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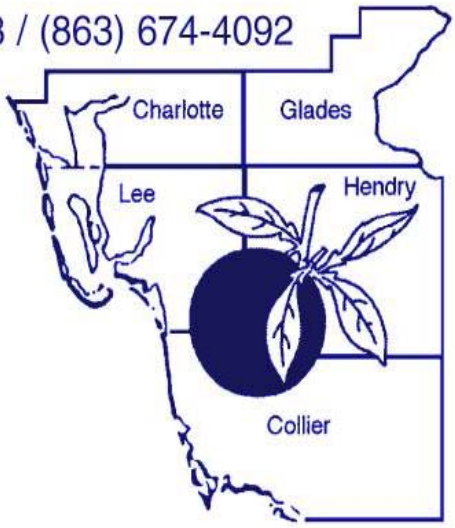
Flatwoods Citrus



Vol. 9, No. 8 **August 2006**

Dr. Mongi Zekri
Multi-County Citrus Agent, SW Florida

U P C O M I N G E V E N T

CITRUS EXPO
IN FORT MYERS

Wednesday, August 23 &
Thursday, August 24, 2006

IMPORTANT!!!

See the Florida Department of Agriculture & Consumer Services *Citrus Health Response Program Updates for the 2006-2007 Fruit Season on pages 13 & 14.*

If you want to print a color copy of the Flatwoods Citrus Newsletter, get to the Florida Citrus Resources Site at http://flcitrus.ifas.ufl.edu/
You can also find all you need and all links to the University of Florida Citrus Extension and the Florida Citrus Industry

THE EUROPEAN UNION WON'T BAN FLORIDA CITRUS

By **Susan Salisbury**
Palm Beach Post Staff Writer
Thursday, July 06, 2006

Californians won't be able to purchase Indian River grapefruit in their supermarkets this coming season, but consumers in Florida's biggest fresh citrus markets — including Japan, Belgium, the Netherlands and France — will be slicing the fruit as usual.

Officials with the European Union said Wednesday they have no plans to ban Florida citrus shipments and will continue, as they for the past few years, to accept fruit from groves certified free of citrus canker.

"We're not planning any ban. We have had a policy in place for many years. That has not changed," said Wolf Maier, a counselor for Food Safety Health and Consumer Affairs with the EU Delegation of the European Commission to the United States, in Washington.

Maier said the system has built-in safeguards, such as inspections and certification, that ensure the fruit shipped is disease-free.

"We have had a long relationship of trust with Florida," Maier said. "We have no reason to doubt the guarantees provided. "

The EU's stance differs from that of the U.S. Department of Agriculture, which said June 6 that Florida citrus growers will not be allowed to ship fruit during the 2006-07 season to six states and five territories where citrus is grown.

The ban came after input from California citrus industry officials who said they had concerns about whether canker could be spread by fruit that has no symptoms. Fruit infected with canker, a bacterial disease that is harmless to humans, are easy to spot with their cork-like unsightly lesions surrounded by a yellow halo.

USDA spokesman Jim Rogers said Wednesday nothing has changed since the embargo plans were issued.

"The EU is our second most important market after Japan," said Doug Bournique, executive director of the Indian River Citrus League in Vero Beach. "We have a lot of European people who have invested in (Indian River) fruit. It is vitally important for growers to have this market."

Liz Compton, a spokeswoman for the Florida Department of Agriculture, said state officials are pleased the EU is "taking the science into consideration" with respect to accepting fruit shipments.

"We take steps to give them the confidence to take our products," Compton said. "The Europeans sense that."

Canker is an issue for the EU because several of its countries, such as Spain, Italy and Greece, grow citrus.

A group of EU countries combined — Belgium, the Netherlands, the United Kingdom (except England), France, Germany, Sweden, Denmark and Finland — have imported more than 1.8 million cartons of Florida citrus this season through June 11, according to the Lakeland-based Citrus Administrative Committee. That tops the 1.6 million cartons Canada has imported so far.

Dan Richey, president of Riverfront Groves in Vero Beach, said EU countries such as France are among his firm's major grapefruit customers.

"France is a food country. They take the time and eat grapefruit as a dessert for dinner," Richey said. "The convenience factor of grapefruit is not an issue with them. There is no dashboard dining in France."

In Japan, Florida's biggest single overseas citrus customer, canker is not an import issue because the disease is endemic there. In the 2004-05 season, Florida exported 12.1 million 42-pound cartons of citrus to Japan, all if it either red or white grapefruit, according to the Citrus Administrative Committee.

Through June 11, Florida has exported more than 4.5 million cartons of grapefruit to Japan.

In January, the USDA halted Florida's 10-year state/federal eradication effort, saying it was not possible to rid the state of the disease after it was spread by the 2004 and 2005 hurricanes.

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THE 2006 CITRUS EXPO

will be held on August 23 & 24 at Fort Myers Lee Civic Center. The Citrus Expo has become an outstanding agricultural event for the Florida citrus industry because of its trade show, seminar program, and banquet. The success of the program has been the three-way partnership of the Florida citrus growers through the Gulf Citrus Growers Association, the University of Florida-IFAS Extension Service, and the trade show organized by the Citrus Industry Magazine. The Expo is the largest seminar and trade show event dedicated exclusively to citrus.

Pre-register before August 15 and pick up your registration packet at Lee Civic Center. There is no registration fee. Admission, parking and lunch are free. The theme of this year's Expo seminar program is **"Citrus Production in Transitional Times.'"** Citrus canker: the Argentina Experience will be addressed on Wednesday morning, Aug. 23rd. On Wednesday afternoon, Citrus Greening and Canker: The Brazil Experience will be thoroughly discussed. Thursday program will focus on Florida Citrus: Charting a New Course and Establishing Research Priorities for Managing Canker & Greening. The program is approved for CEUs for Certified Public Accountant (CPA), Certified Crop Advisors (CCA), and pesticide license renewal. The trade show opens at 8:00 AM on Wednesday and Thursday with a free continental breakfast and drawings for quality door prices.

Don't miss the Gulf Citrus Growers Association (GCGA) Reception and Banquet, which will be held on Wednesday evening (6:00 PM) at Harborside Convention Center in downtown Ft. Myers. For reservation, call GCGA at ***863 675 2180***.

GULF CITRUS GROWERS ASSOCIATION SCHOLARSHIP FOUNDATION, INC.

Membership:

Membership in the Scholarship Foundation is open to all Gulf Citrus Growers Association (GCGA) members for just $25 per year. Members are able to vote for and serve on the Board of Directors for the Foundation.

Donations:

Donations are a crucial source of funding for scholarship awards and may be made to the Foundation at any time during the year in any denomination, **regardless of membership status**. Checks should be made payable to the Foundation. For more details, please call the GCGA office at **863 675 2180**.

The GCGA Scholarship Foundation is a non-profit corporation operating under Section 501 © (3) of the Internal Revenue Code. Contributions are tax deductible as allowed by law.

CITRUS BROWN ROT

Management of brown rot, caused by *Phytophthora nicotianae* or *P. palmivora*, is needed on both processing and fresh market fruit. While the disease can affect all citrus types, it is usually most severe on Hamlin and other early maturing sweet orange cultivars. Phytophthora brown rot is a localized problem usually associated with restricted air and/or water drainage. It commonly appears from mid-August through October following periods of extended high rainfall. It can be confused with fruit drop due to other causes at that time of the year. If caused by *P. nicotianae*, brown rot is limited to the lower third of the canopy because the fungus is splashed onto fruit from the soil. *P. palmivora* produces airborne sporangia and can affect fruit throughout the canopy. Early season inoculum production and spread of Phytophthora spp. are minimized with key modifications in cultural practices.

Skirting of the trees reduces the opportunity for soil-borne inoculum to contact fruit in the canopy. The edge of the herbicide strip should be maintained just inside of the dripline of the tree to minimize the exposure of bare soil to direct impact by rain. This will limit rain splash of soil onto the lower canopy. Boom application of herbicides and other operations dislodge low-hanging fruit. Fruit on the ground becomes infected and produces inoculum of *P. palmivora*, which can result in brown rot infection in the canopy as early as July while fruit are still green. The decay initially occurs as a light brown discoloration of the rind at any location on the fruit surface. The affected area is firm and leathery, and it retains the same degree of firmness and elevation as the adjacent healthy rind. At a later stage, a delicate white mycelium will form on the lesion surface. Fruit with brown rot have a characteristic pungent, rancid odor, which distinguishes the disease from the stem-end rots.

The beginning stages of the epidemic are very difficult to detect before the fruit are colored and showing typical symptoms. Application of residual herbicides earlier in the summer may reduce the need for post-emergence materials later and minimize fruit drop throughout this early stage of inoculum production from fallen fruit.

Usually a single application of a copper fungicide or Aliette late in August is sufficient to protect fruit through most of the normal infection period. No more than 20 lb/acre/year of Aliette should be applied for the control of all Phytophthora diseases. Aliette, a systemic fungicide at the rate of 5 lbs/acre protects against postharvest infection and provides 60-90 days control. Copper fungicides are only protective but are capable of killing sporangia on the fruit surface and thus reducing inoculum. They provide protection for 45-60 days. Use the label rate. With average quality copper products, usually 3-4 lb of metallic copper per acre are needed for the control of brown rot. When the disease has already spread, do not apply Aliette; spray copper only. Precautions should be taken during harvesting not to include brown rot-affected fruit in the field containers as this could result in rejection at the processing or packing facility.

FLOODING INJURY

Almost all citrus trees grown in southwest Florida are located on high water table, poorly drained soils. Water management on poorly drained soils is difficult and expensive because during heavy rains in the summer, excess water must be removed from the rootzone and in periods of limited rainfall, irrigation is needed. On these soils, drainage is as important as irrigation. The concept of total water management must be practiced. If either system—irrigation or drainage—is not designed, operated, and maintained properly, then the maximum profit potential of a grove cannot be achieved. Both surface and subsoil drainage is necessary to obtain adequate root systems for the trees.

Roots, like the rest of the tree, require oxygen for respiration and growth. Soils in Florida typically contain 20-21 % oxygen. When flooding occurs, the soil oxygen is replaced by water. This condition causes tremendous changes in the types of organisms present in the soil and in the soil chemistry.

Flooding injury would be expected if the root zone were saturated for 3 days or more during extended summer rains at relatively high soil temperatures (86-95° F). Flooding during the cooler December-March period can be tolerated for several weeks at low soil temperatures (< 60° F). The rate of oxygen loss from the soil is much greater at high vs. low temperatures. The potential for damage to roots is less obvious but equally serious when the water table is just below the surface. Flooding stress is usually less when water is moving than when water is stagnant. The use of observation wells is a very reliable method for evaluating water-saturated zones in sites subject to chronic flooding injury.

Short-term estimates of flooding stress can be obtained by digging into the soil and smelling soil and root samples. Sour odors indicate an oxygen deficient environment. The presence of hydrogen sulfide (a disagreeable rotten egg odor) and sloughing roots indicate that feeder roots are dying. Under flooded conditions, root death is not exclusively associated with oxygen deficiency. Anaerobic bacteria (the kind that can grow only in the absence of oxygen) develop rapidly in flooded soils and contribute to the destruction of citrus roots. Toxic sulfides and nitrites formed by anaerobic sulfate- and nitrate-reducing bacteria are found in poorly drained groves. Sulfate-reducing bacteria require both energy and sulfates in order to change sulfates to sulfides. The best sources of energy have been found to be certain organic acids contained in citrus roots, grass roots, and buried pieces of palmetto. Thus, citrus roots can contribute to their own destruction by being an energy source for these bacteria.

Symptoms of flooding injury may occur within a few days or weeks, but usually show up after the water table has dropped and the roots become stranded in dry soils. Leaf wilting, leaf drop, dieback, and chlorosis patterns may develop and tree death may occur. Trees subjected to chronic flooding damage are stunted with sparse canopies, dull colored, small leaves and produce low yields of small fruit. New flushes of growth will have small, pale leaves due to poor nitrogen uptake by restricted root systems. Usually, the entire grove is not affected, but most likely

smaller more defined areas will exhibit the symptoms. Striking differences in tree condition can appear within short distances associated with only slight changes in rooting depths. Water damage may also be recognized by a marked absence of feeder roots and root bark, which is soft and easily sloughed.

With acute water damage, foliage wilts suddenly followed by heavy leaf drop. Trees may totally defoliate and actually die, but more frequently partial defoliation is followed by some recovery. However, such trees remain in a state of decline and are very susceptible to drought when the dry season arrives because of the shallow, restricted, root systems. Moreover, waterlogged soil conditions, besides debilitating the tree, are conducive to the proliferation of soil-borne fungi such as Phytophthora root and foot rot. These organisms cause extensive tree death especially in poorly drained soils.

Water damage may usually be distinguished from other types of decline by a study of the history of soil water conditions in the affected areas. Areas showing water damage are usually localized and do not increase in size progressively as do areas of spreading decline. Foot or root rot symptoms include a pronounced chlorosis of the leaf veins caused by root damage and girdling of the trunk. Lesions also appear on the trunk usually near the soil level (foot rot) or roots die and slough-off (root rot). Flood damage does not produce lesions. Trees with blight or CTV are usually randomly distributed within the grove and diagnostic tests are available to distinguish them from water-damaged trees.

Citrus trees respond physiologically to flooding long before morphological symptoms or yield reductions appear. Photosynthesis and transpiration decrease within 24 hours of flooding and remain low as flooding persists. Water uptake is also reduced which eventually translates to decreased shoot growth and yields.

It is both difficult and costly to improve drainage in existing groves, so drainage problems should be eliminated when the grove area is prepared for planting by including a system of ditches, beds and/or tiling. Growers should not depend on the slight and often unpredictable differences in rootstock tolerance to waterlogging to enable trees to perform satisfactorily under such conditions. Trees, irrespective of scion and rootstock cultivars, should be planted under the best drainage conditions possible. Drainage ditches should be kept free of obstruction through a good maintenance program including chemical weed control. Tree recovery from temporary flooding is more likely to occur under good drainage structure maintenance conditions.

Do not disk a grove if trees were injured by flooding. Irrigation amounts should be reduced, but frequencies should be increased to adequately provide water to the depleted, shallow root systems. Soil and root conditions should be evaluated after the flooding has subsided. Potential for fungal invasion should be determined through soil sampling and propagule counts. If there is a Phytophthora problem, the use of certain fungicides can improve the situation.

WATER TABLE MEASUREMENT AND MONITORING

Most flatwoods citrus soils have a restrictive layer that can perch the water table and significantly affect tree water relations. To optimize production and tree health, the level of this water table should be monitored and maintained within an optimal zone. Simple and practical observation wells can normally produce adequate information.

Water Table Behavior. The water table under flatwoods citrus may rise rapidly in response to either rainfall or irrigation because sandy soils are highly conductive to water flow. A general rule of thumb is that 1 inch of rain will cause the water table to rise about 10 inches in fine textured soils, 6 inches in most of the flatwoods sandy soils, and 4 inches in coarse sands. It may take 4 to 6 days for the water table to return to its desired levels following rains of 1 inch or more.

Observation Wells. A water table observation well is made with a porous casing buried vertically in the ground. It permits the groundwater level to rise and fall inside it as the water level in the adjacent soils. Observation wells with a simple float indicator can provide rapid evaluation of shallow water table depths. The float and indicator level move with the water table, allowing an above-ground indication of the water level. Water table observation wells installed in flatwoods soils usually penetrate only to the depth of the restrictive (argillic or spodic) layer. Typically this layer is within 30 to 48 inches of the soil surface.

Well Construction. The basic components of the well itself include a short section of 3-inch perforated PVC pipe (3-5 ft long), 3-inch PVC cap, screening material, a float, indicator rod, and small stopper.

The indicator rod can be a dowel, ½ -inch PVC pipe (thin wall) or microsprinkler extension stake. Dowels are a poor choice since they require painting and will rot out near the float within a few years. The float is typically a 2½- inch fishing net float or a 500 ml (approximately 2½ in. diameter x 6 in. high) polyethylene bottle with a 28-mm (1.1 in.) screw cap size. The float assembly can be constructed by inserting the microsprinkler extension stake into the fishing float or ½-inch pipe into the polyethylene bottle.

The bottle neck provides a snug fit for the stake and no sealant is required. The hole in the cap should be drilled slightly larger than the indicator stake to serve as a guide for the float assembly. Fittings should not be glued so that components can be easily disassembled for cleaning or replacement.

Observation well casings are constructed from 3-in. diameter PVC pipe (Class 160). A circular saw or drill can be used to perforate the pipe prior to installation. Perforations should be staggered in rows around the pipe to allow flow into the well from the sides in addition to the bottom. Perforations totaling about 5% of the well's surface area are adequate for sandy soils encountered in the flatwoods. No perforations should be made within 12 inches of the surface in order to minimize the chances of ponded water from high intensity storms creating flow channels into perforations near the soil surface.

The pipe should be wrapped (sides and bottom) with a screening material to prevent soil particles from moving into the

well. Materials such as cheesecloth, polyester drain fabric, and fiberglass screen have been used successfully as filters. The filter material should be taped in place with duct tape. A 3-inch soil auger can be used to bore holes for the wells. When possible, the observation wells should be installed when no water table is present in order to minimize chances of the well sides sloughing into the bore as it is dug.

When a water table is present, it is easiest to install the well by starting off with a larger diameter pipe. For a 3-inch observation well, a 4-inch installation pipe (Sch 40 preferred) will be needed. The installation pipe should be cut at least 6 inches longer than the intended depth of well.

Holes (½-inch diameter) should be drilled in the sides of the pipe opposite each other about 1½ inches from the top of the pipe. These will be used to aid in removing the pipe from the soil after the observation well is installed. Auger a hole in the soil until it begins to slough in (when the water table is reached). The 4-inch pipe should then be forced into the hole. A 3-inch auger can then be used to remove soil from within the 4-inch casing. As soil is removed, the casing needs to be forced downward to keep the hole from sloughing. Continue to remove soil from inside the casing until the appropriate depth is achieved (typically when hardpan material begins to be excavated).

The well casing pipe should be cut to length and installed in the hole so that it extends 2 to 6 inches above the soil surface. Care should be taken to ensure that the casing is installed plumb to minimize binding of the float assembly. If a 4-inch installation pipe was used to excavate the hole, it needs to be removed. A ½-inch rod can be inserted through the holes that were drilled in the top of the 4-inch pipe. If the pipe cannot be removed easily by hand, a chain can be attached to the rod and attached to a high-lift jack. Usually, after jacking the installation pipe up about a foot, the pipe can be easily removed by hand. The soil should be backfilled around the observation well casing and tamped to compact the soil and get a tight fit between the soil and the sides of the pipe.

A measurement should be taken of the distance from the bottom of the well to the soil surface. The float assembly can then be lowered into the well. Make sure that the indicator rod and float do not bind against the sides of the observation well. The well is now ready for calibration.

Calibration. A mark on the indicator stake or rod should be made at the top of the well when the float is at the bottom of the well. This level is the reference mark for the well depth. The indicator stake or rod can then be marked with major divisions (feet) and minor divisions (inches) for easy reading of the water table depth. These rings can be painted at appropriate intervals using different colors for major and minor divisions. Marks painted at 2-inch increments provide enough accuracy for most users.

The mark at the upper level is dependent on the depth of the water furrow and root depth. The upper depth should be selected so that water does not pond in water furrows and it should be at least 6 inches below the bottom of the root zone to prevent root pruning. Observations over time will help to determine the water table level depth that will prevent root damage or excessive wetness in the root zone.

For more details, go to Water Table Measurement and Monitoring for Flatwoods Citrus, Circular 1409,
By Brian Boman and Thomas Obreza
http://edis.ifas.ufl.edu/pdffiles/CH/CH15100.pdf

NITROGEN MANAGEMENT AND WATER QUALITY

Whatever its source, nitrogen (N) is essential for achieving optimum crop yields. The same is true of phosphorus (P) and other nutrients. However, applying too much nitrogen or phosphorus to cropland can have adverse effects on the environment. Achieving optimum yields without applying excessive nutrients should therefore be a goal of all growers. Excess nitrogen and phosphorus in surface waters, and nitrogen in groundwater cause eutrophication (excess algae growth) in surface waters and health problems in humans and livestock as a result of high intake of nitrogen in its nitrate form.

Effect of Nitrogen on Water Quality

Eutrophication is the slow, natural nutrient enrichment of streams and lakes and is responsible for the "aging" of ponds, lakes, and reservoirs. Excessive amounts of nutrients, especially nitrogen and phosphorus, speed up the eutrophication process. As algae grow and then decompose they deplete the dissolved oxygen in the water. This condition usually results in fish kills, offensive odors, unsightliness, and reduced attractiveness of the water for recreation and other public uses. Excessive nitrate (NO_3) in drinking water can cause human and animal health problems, particularly for small babies. The United States Public Health Service has established a specific standard of 10 (ppm) milligrams of nitrate nitrogen per liter as the maximum concentration safe for human consumption.

Fate of Nitrogen in the Environment

The long-term fate of land-applied nitrogen is the same whether it comes from field-applied fertilizer, plant residues, animal, industrial, or municipal wastes, or other sources.

Nitrogen Remaining in the Soil

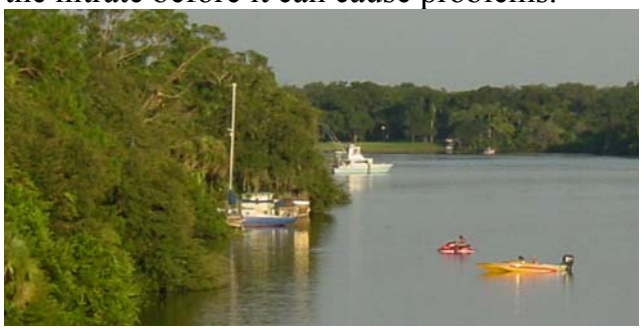
Regardless of how much nitrogen from fertilizers, manure, compost or other sources is used on a particular soil, nitrogen does not normally accumulate in the soil. Most of the nitrogen is lost from the soil in one way or another. Regardless of whether nitrogen is in the organic or inorganic form when applied to crops, it undergoes transformation to yield nitrate as an end product.

Recovery of Nitrogen in Harvested Crop

The amount of nitrogen harvested by crops is less than most people assume. Recovery of 50 percent of the applied nitrogen is a good average. However, the recovery rate varies for different crops and soils. The recovery of nitrogen applied to citrus largely depends on the amount applied, application frequency and method, fertilizer source, timing, and the yield obtained. In most seasons, the crop may not use 30 to 60 percent of applied nitrogen. This nitrogen may be lost through volatilization, leaching or runoff and may represent a potential source of pollution. Volatilization is the loss of ammonia gas (NH_3) to the atmosphere from urea and ammonium nitrogen sources. Nitrogen fertilizer sources prone to nitrogen volatilization should be incorporated into the soil or applied prior to a rainfall. Nitrogen losses are minimized through best management practices (BMPs).

Fertilizer Nitrogen Lost to the Air as Gas

It is well documented that some of the nitrogen that moves below the plant root zone is lost to the atmosphere through a process called *denitrification*. This process is the breakdown of nitrate to simple nitrogen (N_2) and oxygen (O_2) gases that return to the atmosphere. Loss of nitrogen as a gas by this process is not extensive in well-aerated, cultivated soils. Nitrogen applications to high-water-table soils that are poorly drained and high in organic matter are the least likely to contribute to contamination of groundwater by nitrate. The organic matter in the shallow groundwater provides energy for microorganisms that promote denitrification and thus much of the nitrogen is lost in the gaseous form rather than as nitrate. In many places throughout Florida, much of the nitrate flowing laterally to an outlet is either used by plants in these wet natural areas or is lost through denitrification. Thus, nature has a very effective way of removing much of the nitrate before it can cause problems.



Fertilizer Nitrogen Removed from the Soil in Surface and Subsurface Drainage

Nitrogen from fertilizers may enter streams through surface or subsurface drainage (leaching). Considerable loss of nitrogen may occur if heavy rains immediately follow a surface application of fertilizer on a moist soil surface, particularly if there is considerable slope. The loss of organic nitrogen (contained in crop residues, animal waste, or soil material) could be significant if intense rainfall results in substantial soil and debris movement. Because it has a high solubility, nitrate nitrogen normally moves readily into the soil with the initial rainfall. Thus, if fertilizer nitrogen is a source of pollution, it is usually from leaching or subsurface drainage. Because nitrogen does not accumulate in the soil and 30 to 60 percent of the applied fertilizer is not harvested with the crop, this nitrogen must be escaping into the air or water.

Management of Nitrogen to Uphold Water Quality

Because nitrate in groundwater and surface water is a potential health hazard and contributes to eutrophication problems, fertilizer nitrogen must be used prudently on crops. Listed below are some techniques for guarding against the possibility of unused nitrate contaminating surface water and groundwater supplies.

- Apply your fertilizer just before a major flush and/or bloom and during leaf and fruit expansion and growth. Avoid applying nitrogen during the rainy season. Proper timing ensures maximum nitrogen uptake and minimizes the likelihood of nitrogen leaching below the plant roots.
- Apply a reasonable amount of nitrogen to your crop. Do not apply nitrogen above recommended rates. When crop load is low, less nitrogen will be needed and removed with the crop.
- Consider collecting leaf samples for mineral analysis to check the nitrogen status and adjust the fertilizer program.
- Be sure to analyze animal, municipal, and industrial wastes for nitrogen content when applied to cropland.
- Develop and use a comprehensive record keeping system for fertilizer rates and yield.
- Calibrate applicators, apply fertilizer products and manure accurately, and use the correct application method. When possible, inject or incorporate urea-containing materials into the soil to minimize loss to the atmosphere (volatilization).

Florida Department of Agriculture & Consumer Services
Citrus Health Response Program Updates

2006-2007 Fruit Season

Florida's citrus industry faces many changes as we shift from the Citrus Canker Eradication Program to the Citrus Health Response Program that addresses multiple citrus pests and diseases including citrus canker and greening. The USDA is in the process of revising the federal regulations that govern the movement of citrus fruit and citrus plant material out of Florida, and an interim rule may be in place before the beginning of the 2006-2007 harvesting and shipping season. In addition, new regulations impact citrus propagation and require citrus to be grown in protected enclosures to ensure disease-free nursery stock. Following is a summary of the significant changes.

Citrus Growers

- Growers must register by signing the newly revised compliance agreements which have been mailed to everyone previously registered. These compliance agreements are pre-numbered and bar coded. Significant changes include:

  Business plans for self survey and decontamination are recommended, but not required.

  Decontamination is only required when departing a grove. However, growers may require people to decontaminate prior to entering as an added precaution.
- Growers who intend to harvest for the fresh fruit market are required to:

  Submit a fresh fruit *Application for Participation* (DACS #08415) identifying the blocks to be harvested and the estimated date of harvest, so that a fresh fruit inspection can be performed within 30-60 days of the beginning of harvest (depending upon the market).

  After inspection finds no canker, be issued a *Citrus Fruit Harvesting Permit* (DACS #08123) if the fruit is destined for sale outside of Florida. Harvesting permits expire on July 31st each year.

Citrus Harvesters

- Harvesters must register by signing the newly revised compliance agreements that will be mailed in the near future. These agreements are very similar to last season that contain the standard decontamination requirements with no significant changes.

Citrus Processors

- Citrus processors must also register by signing the newly revised compliance agreements similar to last season that contain the standard decontamination requirements. However, trailers that do not come into contact with citrus trees do not have to be decontaminated, but must be free of citrus debris.

Citrus Packers

- Citrus packers must also register by signing the newly revised compliance agreements similar to last season that contain the standard decontamination requirements.

Fresh Fruit Movement

- ***Citrus-Producing States*** **-** As of this writing, fresh fruit movement to citrus-producing states will likely be prohibited. The Department is still seeking a response to our request to open some of these markets.
- ***Non-Citrus Producing States*** **-** Fruit must originate from a grove block that is inspected and found free of canker within 30 days of harvest. The Department and the USDA are taking pro-active measures to conduct inspections on a timely basis. Fruit must be shipped under Limited Permit.
- ***Fresh Fruit Exported to other Countries*** **-** Fruit destined to other countries must meet the receiving country's entry requirements. Europe will accept citrus from Florida if an inspection of the grove block and immediate vicinity are free of citrus canker. Asian countries do not classify citrus canker as a quarantine pest, but the fruit must be free of citrus canker to meet basic phytosanitary requirements. Contact the Department for specific details.
- ***Fruit for Processing or Sale Within Florida*** – There are no restrictions.

Citrus Nursery Stock Producers

- By January 1, 2007 **all new** citrus propagations must be conducted on a site and within a protective structure that are approved by the Department.
- After December 31, 2007, **existing** citrus nursery stock that was produced before January 1, 2007, but not produced within an approved structure, is not eligible for sale or movement in accordance with the new rules.
- All citrus nursery propagators must follow decontamination requirements and be inspected by the Department every 30 days.
- Specific requirements will be contained within Rule Chapter 5B-62. Copies of these rules have been mailed to all registered citrus nurseries and are available from the Department.

Any follow up questions on the CHRP regulatory requirements for the upcoming fruit harvest season should be directed to Mr. Mark Estes at 863-298-7723 or DPI's toll-free helpline 800-282-5153. Visit www.doacs.state.fl.us/pi for more information.

If interstate fruit movement requirements are relaxed by USDA,
the state will open the application period again for grove block inspections.

Fresh from Florida®

Division of
PLANT INDUSTRY
Protection through Detection
Florida Department of Agriculture & Consumer Services
Charles H. Bronson, Commissioner

UPDATE:

July-18-2006

Terence McElroy
(850) 488-3022
mcelrot@doacs.state.fl.us

Bronson Announces New Tax Exemption For Agricultural Producers

TALLAHASSEE - Florida Agriculture and Consumer Services Commissioner Charles H. Bronson announced today that a new state law that takes effect this month exempts electricity used for agricultural production from the state's sales tax.

"We are grateful that the Legislature enacted this meaningful relief measure, which will assist our agricultural producers in helping them hold down their production costs," Bronson said.

Under terms of the law, which took effect July 1, the exemption requires that those requesting it separately meter electricity used in production activities from the electricity used for other purposes. If the electricity is centrally metered and is used for both tax-exempt and taxable purposes, the purchase of the electricity is subject to tax.

The exemption covers virtually all aspects of a farmer or rancher's business operation, including the preparation, planting, cultivating, harvesting and processing of agricultural products. It includes aquaculture, horticulture, floriculture, viticulture, forestry, dairy, livestock, poultry, bees and any or all forms of farm products.

To qualify for the exemption, agricultural producers must furnish their utility provider with an exemption certificate stating that the electricity will be used directly and exclusively for the production or processing of agricultural products. Producers can contact the Florida Department of Revenue for forms and other information about the exemption at www.myflorida.com/dor - or they can call the agency's taxpayer services section at 1 800 352-3671 or 850 488-6800.

Published Thursday, July 20, 2006

Commission OKs Hikes in Citrus Levies

"Box tax" on juice oranges to rise 19 percent in 2006-07.

By Kevin Bouffard
The Ledger

LAKELAND -- In the face of nearly unanimous opposition from citrus grower organizations, who argued their members needed money in face of rising production costs, a divided Florida Citrus Commission voted to raise the tax on juice oranges by 19 percent.

Although the 7-4 vote represented a compromise from the 35 percent tax hike proposed in May, anti-tax proponents were not satisfied.

Other tax increases on grapefruit and a tax reduction on fresh citrus passed easily by unanimous vote.

Orange growers will pay a tax of 22 cents per box on juice oranges, the state's largest citrus commodity, in the 2006-07 citrus season -- an increase over the current tax of 18.5 cents per box. The season begins in October and goes through June.

The 22-cent tax represents the highest nominal rate (unadjusted for inflation) in the department's 71-year history. The juice orange tax was 21.7 cents during the 1988-89 season and 21 cents in 1984-85.

The commission, the governing body of the Florida Department of Citrus, also approved raising the tax on grapefruit for juice and fresh grapefruit to 35 cents per box. It was 24 cents on juice grapefruit and 25 cents on fresh grapefruit during the 2005-06 season.

Commissioners also compromised on the taxes for specialty citrus (mostly tangerines) and fresh oranges at 16 cents per box, a 20 percent decrease from the 2005-06 rate of 20 cents. That's the lowest rate on those commodities since the 1984-85 season.

Florida Citrus Packers, which represents the state's fresh fruit packinghouses, had requested a 10-cent tax reduction on specialty and fresh orange.

Those taxes will support a Citrus Department budget of $57.3 million, up 11 percent from the hurricane-depleted 2005-06 budget of $51.6 million. The department's budget year begins July 1.

The Citrus Department is a state agency charged with promoting Florida citrus products. It raises most of its revenue through a tax on every box of citrus harvested in a commercial grove, the so-called "box tax."

The new, per-box tax rates are:

- Juice oranges, 22 cents;
- Juice grapefruit, 35 cents;
- Fresh grapefruit, 35 cents; and
- Fresh table oranges and specialty fruit such as tangerines, 16 cents.

LIVING WITH CITRUS CANKER AND CITRUS GREENING

What has been working in Brazil in reducing the spread of citrus greening and citrus canker and in coping with these and other exotic diseases?

Successful strategies:

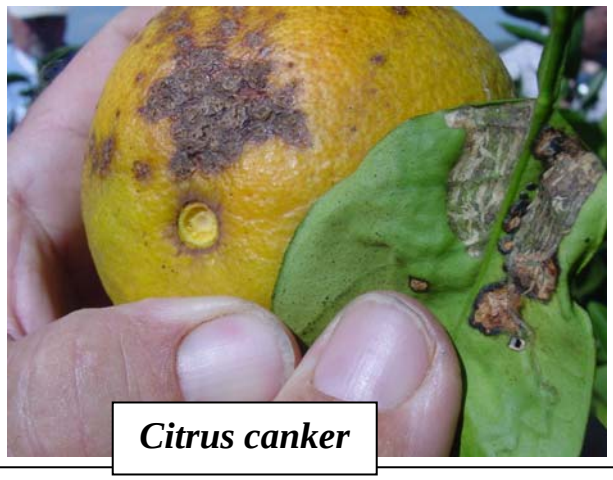
Nurseries

- Isolated citrus nurseries surrounded with windbreaks
- Nursery stock protection in enclosed structures including screenhouses to exclude the citrus psyllid, the citrus leafminer, other insects and insect vectors
- Frequent (weekly) sprays for insect control

Groves

1. ***Greening***
   - Frequent survey/inspection of trees (4 times/year)
   - Frequent spray of pesticides for psyllid control (6-10 times/year)
   - Soil applied systemic pesticides (2 times/year)
   - Immediate removal of trees showing visual leaf symptoms

Citrus greening



Citrus canker

Citrus canker

2. ***Canker***
   - Personnel and equipment decontamination
   - Restrictions in planting canker sensitive cultivars such as Hamlin
   - Frequent copper sprays in combination with windbreaks
   - Frequent sprays for leafminer control
   - Pruning infected branches

BMP Development

While the ultimate responsibility for establishing and meeting TMDL water quality goals rests with FDEP, the Florida Department of Agriculture and Consumer services (FDACS) assumes the leadership role when dealing with agriculture's non-point source pollution challenges. To accomplish this task FDACS must coordinate with FDEP and other stakeholders to identify, develop and adopt by rule science-based best management practices (BMPs) for agricultural land uses. BMPs must be environmentally protective, based on science, be economically viable, and focused on real problems and solutions that work.

BMP measures are strictly voluntary and not regulatory or enforcement-based. As part of the BMP implementation, growers perform an environmental assessment of their operations. This process identifies which BMPs should be considered to achieve the greatest economic and environmental benefit. The adopted BMPs may be a single practice or grouping of practices that, when implemented, are designed to improve water quality. The BMPs that are selected for each parcel of land with a tax ID are specified on a ***Notice of Intent to Implement*** and submitted to FDACS.

Once enrolled in the BMP program, landowners must maintain records and provide documentation regarding the implementation of all BMPs (i.e. fertilizer application dates and amounts, or design and construction details of a water control structure).

In all BMPs, education is a key factor to ensure success of the programs. Growers and landowners, need to be part of the solutions to reduce the environmental impact of their agricultural operations. All are encouraged to take part in the many IFAS-sponsored educational events that are designed to help understand the water-related issues and the role of BMPs in addressing these problems. Most importantly, the agricultural laborers and applicators need to have specific training to ensure that all their activities (fertilizer application, spraying, etc.) are accomplished safely with proper techniques to minimize environmental effects.

Pick up your copy of the BMP (*Best Management Practices) for Gulf Citrus* manual from the Hendry County Extension Office in LaBelle or the SW Florida Research & Education Center in Immokalee.

Take advantage of the BMP cost share program.

Information and application forms were enclosed in the March 2006 issue or go to:**http://citrusbmp.ifas.ufl.edu/gulfcoast/index.html**

Apply now.

Submit your cost share application form to Dan Rutledge at the address below:

Hendry Soil and Water Conservation District
Attn. Dan Rutledge
P.O. Box 248
LaBelle, Florida 33975

Phone: 863 674 4160

☐ If you did not receive the ***Flatwoods Citrus*** newsletter and would like to be on our mailing list, please check this box and complete the information requested below.

☐ If you wish to be removed from our mailing list, please check this box and complete the information requested below.

Please send: Dr. Mongi Zekri
Multi-County Citrus Agent
Hendry County Extension Office
P.O. Box 68
LaBelle, FL 33975

Subscriber's Name:_____

Company:_____

Address:_____

City:_____State:_____Zip:_____

Phone:_____

Fax:_____

E-mail:_____

Racial-Ethnic Background

__American Indian or native Alaskan
__Asian American
__Hispanic
__White, non-Hispanic
__Black, non-Hispanic

Gender

__Female __Male