October 31, 2003

“Chamber of Commerce” weather characterized by delightfully warm days and cool nights and mostly dry conditions has prevailed across most South Florida over the past two weeks.

Temperatures have hovered around seasonal norms with daytime highs in the low to mid 80’s and nighttime lows in the low to mid 60’s. With the exception of southeastern production areas, most places received less than an inch of rain for the period with a number of sites receiving only trace amounts of precipitation. Higher totals were reported for several east coast sites with the Homestead area receiving 2.5 inches or more in places.

Favorable conditions over the past two weeks have assisted crop growth and development and plantings in most areas are reportedly in good condition and coming on strong. Fall planting and land preparation continues across south Florida in addition to pest and disease control measures and cultural operations including staking and tying. Sweet corn picking is slowly gaining momentum in the Everglades area. Very light supplies of tomatoes are beginning to be harvested in the Palmetto-Ruskin area with most harvesting to begin in early-

FAWN Weather Summary

<table>
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<tr>
<th>Date</th>
<th>Air Temp (°F)</th>
<th>Rainfall (Inches)</th>
<th>Hours Below Certain Temperature (hours)</th>
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<td>10/17 - 30/03</td>
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A Happy Halloween to All
to-mid November. Tomato producers in the Immokalee area are expected to begin picking within the next two to three weeks. Dade County tomato growers are staking the oldest fields while early beans are starting to be harvested. Strawberry planting in the Plant City region remains active while harvesting is slowly gaining momentum with most growers hoping to begin picking in early-to-mid November. Other vegetables coming to market include very light amounts of cucumbers, eggplant, okra, peppers, squash, watermelons and specialty crops.

The short-term forecast from the National Weather Service in Miami indicates that high pressure anchored off the mid-Atlantic coast will favor dry conditions and partly cloudy skies through Saturday evening. Forecasters are watching a low-pressure system south of Bermuda that is expected to become better organized and approach south Florida on Sunday bringing windy conditions and an increased chance of thunderstorms and scattered showers through Monday. At present the system is expected to move rapidly into the Gulf followed by drier weather conditions through next week.

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

**Insects**

Growers and scouts continue to report light to moderate insect pressure across the area with some seasonal increase in pressure.

**Worms**

Growers and scouts in the Homestead area report extreme worm pressure in corn from fall armyworm, corn earworm as well as the soil pests such as wire worm, cutworm, and lesser cornstalk borer. The last three noticeably worse in where the soil insecticide failed to work in dry dirt. Beans are also under heavy worm pressure, especially from loopers and bean leaf roller.

Reports indicate that melon worms pressure remains constant on squash and cucumber new growth. Some pickleworms are also being seen but at much lower levels.

Worms also remain active in tomato and growers report sporadic worm outbreaks in pepper, mostly BAW and SAW.

Around the Manatee/Ruskin area, pressure is increasing and growers are battling worms with southern armyworms giving real problems in some fields. Scouts also report seeing some hornworms and beet armyworms as well.

Around Immokalee, worm pressure has increased at most farms although a number of reports indicate that pressure remains relatively light. Scouts indicate that southern armyworms have been the most common but depending on the crop and location they are also finding a fair number of beet armyworms, melonworms, a few loopers, tomato hornworms and some tomato fruitworms.

Dr. Phil Stansly, Entomologist, UF/IFAS Southwest Florida Research and Education Center notes that light worm pressure reported in some areas may be the result of late rains that has kept weedy hosts in good condition and speculates that conditions might also be favorable for their natural enemies.

Growers indicate that with all the products to choose from for worm control these days that they have been staying on top of the worms in most cases. Despite this several growers have noted difficulty in maintaining control with some of the softer products such as Confirm and the Bt’s and have had to break out the big guns.
Respondents on the East Coast note increased worm pressure for the period. In general, growers and scouts report low to moderate numbers of mostly southern armyworm on tomato and beet armyworm in pepper along with a mixed bag of other species showing up. Melon and pickleworms remain active on cucurbits in several locations. Loopers and leaf rollers are widely present in beans and worm pressure is moderate to high in corn.

Mites

Around Southwest Florida, broadmites are widely present in pepper and eggplant, pressure has increased in several locations but growers are keeping the population under control. Spidermites are present in eggplant and cucumbers in a few locations.

Dr. Phil Stansly, Entomologist at UF/IFAS Southwest Florida Research and Education Center cautions that growers would be well advised to keep a sharp eye out for spider mites now that the rains have cut off and temperatures are still high. Phil notes that spider mites seem to be an increasing problem in recent years especially two spotted spider mite (Tetranychus urticae). While the red spider mite (T. evansi) used to dominate on solanaceous crops in southwest Florida but two spotted spider mites seem to be taking over. This mite is notoriously hard to control and tends to evolve rapidly toward resistance against any and all miticides. Growers should use the product of their choice twice in rapid succession (about 5 days), and then evaluate the crop. If additional treatment becomes necessary, growers should switch to a different mode of action. This way, eggs have time to hatch before the second application but the total exposure time to any one particular product is limited.

Respondents in Palm Beach continue to report broad mite activity in eggplant and pepper in a number of locations. A few two spotted mites have been reported in eggplant, squash and tomato from scattered East Coast locations.

Increased broad mite activity in pepper has been noted in Homestead as well as in the Manatee/Ruskin area.

Keith Griffith of Crompton Uniroyal advises that ACRAMITE 50W has been approved for several new uses in Florida including cucurbits, fruiting vegetables and okra for control of a variety of mites including two spotted mites. ACRAMITE is new chemistry with a unique mode of action, and while it is primarily active on motile life stages of mites, it also controls nymphaal mites, which hatch after application. It offers a much sought-after option to commonly used miticides, which have developed resistance. Research has demonstrated the absence of cross-resistance with any currently registered miticides. Only one application is permitted per season. The REI is 12 hours and PHI is 3 days on cucurbits, fruiting vegetables and okra. Full label can be found at [http://www.cdms.net/ldat/ld4TA000.pdf](http://www.cdms.net/ldat/ld4TA000.pdf)

The label also encourages the use of beneficial insects including predatory mites as a means of reducing the number of chemical applications.

Leafminers

Reports from Manatee County indicate that leafminer pressure has been steadily increasing over the past few weeks. Scouts report very heavy stippling along with many adults and numerous leaf mines present in many fields. Most fields have reached threshold levels and growers are applying controls.

In the Homestead area, respondents indicate leafminers are present primarily in bean, eggplant, and tomato. Scouts indicate that they expect leafminers to increase dramatically in tomato and other neighboring crops as the bean harvest begins.
Around Southwest Florida, leafminers are showing up more frequently. Although numbers remain low, pressure is increasing and some of the early tomato fields have reached threshold levels. Parasites are still common and are maintaining control in a number fields.

Growers and scouts in Palm Beach report an increase in leafminer activity.

With the on-set of cooler weather across the peninsula, growers across the state can expect to see an increase in leafminer pressure. Leafminers attack many crops but are particularly damaging on celery, crucifers, cucurbits, okra, potato and tomato. Florida growers report that leafminers are the second most important tomato insect pest especially in south and central production areas. In south Florida, populations peak between October and March while in central Florida they are a problem in both spring and fall.

The two major species of leafminer that cause problems in vegetables in Florida are the vegetable leafminer (L. sativae) and most commonly (Liriomyza trifolii) - sometimes referred to as the celery leafminer but which has no approved common name. The adults are small yellow and black flies about the size of a gnat. The female punctures or "stipples" the leaves with her ovipositor to lay eggs in the leaf tissue or to feed on sap.

Leafminer damage is easily recognized by the irregular serpentine mines in leaves, which are caused by feeding larvae. Heavy leafmining damage can reduce photosynthesis and cause leaf desiccation and abscission. The yellow maggots with black, sickle-shaped mouthparts feed on the mesophyll or chlorophyll tissue between upper and lower leaf surface leaving a winding trail or pattern through the leaf. The tunnel is clear with the exception of a trail of black fecal material left behind as the maggot feeds.

There are three larval stages. Each larval instar is completed in 2 - 3 days. The maggots feed approximately 7 days growing to about 1/10 to inch in length prior to exiting the leaf to pupate on the ground or mulch under infested plants.

Leafminer injury is readily visible to the grower but healthy plants can tolerate considerable damage without excessive loss of vigor and yield. The Florida Tomato Scouting Guide sets action thresholds at 0.7 larva per plant for young plants with less than 2 true leaves and 0.7 larva per 3 terminal leaflets for larger plants. Heavily damaged leaves will often drop, due in part to entry of pathogenic organisms into old mines.

An integrated pest management program that stresses conservation of natural enemies is the primary tactic for the successful control of leafminer. Chemical control is difficult due to the feeding habits inside the leaf of the host plant. Insecticides that specifically target the leafminer are recommended as use of broad-spectrum materials may decimate beneficial insects including those that attack leafminer. This often results in a larger leafminer problem if the pesticide reduces field densities of leafminer parasites.

Fortunately, populations are usually prevented from reaching truly damaging levels by a number of parasites that attack leafminers. Several parasites for this insect have been recorded in Florida, but parasitic wasps such as Opius, Diglyphus are most common. Wasp larvae develop on or in the leafminer larva or pupa. The host ceases to feed and the parasitoid egg or larva is visible through the leaf epidermis using a hand lens against strong light. In scouting fields, growers should be careful to note the number of parasitized mines before deciding to apply insecticides.

Due to its feeding habit, this pest is resistant to many insecticides. Cyromazine (Trigard) alternated with abamectin (Agrimek) are effective against leafminer in tomato. Both of these products have limited crop registrations and must not be used on unregistered crops. Spinosad (Spintor, Entrust) has also given good results and is labeled on a wide range of crops. Some other materials that may be used to conserve beneficials include azadirachtin (Neemix) and insecticidal oils. Entrust, Neemix and insecticidal oils are approved for use by organic growers.
Field sanitation is an important control tactic that is overlooked. When crops are not present in the fields, leafminers can survive on a variety of broad-leaf weeds. These plants serve as reservoirs for pests.

**Whiteflies**

Growers and scouts in Homestead report increasing whitefly pressure in tomato. Whiteflies numbers are very high in early beans planted without Admire and whiteflies and resulting silver leaf remains a problem in older squash fields.

Reports from Palm Beach, Martin and St Lucie Counties note some increase in whitefly numbers, although numbers remain mostly low to moderate except for a few isolated hotspots.

Respondents in the Manatee/Ruskin area indicate that whitefly pressure is increasing seasonally as crops approach maturity. There have been some reports of pretty heavy pressure in isolated locations over the past week with whitefly counts up to 15 per plant along with nymphs and pupae being recorded.

Around Southwest Florida, whiteflies are starting to build in a few locations. In general the adult population is still low but numbers are starting to increase in some of the early crops. Growers and scouts report finding nymphs in older tomatoes, eggplants, cucumbers and peppers.

**Aphids**

Winged aphids have been detected in many crops around southwest Florida over the past week. Very little colony formation has been reported to date.

Specialty producers around Palm Beach report seeing winged aphids beginning to show up over the past two weeks.

In Homestead, aphids are increasing in tomato. In squash, aphid pressure and associated mosaic viruses is beginning to increasing particularly around field edges

**Thrips**

Respondents report a few flower thrips showing up in blooms on tomato, pepper and eggplant around Southwest and West Central Florida.

*Thrips palmi* are widely present in scattered locations around Homestead on bean, cucurbits and peppers. Respondents note that *Thrips palmi* are reaching sprayable levels in pepper in some locations and note this is often following an application of a pyrethroid, such as Capture targeted at other pests.

**Pepper Weevils**

Moderate to severe pepper weevil pressure continues to be reported around southwest Florida along with several new reports of significant weevil pressure. In these fields, weevils are showing up prior to fruit set and feeding on foliage and flowers. Growers report having applied multiple spray applications for control. Scouts report finding larvae inside fruit in a few isolated hotspots.

In most locations, growers and scouts report only a few weevils around with a few adults showing up in pheromone traps.

A few pepper weevils are beginning to show up in scattered locations on the East Coast.
Around Homestead, respondents report that weevil numbers remain low and note growers doing a good job starting a weevil control program before they get established in the field.

No weevils have been reported in the Manatee/Ruskin area.

Misc. pests

Some stinkbug damage has been noted around Southwest Florida on tomato and pepper primarily in fields where low worm pressure has resulted in growers relying on Bt’s and other pest specific materials for control.

Silk fly is showing up on corn in Palm Beach and Miami Dade production areas.

Diseases

Disease pressure is fairly low for this time of year and favorable weather has enabled affected crops to rebound nicely.

Bacterial Spot

Reports from the Manatee/Ruskin area indicate bacterial spot remains the number one problem with pretty severe foliage loss on bottom of some plants, especially early plantings, being reported. Some later plantings still look good although recent light showers may help keep things moving.

Reports from the Homestead area indicate that bacterial spot continues to be active in tomato particularly on susceptible varieties such as grapes.

Around Immokalee, bacterial spot is slowing down and new crops planted look good. Growers report nearly all crops that suffered from earlier bacterial spot epidemics have rebounded and are looking much better.

Reports from east coast indicate that bacterial spot is still widely present but progression has slowed in recent days.

Scattered reports of bacterial leaf spot (Pseudomonas sp.) on bean have been reported from several locations around south Florida.

Tomato Yellow Leaf Curl Virus

In the Manatee Ruskin area, tomato yellow leaf curl virus remains generally low with most fields still below 1 –2 % or less although reports indicate a few older blocks are approaching 5% infection rate.

In Homestead, respondents report less than 1 % TYLCV in all fields except one hot spot reported with infection incidence around 3%. Many fields remain free of infection.

In the Immokalee area, growers and scouts report that TYLCV has been detected in several locations at very low levels – often only a single plant in an entire field. At a couple of sites, incidence has started to creep up with a few infected plants per field being noted.

Growers and scouts on the east coast report mostly low incidence of TYLCV with a few infected plants showing up here and there. A few hot spots continue to be reported in St Lucie County with higher incidence being noted.
**Target spot**

Scouts around Immokalee are beginning to report low levels of target spot on tomato, particularly in older plantings on interior foliage.

Low levels of target spot have also been reported on tomato in widely scattered locations in other south Florida production areas including the Homestead and Manatee/Ruskin areas.

**Target spot is often a problem on tomatoes in Florida.** The disease is caused by the fungus *Corynespora cassiicola*. Target spot is frequently misdiagnosed as in its early stages as leaf lesions are difficult to recognize and may be mistaken for bacterial spot.

In addition to tomato, this fungus has a wide host range and may attack such diverse crops as papaya, passion-vine, soybean, pepper, cowpea, cantaloupe, yellow squash, and snap beans as well as a number of common ornamentals.

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.

The pathogen has several means for survival and spread in the field. It may survive up to 2 years in crop debris. The wide host range of this fungus may also contribute to survival of the fungus in Florida. The primary means spread in the field is by air-borne conidia. Optimum conditions for disease development include temperatures from 68° - 82°F and long periods of free moisture.

On tomato leaves and stems, the disease first appears as small necrotic lesions with light brown centers and dark margins. Some varieties display a pronounced yellow halo around these leaf spots. Individual lesions often coalesce and cause a general blighting of leaves. Target spot is often confused with bacterial spot and/or early blight in initial stages, which underscores the importance of correct diagnosis in implementing a disease control program in tomato.

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. Advanced symptoms include large deeply sunken lesions, often with visible dark gray to black fungal growth in the center. A zone of wrinkled looking tissue may surround the margins of lesions on mature fruit. Placing suspect fruit in a moist environment for 24 hours will often induce the growth of dark gray mycelia providing telltale diagnostic evidence of target spot infection.

Thinning of the canopy from the inside out is often an early telltale sign of target spot infection.

Currently, target spot is controlled primarily by applications of protectant fungicides. It should be noted that tank-mix sprays of copper fungicides and maneb provide virtually no control of target spot. Growers often run into problems where they have been relying primarily on copper/manzate sprays for bacterial spot control. Recommended fungicides include various chlorothalinil formulations (Bravo, Echo, Bravo Ultrex, Bravo Weather Stik and Ridomil Gold/Bravo). In trials, conducted by Dr Ken Pernezny, Plant Pathologist at the UF/IFAS Everglades Research and Education Center, Actiguard, Quadris and a tank mix of mancozeb and Tanos (DuPont) also provided excellent control.

Cultural practices can also have a heavy influence on target spot pressure. Growers with thick, lush tomato bushes will often have more target spot, as will growers that prune “lightly.” Nearly all of the current popular tomato varieties tend to make a dense, full bush at maturity, which can allow the target spot to get started on the inner foliage.
**Tomato Yellow Leaf Curl Virus**

In the Manatee Ruskin area, tomato yellow leaf curl virus remains generally low with most fields at 1% or less although reports indicate a few older blocks are approaching 5%.

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

Growers and scouts on the east coast report mostly low incidence of TYLCV with a few infected plants showing up here and there. A few hot spots have been reported in St Lucie County with higher incidence of over 5% infection being reported.

**Botrytis**

A few isolated reports of botrytis have been reported around southwest Florida.

Botrytis continues to be reported going strong in the Bradenton area especially in older plantings. Foggy mornings are contributing to the continued spread and severity seems to be worse where bacterial spot is a problem. Some fruit infections have been noted.

Botrytis is most severe on plants grown in acidic, sandy soils with high soil moisture. Adequate calcium should be available and uniform soil moisture maintained for maximum calcium availability. Calcium to phosphorus ratio of 2 or higher in leaf petiole tissue has been demonstrated to aid in control. Growers are advised to scout for this disease, which is difficult to distinguish from other diseases; thus, emphasizing the need for laboratory confirmation prior to control measures.

In addition to standard fungicides, Topsin (Ceraxagri) is labeled for white mold but also has activity against botrytis. Endura (BASF) has recently been labeled for fruiting vegetables for control of botrytis but reportedly will not be available until sometime this winter due to production limitations.

**Early Blight**

Scattered reports of early blight (*Alternaria solani*) have been received from all areas. Incidence and occurrence is low in all cases. Some have noted that infections are often associated with leafminer activity.

**Fusarium crown rot**

Scattered reports of fusarium crown rot on tomato have been received from respondents in Southwest and West Central Florida.

**Southern Blight**

Isolated cases of southern blight on tomato and eggplant continue to be reported from widely locations on both coasts but incidence has declined as rainy weather has decreased.

**Corn Smut**

Smut (*Ustilago maydis*) has been reported on corn in the Homestead area. Incidence and occurrence is low.
**Tomato Spotted Wilt Virus**

Tomato spotted wilt virus has been diagnosed on pepper in the Immokalee area. To date, no secondary spread has been documented in southwest Florida as the primary vector for this disease the western flower thrips does not occur locally on regular basis.

**Powdery mildew**

Respondents around Immokalee indicate that powdery mildew has begun to show up on squash in scattered locations. Incidence is low.

**Papaya Mosaic Virus**

Papaya Mosaic Virus has been diagnosed on squash in the Manatee Ruskin area. Mosaic virus (type undetermined) is also beginning to show up on squash in southwest Florida as well as in Homestead and East Coast production areas. Note: surveys by Dr. Susan Webb, Entomologist UF/IFAS over the past few years indicate that mosaic in south Florida cucurbits is most often caused by papaya ringspot

**Gummy stem blight**

Growers and scouts report that gummy stem blight continues to spread slowly in cucurbits in several locations in southwest and west central Florida but weather and spray still keeping it mostly in check.

**Rhizoctonia**

Low levels of Rhizoctonia continue to be reported on beans in Homestead and in scattered locations around southwest Florida. Seedlings infected by Rhizoctonia typically display a reddish brown discoloration.

**Phytophthora**

A few reports of *Phytophthora capsici* on pepper and tomato continue to be noted in the Palm Beach area.

**Pythium**

Growers and scouts continue to report scattered problems with pythium in young tomato and pepper plantings as well as seeded cucurbits around Immokalee. Injury is often associated with fields where salt injury has been noted.

**Up Coming Meetings**

**Hillsborough County**

**November 7, 2003**

**WPS - Train the Trainer**  
10 AM - Noon

Hillsborough County Extension Office  
5339 S CR 579  
Seffner, Florida

Contact Traci Buck at 813-744-5519, ext.104
November 18, 2003  **Strawberry School 2003**  9:00 AM

GulfCoast Research and Education Center -Dover.
13138 Lewis Gallagher Road
Dover, Florida

Contact 813-659-2801

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**Manatee County**

November 13-22, 2003  **Manatee County Farm City Week.**

November 21-22, 2003  **Manatee County Tomato Festival and Rodeo**
Fairgrounds/IMC Arena
Palmetto, Florida

Gates open at 4 PM. Rodeo at 7 PM.
Advance tickets $10 adults/ $5 kids. ($12 & $7 at the door). Educational displays, fresh produce (including fried green tomatoes!) and more. Sponsorships still available. For information or tickets call 941-722-1639.

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**December 9, 2003**  **CORE (General Standards)/Private Applicator Ag Pesticide License Exam Review.**  9 AM - 11 AM  2 CORE CEUs available.

Tests will be administered immediately after the training or can be scheduled for a later date. Registration requested. Please call 941-22-4524 for additional information.

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**Palm Beach County**

November 3, 2003  **General Standards/Core Test Review**  8 AM - 10 AM

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

Contact Laura Powell at 561-996-1655.

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November 12, 2003  **General Standards/Core Test Review**  8 AM - 10 AM

**Private Applicator Test Review**  1 PM - 3 PM

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

Contact Laura Powell at 561-996-1655.
Southwest Florida

**December 9, 2003**  
**Fall Vegetable Field Day**  
10:00 AM – Noon

UF/IFAS - SW Florida Research and Education Center  
Hwy 29 N, Immokalee, FL

Contact 863-674-4092

St Lucie County

**November 20, 2003**  
**Grower/Industry Field Day**  
10:30 AM

Field day will focus on crop production systems and long-term crop rotational practices on soil quality, pest populations and marketable yield of tomato.

USDA, ARS Header Canal Farm Site  
SW corner of State Road 70 and Header Canal Road  
Fort Pierce, Florida

Contact Dan Chellemi at 561-462-5888

Other Meetings

**November 6, 2003**  
**Fall Blueberry Short Course**

Florida Farm Bureau Building  
5700 SW 34th Street  
Gainesville, Florida

Contact 352-392-1928 for information

**December 3-4, 2003**  
**Third International Agricultural Trade and Policy Conference**

Naples Beach Hotel and Golf Club  
Naples, Florida

For information, contact Sharon Borneman at 352-392-5930

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

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

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

Grosvenor Resort at Walt Disney World  
Orlando, Florida

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

Virginia Tech Weed Identification Guide – This online guide contains information on over 300 weeds including photos of the mature plant and seedlings in addition to narrative on the weed and identifying characteristics. Go to http://www.ppws.vt.edu/scott/weed_id/cropweeds.htm

News You Can Use

Bronson Reminds Florida Agribusinesses of New FDA Bioterrorism Registration Regulations; Deadline To Register Is December 12, 2003

TALLAHASSEE -- Florida Agriculture Commissioner Charles H. Bronson is reminding the state’s agriculture industries of new federal bioterrorism regulations that require some agribusinesses to register their facilities with the U.S. Food and Drug Administration (FDA).

“I urge all Florida agribusinesses to examine the regulations to determine if they are required to register with FDA,” Bronson said. “Visit the FDA web site, or contact FDA by telephone or email if you have any questions about the registration process. It is important that all Florida agribusinesses that are required to register be in compliance with federal law.”

The Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (the Bioterrorism Act) requires domestic and foreign facilities that manufacture, process, pack, or hold food for human or animal consumption in the United States to register with the FDA by December 12, 2003.

Owners, operators, or agents in charge of domestic or foreign facilities that manufacture/process, pack, or hold food for human or animal consumption in the United States are required to register the facility with the FDA.

Domestic facilities are required to register whether or not food from the facility enters interstate commerce.

Foreign facilities that manufacture/process, pack, or hold food also are required to register unless food from that facility undergoes further processing (including packaging) by another foreign facility before the food is exported to the United States. However, if the subsequent foreign facility performs only a minimal activity, such as putting on a label, both facilities are required to register.

Examples of FDA Regulated Foods

- Food and food additives for man or animals
- Dietary supplements and dietary ingredients
- Infant formula
- Beverages (including alcoholic beverages and bottled water)
- Fruits and vegetables
- Fish and seafood
- Dairy products and shell eggs
- Raw agricultural commodities for use as food or components of food
- Canned foods
- Live food animals
- Bakery goods, snack food, and candy

No registration fee is required.
Exempt from registration are farms; retail food establishments; restaurants; non-profit establishments that prepare food for, or serve food directly to, consumers; fishing vessels not engaged in processing [as defined in 21 CFR 123.3 (k)]; and facilities regulated exclusively throughout the entire facility by the U.S. Department of Agriculture.

FDA estimates that it will take one or two hours of a manager's time to read and understand the regulations. Filling out a registration form would take a total of one hour -- 45 minutes of an administrative worker's time and 15 minutes of an owner, operator, or agent-in-charge's time to certify the registration before submitting the form to FDA.

Facilities may register online at [http://www.cfsan.fda.gov/~furls/ovffreg.html](http://www.cfsan.fda.gov/~furls/ovffreg.html). A paper copy of the form may be requested from FDA by calling 1-877-332-3882.

For questions regarding registration, contact FDA on business days from 7 a.m. to 11 p.m. by telephone at 1-800-216-7331 or (301) 575-0156, by fax at (301) 210-0247, or by email at furls@fda.gov. Florida industries may also contact Courtney Hunt of FDA’s Tallahassee office at (850) 942-8325.

**DIRECT ALL INQUIRIES TO:**
Terence McElroy
mcelrot@doacs.state.fl.us
(850) 488-3022

**Quotable Quotes**

In times like these, it helps to recall that there have always been times like these. - Paul Harvey

You can accomplish anything in life, provided that you do not mind who gets the credit. - Harry S. Truman

Well done is better than well said. - Ben Franklin

Chop your own wood and it will warm you twice. - Anon

Facts do not cease to exist because they are ignored. - Aldous Huxley

Better keep yourself clean and bright; you are the window through which you must see the world. - George Bernard Shaw

**On the Lighter Side**

**Gates Vs Ford Motor Company**

At a recent computer expo (COMDEX), Bill Gates reportedly compared the computer industry with the auto industry and stated, “If Ford had kept up with technology like the computer industry has, we would all be driving $25.00 cars that get 1,000 miles to the gallon."

In response to Bill's comments, Ford Motor Company issued a press release stating: If Ford had developed technology like Microsoft, we would all be driving cars with the following characteristics:

1. For no reason whatsoever, your car would crash twice a day.

2. Every time they repainted the lines in the road, you would have to buy a new car.
3. Occasionally your car would die on the freeway for no reason. You would have to pull over to the side of the road, close all of the windows, shut off the car, restart it, and reopen the windows before you could continue. For some reason you would simply accept this.

4. Occasionally, executing a maneuver such as a left turn would cause your car to shut down and refuse to restart, in which case you would have to reinstall the engine.

5. Macintosh would make a car that was powered by the sun, was reliable, five times as fast and twice as easy to drive – but would run on only five percent of the roads.

6. The oil, water temperature, and alternator warning lights would all be replaced by a single "This Car Has Performed An Illegal Operation" warning light.

7. The airbag system would ask, "Are you sure?" before deploying.

8. Occasionally, for no reason whatsoever, your car would lock you out and refuse to let you in until you simultaneously lifted the door handle, turned the key and grabbed hold of the radio antenna.

9. Every time a new car was introduced car buyers would have to learn how to drive all over again because none of the controls would operate in the same manner as the old car.

10. You'd have to press the "Start" button to turn the engine off.

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