

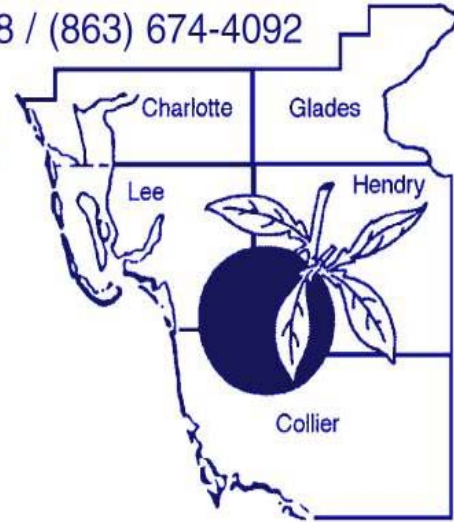


UNIVERSITY OF
FLORIDA

IFAS EXTENSION

Hendry County Extension / P.O. Box 68 / LaBelle, Florida 33875-0068 / (863) 674-4092

Flatwoods Citrus



Vol. 8, No. 5

May 2005

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



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

Citrus Nitrogen Accumulation, Uptake and Cycling

Leaf and soil sampling and analysis to adjust citrus fertilizer programs

Date: Tuesday, 17 May 2005, 10:00 AM – 12:00 Noon

Location: Hendry County Extension Office, LaBelle

Speakers: Drs. Kelly Morgan and Mongi Zekri

2 CEUs for Certified Crop Advisors

Sponsor: **Danny Jones, Diamond R**

Following the seminar, we are planning a free lunch (Compliments of Diamond R). To reserve lunch, call 863 674 4092 no later than Monday, 16 May 2005.

Using organic amendments in citrus production

Date: Tuesday, 31 May 2005, 8:00 AM – 12:30 Noon

Registration is required. Details are enclosed.

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

Exotic Citrus Diseases: CVC, Stem Pitting Tristeza, Leprosis and Greening

Date: Tuesday, 14 June 2005, 10:00 AM – 12:00 Noon

Location: SW Florida Research & Education Center, Immokalee

Speaker: Dr. Ron Brlansky

2 CEUs for Pesticide License Renewal

2 CEUs for Certified Crop Advisors

Sponsor: Ed Early, DuPont

Aquatic Weed Control Short Course

www.conference.ifas.ufl.edu/aw

Date & Location: May-16-20, 2005, Fort Lauderdale Marriott North.

Please note **Date change** for the Farm Safety Day



FARM SAFETY DAY

Saturday, June 11, 2005, Immokalee IFAS Center

Coordinator: Mongi Zekri

118th Annual Meeting of the Florida State Horticultural Society (FSHS)

Date: June 5-7, 2005

Location: MARRIOT TAMPA WESTSHORE

<http://www.lal.ufl.edu/fsfs/>

CITRUS EXPO
IN FORT MYERS

**Wednesday, August 24 &
Thursday, August 25, 2005**



Special Thanks to the
sponsors of the Flatwoods Citrus
newsletter for their generous
contribution and support. If you
would like to be among them,
please contact me at 863 674 4092.

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MICRONUTRIENTS IN CITRUS PRODUCTION

Iron (Fe): One of the functions of Fe is to act as a catalyst in the production of chlorophyll. Iron deficiency has been of importance on calcareous soils in certain areas of Florida where the soil contains high amount of calcium carbonate and has a pH of 8.0. Iron deficiency is attributed to low Fe content in white sandy areas near lakes and places known locally as “sand soaked areas”. Iron deficiency can be induced by high levels of P and accumulations of heavy metals, primarily Cu, in the soil. In Florida, Fe deficiency is commonly associated with Zn and Mn deficiencies.

The symptoms of Fe deficiency are also known as “iron chlorosis”. They occur on new growing leaves which are very light in color and sometimes almost white but with the veins greener than the remainder of the leaf. In acute cases, the leaves are reduced in size, very thin, and shed early. The trees die back severely on the periphery and especially in the top. Fruit set, yield, and fruit size will be reduced.



Iron deficiency is usually associated with high soil alkalinity, but it is also associated with over irrigation,

prolonged spells of wet soil conditions or poor drainage and low soil temperature. Several areas affected with Fe chlorosis in south Florida have been materially helped or completely cured by careful control of irrigation and drainage. Iron deficiency sometimes occurs where excess salts are present in the soil.

Iron deficiency has been found to be one of the most difficult deficiencies to correct especially on calcareous soils. Foliar applications of Fe are not recommended because of their lack of effectiveness and risk of leaf and fruit burn. At their best, foliar sprays of Fe produce a spotted greening of the leaves rather than an overall greening. Soil applications of Fe chelates still offer the most effective and reliable means of correcting Fe deficiency. However, Fe chelates are not equally effective. See the Table below.

<u>Iron Chelates</u>	<u>Effective pH Range</u>
Fe-EDTA	4 to 6.5
Fe-HEDTA	4 to 6.5
Fe-DTPA	4 to 7.5
Fe-EDDHA	4 to 9.0

Iron sulfate has not given satisfactory control on either acid or alkaline soils. Citrus rootstocks vary in their ability to absorb Fe. Trifoliolate orange and its hybrids (Swingle citrumelo and Carrizo citrange) are the least able to do so. Depending on soil pH (see Table above) and tree size, it is recommended to soil apply 1/4 to 1/2 of an ounce of metallic Fe/tree using a chelated compound. These amounts are equivalent to 4 to 8 ounces of Fe-EDDHA (Sequestrene 138 Fe, 6% Fe). Chelated materials should be incorporated into the soil because most of them are subject to photo-decomposition. Chelated materials are much less effective when applied in the winter (cool weather) than when applied during the rest of the year

Zinc (Zn): Zinc is essential for the formation of chlorophyll and function of normal photosynthesis. Zinc is also needed for the formation of auxins, which are growth-promoting substances in plants.

Zinc deficiency symptoms are characterized by irregular green bands along the midrib and main veins on a background of light yellow to almost white. The relative amounts of green and yellow tissue vary from a condition of mild Zn deficiency in which there are only small yellow splotches between the larger lateral veins to a condition in which only a basal portion of the midrib is green and the remainder of the leaf is light yellow.

In less acute stages, the leaves are almost normal in size, while in very acute cases the leaves are pointed, abnormally narrow with the tendency to stand upright, and extremely reduced in size. In mild cases, Zn deficiency symptoms appear on occasional weak twigs. Fruit formed on these weak twigs are drastically reduced in size and have an unusually smooth light-colored thin skin and very low juice content.

Zinc deficiency symptoms can be so severe that they may mask or noticeably alter the symptoms of other deficiencies or disorders. Deficiency in Zn can develop due to soil depletion or formation of insoluble compounds. Excessive P or N has also been found to induce or aggravate Zn deficiency.

A single spray of a solution containing 2 to 3 lbs of elemental Zn per acre from Zn sulfate, oxide, nitrate, or other forms at their recommended rates can correct Zn deficiency. Under severe deficiency conditions however, application of Zn sprays may be necessary on each major flush of growth to keep the trees free of deficiency symptoms because Zn does not translocate readily to

successive growth flushes. Foliage injury can be reduced by adding 2 to 3 lbs of hydrated lime to the spray. Maximum benefit is obtained if spray is applied to the young growth when it is two-thirds to nearly fully expanded and before it hardens off. Treatment on the spring flush is preferable. Soil application of Zn in the fertilizer is neither an economical nor an effective way to correct Zn deficiency. One of the early diagnostic symptoms of a disorder known as young tree decline or "blight" is a Zn deficiency pattern in the leaves. Correction of the symptoms will not alleviate the disorder, and trees will never recover from the disease.

Manganese (Mn): Manganese is involved in the production of amino acids and proteins. It plays a role in photosynthesis and in the formation of chlorophyll.

Manganese deficiency occurs commonly in Florida. It is particularly evident in the spring after a cold winter. Manganese deficiency leads to a chlorosis in the interveinal tissue of leaves but the veins remain dark green. Young leaves commonly show a fine pattern or network of green veins on a lighter green background but the pattern is not so distinct as in Zn or Fe deficiencies because the leaf is greener. By the time the leaves reach full size, the pattern becomes more distinct as a band of green along the midrib and principal lateral veins with light green areas between the veins.

In more severe cases, the color of the leaf becomes dull-green. Interveinal leaf areas may develop many whitish opaque spots, which give the leaf a whitish or gray appearance. The leaves are not reduced in size or changed in shape by Mn deficiency, but affected leaves prematurely fall from the tree. No particular twig symptoms have been related to Mn deficiency. In cases of

acute Mn deficiency, the growth is reduced giving the tree a weak appearance.

Manganese deficiency may greatly reduce the crop and the color of the fruit. Manganese deficiency is frequently associated with Zn deficiency. This combination of the two deficiency symptoms on leaves is characterized by dark green veins with dull whitish green areas between the veins. In such combinations, the Mn deficiency is acute and the Zn deficiency is relatively mild.



In Florida, Mn deficiency occurs on both acid and alkaline soils. It is probably due to leaching in the acid soils and to insolubility in the alkaline soils. For deficient trees on alkaline soils, treatments by sprays of Mn compounds are recommended. On acid soils, Mn can be included in the fertilizer. Foliar spray application quickly clears up the pattern on young leaves but older leaves respond less rapidly and less completely. When Mn sprays are given to Mn-deficient orange trees, fruit yield, total soluble solids in the juice and pounds solids per box of fruit increase. Foliar spray of a solution containing 2 to 3 lbs of elemental Mn on two-third to fully expanded spring or summer flush leaves is recommended. If N is needed, adding 7 to 10 lbs of low biuret urea will increase Mn uptake.

Boron (B): Boron is particularly necessary where active cell division is taking place. Boron plays an important role in flowering. Florida sandy soils are low in B, and a deficiency of this element in citrus occasionally occurs under field conditions. The deficiency may be aggravated by severe drought conditions, heavy lime applications, or irrigation with alkaline water. Boron is very mobile in the soil profile of sandy soils and readily leaches by rainfall or excess irrigation.

Boron deficiency is known as “hard fruit” because the fruit is hard and dry due to lumps in the rind caused by gum impregnation. The chief fruit symptoms include premature shedding of young fruits. Such fruit have brownish discoloration in the white portion of the rind (albedo), described as gum pockets or impregnations of the tissue with gum and unusually thick albedo. Older fruit are undersized, lumpy, misshapen with an unusually thick albedo containing gum deposits. Seed fails to develop and gum deposits are common around the axis of the fruit.

The first visual symptoms of B deficiency are generally the death of the terminal growing point of the main stem. Further symptoms are a slight thickening of the leaves, a tendency for the leaves to curl downward at right angles to the midrib, and sometimes chlorosis.

Young leaves show small water soaked spots or flecks becoming translucent as the leaves mature. Associated with this is a premature shedding of leaves starting in the tops of the trees and soon leaving the tops almost completely defoliated. Fruit symptoms appear to be the most constant and reliable tool for diagnostic purposes.

Borax and other B compounds are generally used in treating citrus affected with B deficiency. They can be applied

either foliarly or in the fertilizer. As a maintenance program, apply B in the fertilizer at an annual rate equivalent to 1/300 of the N rate. In Florida, foliar spray applications have been found much safer and more efficient than soil application. Soil applications frequently fail to give satisfactory results during dry falls and springs and may result in toxicity problems if made during the summer rainy season. Boron solubility in the soil is reduced at soil pHs below 5 and above 7. Foliar spray may be applied during the dormant period through post bloom, but preferably during early flower development. Treating at this growth stage is important because boron does not move very readily from other parts of the tree to the buds. Applying boron at this time will assist in flower initiation and pollen production, satisfy the needs for pollen tube growth, and enhance fruit set. For maintenance spray application, 0.25 lb/acre of B (1.25 lbs of soluble borate containing 20% B) may be used. Boron levels in the leaf tissue should not drop below 40 ppm or exceed 120 ppm (dry wt basis). Where deficiency symptoms are present, double the amount suggested. Use care not to apply more than the recommended amount because it is easy to go from deficiency to excess.

[Micronutrient Deficiencies in Citrus: Iron, Zinc, and Manganese](http://edis.ifas.ufl.edu/pdffiles/SS/SS42300.pdf)
Mongi Zekri & Tom Obreza
<http://edis.ifas.ufl.edu/pdffiles/SS/SS42300.pdf>

Copper (Cu): Copper also has a role in photosynthesis and chlorophyll formation. The functions of Cu in the mineral nutrition of plants are numerous. Heavy fertilization with N tends to increase the severity of Cu deficiency.

If Cu in citrus leaves falls below 4 ppm in dry matter, severe Cu deficiency will develop. In the range of 4 to 5 ppm, mild to moderate deficiency symptoms may occur. Copper deficiency rarely occurs when the Cu concentration in leaves is 6 ppm or above.

Excessive applications of nitrogenous fertilizers have been considered for years a contributing cause for this trouble giving rise to the term “ammoniation”. The cause might be an unbalanced N/Cu ratio.

The first symptom is the formation of unusually vigorous large dark green foliage with a “bowing up” of the midrib. The twigs are also unusually vigorous, long, soft, angular, frequently “S” shaped and more or less drooping.

Fruit symptoms are most pronounced on oranges. Brown stained areas of hardened gum on the rind of the fruit may precede the appearance of leaf and twig symptoms. In severe cases, dieback of young twigs will occur and the twigs will be covered by reddish brown droplets of gums.

Insufficient available Cu in the soil is believed to be the primary cause of the symptoms described. Copper deficiency is more of a problem on newly planted flatwoods land than the ridge. Prevention or cure of Cu deficiency is accomplished by either foliar sprays or soil applications of Cu compounds. A Cu spray of solution containing 2 to 3 lbs of elemental Cu applied during bloom time commonly causes an almost immediate recovery and results in a good setting of normal fruit. Copper deficiency can be a controlling factor in fruit production, and acute Cu deficiency may put trees entirely out of production. Foliage sprays are often valuable emergency treatments when symptoms of Cu deficiency are first observed.

WEED CONTROL

Weeds can reduce the growth, health and survival of young trees, or the time to come into bearing and ultimately fruit production. The more competitive the weeds, the more adversely they alter tree physiology, growth, fruit yield and quality. The attainment of early crop production requires controlling the growth of weeds. Weeds alter economic status by competing with trees, particularly young trees, for water, nutrients and even light in the case of climbing vines, which can easily cover trees if left uncontrolled.



Weeds also have various effects on tree performance including reduced efficacy of low volume irrigation systems, and interception of soil-applied pesticides.

Management Methods

Cultural & mechanical

Cultural methods include off-target irrigation and fertilizer applications. Mechanical methods include cultivation in row middles. However, **constant cultivation results in the destruction of citrus fibrous roots, which normally would grow in the undisturbed portion of the soil.**



Mowing is practiced between the tree rows and away from the trees in combination with herbicide applications in the tree row over the

major root zone of trees. It is appropriate where a cover crop is desired in bedded groves to prevent soil erosion. Weeds can also be spread by seed and vegetatively during mowing operations, reinfesting tree rows where herbicides have been applied. **Mowing before seedhead formation is necessary to reduce seed dissemination and reinfestation.**

Chemical mowing

Chemical mowing, utilizing Low Rate Technology (LRT) postemergence herbicide spray applications and wiping in combination with mechanical mowing, is used for the suppression of vegetation in row middles. With the high frequency and cost of mechanical mowing required to maintain vegetation control in row middles, chemical mowing and wiping with low rates of glyphosate has increased. Weed management in Middles by chemical applications results in the elimination of tall growing species and establishment of more manageable sod type species such as bermuda and bahia grasses.

Chemical

Generally speaking, all weed species listed as susceptible on the herbicide product label will be controlled by that herbicide at the appropriate rate, time of application and stage of growth. Environmental and plant conditions before, during and following the application are also important including moisture in the form of rainfall and/or irrigation.

Poor control can sometimes be expected from postemergence applications to weeds under stress conditions due to poor uptake and translocation of applied herbicides.

Assuming that the appropriate herbicide or herbicide mixtures are selected for the weed species present, failures in the program will usually be due to one of the above factors or to the actual application including calibration and/or equipment design and operation.

Herbicides may be classified as foliar or soil-applied. Foliar applied materials may have systemic or contact activity. Soil applied preemergence herbicides are absorbed through weed root systems, being most effective during germination and early

seedling growth stages. Systemic herbicides are those that are absorbed by either roots or aboveground plant parts and are translocated throughout the plant. Contact herbicides act as desiccants, damaging or killing all plant parts actually sprayed with little if any translocation.

For the control of well-established perennial weeds, a postemergence herbicide with systemic metabolic activity should be used with preemergence soil residual products.

Timing and frequency of application are the keys to good vegetation management. **Increased application frequency of lower rates of soil residual herbicides is more effective in young groves where vegetation presence is greater due to more exposure of the grove floor to sunlight and where a greater herbicide safety factor is required.**

Application Technology

Rapid advances in herbicide application technology have resulted in the development of sophisticated equipment. Application equipment is now capable of selective delivery of multiple herbicide products, each directly injected into booms. In a single application, tree rows and row middles may be treated with soil residual and postemergence products with selectivity for tree age, soil type and vegetation species.



Well-maintained, accurately calibrated equipment with good filtration and agitation systems capable of uniform distribution of prescribed spray volumes and droplet size is essential for efficiency, cost-effective vegetation management. Worn nozzle tips result in increased spray delivery rates and distortion of distribution patterns and should

be checked regularly. Improved herbicide boom design to reduce tree skirt contact, spray drift and interference of heavy weed cover with nozzle output will reduce tree damage and fruit drop while improving control of target vegetation. Tree skirt pruning and timing of postemergence applications will also reduce boom and spray contact with low hanging limbs and fruit.



Environmental Considerations

In determining management options, herbicide selection should be based not only on species and stage of vegetation development, but product solubility and leaching potential, soil type and rainfall distribution. Objectives are to reduce weed competition and interference through measured vegetation control/suppression with inputs having reduced potential for leaching through over-irrigation, runoff and erosion, chemical drift, or other off-target impacts. **CAUTION:** Herbicides may move through the soil to groundwater. Several factors influence the rate of this movement. Lower rates applied more frequently combined with sound irrigation management practices will reduce herbicide movement. **The use of bromacil-containing herbicides is prohibited on deep, sandy Ridge-type soils.** Here is a list of several herbicides that are registered for citrus.

Preemergence soil residual herbicides:

Karmex, Krovar, Princep, Simazine, Solicam,

Non-selective postemergence systemic herbicides: Roudup, Touchdown

Non-selective postemergence contact herbicides: Gramoxone

GREASY SPOT

Management of greasy spot fungal disease must be considered in every grove whether the fruit is intended for processing or for fresh market. Greasy spot is usually severe on grapefruit, early season sweet oranges, and tangelos. Greasy spot can be a devastating disease. It causes defoliation and dieback, reduces fruit yield, and makes the tree weak and more susceptible to stresses and other pests. Symptom expression takes 3-4 months in grapefruit leaves, up to 6 months on grapefruit fruit and much longer in sweet orange.



Greasy spot spores germinate on the underside of the leaves and penetrate the leaves through the stomates (natural openings on the lower leaf surface). Warm humid nights and high rainfall in the summer favor infection and disease development. Favorable conditions for infection in SW Florida occur from late May through September. Leaves are susceptible once they are fully expanded and remain susceptible throughout their life. Two spray applications are needed to control greasy spot in SW Florida. The spring flush leaves can be protected with a spray during the month of May or June before the start of the summer rains. The summer flush leaves should be protected as soon as they are fully expanded. Oil sprays are equally effective from June through August. Copper fungicides are more effective when applied earlier in the season. Copper fungicides provide a high degree of control more consistently than oil sprays. Thorough coverage of the underside of leaves is very important and necessary for

the control of greasy spot. High spray volumes (125-150 gal/acre) and slower tractor speeds may be needed for good control of this disease. There is a high risk of fruit spray burn when 5 gallons of oil are added to 4 lbs metallic copper. For fresh fruit, petroleum oil alone is inadequate for the control of greasy spot rind blotch. Heavier oils (455 or 470) are more effective for rind blotch than lighter oils (435), but may cause phytotoxicity problems. Copper is effective for the control of greasy spot rind blotch, but if applied in July or August at full rates in hot, dry weather with oil, it will cause fruit spotting. Enable can only be applied on grapefruit for rind blotch control on fruit and for greasy spot control on foliage. The strobilurin fungicides (Abound, Gem, Headline) can be used successfully to control greasy spot on any cultivar at any time. They can provide effective control of the disease on leaves and fruit, but should not be applied more than once a year. Addition of petroleum oil increases the efficacy of Enable, Abound, copper, and Gem.

•Processing

May-June

- Petroleum oil (455, 470) 5-10 gal
- Cu fungicides 2-4 lb metal
- Abound, Gem, Headline + 5 gal oil
- Enable (grapefruit only)

July

- Petroleum oil (455, 470) 5-10 gal
- Cu fungicides 2-4 lb metal
- Abound, Gem, Headline + 5 gal oil
- Enable (grapefruit only)

•Fresh fruit

May-June

- Petroleum oil (455, 470) 10 gal
- Cu fungicides < 2 lb metal, No oil
- Abound, Gem, Headline + 5 gal oil

July

- Petroleum oil (455, 470) 10 gal
- Cu fungicides < 2 lb metal
- Abound, Gem, Headline + 5 gal oil
- Enable (grapefruit only) 8 oz. + 5 gal oil

THE CITRUS LEAFMINER

The citrus leafminer, *Phyllocnistis citrella*, is most easily detected by its meandering serpentine larval mine, usually on the ventral side of the leaf.



Leaf mines are usually on the underside leaf surface, except in heavy infestations when both leaf surfaces are infested. Usually, only one leaf mine is present per leaf but heavy infestations may have 2 or 3 mines per leaf. Larvae are protected within the leaf during their feeding cycle. Larvae have 4 instars and development takes from one to 3 weeks.

Pupation occurs within the mine in a special pupal cell at the leaf margin, under a slight curl of the leaf. Pupal development takes also one to 3 weeks. The citrus leafminer moth is active and lays eggs in the evening, night, and early morning hours. CLM may help spread citrus canker because of leaf damage from the mine.

Generations per year appear to be nearly continuous from 6 to 13. Development time totals from 2 to 6 weeks, depending on weather conditions. Florida generations are produced about every 3 weeks. Adults live for only a few days.

Citrus leafminer can occur on new flush throughout the growing season, but usually does not affect the first spring flush. Citrus leafminer does not significantly affect growth and yield of

mature trees. However, nursery stock, resets, and young trees are very vulnerable to severe damage because of their frequent flushes.

Biological control through natural enemies already present in Florida and the introduced parasitoid wasp makes a contribution in suppressing the problem. Residual activity of most pesticides is limited by rapid and frequent appearance of new and unprotected flushes so that 2-3 weeks control is the best that can be expected. Therefore, scouting is necessary to determine peak periods of larval activity during flushing periods to increase the efficacy of chemicals.

Chemical application should begin when 1/3 of the flush leaves show active mines. Pesticides should be rotated to reduce selection for resistance. Since citrus leafminer affects only the new flush leaves, coverage of the peripheral leaves in the canopy should be adequate. Petroleum oil at the concentration of 5% should provide adequate control. Agri-Mek plus oil and Micromite are also recommended for the control of the citrus leafminer.

Bayer recommendations for the use of Admire to control the citrus leafminer on young citrus trees

- ☉ All rates should be applied as a drench in 4-12 oz of water (most likely 8 oz) per tree, directed at the base of the tree.
- ☉ Apply prior to flush
- ☉ Regardless of per tree rate, do not exceed 32 fl oz per acre per year.
- ☉ For 2-4 ft-tall trees, use 1/16 fl oz (0.0625 oz)/tree
- ☉ For 4-6' ft-high, 1/8 fl oz (0.125 oz)/tree
- ☉ For 6-8' ft-high, 1/4 fl oz (0.25oz)/tree
- ☉ For potted trees, use 0.75 ml per cubic foot of potting media.
- ☉ Wet soil, drench and then lightly water. Admire will control leafminers, aphids and psyllids.

The Fifteenth Annual Farm Safety Day



Saturday, 11 June 2005

AN IMPORTANT MESSAGE TO EMPLOYERS



Safe and competent equipment operators are important to you as an employer. Accidents, which cause damage, injury or death to employees, equipment and crops are costly. We believe all types of accidents can be reduced with proper employee training. Our training has been designed to help your employees perform better, operate safely to prevent accidents, fulfill necessary training requirements and build pride in themselves and their farm company.

Certificates

The 2005 Southwest Florida Farm Safety Day is almost here. Farm Safety Day is an educational event designed to emphasize the importance of farm/equipment safety. Each participant is presented with a certificate of attendance and **the employer will be provided with a certificate of training that can be placed into the employee's file.**

Registration Info

The deadline for registration is May 27th. It is the employer's responsibility to assure that the employee is present at 7:45 a.m. on June 5th to receive their nametag. Upon arrival each participant will check in at the registration table and receive a packet containing their nametag, instructions (in both English and Spanish) session handouts, an evaluation form, lunch ticket, rodeo cap and pencil. They will be directed to their respective course sessions.

In the event of a substitution, **the substitute employee must let the registration desk know** the name of the person they are replacing. A new nametag with the same color coding will be issued.

Language Preference

The courses will be marked by color coded signs. The signs will rotate throughout the morning session and the employee will follow the color sign that matches their nametag. Courses will be offered in both Spanish and English so it is very **important to either check an "E" for English or an "S" for Spanish on the registration form.**

Tractor Rodeo

Participation in the rodeo will be on a first come/first serve basis and a driver must be designated. Only one driver per farm will be allowed. You must have your participant registered prior to the day of the rodeo to insure your company's participation. If company checks are issued from somewhere other than your local office, please contact Barbara and arrangements will be made to proceed with pre-registration.

If there are any questions, please feel free to contact **Barbara Hyman at 239 658 3415.**

The 2005 Southwest Florida Farm Safety Day

CONTEST RULES



Each farm location may select one representative to participate in the tractor driving equipment safety rodeo contest planned as part of this training. Farm contestants will be competing for first, second and third place prizes. The prizewinners will be given special recognition and awards following the completion of the rodeo. The farm with the winning contestant will hold the rotating trophy, which will be passed along to the winning farm each year of the event. Only one individual may be selected to represent a farm. Only 10 contestants will be accepted for competition so register early!

Purpose: The rodeo is an educational and competitive event designed to emphasize the importance of farm/equipment safety. It allows designated participants the opportunity to demonstrate their skills in equipment operation and to practice the safety techniques they have learned.

Contest Rules: Only one contestant per farm, ranch or grove is allowed to participate in the rodeo contest. A maximum of 10 total participants will be allowed to compete due to time restraints. Registration will be on a first come/first serve basis. It is up to the farm to designate their equipment rodeo contestant when registering. Each contestant must participate in all three events, which make up the rodeo. Awards will be given to the top three scores in the overall rodeo competition.

Rodeo Events:

(1) *Equipment Safety Check* - Tractor and implement must be properly inspected for safety prior to starting and during the operation of equipment. Safety checks must be verbally called out to the judge. Failure to practice safety will result in a loss of points.

(2) *Backing* - After the safety inspection of the equipment, the implement must be backed into a "stall" from a 90 degree angle. Once the tractor is in reverse - it must stay there. Operation of equipment **must** be at a safe and proper speed. Scores are determined by (1) the number of scrapes and/or knock down of markers, (2) utilization of clutch, and (3) distance from back of "stall". The driver must back the equipment all the way to the back of the stall, regardless of how many markers are hit.

(3) *Driving Course* - Once the backing event is complete, the contestant will proceed (on the same equipment) directly in to the driving course. Operation of equipment **must** be at a safe and proper speed. The course will consist of several challenging angles and widths. Scores are determined by (1) number of scrapes and/or knock down of markers, (2) utilization of clutch, and (3) time to accomplish event safely.

The 2005 FARM SAFETY DAY

REGISTRATION FORM

Please give us the names of those who will be attending our 15th Farm Safety Day on **Saturday, 11 June 2005**. The cost is \$15.00 per person, which will include educational sessions, handouts, refreshments, lunch, the rodeo, and a cap.

Make checks payable to:
SW Florida Citrus Advisory Committee

Mail registration and checks to:
University of Florida, IFAS, SWFREC
Attention: Barbara Hyman
2686 State Rd. 29 North
Immokalee, FL 34142

Or fax registration to: 239 658 3469
Entry Deadline is Friday, May 27, 2005

Company Name:

Administrative Contact Person:

E-mail address:

Mailing Address:

Telephone: _____ Fax: _____ County: _____

Name of authorized driver for tractor rodeo contest, one per farm:

_____ Alternate/second choice: _____

(Any driver substitutions made the day of the event will require authorization by his/her company.)

Please list the employees who will be attending our safety training and rodeo and please check their language preference.* If there is not enough space to fill in all attendants, please attach an additional sheet with the necessary information.

English Spanish

English Spanish

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

***Please Note: It is very important that we know the language capabilities for each attendee. Next to each attendee's name please mark in which language they are more fluent.**



Sponsorship for the Annual Farm Safety Day

The Southwest Florida Farm Safety Day has been conducted annually since 1991. The program is strongly supported by area citrus, vegetable, sugarcane, and sod growers. Southwest Florida agricultural employers collectively send between 180 to 240 employees annually to receive training on various safety related topics. The Fifteenth Annual Farm Safety Day will be held on Saturday, June 11, 2005 and will feature a very comprehensive farm safety program.

We ask you to consider sponsorship of the Fifteenth Annual Farm Safety Day to help make it a success. Any profits generated will support extension and other farm safety related programming, such as WPS training, agent in-service-training, teaching tools and related equipment, and travel for extension agents to approved conferences and meetings.

Annual expenses are estimated to be approximately \$3,000. Costs include lunches, refreshments, handouts, hats, awards (trophies, plaques, door prizes), tent rentals, travel expenses for out-of-town speakers, and other supplies. Participants receive certificates of attendance and employers receive certificates of training that can be placed into the employee's file. The highlight of the Farm Safety Day is farm/equipment safety education and a tractor-driving contest. Trophies are provided to the winners along with display plaques for their respective companies.

We hope you will be able to help sponsor the Fifteenth Annual Farm Safety Day. We have enclosed a sponsorship form for your use. Please return the form and your sponsorship check as indicated on the form no later than May 27, 2005. As a sponsor, you will be recognized during the Farm Safety Day at the Master of Ceremonies and in the southwest Florida extension newsletters, "Flatwoods Citrus" and the "South Florida Pest and Disease Hotline." You will also receive a "Thank you" certificate.

Thank you for your support!

Dr. Mongi Zekri
Farm Safety Day Coordinator
Multi-County Citrus Agent, SWF
Hendry County Extension Office
P.O. Box 68
LaBelle, FL 33975



UNIVERSITY OF
FLORIDA

IFAS EXTENSION

15th Annual Farm Safety Day

WHEN: Saturday, June 11, 2005

WHERE: Southwest Florida Research & Education Center, Immokalee

AUDIENCE: Anticipate 200 farm workers, managers, equipment operators, and crew leaders from the 5-county area of Southwest Florida.

COST: Sponsorships: _____ \$300 Platinum
_____ \$200 Gold
_____ \$100 Silver

Sponsorship goes to support awards, expenses, and other extension programs.

SPONSORSHIP REGISTRATION FORM

Business _____

Name: _____

Address: _____

City: _____ Zip Code: FL _____

Contact Person: _____

Phone: _____ Fax: _____

Check here if you are a \$300 sponsor and desire an outdoor equipment exhibit space.

*Please make checks payable to: **SW Florida Citrus Advisory Committee***

Mail to:

Dr. Mongi Zekri
Multi-County Citrus Agent
Hendry County Extension Office
PO Box 68
LaBelle, FL 33975-0068



USING ORGANIC AMENDMENTS IN CITRUS PRODUCTION

Date: Tuesday, May 31, 2005

Location: Immokalee IFAS Center, 2686 State Rd. 29 North

1 CEU for Pesticide License Renewal; **4** CEUs for Certified Crop Advisors (CCAs)

Agenda

- 8:00 - 8:15 Opening remarks and Moderator. **Dr. Mongi Zekri** (*Multi-County Citrus Agent University of Florida, IFAS, Hendry County Extension Office*)
- 8:15 - 9:30 R&D Soil Builders, Inc. compost facility tour, (**Mrs. Rocky Robbins**, *Immokalee, FL*).
- 9:30 – 9:45 Break
- 9:45 - 10:15 The value of organic matter in citrus production in Florida, **Dr. Monica Ozores-Hampton** (*University of Florida, IFAS, SWFREC*)
- 10:15 - 10:45 Compost and soil-borne plant pathogens, **Dr. Ronald French-Monar** (*University of Florida, IFAS, SWFREC*)
- 10:45 – 11:15 Compost use in commercial citrus in Florida, **Mr. Mike Litvany** (*Nutri Source, Inc. Windermere, FL.*)
- 11:15 – 11:45 Commercial compost production in Southwest Florida, **Mrs. Doug Purvis** (*R&D Soil Builders, Inc. Immokalee, FL*).
- 11:45 – 12:15 Compost utilization in citrus: Past, present and future considerations, **Dr. James Graham** (*University of Florida, IFAS, Citrus REC*)
- 12:15 – 12:30 Questions & Answers
- 12:30 - 1:30 Lunch (**RFT Organic Division and R&D Soil Builders, Inc.**)



R&D Soil Builders, Inc.

Call 863 674 4092 to register and reserve lunch.