resistance.

Western flower thrips cannot be managed with insecticides alone. Consult UF/IFAS recommendations for currently labeled insecticides for western flower thrips control in Florida vegetables.

Natural enemies, such as minute pirate bugs (*Orius* spp.), lacewings and predatory mites (*Amblyseius* spp.), play an important role in controlling western flower thrips populations. One minute pirate bugs (*Orius* spp.) per 180 WFT will suppress WFT; 1 *Orius* per 50 WFT will keep WFT under control without spraying. Growers should avoid the use of broad spectrum insecticides such as pyrethroids when WFT are

present. Broad-spectrum insecticides kill not only western flower thrips, but also natural enemies and harmless native organisms that compete with the pest for resources. The result: After a brief decline in western flower thrips populations, the pest comes back in force, and may develop insecticide resistance.

Cultural methods should not be neglected. Since thrips pupate occur in the soil, new plantings of tomatoes, eggplants, and peppers should not be planted following, near or adjacent to old, infested plantings.

The use of UV reflective mulches which help repel thrips and other insects in combination with reduced risk insecticides has proven an effective way to reduce losses from tomato spotted wilt in tomato. Research shows that a light application of kaolin clay discourages thrips by making it tough for thrips to feed and breed on pepper leaf tissue.

Spider mites

Respondents around Plant City report that mites are increasing on strawberries especially where conventional pesticides are being used but note that mite populations are stable on bio-controlled farms using predator mites.

Spidermites pressure is increasing in a several locations across south Florida on eggplant, tomatoes and a few cucurbits. Reports from SW Florida indicate that spidermites are starting to explode in places and remain very low in others.

Diseases

Late Blight

Late blight has now been reported on tomato almost everywhere around Southwest Florida and varies from only a few single lesions to some serious defoliation in places.

Respondents report that there are some tomato fields with small patches of plants that have been nearly defoliated. In those locations with higher levels of infection, infected fruit is also present.

Late blight is also present in several potato fields as well but remains at very low levels.

Reports from the East Coast

Samples submitted to Dr. Pam Roberts at UF/IFAS SWFREC were identified as US-23.

Growers would be well advised to scout susceptible crops carefully as foggy mornings with cool nights and warm days) are conducive to disease development.

Late blight is caused by the fungus *Phytophthora infestans*, which is a pathogen of potato and tomato. This disease can spread quickly and devastate a tomato or potato field within a few weeks if not properly controlled.

The disease thrives under cool and wet conditions. Temperatures between 50 and 80 F combined with moist conditions such as rain, fog, heavy dews, or relative humidity above 90 percent are conducive for disease development. Night temperatures in the mid-fifties with daytime temperatures from the mid-fifties to mid-seventies are ideal for this disease.

Since the disease can spread so rapidly, growers should scout their fields thoroughly each day, especially when cool and wet conditions conducive to disease development prevails.

Late blight symptoms on leaves appear as irregularly shaped brown to purplish lesions with indefinite border lesions that 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 found anywhere 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.

Begin a spray program with fungicides if late blight is in your area or weather conditions are suitable for late blight development. After harvest, kill infected foliage to minimize tuber infection.

Spray coverage and application frequency are critical to staying to ahead of late blight. Younger fields that are rapidly growing are at greater risk. Tomatoes between 2nd and 3rd tie are frequently the size tomatoes that get into trouble.

Tomato growers should purchase disease-free transplants. Observe your fields thoroughly each day, especially when cool and wet weather prevails.

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. 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. Relative effectiveness of a product, coverage, and timing must be factored into the equation for maximum benefit.

Numerous fungicide products are registered for late blight control. Protectants, as the name implies, protect foliage from infection by spores. Protectant chemicals must be well distributed over the leaf surface and must be applied before spores land on leaves. They are ineffective against established infections.

PROTECTIVE applications of chlorothalonil are your first line of defense for managing late blight. Timing is critical - applications must be made when conditions are conducive for disease development and before infection occurs!!!

Systemic products become distributed locally within plant tissues and protect foliage from infection by spores. They may kill some established infections and may suppress production of new spores. Even a short break in spray schedules, despite what is said regarding some of the newer fungicides, can result in a dramatic increase in blight under the conditions we have had during the past two weeks.

Fungicides for Late Blight

| Product | Brand Name | FRAC Number |
|----------------|-------------------|--------------------|
| chlorothalonil | many brands | M5 |
| maneb/mancozeb | many brands | M3 |
| cyazofamid | Ranman | 21 |
| cymoxanil | Curzate | 27 |
| strobilurins | Quadris, Cabrio, | 11 |

| | | |
|------------------------|----------------|---------|
| fluopicolide | Flint | |
| famoxadone + cymoxanil | Presidio | 43 |
| mandipropamid | Tanos | 11 + 27 |
| Dimethomorph | Revus | 40 |
| mefenoxam** | Acrobat, Forum | 40 |
| propamocarb | Ridomil | 4 |
| zoaxamide + mancozeb | Previcur Flex | 28 |
| | Gavel | 22 + M3 |

** Resistance documented in many races

Consult current UF/IFAS recommendations for labeled fungicides for the control of late blight.

In Florida, it has been observed that seldom does a widespread late blight epidemic occur on tomatoes in the Manatee-Ruskin area unless the disease was present in the Immokalee area and/or Dade County. Since late blight has been confirmed in Immokalee, growers in other areas are advised to adhere to a preventative spray program.

See USABlight for more info and photos - <http://usablight.org/lateblight>

Alternaria on Basil

Dr Richard Raid, Pathologist at UF/IFAS EREC reports finding new very aggressive Alternaria blight on basil around South Florida. He reports that this disease is possibly seed-borne.

Reports in the literature indicate that in the summer-autumn 2010, basil plants belonging to the cv Genovese grown soilless and in open field in Piedmont (Northern-Italy) showed symptoms of a new leaf spot. Affected plants showed black-brown leaf spot normally circular, usually 1 to 50 mm in diameter surrounded by a yellow halo, frequently located on the tips and margins of leaves. At later stages leaves may turn brown and die. *Alternaria* sp. was consistently isolated from leaf tissues of symptomatic plants. The ITS region of rDNA of the isolate was amplified using the primers ITS1/ITS4 and sequenced. The 523 bp segment obtained showed that the pathogen belongs to *Alternaria alternata*.

This is the first report of *Alternaria alternata* on basil in Italy and in Europe. Recently the same pathogen has been described on basil in Japan. It is not yet known if this is the same disease.

Northern Corn Leaf Blight (NCLB) and

Dr Rick Raid, Pathologist at UF/IFAS EREC reports that northern corn leaf blight (NCLB) is present on sweet corn in the Glades.

Triazoles and strobilurins both give control, with some of the pre-mixtures of these two classes giving superior control.

NCLB produces a long, elliptical lesion, while those of northern corn leaf spot tend to be shorter, oblong, and sometimes target like in appearance.

Sclerotinia

Growers and scouts report that sclerotinia continues to affect a variety of crops across South Florida but note that pressure has declined considerably in recent weeks.

The fungus, *Sclerotinia sclerotiorum*, is responsible for a number of vegetable diseases attacking a wide range of crops. Common names for Sclerotinia diseases in Florida are white mold (beans), drop (lettuce), white mold (pepper, potato and tomato), and nesting (post-harvest disease of bean).

A good indicator of Sclerotinia disease is the presence of small, black sclerotia (resting structures) of the fungus. Sclerotia can form on the surface of plant parts as well as inside the stems of pepper and tomato. The sclerotia enable the fungus to survive from season to season and are the source of inoculum to infect crops.

Another common indicator of Sclerotinia diseases is the presence of white, cottony-like mycelium of the fungus when weather conditions are cool and moist.

Management Methods:

Four to five weeks of flooding of fields that have a history of Sclerotinia diseases during the summer rainy season may help reduce the numbers of viable sclerotia, thereby reducing the amount of disease in succeeding crops.

Recycled irrigation tail water may move sclerotia to fields where sclerotia are not present.

The use of plastic mulch may suppress Sclerotinia diseases, while high plant populations may increase the incidence.

Timing is also a critical issue of fungicide applications is critical and growers should try to apply during periods of long cool, wet weather which is also favorable for other foliar pathogens.

In beans, fungicides including DCNA/dicloran (Botran 5F), PCNB (Blocker 4F), boscalid (Endura), Iprodione (Rovral 4F, Nevado 4F, and Enclosure 4), fluazinam (Omega 500 F), cyprodinil/fludioxinil (Switch), and thiophanate methyl (Topsin) applied at bloom stage have been effective in controlling white mold.

Boscalid (Endura), DCNA/dicloran (Botran 5F), Iprodione (Rovral 4F, Nevado 4F, Enclosure 4), and cyprodinil/fludioxinil (Switch) have been used with good results in lettuce.

For potato, Boscalid (Endura), DCNA/dicloran (Botran 5F), PCNB (Terraclor F), Iprodione (Rovral 4F, Nevado 4F, and Enclosure 4), fluazinam (Omega 500 F), and thiophanate methyl (Topsin M WSB) are recommended for Sclerotinia control.

In tomato, choices are limited to azoxystrobin (Heritage, Quadris) and pyraclostrobin (Cabrio) and Priaxor (a premix of Cabrio and fluxapyroxad) on tomato and pepper. Unfortunately use of these products may exacerbate problems with target spot. Thiophanate methyl (Topsin) used to be labeled (SLN) on tomato but is not anymore. The other SDHI fungicides (Endura, Fontellis) work well at suppressing Sclerotinia, but are not specifically labeled for Sclerotinia on tomato and pepper yet.

Biologicals like Contans WG, Regalia, Rhapsody, Serenade Max and Sonata are also labeled and may provide various degrees of control alone or in combination with other fungicides. Contans WG is specifically aimed at limiting the seasonal carryover of sclerotia and must be applied prior and following the cropping season...it will not provide much control once the crop is in the ground.

Target Spot

Low levels of target spot continues to show up on tomato in a number of locations around South Florida and is moving up into lower plant canopies in a number of places.

Target spot is widely present in tomato fields around SW Florida.

Target spot remains mostly low on the East Coast.

Target spot is frequently misdiagnosed as in its early stages as symptoms are difficult to recognize and can be confused with bacterial spot and early blight.

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

On tomato leaves and stems, foliar symptoms of target spot consist of brown-black lesions with subtle concentric rings giving them a target-like appearance. These can sometimes be confused with early blight. With early blight, the lesions are often associated with a general chlorosis of the leaf.

On tomato fruit, lesions are more distinct. Small, brown, slightly sunken flecks are seen initially and may resemble abiotic injury such as sandblasting. As fruits mature the lesions become larger and coalesce resulting in large pitted areas.

As we move later into the season and plant canopies develop, we often see target spot take over from bacterial spot as the predominant foliar problem in tomatoes.

Currently, target spot is controlled primarily by applications of protectant fungicides. It should be noted that tank-mix sprays of copper fungicides and maneb do not provide acceptable levels of target spot control.

In recent trials, at the University of Florida fungicides were rated for efficacy as follows:

- 1) Switch, Inspire Super
- 2) Revus Top, Scala
- 3) Tanos, Endura, Quadris (and other strobilurins), Reason
- 4) Bravo (chlorothalonil)
- 5) Mancozeb, Copper

Dr. Gary Vallad Pathologist at UF/IFAS GCREC advises growers not to use strobilurins for target spot management due to widespread resistance to strobilurins and notes that in some instances it can actually make disease worse. Gary also advises seeing some early signs of resistance to SDH inhibitors. These include Endura, Fontelis, Luna and Priaxor.

Bacterial Spot

Around Immokalee, growers and scouts continue to find new bacterial spot infections on tomato and note that some pepper fields are also being hit pretty hard.

Respondents on the East Coast report that bacterial spot has increased in pepper and tomato with warmer wetter weather.

Around Homestead, bacterial spot is present in tomato and pepper.

Downy Mildew

Around SW Florida, downy mildew continues to cause problems in cucurbits especially cucumbers but has slowed down in recent days as powdery mildew has increased.

Growers and scouts in the Palm Beach area report they are now finding downy mildew in squash and cukes.

Early symptoms include angular chlorotic lesions on the upper surface of the leaf – these often appear water soaked when observed from below early in the morning.

Downy mildew is favored by:

- **Cooler Temps 59-77°F**
- **High relative humidity (> 90%)**
- **Periods of extended leaf wetness including heavy morning dew and foggy mornings**

Spores are easily dispersed by wind and rain.

Dr Vallad advises that downy mildew is showing resistance to a number of chemicals including the strobilurins (Quadris, Cabrio, and Flint), fluopicolide (Presidio), mandipropamid (Revus), dimethomorph (Acrobat, Forum) and mefenoxam (Ridomil).

Cyazafamid (Ranman), cymoxanil (Curzate), propmacarb (Previcur Flex) and zoaxamide+maneb (Gavel) remain good choices to rotate with protectant fungicides such as chlorothalonil and mancozeb.

Lettuce downy mildew

Lettuce downy mildew is present on lettuce in the Glades. Dr Rick Raid, Pathologist at EREC advises everyone growing lettuce to be on a PREVENTATIVE program. The phosphites are good tools but should be used in a program with maneb and other compounds that are more efficacious against downy mildew.

The list of fungicides currently labeled for lettuce downy mildew control includes maneb, fosetylAl, metalaxyl, and several copper compounds along with several newer compounds such as Actinovate, Presidio, Previcur Flex, Reason, Revus, and Tanos, that have been added to growers control options.

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.

Basil Downy Mildew

Basil downy mildew has also been very active around South Florida. Growers must be on a preventative program, protecting the crop soon after emergence and regularly thereafter. Quadris, Ranman, and the phosphites are the best labeled products, and an effective program will likely need all three, as sprays must be at least weekly, perhaps more often with heavy pressure.

Arugula Downy Mildew

Dr Rick Raid reports that downy mildew is rampant on arugula and advises growers to begin spraying early with phosphonics and other labeled products.

Powdery Mildew

Powdery mildew is widespread on squash, cucumbers and beans in Palm Beach and Immokalee. Reports indicate that pressure has increased in recent weeks and is high in older squash. Low levels of powdery mildew has also been reported on peppers, tomatoes and eggplants on both coasts

Respondents report that powdery mildew is also causing problems on cucurbits in Homestead.

Cucurbit powdery mildew is kicking into gear in many locations. A broad spectrum protectant such as chlorothalonil should prove useful along with some of the more effective powdery materials, alternating or tank-mixing these depending on pressures and susceptibilities.

Dr. Gary Vallad notes that the new Gowan product, Torino, will be a great management tool for powdery mildew, especially on edible-peel cucurbits where Quintec can't be used.

Scouts in Palm Beach County report finding powdery mildew on eggplant for first time this season. They also report finding some powdery mildew on pepper. Incidence and occurrence is low.

Gray Mold

Growers and scouts around Immokalee are reporting some amount of botrytis or gray mold on tomatoes.

Gray mold is caused by the fungus *Botrytis cinerea*. Symptoms include: wedge-shaped grayish-brown lesions develop on older leaves. Large elliptical, water-soaked lesions may occur on stems, becoming grayish-tan in color. A gray fungal growth is often evident on infected tissue during cool moist weather.

Fruit are often infected at the stem end or shoulder and develop water-soaked spots which display a light brown to tan central region. Infected fruit decay rapidly. If there is a rapid weather change (not favorable to the fungus), fruit infections may abort resulting in ghost rings (Ghost spot symptoms) which develop on fruit in this situation.

Fusarium

Growers and scouts in the Manatee Ruskin area report lots of issues with Fusarium wilt since temperatures have warmed up. Incidence in some fields has reached high levels of incidence (40 – 60% in some places).

Fusarium is also becoming common on tomatoes around Immokalee.

Tomato Yellow Leaf Curl Virus

Around Immokalee, TYLCV incidence ranges from very low to 3-5% in other fields. In the most severely affected locations from 10 - 40% incidence being reported in a number of places including some young tomato not even pruned. . A few respondents indicate it has reached 100% incidence in some places.

In the Manatee Ruskin area, growers and scouts are finding a TYLCV infected plants in new planting but suspect some of these may be coming on transplants.

Reports indicate that TYLCV is present at low levels in Palm Beach County and is increasing in Homestead

News You Can Use

Watermelon Diseases and Control Tips.

Gummy stem blight often starts on old leaves near the crowns of plants inside the rows. Leaf spots are dark brown and start on leaf edges. The gummy stem blight fungus in southeast is largely resistant to strobilurins (Group 11 fungicides), Topsin M, and Pristine. Growers should use tebuconazole, Inspire Super, or Switch in place of Pristine to manage gummy stem blight. However, do not make more than three applications of Group 3 fungicides per season to reduce the risk of resistance.

Leaf spots of anthracnose are smaller and more angular (pointed) than gummy stem blight spots. Look for ½ to 1-inch-long narrow, reddish brown spots on the vines. Anthracnose fruit rot starts as round, sunken spots that usually are found on the belly of the fruit. Cabrio is the best fungicide to spray for anthracnose; Topsin M also controls it.

Powdery mildew appears during dry spells near harvest as white powdery spots on the top or bottom of leaves. Often, leaves may yellow from powdery mildew growing on the bottom side of the leaf. In Florida, it is often difficult to detect the powdery mycelia without a microscope and often yellowing foliage is the only symptom visible to growers. Cucurbit powdery mildew in some areas has become resistant to strobilurin and DMI fungicides. The recommended fungicides for powdery mildew are Quintec, Pristine, or Switch.

Downy mildew can spread very quickly after infection on unsprayed crops. Chlorothalonil and mancozeb provide some protection from initial infection, but they are not enough to stop downy mildew once it starts in a field. Cucurbit downy mildew is resistant to Ridomil Gold and strobilurin (Group 11) fungicides. Apply fungicides specific for downy mildew as soon as it is found.

1) Spray Early. Start with protectant chemicals as soon as transplants are set in the ground.

2) Rotate Fungicide Products. There are two basic types of fungicides: protectant (or contact fungicides) and systemic (fungicides that are absorbed by leaves). Use a protectant for the first several sprays. Use systemic fungicides mid- to late season, when their ability to get into leaves is useful during wet periods. Do not make more than three applications of Group 3 fungicides per season to reduce the risk of resistance.

3) Spray Schedule - match the spray schedule to fit general weather conditions. During wet periods, spray every 5 to 7 days. Spray mancozeb every 5 days during wet humid weather. Spray intervals may be increased during dry conditions. The new chlorothalonil label limits the spray interval to 7 days for watermelon. If leaves stay wet for 48 hours, apply a systemic fungicide.

Apply fungicides before a predicted rain or wet conditions (fogs, heavy dews) rather than after. As long as the fungicide dries on the leaves before rain starts, it will protect plants from new infections.

Excerpted from a piece by Dr Tony Kenaith, Clemson University on the National Watermelon Growers Association website

Proper Protection Needed for Those Who Work in the Sun

Farmers and ranchers have plenty of baseball-type caps. They are as ubiquitous as dust in the High Plains and about as easy to collect. Seed, implement and chemical company sales reps hand them out at field days, conferences and turn-row gatherings.

And they are nice to have.

But don't count on them to protect your face and eyes from the ravages of the sun.

“A cap is simply not enough protection,” says Mary Collier, Terry County, Texas, AgriLife Extension agent, family and consumer services and 4-H coordinator.

“Farmers and ranchers are in an at-risk occupation,” Collier said during a recent county production conference in Brownfield. Farmers spend a lot of time in the sun and may not protect themselves adequately. Skin cancer should be a significant concern.

She recommended frequent skin checks and provided a list of things to look for.

“Consider the A, B, C, D approach,” she said.

Asymmetry—Most early melanomas are asymmetrical: a line through the middle would not create matching halves. Common moles are round and symmetrical.

Border—The borders of early melanomas are often uneven and may have scalloped or notched edges. Common moles have smoother, more even borders.

Color—Common moles usually are a single shade of brown. Varied shades of brown, tan, or black are often the first sign of melanoma. As melanomas progress, the colors red, white and blue may appear.

Diameter—Early melanomas tend to grow larger than common moles—generally to at least the size of a pencil eraser (about 1/4 inch in diameter).

“If you spot any of these warning signs, see a doctor right away.” Collier said.

She recommends that farmers have someone check the back of their necks and the tips of their ears at least once a month. “You can’t see these areas yourself,” she said.

Some spots are worse than others. “Basal cells are not cancerous yet,” she said. But they should be attended to. “But melanomas are nasty,” and dangerous. “They are also like icebergs; seven-eighths of their mass is under the skin.”

Types of skin cancers

Types of skin cancers include:

- Basal Cell Carcinoma**—The most common form of skin cancer, basal cell carcinoma is the most easily treatable and least likely to spread, though it can damage surrounding tissue. Because basal cell carcinoma spreads slowly it occurs mostly in adults. Basal cell tumors can take on many forms, including a pearly white or waxy bump, often with visible blood vessels, on the ears, neck, or face. Tumors can also appear as a flat, scaly, flesh-colored or brown patch on the back or chest, or more rarely, a white, waxy scar.

- Squamous Cell Carcinoma**—This non-melanoma skin cancer may appear as a firm red nodule, a scaly growth that bleeds or develops a crust, or a sore that doesn’t heal. It most often occurs on the nose, forehead, ears, lower lip, hands, and other sun-exposed areas of the body. Squamous cell carcinoma is curable if caught and treated early. If the skin cancer becomes more advanced, treatment will depend on the stage of cancer.

- Melanoma**—Melanoma is a form of skin cancer that usually begins in a mole. It is not as common as other types of skin cancer, but it's the most serious and potentially deadly. Possible signs of melanoma include a change in the appearance of a mole or pigmented area. Consult a doctor if a mole changes in size, shape, or color, has irregular edges, is more than one color, is asymmetrical, or itches, oozes, or bleeds. Melanoma can affect the skin only, or it may spread to organs and bones. It can be cured if it's found and treated early.

•Actinic Keratosis (Solar Keratosis)—The small, scaly red, brown, or skin-colored patches caused by too much sun exposure commonly occur on the head, neck or hands, but can be found elsewhere on the body. They're the early beginnings of skin cancer. Actinic keratosis usually appears on people after age 40, but they can show up in much younger people. People with fair skin, blond or red hair, and blue or green eyes are most at risk. Early treatment is advised to stop the possible progression to squamous cell carcinoma.

Collier said cataracts are also considered in the same classification as cancers. “As we age, our eyes show damage.” Again, appropriate headwear and sunglasses are recommended.

Farmers also tend to get cancer on their lips and should use a lip balm for protection.

They have other options to reduce the effects of sunlight and skin cancer. Instead of a baseball cap, she recommends a broad-brimmed hat that covers the ears, face and neck. It also helps protect eyes. “There is a reason cowboys wear cowboy hats,” she said.

“Wear long-sleeve shirts, even when it’s hot. Tee-shirts may be more comfortable but they don’t protect you from the sun.

“Use sunblock. Less than 2 percent of ultraviolet rays are absorbed if sunblock is used appropriately. Applying sunblock daily is an especially good idea for anyone who has had pre-cancerous cells removed.”

She said clothing with UV protection is now available.

Collier advised farmers to avoid sunburns. “Sunburn damages your skin and makes it more susceptible to absorbing UV rays.

“Don’t become a statistic,” Collier warned. “Protect yourself from the sun.”

Ron Smith
Southwest Farm Press
1/29/2013

Proposed Rule under FSMA for Produce: Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption

Summary: FDA has released for public comment its proposed rule to establish science-based standards for growing, harvesting, packing and holding produce on domestic and foreign farms. The proposed rule for preventive controls for human food is being published at the same time. The proposed rules build on existing voluntary industry guidelines for food safety, which many producers, growers and others currently follow. These are two of the proposed rules that are key to the preventive food safety approach established by the 2011 FDA Food Safety Modernization Act. Soon, FDA will issue its proposed rule on foreign supplier verification; future proposed rules will address preventive controls for animal food, and accreditation of third-party auditors for imported food.

Comments on the proposed rule are due within 120 days of the rule’s publication in the Federal Register. FDA will hold public meetings to explain the proposal and to provide additional opportunity for input.

See proposed rule at http://www.ofr.gov/OFRUpload/OFRData/2013-00123_PI.pdf

January Summary: Warm and Dry Winter Rolls On

South Florida's warm and dry winter pattern of 2012-2013 continued in January. Average temperatures for the main climate sites were four to six degrees above normal. These values placed each site among the top 10 warmest on record for the month of January. A monthly summary for each site follows.

- Miami International Airport had an average January temperature of 73.2 degrees Fahrenheit. This is 5 degrees above the 30-year normal for January and ties the 4th warmest January on record for the Miami area. The lowest temperature recorded last month was 56 degrees on the 18th. The highest temperature recorded last month was 83 degrees on the 4th and 9th. Miami observed 15 consecutive days of maximum temperatures of 80 degrees or higher from January 2nd through 16th. This tied the all-time record for consecutive 80+ degree days during the month of January.

- Palm Beach International Airport had an average January temperature of 71.8 degrees Fahrenheit. This is 6.1 degrees above the 30-year normal for January and is the 11th warmest January on record. The lowest temperature recorded last month was 51 degrees on the 18th. The highest temperature recorded last month was 83 degrees on the 6th and 9th.

- Fort Lauderdale/Hollywood International Airport had an average January temperature of 73.0 degrees Fahrenheit. This is 4 degrees above the 30-year normal for January and ties the 5th warmest January on record. The lowest temperature recorded last month was 54 degrees on the 18th. The highest temperature recorded last month was 83 degrees on the 4th.

- Naples Municipal Airport had an average January temperature of 70.7 degrees Fahrenheit. This is 6.2 degrees above the 30-year normal for January and is the 6th warmest January on record. The lowest temperature recorded last month was 50 degrees on the 18th. The highest temperature recorded last month was 86 degrees on the 9th.

A remarkable lack of cold frontal passages led to the warm January across South Florida, with none of the main climate sites dropping below 50 degrees. Even the colder interior locations of southern Florida did not observe temperatures below 40 degrees. Only three fronts of significance passed through our region which is an unusually low number of fronts for this time of year. While most of the country endured bouts of Arctic air masses, these shots of cold air did not make it into the southern portion of Florida. A persistent and unseasonably-strong subtropical high pressure area in the mid-troposphere extended from the Caribbean Sea and western Atlantic across most of the Florida peninsula, shielding the peninsula from the brunt of the continental/Arctic air masses which affect North America in winter.

The coldest temperatures across South Florida were observed on January 18th when lows dropped into the 40s and 50s.

Another remarkable statistic about the winter of 2012-2013 to date is that November 2012 was colder than the two months following it (December 2012 and January 2013). The last time this happened was in 1949-1950 (except 1956-1957 in Naples) and has occurred only four times in the last 100 years.

PRECIPITATION

Most of south Florida was quite dry in January as the lack of cold fronts and atmospheric stability associated with the subtropical high kept moisture levels on the low side. Locations receiving the most rain were along the Atlantic coast in Palm Beach and Broward counties from showers moving onshore.

Another area of higher rainfall extended from the Everglades and Big Cypress north to Lake Okeechobee, mostly from heavy evening showers on January 6th. The rest of south Florida received less than an inch of rain the entire month, with two locations (Marco Island and South Bay/Okeelanta) recording no measureable rainfall.

The very dry January continues the trend this dry season of below normal precipitation totals. Since November 1, rainfall over most of south Florida has been less than half (50%) of the normal for the three-month period. Much of Mainland Monroe, Miami-Dade and Broward counties as well as southern Palm Beach County have recorded less than 25% of normal rainfall since November 1.

Palm Beach International Airport (2.68 inches) and The Redland (1.35) had their 3rd driest November-January on record, while Miami International Airport (1.55) ranked 4th driest and LaBelle (1.35) ranked 5th driest for that same period. Fort Lauderdale (2.56) ranks 9th driest and Naples (2.05) ranks 13th driest.

This lack of significant rain over the area led to the expansion of abnormally dry conditions over all of south Florida.

OUTLOOK FOR FEBRUARY THROUGH APRIL

A shift to cooler but near-average temperatures will start the month of February. However, the latest outlook from the NOAA Climate Prediction Center (CPC) is calling for an enhanced likelihood of above normal temperatures through the month (Figure 4). Looking at the February-April time frame, there are equal chances of near, above or below normal temperatures. February is usually the last month of freezing temperatures; therefore interests should keep a close watch on potentially damaging cold temperatures.

Precipitation-wise, the dry pattern will likely continue into the first week of February. The CPC precipitation outlook indicates the probability of the drier-than-normal winter pattern continuing (Figure 5), with equal chances of near, above and below normal for the February through April period. It is important to note that February-April is typically one of the driest periods of the year for south Florida and even if near-normal precipitation were to occur, overall conditions would still be quite dry. Therefore, deterioration of hydrological conditions is possible over the next several weeks as south Florida enters the time of year when drought and wildfire potential increase.

MANDATORY SOIL FUMIGANT TRAINING FOR CERTIFIED APPLICATORS

Vegetable growers wishing to use fumigants in the future should be aware that updated soil fumigant product labels, due out on Dec 1, 2012, **will require**, as a condition of use, certified applicators to successfully complete an EPA- approved training program. This training must be completed before you can legally apply fumigants bearing the new label.

Below is a link to a webpage includes the EPA-approved registrant soil fumigant training programs, as well as state-specific EPA-approved alternatives to the registrant training programs. Currently the web based EPA training program is the only option for Florida growers.

Fumigant distributors will require proof of this training prior to shipping phase II labeled products. Beginning Dec 1, the above listed products will be packaged with Phase II labels.

Registrant-Developed Training Materials for Certified Applicators

EPA required registrants to develop and implement training programs for certified applicators supervising soil fumigant applications. This training must be completed every 3 years.

EPA-approved training program for certified applicators using methyl bromide, chloropicrin, chloropicrin and 1,3-dichloropropene, dazomet and metam sodium and potassium

<http://www.fumiganttraining.com/>

EPA-approved training program for certified applicators using dimethyl disulfide (DMDS)

<http://paladin.trainingmine.com/>

This page includes approved training programs and links to other resources for soil fumigant certified applicators, and approved Fumigant Safe Handling information for soil fumigant handlers. (NOTE: Fumigant product labels include the following link to this web page

http://www.epa.gov/pesticides/reregistration/soil_fumigants/soil-fum-handlers.html#certified

The site also contains fumigant specific training for methyl bromide, chloropicrin, 1,3-dichloropropene, and dazomet.

Up Coming Meetings

February 27- 28, 2013 HACCP for Florida Fresh Fruit and Vegetable Packinghouses

Room 2 & 3
Ben Hill Griffin Building Citrus Research and Education Center
700Experiment Station Rd
Lake Alfred, FL 33850

Sponsored by Food Science and Human Nutrition Department and the Citrus Research and Education Center, University of Florida, IFAS

To register contact: Michelle Danyluk CREC, email - mddanyluk@ufl.edu, phone - 863-956-865

February 27, 2013 New Technology for Commercial Vegetable Production 8:30 – 4:00 PM

This unique video-conference workshop presents an opportunity for licensed pesticide applicators to earn CEUs by learning about “New Technology for Commercial Vegetable Production.” Licensed applicators will be able to earn up to 5 FDACS-approved CEUs in several categories for recertification credit. Multiple locations including Hendry County Extension and the Palm Beach County Extension Offices and UF/IFAS GCREC

Agenda

8:30 Registration and pre-test

9:00 Dr. Nickolas Default, Fungicide Basics and Use in Vegetable Disease Management

10:00 Dr. Shouan Zhang, Disease Management for Vegetable Production in Florida

11:00 Dr. Susan Webb, Managing Insects in Sustainably Produced and Organic Vegetables: Implementing Old Strategies with New and Better Tools

11:30 Dr. Zhaohui Tong, Sustainable and High-Functional Materials from Agricultural Waste

11:55 Lunch

1:00 Dr. Timothy Hartz/UC Davis, Fertilizer Management for Plant Health and Environmental Water Quality Protection

2:00 Dr. Xin Zhao, Grafting for Vegetable Production in Florida

3:00 Dr. Peter Dittmar, Reducing off Target Application of Herbicide

3:50 Post-test & CEU distribution

Earn 5 CEUs in Private/Ag Row Crop/ Demo and Research

\$15.00 registration fee is required. See the attached document for registration details.

February 22, 2013 Polk County Private Applicator and CORE Class and Exam

Polk County Extension Service
Bartow, FL

Contact Gail (863) 519-8677 x 11. For more information and to register visit:
http://polk.ifas.ufl.edu/AG_Safety/events/index.shtml

February 26, 2013 Finding Farms and Federal Funds

Polk County Extension Service
Bartow, FL

Contact Mary Beth (863) 519-8677 x 110. For more information and to register visit:
http://polk.ifas.ufl.edu/AG_Safety/events/index.shtml

February 28, 2013 Florida Lettuce Advisory Committee 12:00 Noon – 2:00 PM

**UF/IFAS Everglades Research & Education Center
3200 E Palm Beach Rd.
Belle Glade, FL 33430**

March 12, 2013 2nd Vegetable and Small Fruit Protected Ag Field Day and IV Protected Ag Information Network Congress. 8 am to 4 pm

UF/IFAS GCREC
14625 CR 672
Wimauma, Florida 33579

Find out more on the latest research efforts on protected culture of tomato, pepper, strawberry, blackberry and herbs.

Registration is free – Register today at <http://protectedagfieldday.eventbrite.com>

Invited speakers on protected ag at GCREC and around world and field tours of current research being done at GCREC. Registration starts at 8:00 and day ends at 4:00. Lunch provided. Pesticide CEUs for meeting will be 3.0 Private Applicator. CCA credits will be 0.5 PM and 3.0 CM for the first part of the meeting and 1.0 CM for the field tour portion.

This is a free event, but spaces are very limited, to attend you need to register online. To register go to:
<http://protectedagfieldday-es2001.eventbrite.com/?rank=1>

March 19, 20, 2013

Core and Private Applicator Training and Exams

Manatee County Extension Service
Parish, Florida

Core 10am-12pm March 19, Private 10am-12pm March 20, Manatee County Extension Service, Palmetto, FL. Two separate exam prep classes will be held to help you prepare for the Core and Private Applicator RUP license exams. Exams will be offered immediately following the classes. However, you do not have to take the exams the same day. You may schedule a time to take the exams at your convenience. You may take one class without the other, if needed.

If you are already a license holder, 2 CEUs in Core and 2 in Private are offered for both classes, respectively. Light snacks will be offered. For details and registration visit: <http://coreprv121012.eventbrite.com/>

**March 18-19, 2013
or March 22-23, 2013**

2013 Hydroponics Short Courses -

UF/IFASSuwanee Agricultural Extension Center
Live Oak, Florida

Details to be announced

April 5, 2013

Food Safety Update for Cantaloupe Growers: 9:30am-3:30pm
What do the new developments mean to me?

UF/IFAS Gulf Coast Research and Education Center.
Wimauma, Florida

Detailed agenda to follow. Please contact Alicia Whidden to register at awhidden@ufl.edu or 813-744-5519 ext. 54134

For the Record....

Pesticide Registrations and Actions

- Based on a request by IR-4, the EPA has approved tolerances for the insecticide/miticide fenpyroximate (Portal®). Tolerances of importance to the region include avocado, canistel, citrus, pop/field corn, cotton, cucumber, mango, melons (subgroup 9A), pecan, papaya, sapodilla, strawberry, black/mamey sapote, star apple, and fruiting vegetable (group 8-10). (Federal Register, 12/12/12).
- Based on a request by IR-4, the EPA has approved tolerances for the insecticide pyriproxyfen (Knack®). Tolerances of importance to the region include blueberry, citrus fruit, herbs, bulb vegetables (group 3-07), and fruiting vegetables (group 8-10). (Federal Register, 12/12/12).

A new agricultural electronic insect trapping device has the potential to automatically monitor insect pest populations and reduce the amount of insecticides emitted into the environment. The Z-Trap is an insect trapping device that automatically detects the number of target insects captured by the trap and sends the data wirelessly to the grower's mobile phone or computer. The Z-Trap is a Purdue University discovery being commercialized by Spensa Technologies Inc. "Tracking insect populations is a fundamental part of any pest management program and being able to track those numbers in real time electronically through a smartphone or a computer helps growers choose how to use insecticides more judiciously," said Johnny Park, president and CEO of Spensa and a Purdue research assistant professor in electrical and computer engineering. In the U.S. in 2010, crop growers lost \$20 billion to insect damage and spent \$4.5 billion on insecticides, according to Park.

“Currently the technology is being used to collect data on codling moths, oriental fruit moths, and leaf rollers in apple orchards,” said Tom Puterbaugh, Spensa Technologies vice president of products. “But Z-Trap will eventually be used to collect insect data from other types of crops including almond, walnut, orange, pear, grape, cherry, vegetable, corn, soybeans and many other stored products.” Z-Trap can be used in conjunction with MyTraps.com, an online app that helps growers and pesticide consultants track the number of insects for any agricultural crops. The technology is available as an online subscription service. “Z-Trap is a hardware that collects insect data and MyTraps.com is a software that presents the data to growers and consultants so they can make insightful decisions about insect control,” Park said. (Purdue Release, 12/12/12).

Opportunities

Director of Grower Relations

J & J Produce is seeking a Director of Grower Relations to join their team based in Loxahatchee, Florida.

The Director of Grower Relations is responsible for overseeing contracted grower operations to provide consistent, high quality, cost effective produce that meets our objectives, establishing and maintaining positive grower relations for designated grower locations. Also responsible for developing, sourcing and negotiating to ensure supply to achieve quality and quantity goals at targeted costs.

Key Responsibilities:

- Develops and maintains a positive relationship between J & J Produce and Growers.
- Makes regular visits to Growers (domestic and international) observing, recording and reporting on crops, yield and management practices (including irrigation, pest and disease control, training, and yield control).
- Communicates issues or problems to Grower or Company when appropriate.
- Actively seeks resolution of such concerns.
- Works to ensure best possible growing conditions are maintained.
- Negotiates grower contracts and maintains contract administration program.
- Negotiates supply contracts with Growers within agreed parameters to meet targeted quality, quantity and cost objectives.
- Keeps up to date with best practice in production, quality and management practices to act as a resource for Growers and J & J Produce Develops and manages the Grower Relations budget.
- Additional responsibilities as assigned

Qualifications:

- 5+ years grower relations experience and 3+ years in a similar role
- Ability to establish and maintain cooperative relationships with a diverse group of growers.
- Ability to communicate effectively between growers, customers and management.
- Ability to effectively influence growers in a professional manner, outstanding negotiation skills Strong proficiency in MS - Office Suite and other computer systems Ability to set goals and priorities, champion teamwork and adjust to multiple changing priorities.
- Ability to work independently without supervision and maintain confidentiality.
- Knowledgeable regarding safe work practices, rules and regulations.
- Strong organizational skills with ability to handle multiple tasks with attention to accuracy and detail.
- Ability to communicate effectively in English both verbally and in writing, bilingual (Spanish) a plus.
- Ability to travel extensively internationally and domestically Must have a valid driver's license and passport

Interested applicants should send their resume along with salary history to Careers@jjproduce.com

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

Websites

Applied Mythology - What if much that you think you know about agriculture, farming and food isn't actually true? What if the truth about these issues matters for the future of humanity? Dr SB Savage debunks many common public misconceptions about agriculture <http://appliedmythology.blogspot.com/>

South Florida Vegetable Grower – Facebook page with 247 likes - South Florida Vegetable Grower is a community page for those with an interest in the vegetable industry and provides up-to-date news for vegetable growers and industry reps on the go! http://www.facebook.com/home.php?ref=tn_tnmn#!/pages/South-Florida-Vegetable-Grower/149291468443385

Proposed Rule under FSMA for Produce: Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption - http://www.ofr.gov/OFRUpload/OFRData/2013-00123_PI.pdf

EPA-approved Fumigant training program for certified applicators using methyl bromide, chloropicrin, chloropicrin and 1,3-dichloropropene, dazomet and metam sodium and potassium - <http://www.fumiganttraining.com/>

EPA-approved training program for certified applicators using dimethyl disulfide (DMDS) - <http://paladin.trainingmine.com/>

Quotable Quotes

There are four ways, and only four ways, in which we have contact with the world. We are evaluated and classified by these four contacts: what we do, how we look, what we say, and how we say it. - Dale Carnegie

If you're going through hell, keep going. - Winston Churchill

You are never too old to set another goal or to dream a new dream. - C. S. Lewis

By failing to prepare, you are preparing to fail. - Benjamin Franklin

On the Lighter Side

Writings on Restroom Walls

If life is a waste of time,
And time is a waste of life,
Then let's all get wasted together
And have the time of our lives.

- Armand's Pizza, Washington , DC

No matter how good she looks,
Some other guy is sick and tired
Of putting up with her.

- Men's Room, Linda 's Bar and Grill, Chapel Hill , NC

If pro is opposite of con, then what is the opposite of progress? Congress!

- Men's restroom House of Representatives, Washington, DC

No wonder you always go home alone.

- Sign over mirror in Men's restroom, Ed Debevic's, Beverly Hills, CA

and perhaps the most realistic one...

A Woman's Rule of Thumb:

If it has tires or testicles,

You're going to have trouble with it

- Women's restroom - Dick's Last Resort, Dallas , TX

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 within minutes of my completing it and help conserve dwindling resources at the same time. Thanks to those that have already made the switch.

Contributors include: Joel Allingham/AgriCare, Inc, Jeff Bechtel/Syngenta Flowers, Bruce Corbitt/West Coast Tomato Growers, Gordon DeCou/Agri Tech Services of Bradenton, Fred Heald/The Andersons, Sarah Hornsby/AgCropCon, Cecil Howell/H & R Farms, Bruce Johnson/General Crop Management, Barry Kostyk/SWFREC, Dr. Mary Lamberts/Miami-Dade County Extension, Leon Lucas/Glades Crop Care, Chris Miller/Palm Beach County Extension, Mark Mossler/UF/IFAS Pesticide Information Office, Gene McAvoy/Hendry County Extension, Alice McGhee/Thomas Produce, Dr.Gregg Nuessly/EREC Chuck Obern/C&B Farm, Dr. Monica Ozores-Hampton/SWFREC, Dr. Rick Raid/ EREC, Dr Ron Rice/Palm Beach County Extension, Dr Pam Roberts/SWFREC, Dr. Nancy Roe/Farming Systems Research, Wes Roan/6 L's, Dr. Dak Seal/ TREC, Kevin Seitzinger/Gargiulo, Ken Shuler/Stephen's Produce, Crystal Snodgrass/Manatee County Extension, Dr. Phil Stansly/SWFREC, Dr Gary Vallad/GCREC , Mark Verbeck/GulfCoast Ag, Alicia Whidden/Hillsborough County Extension, Dr Henry Yonce/KAC Ag Research and Dr. Shouan Zhang/TREC.

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

Gene McAvoy

County Extension Director / Extension Agent IV

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

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