



UNIVERSITY OF
FLORIDA

E X T E N S I O N

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SOUTH FLORIDA VEGETABLE PEST AND DISEASE HOTLINE

February 20, 2006

An icy blast from the coldest weather of the season dropped over night temperatures to near or below freezing in many areas of South Florida on the morning of February 14th bringing widespread frost and freezing temperatures to many areas. Growers reported varying degrees of crop damage in normally cooler interior sections.

Hardest hit was the Belle Glade area where respondents report severe frost/freeze damage after temperatures fell as low as 24-28 degrees for several hours in some areas. Most beans in the Glades area have been wiped out; the few plantings that remain are severely damaged. An estimated 70-80% of the spring sweet corn crop has also been wiped out.

Other growing areas were more fortunate. Growers around Southwest Florida reported widespread frost but damage was largely restricted to more sensitive crops like bean and cucurbits that suffered moderate damage. In more resistant crops like peppers and tomatoes, damage was mainly confined to frost burned tops and foliage. In the Manatee/Ruskin area reports indicate that damage from the recent cold snap varied depending on crop and location with some plants killed out right but in many others damage again was confined to frozen tops.

FAWN Weather Summary*

Date	Air Temp °F		Rainfall (Inches)	Hours Below Certain Temperature (hours)							
	Min	Max		40°F	45°F	50°F	55°F	60°F	65°F	70°F	75°F
Balm											
1/30 – 2/20/06	29.1	80.9	2.03	3.9	5.9	33.6	23.5	16.1	18.1	67.7	99.5
Ft Lauderdale											
1/6 – 1/30/06	40.3	82.6	3.81	0.0	18.7	16.3	54.2	8.2	29.1	34.6	67.8
Fort Pierce											
1/6 – 1/30/06	32.2	80.3	2.78	7.7	33.2	8.0	23.6	51.8	7.6	56.0	102.2
Homestead											
1/6 – 1/30/06	37.7	82.5	1.30	10.4	14.8	12.2	11.1	27.5	30.4	19.9	67.3
Immokalee											
1/6 – 1/30/06	29.4	79.8	2.32	16.6	32.3	23.7	1.1	37.8	12.6	40.6	74.6

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In general, temperatures for the period were closer to seasonal norms compared to January, which was one of the warmest on record. Daytime highs ranged mainly in the 60's and 70's with nighttime temps in the 30's 40's and 50's.

All areas received significant precipitation for the period varying from a low of 1.30 inches in Homestead to a high of 3.80 inches recorded in Fort Lauderdale. Most of this rain fell on the weekend of February 3-4 during unsettled weather in association with frontal system that stalled over South Florida.

The February 14 freeze was especially devastating to Glades farmers as many growers have not harvested a crop since May of last year, due to multiple disasters during the fall and spring seasons. This season the Belle Glade area has experienced a hurricane, four killing frosts, and high winds on one weekend that wiped out corn and bean crops in several areas. Tongue in check comment from one individual concluded that growers are now just waiting on hail and locusts to round out the list of disasters that have stricken crops in the area this year.

In addition to damage to crops from frost and freezing temperatures, cool temperatures slowed plant development over the central and southern Peninsula during the past two weeks. Strong winds preceding cold fronts blew sand over drier fields causing some loss of fruit quality. Growers have also reported some problems with damping off and salt related issues following repeated episodes of raising water tables for cold protection over the past few weeks.

Vegetables marketed during the period included snap beans, cabbage, celery, cucumbers, eggplant, endive, escarole, lettuce, parsley, peppers, radishes, squash, strawberries, sweet corn, tomatoes and specialty items.

The short-term forecast from the National Weather Service in Miami indicates that weather for the next few days will be mild with highs in the low to mid 80's through Friday when a strong front will across the peninsula bringing cooler conditions by Sunday morning. For additional information, visit the National Weather Service in Miami website at <http://www.srh.noaa.gov/mfl/newpage/index.html>

Insects

Worms

Growers and scouts from Homestead report increasing fall armyworm pressure in sweet corn. Pickleworms and melonworms are present in low numbers in squash and cucumbers.

Around southwest Florida, growers and scouts reported mostly low worm pressure before the cold weather early last week. These have been mostly southern armyworms with a few beet armyworms, fruitworms, and loopers mixed in. Some respondents noted an increase in southern armyworm hatch outs in a few hotspots around the area before temperatures dipped.

Reports from Manatee County indicate that southern armyworms numbers had started to climb before the freeze.

Worm pressure remains low in strawberries around Hillsborough County.

Correspondents from Palm Beach indicate some increase in worm pressure before last week's cold weather. Reports indicate that growers are finding mainly beet and southern armyworms.

Pinworms

Reports from the Immokalee area indicate that pinworms have started to show up in low numbers in several locations across SW Florida.

Tomato pinworm (*Keiferia lycopersicella*) is a warm season pest that occurs throughout the tomato producing areas of Florida. Some years, pinworms can be an important pest. In peninsular Florida, they typically appear in the spring crop. In North Florida, pinworm may be a problem in the fall crop. The damage they inflict includes blotch mining and folding of leaves and small pin size holes in fruit.

Pinworm adults are small gray/brown moths that are active at dusk. Eggs are usually found singly or in groups of 2 or 3's on the lower surface of foliage. Early stage larvae are orange and turn purplish-gray as they mature. To complete their life cycle, larvae drop to the ground and pupate near the soil surface.

The caterpillar feeds on leaves and creates blotch-type mines, but causes most of its damage when it attacks the fruit. When abundant, the tomato pinworm may seriously damage foliage and infest nearly 100% of the fruit. When infested fruit is picked, caterpillars may be difficult to detect unless they have been feeding long enough to deposit frass at the edge of the calyx. Because the pinworm can have many generations per season, they often become more serious as the season advances. The greatest damage occurs where tomatoes are grown adjacent to early planted, infested fields.

Since tomato, potato, eggplant, and tropical soda apple, are the only recorded hosts in Florida, a host-free period can be effective in reducing populations to low levels, except possibly where soda apple is prevalent. Destroy residues by burning or plowing-under to help reduce summering populations of pinworm. If substantial tomato pinworm populations are present in an earlier planting and a second crop has been planted in an adjacent field, consider a combination of mowing and discing crop debris.

Transplants are a potential source of infestation. Check transplants for pinworm larvae and avoid infested plants.

Early detection is important. Pheromone traps help provide an early warning. At planting, place a minimum of one trap per 10 acres at least 25 paces inside of field. When 3 to 5 moths are caught per trap per night, then mating disruption should be initiated. If pinworms are present, increase trap numbers to ensure an accurate estimate of the population. Pinworms can be controlled with mating disruption techniques and pesticides. Mating disruption is most successful where fields are isolated or whole areas are treated.

If using insecticides, treatment must begin when populations reach economic thresholds. The UF/IFAS Florida Tomato Scouting Guide Tomato recommends season-long action thresholds of 5 adults/trap/night to initiate the application of mating disruptants and an action threshold of 0.7 larva per plant for the initiation of control measures.

Once begun, treatments may be required until harvest. If nearby infested tomato fields are abandoned, adults can immigrate into later planted fields in large numbers. If scouting detects a significant movement, consider border treatments.

Pheromone-based mating disruptants, such as No Mate TPW spirals or Checkmate TPW dispensers provide a very effective means of combating pinworm. These should be applied according to label instructions with good distribution throughout field.

Chemical controls such as Agri-Mek and Spintor have the advantage of being effective against pinworms and leafminers as well as the additional benefit of being soft on beneficials. Lannate (Methomyl) and a variety of synthetic pyrethroids are also effective materials for the control of pinworm. Development of

resistance to Lannate has been documented in pinworms in some parts of the country and excessive use of these broad-spectrum insecticides may result in outbreaks of leafminers and mites if they are present.

Organically acceptable biological and cultural control methods include the use of mating disruptants, field sanitation, and pyrethrin. Parasites can also be important in aiding in pinworm control.

Leafminer

Growers and scouts around Immokalee indicate that thrips are widely present at mostly low numbers. Some problems have been noted in field adjacent to beans being harvested.

Reports from Manatee County indicate that leafminers were starting to build in some areas before last weeks freeze but they are expected to return as temperatures moderate.

Leafminers are widely present around Palm Beach County.

Reports from Homestead area indicate that leafminer pressure has been low to moderate in beans and tomato in recent days.

Whiteflies

Growers and scouts around Homestead note increased whitefly pressure in beans and cucurbits.

Respondents in Palm Beach and Martin Counties indicate that whiteflies that with the exception of a few hotspots in scattered locations, numbers remain low to moderate in most places.

Around Immokalee, reports indicate whitefly numbers remain mostly low. A few respondents have noted some increase in older fields as well as the presence of nymphs.

As fall crops come off, it is important to practice good sanitation to avoid movement of whiteflies into later plantings and a buildup in populations that carry over to the spring crop.

Growers are urged to continue to practice the following recommendations

Nicotinoid Resistance Management Recommendations

- Reduce overall whitefly populations by strictly adhering to cultural practices including:
 - Plant whitefly-free transplants
 - Delay planting new crops as long as possible and destroy old crops immediately after harvest to create or lengthen a tomato free period
 - Do not plant new crops near or adjacent to infested weeds or crops, abandoned fields awaiting destruction or areas with volunteer plants
 - Use UV-reflective (aluminum) plastic soil mulch
 - Control weeds on field edges if scouting indicates whiteflies are present and natural enemies are absent
 - Manage weeds within crops to minimize interference with spraying;
 - Avoid u-pick or pin-hooking operations unless effective control measures are continued
- Do not use a nicotinoid like Admire on transplants or apply only once 7-10 days before transplanting; use other products in other chemical classes, including Fulfill, before this time;

- Apply a nicotinoid like Admire (16 ozs/acre) or Platinum (8ozs/acre) at transplanting and use products of other chemical classes (such as the insect growth regulators Courier® or Knack® as the control with the nicotinoid diminishes. Note: Courier and Applaud are the same active: buprofezin. Courier is labeled for whitefly on tomato and snap bean. The mode of action is chitinase inhibitor. Dimilin and Knack are juvenile hormone mimics labeled for whitefly control on fruiting vegetables.
- Never follow an application (soil or foliar) of a nicotinoid with another application (soil or foliar) of the same or different nicotinoid on the same crop or in the same field within the same season (i.e. do not treat a double crop with a nicotinoid if the main crop had been treated previously);

Save applications of nicotinoids for crops threatened by whitefly-transmitted plant viruses or whitefly-inflicted disorders (i.e. tomato, beans or squash) and consider the use of chemicals of other classes for whitefly control on other crops.

Aphids

Growers and scouts around Immokalee report that aphid pressure is variable depending on the location. Reports indicate that some peppers, tomatoes, watermelons and potatoes fields have reached treatment levels.

Reports from Palm Beach moderate to high levels of aphids in pepper and specialty crops especially Oriental crucifers.

Respondents in Homestead report increasing aphid pressure in cucurbits and note that silverleaf incidence has increased accordingly.

Growers in the Manatee/Ruskin area report that aphid numbers had started to climb prior to the freeze and expect that they will return as temperatures moderate. Reports from Plant City indicate that aphid numbers remain low in strawberry.

Pepper Weevils

Around Southwest Florida, pepper weevils are present at low levels in older fields in several locations but overall have shown little or no increase.

Growers and scouts around Homestead report finding the occasional pepper weevil feeding on eggplant flowers.

Thrips

Around Southwest Florida, thrips numbers are low to moderate depending on the location with higher numbers being noted adjacent to harvested beans. Some native trees are starting to bloom so we can expect the thrips levels to pick up soon. In most cases it looks like they are flower thrips (*Frankliniella bispinosa*).

Respondents in Homestead indicate that thrips are starting to increase in beans and pepper.

Silk Fly

Reports from Homestead indicate that silk fly activity has increased over the past few weeks with both adults and maggots present in corn.

Broad mites

Around Southwest Florida, reports indicate that broad mites remain low.

Growers in Palm Beach report that broad mites are around and can be found on peppers.

Reports from Homestead indicate that broad mites are increasing in pepper.

Spider mites

Reports from Plant City indicate that two-spotted spidermites are present at low numbers in some strawberries.

Around Immokalee, respondents indicate that spider mites are showing up in variety of crops at mostly low levels on fields margins and ends.

Growers and scouts in Homestead report increasing problems with spider mites in eggplant and strawberry.

Diseases

Over all disease pressure remains low but some growers are worried that diseases may become established on plant tissue injured by last weeks freezing temperatures especially if the warm foggy weather of recent days persists.

Late Blight

Growers and scouts in West Central Florida no new occurrences of late blight in the past few weeks,

Late blight is present on both tomato and potato around Immokalee. To date incidence and occurrence is mostly low and growers have managed to maintain control with no major outbreaks reported in the past few weeks.

Several growers in the Immokalee area report good late blight control using the biofungicide Sonata. Reports indicate that they are applying a tank mix along with a phosphorus acid type material, i.e. NutriPhite or PhosMAX at 1- 2 quarts per acre plus Biotune.

There have been no reports of late blight from Homestead or East Coast respondents at this time.

The disease can spread quickly and devastate a tomato or potato field within a few weeks if not properly controlled. 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. No other disease will find an unprotected field as rapidly as late blight.

Bacterial Leaf Spot

Growers and scouts on the East Coast indicate that bacterial spot is remains present in a number of places but note that new infections have slowed considerably in recent days.

Growers and scouts in the Immokalee area indicate that bacterial spot is present in a number of scattered locations and has jumped up on to the tops of plants in some places.

Respondents in Homestead indicate finding some new bacterial spot in recent days. Incidence remains low to moderate in most fields and new infections have slowed considerably.

Target Spot

Growers and scouts around Southwest Florida report that target spot continues to be a problem in some mature tomato fields.

Respondents around Homestead report finding some new target spot in a number of locations.

Around Palm Beach, reports indicate that target spot is present in a number of scattered locations.

Early Blight

Reports from growers indicate that early blight is widely present and increasing in a number of areas around South Florida. Incidence is low to moderate depending on the location.

Alternaria

Before the freeze Dr. Ken Pernezny, Plant Pathologist UF/IFAS EREC reported seeing plenty of Alternaria on snap beans in the Glades. He notes that this is probably a moot point as freezing temperatures destroyed much of the crop last week.

Fusarium Crown Rot

Reports from Southwest Florida indicate that fusarium crown rot has reached very high levels in a number of tomato fields presumably the results of pumping water up for cold weather two weeks ago. Some of these fields reportedly have up to 40% of the plants dead or wilted by second pick.

Growers and scouts in Palm Beach also report increasing incidence and occurrence of fusarium crown rot in both pepper and tomato. Growers producing specialty heirloom types have been particularly hard hit.

Downy Mildew

Downy mildew is widely present on cucumber and squash in a number of locations around Palm Beach. Incidence and severity is moderate to high in some locations.

Growers and scouts should look at the underside of the leaves to help make the right diagnosis. Angular leaf spot will have some water-soaking at the edge of the lesions. The downy mildew lesions look uniformly dry.

Downy mildew is also causing problems on cucumbers and squash in several locations around Immokalee.

Respondents in Homestead report a noticeable increase in downy mildew on squash and cukes in recent days.

Lettuce Downy Mildew

Dr Rick Raid, Plant Pathologist UF/IFAS EREC reports that downy mildew of lettuce has been particularly severe in some areas of the Everglades Agricultural Area but notes that growers seem to be gaining control. Growers that have been on a preventative program using tank-mixtures of maneb with a phosphonic fungicide have reported good control, but the program must be started early in the crop. Rick notes that once downy becomes established, the tremendous spore-producing capacity of this fungus will overrule most spray programs. Growers are also advised to rotate a fungicide of a chemistry dissimilar to the

phosphonics into the program for resistance management. Acrobat, Previcur, Tanos, and Reason have proven beneficial in some University tests and all have shorter pre-harvest intervals than maneb. However, growers should be alert for plant-back restrictions, which may limit the use of some of these. Check labels before using or buying.

Powdery mildew

Growers and scouts around Southwest Florida report increasing incidence of powdery mildew in squash with moderate to high incidence and severity in some places.

Respondents on the East Coast are reporting continuing problems with powdery mildew on squash.

Reports from Homestead some problems with powdery mildew on cucumbers and squash. Incidence is moderate.

Botrytis

Strawberry producers in the Hillsborough County area are reporting problems with botrytis. Incidence is moderate.

Phytophthora

Growers and scouts on the East Coast report that phytophthora remains a problem on pepper and cucurbits in a number of locations.

Around Immokalee, reports indicate that phytophthora is still causing problems and has been increasing in some eggplant and pepper fields.

Reports from Homestead indicate that some growers are having problems with phytophthora in squash.

Pythium

Growers around Immokalee continue report some losses from pythium on young squash, pepper and watermelon especially in fields where water levels were held high for cold protection.

Respondents in the Homestead are also reporting some problems with pythium in beans and cucumbers in low fields with wet spots.

Sclerotinia

Respondents in the Palm Beach area report problems with sclerotinia on eggplant, pepper and tomato. Incidence is low to moderate in places. Around the Glades, lettuce drop caused by Sclerotinia sclerotiorum continues to be present but has definitely tapered off in recent days.

Tomato Yellow Leaf Curl Virus

Reports from the Manatee/Ruskin area indicated that TYLCV is beginning to show up in some new plantings but respondents note that new infections have tapered off..

Tomato yellow leaf curl virus is present at low levels in scattered locations around Palm Beach and Martin counties.

Growers and scouts in Homestead report that moderate incidence of TYLCV in a number of fields in the Homestead area.

Scouts around Immokalee indicate that TYLCV is starting to pop up in spring tomato. **Incidence remains fairly low in most fields but note some plantings have reached 5 -10% infection rates.**

Gummy stem blight

Gummy stem blight is present on watermelon in a number of locations around SW Florida. Some plant loss has been reported and some growers have noted finding infections on transplants coming from the greenhouse.

News You Can Use

WPS Enforcement and Penalties to change

It was reported in the last issue of the hotline that growers across South Florida reported that WPS inspections have increased in number and frequency since the beginning of the year presumably in response to adverse publicity in the press last fall. The U.S. Department of Labor and D.B.P.R. investigators have also been very active... and continue to focus on unregistered housing, transportation, registration, field sanitation, and field time keeping.

In addition to this increased activity, the FDACS Bureau of Compliance Monitoring Chief Dale Dubberly has announced that there will be no more “warnings” and that the cost of non-compliance will increase.

This is a ‘top-down’ mandate from Tallahassee that local inspectors have no choice but to enforce. A January 24 article in the Tampa Tribune titled “Pesticide Enforcement Too Lax, Lawmakers Say” called for more funding and tougher regulations.

The following is a excerpt from an email sent by Dale Dubberly with the Florida Department of Agriculture and Consumer Services to the Florida Farm Bureau regarding changes in the enforcement policy with regard to the Worker Protection Standard. This change will *primarily* impact nursery/greenhouse producers and vegetable growers. The following is directly from the Florida Department of Agriculture and Consumer Services

NOTICE

EFFECTIVE February 15, 2006

The following violations of the Worker Protection Standard will result in a penalty assessment of \$250 for first time violators in the following areas:

Pesticide safety training, not including isolated errors or omissions;
Failure to comply with agricultural worker or handler restricted entry intervals;
Failure to post treated areas to prevent entry during a restricted entry interval; or
Failure to provide essential personal protective equipment.

This is a big change, as the Department use to give warning letters on the first time infractions for the above WPS violations. This is the exact language change from the Department:

There is a violation of the Federal Worker Protection Standard, 40 CFR Part 170, involving one or more of the following: failure to consistently provide pesticide safety training, not including isolated errors or omissions;

failure to comply with agricultural worker or handler restricted entry intervals; failure to post treated areas to prevent entry during a restricted entry interval; or failure to provide essential personal protective equipment. In no case shall the fine assessed be less than \$250.

There will be a "WPS ROAD SHOW" coming to an area near you from March 6-9 2006. The WPS road show is an effort to give growers information that will help them stay in compliance with WPS.

Reports indicate some 20 new WPS inspectors have been hired to handle the load and that the Legislature is looking at this issue seriously with indications that new legislation may be proposed.

Growers owe it to themselves and the greater agricultural community to police themselves and comply with existing regulations and to avoid providing activists with ammunition for increased regulation of the industry.

WPS Road Show Coming to an Area near You

A series of Worker Protection Standard Road Show Meetings has been scheduled for early March and will provide you with an update on the Worker Production Standard, recent modifications to the law and enforcement, and provide you with ideas and strategies for improved compliance for food crop production.

“Notice of Violation – This is a notification of the requirements of the Florida Pesticide Law and Rules, Chapter 487, Florida Statutes.”

This is a statement no one wants to see in any Worker Protection Standard (WPS) related correspondence. But, without a doubt, WPS conformity problems are being documented. At the same time, we continue to receive questions from the regulated community relative to WPS and changes within the Standard. So as a result of these questions, the documented violation problems, plus the greater overall attention and higher priority given to WPS by both the state legislature and the printed news media, we are planning to conduct a series of regional meetings in Florida that addresses the real “how to” on better compliance with WPS. We are encouraging all citrus, vegetable and other related commodity producers, farm managers, crew leaders and other related groups/individuals to attend as specific requirements will be discussed on how to conform to requirements of the Standard. It is anticipated that the discussion of information, specific examples sessions, and the question and answer period will take approximately two hours. This will allow the presentation group to conduct multiple meetings in a single day (mid-day and evening) to facilitate covering as much of the state as possible during the available timeframe.

Although the Worker Protection Standard is not new by any means, problems do still exist and changes are coming/here. This Road Show is intended to provide each participant with the ability to assess their compliance with the Standard. Circumstance variability, individual field level examples, and updates on newly available compliance guidance with WPS are examples of some of the topics that will be discussed in detail, with the intention that participants will be able to take home ideas on how to make WPS-type improvements come together at their own individual facilities.

The following table identifies the targeted dates and sites fit into the schedule currently. We would ask that these dates be extensively advertised well in advance of the Show arriving at your location to bolster attendance as much as possible.

2006 Food Crop WPS Road Show		
Location	Date	Time
Homestead	March 6	5:30 pm
Belle Glade	March 7	11:30 am
Palm Beach	March 7	5:30 pm
Immokalee	March 8	12:00 pm
Palmetto	March 8	5:30 pm
Bartow	March 9	11:00 am
St. Augustine area	March 9	5:30 pm

The proposed itinerary for the WPS Road Show currently includes:

10 minutes	Welcome, Overview and Objectives M. Aerts, FFVA
45 minutes	Recordkeeping Essentials; Chemical <u>and</u> Worker D. Dubberly, FDACS
30 minutes	Situation - Posting; Central <u>and</u> Field F. Fishel, UF Pesticide Information Office
30 minutes	Revisions to the WPS How-to-Comply Manual D. Dubberly, FDACS
15 minutes	Worker Training G. Lopez, UF Pesticide Information Office

The WPS Road Show is truly important for keeping your firm up-to-date with the latest on WPS, worker safety in general and minimization of worker exposure. Worker safety issues are receiving much notoriety in Tallahassee and the media, so it will be to your benefit to send as many managerial/field coordination people as necessary to assure that your company's adherence to the Standard is accomplished. The information you take away from this session will pay you and the industry dividends in the future.

A total of 2 restricted use pesticide CEU's (aerial, ag row, ag tree or private) are available for certified applicators, and 2 CEU's are also available for Certified Crop Advisors as well.

If questions arise, be sure to contact your local extension office, and make plans now to attend the WPS Road Show scheduled for your area. The WPS Road Show is bought to you by the Worker Protection Standard Road Show Production Group: FDACS, the University of Florida Pesticide Information Office, FFVA, FFB, FFAA, FCM and your local UF/IFAS Extension Office.

2006 Food Crop WPS Road Show Meeting Locations

Homestead:

John D. Campbell Ag Center
18710 SW 288th Street
Homestead, Florida 33030

Belle Glade:

Everglades REC Auditorium
3200 E. Palm Beach Road
Belle Glade, FL 33430-4720

Palm Beach:

Richard's Steakhouse
6545 Boynton Beach Blvd.
Boynton Beach, FL 33437

Immokalee:

Immokalee Community Park Auditorium
321 1st St., North
Immokalee, FL
(239) 657-4449

Palmetto:

Kendrick Auditorium
Manatee County CES (fairgrounds)
1303 17th Street West
Palmetto, Florida 34221-2998

Bartow:

Bob Crawford Ag Center - FDACS Building
605 E. Main St.
Bartow, FL 33830

St. Augustine:

St. Johns County Extension Center Auditorium
3125 Agricultural Center Dr.
St. Augustine, FL 32092

Worker Protection Standard for Agricultural Pesticides - How to Comply Manual has been Revised

A revised manual describing how to comply with EPA requirements to protect agricultural workers from pesticides is available from the Pesticide Information Office. The new resource, *Worker Protection Standard for Agricultural Pesticides - How to Comply Manual* has been updated to reflect amendments to the Worker Protection Standard, a regulation designed to protect agricultural workers and pesticide handlers. The revised manual provides detailed information to agricultural operators on who is covered by the standard and how to meet regulatory requirements. The Worker Protection Standard contains requirements for pesticide safety training, notification of pesticide applications, use of personal protective equipment, restricted entry intervals following pesticide application, decontamination supplies, and emergency medical assistance. The revised 2005 manual supersedes the previous 1993 version. Changes to the standard since 1993 have made the earlier version obsolete, and its continued use may lead an employer to be out of compliance. Paper copies or CD's are available UF or Gempler's. The new 2005 WPS How to Comply Manual can be found online at <http://www.epa.gov/agriculture/htc.html>

Pesticide Registrations and Actions

The Florida Department of Agriculture and Consumer Services (FDACS) registered the fungicide cyazofamid (Ranman®) for control of diseases on cucurbits, potato, and tomato. The EPA registration number for the ISK Biosciences product is 71512-3. (FDACS PREC Agenda, 1/12/06).

Note: Several UF Extension sources have mentioned the active ingredients chlorfenapyr and novaluron as materials available for biotype Q whitefly management. Currently, novaluron is only registered on cotton,

white potato, and sweet potato. Chlorfenapyr can only be used on greenhouse grown fruiting vegetables (tomato, pepper, eggplant), not field grown, under Olympic's Pylon® label.

Syngenta has now marketed abamectin as a seed treatment for fruiting vegetables, leafy vegetables, cucurbits, brassicas, and bulb and root vegetables as well as cotton to protect against nematodes. The material (Avicta®) is restricted and only for use at company-approved treating stations. It can only be purchased in conjunction with the FarMore Technology Pak, which includes the fungicides mefenoxam and fludioxonil (*The Grower*, January 2006).

The EPA has extended the time-limited tolerances for the fungicide thiophanate-methyl in fruiting vegetables until 12/31/08. (*Federal Register*, 12/21/05)

The FDACS registered the biological nematicide *Paecilomyces lilacinus* strain 251 (Melocon® WG) from Prophyta on November 4. The EPA registration number for this product is 72444-2. This fungus affects root-knot, burrowing, and cyst nematodes in a variety of crops, which includes citrus, vegetables, strawberry, ornamentals, and turf. (PREC Agenda, 12/1/05).

The FDACS has issued SLN registration FL-050008 to Third Party Registrations for use of Pursuit® herbicide (imazethapyr) to suppress weeds in lettuce and escarole/endive grown in high organic matter soils (organic matter content >40 percent) in Hendry, Highlands, and Palm Beach counties. This SLN will eventually replace SLN FL-960005 as the 70 percent dry granule formulation becomes discontinued and replaced with the 23 percent soluble concentrate. (FDACS letter of 11/18/05).

USDA Struggling with Organic Labeling Issues

The USDA is addressing how to comply with a June court ruling that would prohibit use of numerous synthetic substances in products bearing USDA's organic seal. It also is trying to address the pasturing requirement for organic livestock. The new policy will require for the first time that ruminants must graze pasture for at least 120 days per year, except in certain situations. (*Pesticide & Toxic Chemical News*, 11/28/05).

WTO Rules in Favor of Genetically Modified Foods

The World Trade Organization (WTO) will, according to a judgment that will be sent to governments on January 5, and is due to be made public in March, let food producers in the U.S., Canada, Argentina and Australia sell processed food containing GM ingredients in the UK. The decision would also ban regional councils in the UK, and the governments in Scotland and Wales, from declaring themselves GM-free zones. The WTO has decided that attempts by EU nations to slow approvals for GM foods - or ban them outright - amount to an illegal restraint of free trade. The EU is likely to appeal, a process that could take six months. If the WTO stands by its original ruling, the EU will have to show that it accepts GM crops and food produced overseas or face the prospect of import tariffs on goods and food sent to the U.S. and other countries. (*Daily Mail*, 1/3/06).

Job Opportunities

Extension Manpower Development Agent

Palm Beach County is looking for a Manpower Development Agent to develop and present educational materials and conduct workshops for agricultural employers and their staff. Educational efforts will address restricted use pesticides, farm machinery safety, agriculture regulatory information and other priority needs of targeted clientele. A bachelor's degree in Agriculture and Extension Education, Farm Management, agricultural subject matter area, general education, or closely related field is required. Excellent benefits through the

University of Florida and Palm Beach County. For more information please contact Darrin Parmenter, Agricultural Program Leader, at 561-233-1725 or email: dmparmenter@ifas.ufl.edu

Fast-growing hydroponic farm in Loxahatchee, FL looking for dedicated help or interns. Please call Swank Specialty Produce for detailed information. 561-202-5648 or email at orders@swankspecialtyproduce.com

Bacteria Consultant: OmniLytics (AgriPhage) is looking for a qualified bacteria consultant/salesperson that can effectively communicate the value proposition of AgriPhage, visit commercial tomato and pepper growers as needed, and provide bacterial expertise for the growers. Requires travel throughout Florida.

For inquiries, please contact Randy Scott at 801-746-3600 x314 or rscott@omnilytics.com

Up Coming Meetings

Manatee County

February 23, 206 WPS Train-the-Trainer Workshop 10:00 AM.

Manatee County Extension Service
Palmetto. Call 941-722-4524 for more information.

March 7, 2006 Spring Blueberry Field Day

Brooksdale Farms
4608 Bugg Rd., Plant City, Florida

On-site registration at 9:45. Annual business meeting is at 10:15, followed by the program at 10:30. Field tours will be held after lunch. Pre-registrations must be postmarked by February 27 to guarantee a meal. Call the extension office at 941-722-4524 for a registration form.

March 14, 2006 Private Applicator General Standards 9:00-11:00 AM
/Private Applicator Ag Pesticide License Review.

Manatee County Extension Service
Palmetto, Florida.

2 CORE CEUs offered for those who have a current license. Tests administered following the training.

Miami-Dade County

February 15, 2006 2006 Dow Product Update 6:30 PM

Dade County Extension Auditorium
18710 SW 288th Street
Homestead, Florida

Contact 305-248-3311 for information.

Palm Beach County

February 21, 2006 **2006 Dow Product Update** 11:30 - 1:30 pm

Richard's Steakhouse
6545 Boynton Beach Blvd.
Boynton Beach

Contact Darrin Parmenter (561) 233-1725

March 6, 2006 **General Standards/CORE Test Review** 8 AM – 12 PM
Aquatic Weed Control Test Review 1 PM – 3 PM

Clayton E. Hutchinson Agricultural Center
559 N Military Trail
West Palm Beach

Contact 561-233-1700

March 8, 2006 **General Standards/CORE Test Review** 8 AM – 10 AM
Private Applicator Test Review 1 PM – 3 PM

Belle Glade Extension Office
2976 State Road 15
Belle Glade

Contact 561-996-1655

Southwest Florida

February 22, 2005 **2006 Dow Product Update** 6:00 PM

UF/IFAS Southwest Florida Research and Education Center
2686 Hwy 29 N
Immokalee, Florida 34142

Contact Gene McAvoy at 863-674-4092

Other Meetings

March 13-16, 2006 **2006 Florida Postharvest Horticulture Industry Tour**

Starting at the University of Florida
Fifield Hall, Gainesville, Florida.

Early registration deadline is Feb. 20.
To register, contact Adrian Berry at (352) 392-1928 ext. 235, or
adberry@ifas.ufl.edu.

May 21-23, 2006

18th International Pepper Conference
Palm Springs, California

Go to <http://www.internationalpepper.com/> for details

September 17- 21 2006

Cucurbitaceae 2006
Asheville, North Carolina

For more information visit <http://www.ncsu.edu/cucurbit2006>

Websites

The **Office of Agricultural Water Policy (OAWP)** was established in 1995 by the Florida Legislature to facilitate communications among federal, state, local agencies, and the agricultural industry on water quantity and water quality issues involving agriculture. In this effort, the OAWP is actively involved in the development of Best Management Practices (BMPs), addressing both water quality and water conservation on a site specific, regional, and watershed basis. For more information including BMP manuals – set your browser to <http://floridaagwaterpolicy.com/>

HAZ-MAP – need information on the potential hazards associated with a particular chemical. This site allows searches on a number of criteria providing up to date info. Go to <http://hazmap.nlm.nih.gov/index.html>

Quotable Quotes

There is nothing more frightful than ignorance in action. - Johann von Goethe

The only real mistake is the one from which we learn nothing. - John Powell

It is easy to be brave from a safe distance. - Aesop's Fables

Don't judge each day by the harvest you reap, but by the seeds you plant. ~ Robert Louis Stevenson

One's philosophy is not best expressed in words; it is expressed in the choices one makes. ~ Eleanor Roosevelt

On the Lighter Side

Living at Home

An older couple had a son, who was still living with them. The parents were a little worried, as the son was still unable to decide about his career path, so they decided to do a small test.

They took a ten-dollar bill, a Bible, and a bottle of whiskey, and put them on the front hall table. Then they hid, hoping he would think they weren't at home.

The father told the mother, "If he takes the money, he will be a businessman; if he takes the Bible, he will be a priest; but if he takes the bottle of whiskey, I'm afraid our son will be a drunkard."

So the parents took their place in the nearby closet and waited nervously, peeping through the keyhole they saw their son arrive home.

He saw the note they had left, saying they'd be home later. Then, he took the 10-dollar bill, looked at it against the light, and slid it in his pocket. After that, he took the Bible, flicked through it, and took it also. Finally, he

grabbed the bottle, opened it, and took an appreciative whiff to be assured of the quality, then he left for his room carrying all the three items.

The father slapped his forehead, and said, "Damn! It's even worse than I ever imagined..."

"What do you mean?" his wife inquired. "He's gonna be a politician." the father replied.

Immutable Laws

When one wishes to unlock a door but has only one hand free, the keys are in the opposite pocket. (Von Fumbles Law)

Your insurance will cover everything but what has happened. (Insurance So Sorry Law)

When things seem easy to do, it's because you haven't followed all the instructions. (Destiny Awaits Law)

If you keep your cool when everyone else is losing his, it's probably because you have not realized the seriousness of the problem. (Law of Gravitas)

Most problems are not created or solved; they only change appearances. (Einstein's Law of Persistence)

You will run to answer the telephone just as the party hangs up on you. (Principle of Dingaling)

After discarding something not used for years, you will need it one week later. (Law of Fatal Irreversibility)

Do not take life too seriously, because in the end, you won't come out alive anyway. (Theory of Absolute Certainty)

Contributors include: Joel Allingham/AgriCare, Inc, Karen Armbrester/SWFREC, Kathy Smith/Agricultural Pest Management, , Bruce Corbitt/West Coast Tomato Growers, Dr. Kent Cushman/SWFREC, Dr. Phyllis Gilreath/Manatee County Extension, Michael Hare/Drip Tape Solutions, Fred Heald/Farmers Supply, Sarah Hornsby/AgCropCon, Cecil Howell/Taylor &Fulton, Loren Horsman/Glades Crop Care, Keith Jackson/SWFREC, Bruce Johnson/General Crop Management, Dr. Mary Lamberts/Miami-Dade County Extension, Leon Lucas/Glades Crop Care, Bob Mathews, Glades Crop Care, Gene McAvoy/Hendry County Extension, Alice McGhee/Thomas Produce, Jimmy Morales/Pro Source One, Tim Nychk/Nychk Bros. Farm, Chuck Obern/C&B Farm, Teresa Olczyk/ Miami-Dade County Extension, Dr. Aaron Palmateer/TREC, Darrin Parmenter/Palm Beach County Extension, Dr. Ken Pernezny/EREC, Dr. Pam Roberts/SWFREC, Dr. Nancy Roe/Farming Systems Research, Wes Roan/6 L's, Kevin Seitzinger/Gargiulo, Jay Shivler/ C&B Farm, Ken Shuler/Stephen's Produce, Ed Skvarch/St Lucie County Extension, John Stanford/Thomas Produce, Mike Stanford/MED Farms, Dr. Phil Stansly/SWFREC, Eugene Tolar/Red Star Farms, Mark Verbeck/GulfCoast Ag, and Alicia Whidden/Hillsborough County Extension.

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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