



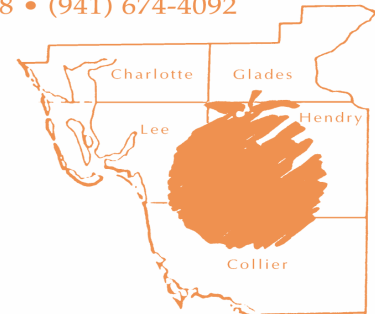
UNIVERSITY OF
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EXTENSION

Institute of Food and Agricultural Sciences

Hendry County Extension • P.O. Box 68 • LaBelle, Florida 33975-0068 • (941) 674-4092

Flatwoods Citrus



Vol. 5, No. 7 July 2002

Dr. Mongi Zekri, Multi-County Citrus Agent

UPCOMING EVENTS

Citrus Expo in Fort Myers

Wednesday, August 21 & Thursday, August 22, 2002

For more information, call Bob Rouse at 941 658 3400 or Mongi Zekri at 863 674 4092

41st ANNUAL CITRUS PACKINGHOUSE DAY

Date: August 29, 2002, **Location:** UF/IFAS Citrus Research and Education Center, Lake Alfred

For more information, contact Dr. Mark Ritenour at Tel. (561) 468-3922, Ext. 167. E-mail:

mritenour@mail.ifas.ufl.edu Postharvest information on the web: <http://postharvest.ifas.ufl.edu>

Annual meeting of the Florida Associations of Extension Professionals (FAEP)

Date: September 9-12, 2002, **Location:** Bay Point Marriott in Panama City Beach

Annual Meeting of the Interamerican Society for Tropical Horticulture

Date: October 6-11, 2002, **Location:** Tegucigalpa, Honduras

For more information, contact Dr. Richard Campbell at Fax: 305 665 8032, E-mail:

rcampbell@fairchildgarden.org

If you want to print a color copy of the Flatwoods Citrus Newsletter, get to the Florida Citrus Resources Site at

<http://www.fcprac.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

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.

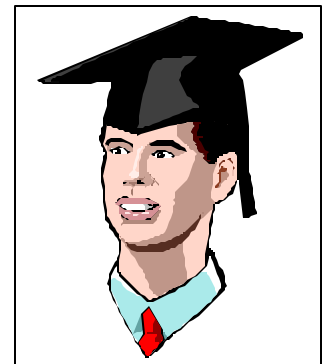
The GCGA Scholarship Foundation is a non-profit corporation operating under Section 501 © (3) of the Internal Revenue Code. Contributions are tax deductible as allowed by law.

Scholarship applications

Scholarship applications are distributed through the Scholarship Selection Committee by request or through the offices which are responsible for citrus programs such as the Immokalee IFAS Center, Edison Community College, and the Citrus Institute at Florida Southern College. Applications may also be requested by calling the GCGA office at 863 675 2180 or by contacting Dr. Mongi Zekri at the Hendry County Extension office at 863 674 4092. Applications deadlines are December 1 for the spring semester and July 1 for the fall semester. Applicants who are not selected may reapply for the next cycle. Previous award recipients may also reapply.



Please find enclosed more detailed information about requirements for scholarships, and a scholarship application form



Special Thanks to the following sponsors of the Flatwoods Citrus Newsletter for their generous contribution and support. If you would like to be among them, please contact me at Phone: 863 674 4092, Fax: 863 674 4636 or E-mail: maz@mail.ifas.ufl.edu

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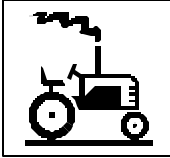
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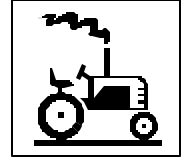
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The Twelfth Annual Farm Safety Day held on Saturday 1 June 2002
was a big success.



Over the past few years, The Farm Safety Day has been proven to be a very effective way in providing an educational opportunity for farm equipment operators and workers.



Certificates of appreciation were sent to the
2002 Farm Safety Day Committee Members

Pam Roberts, Julie Carson, Buddy Walker, Cesar Asuaje, Fritz Roka, Steve Taylor, Susan Steed, Ralph Mitchell, Holly Shackelford Bob Rouse, Barbara Hyman, and Mickey Pena.

Certificates of appreciation were sent to

Keith Blasingim & Marybeth Krauss with Lee County Parks and Recreation for donating 4 sets of bleachers and 4 pop-up tents

Certificates of appreciation were also sent to the
2002 Farm Safety Day Speakers and their assistants

Jim Connor, Carlos Balerdi, Cesar Asuaje, Gene McAvoy, Peter Gilmore, Jesus (Tony) Medrano, Steve Perez, Geraldo Chavez, and Francisco Ortiz

Congratulations to the winners of the 2002 equipment operators contest and to their respective companies!

**First place: Miguel Rodriguez, Deseret Farms
Second Place: Jorge Rosas, Immokalee Tomato Growers
Third Place: Isrrael Games, Everglades Harvesting**

Trophies were given to the winners. Engraved plaques were given to their respective companies. The big trophy will stay for one year at the company that has the 1st place winner.

Special Thanks to the following sponsors of the Flatwoods Citrus Newsletter for their generous contribution and support. If you would like to be among them, please contact me at Phone: 863 674 4092, Fax: 863 674 4636 or E-mail: maz@mail.ifas.ufl.edu

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IMPORTANCE OF TISSUE AND SOIL SAMPLING AND ANALYSES IN ADJUSTING FERTILIZER PROGRAMS

Optimum growth and yield of high quality fruit cannot be obtained without adequate nutrition. The most successful fertilizer program should be based on tissue analysis, knowledge of soil nutrient status through soil analysis combined with university recommendations about optimum crop and fertilizer management practices. The deficiency or excess of an element will cause disturbance in plant metabolism and lead to poor performance. Appropriate steps have to be taken to diagnose nutritional problems and find solutions. Field trials, soil analysis and plant analysis have to be integrated together so that much of the guesswork is eliminated, fertilizer requirements are well assessed and fertilizer programs are adequately adjusted. Fertilizer recommendations should be based on the nutrient requirement of the crop to be grown and on the results of the tissue and soil test analyses.

Plant analysis

Nutrient concentrations in plant tissues are the most accurate indicator of the nutritional health of fruit crops. Plant analysis was demonstrated and proven to be an extremely useful tool for detecting nutritional problems and adjusting fertilizer programs of fruit trees including citrus. The concentrations of mineral nutrients in plant tissues have a controlling influence on growth and fruit yield of crops. In the case of fruit trees, research has shown that leaves are the best tissue for sampling because nutrients are gathered and redistributed throughout the plant, and the deficiency or excess of an element present in the soil is more often reflected in the leaf. Furthermore, it is

easier to collect leaf samples than any other plant parts.

Used in conjunction with other data and observations, tissue analysis aids in evaluating the nutrient elements of the soil-plant system. It provides a way to evaluate the effectiveness of fertilizer programs. Tissue analysis is not only useful for determining whether or not the soil is adequately supplying the required nutrients, but also can be helpful for comparing various fertilizer treatments.

Tissue analysis has proven useful in confirming nutritional deficiencies, toxicities or imbalances, identifying “hidden” toxicities and deficiencies where visible symptoms are not manifested, evaluating the effectiveness of fertilizer programs, determining the availability of elements not tested for by other methods, and studying interactions among nutrients. Tissue analysis can be used to monitor nutrient status so that problems are avoided. The greatest limitation of relying on visual symptomology to manage fruit nutrition is that such symptoms indicate a problem already exists and reductions in growth, yield, and fruit quality may have already occurred. The goal in tissue analysis is to adjust nutritional programs to prevent nutritional problems and their costly consequences.

Adding fertilizer to the soil is no guarantee that plants will benefit from it. The form of the fertilizer may not be available to plants, or it might react with the soil to form insoluble compounds. Tissue analysis can also be used to determine whether fertilizer programs are performing according to expectations.

Leaf analysis integrates all the factors that might influence nutrient availability and uptake. It shows the balance between nutrients. For example, potassium (K) deficiency may be the result of a lack of K in the soil or from excessive Ca, Mg, and/or Na levels.

Adding N, for example, when K is low may result in K deficiency because the increased growth requires more K too.

Tissue analysis is the quantitative determination of the elements in plant tissue. Tissue analysis usually refers to analysis of nitrogen (N), phosphorus (P), potassium (K), magnesium (Mg), calcium (Ca), manganese (Mn), zinc (Zn), copper (Cu), iron (Fe), and boron (B). Sulfur and chlorine are at sufficient levels under most field conditions. However, chlorine may become excessive in saline soils or irrigation water. Similarly, molybdenum deficiency or toxicity is rare. Therefore, sulfur, chlorine, and molybdenum are analyzed in special cases only.

Leaf Sampling

For reliable results and useful interpretation of lab analysis reports, citrus growers, production managers, and consultants must follow the proper procedures for leaf sampling and sample handling because improperly collected leaf samples will provide misleading information about the nutritional status of the trees and the fertilizer programs.

Considerable care is needed in taking samples. Chemical analysis values can only be useful if the samples obtained are representative of the blocks they were taken from. The proper sampling, preparation and handling would affect the reliability of the chemical analysis, data interpretation, nutritional recommendations, and adjustment of fertilizer programs.

Procedures for proper sampling, preparation and analysis have become standardized for meaningful comparisons and interpretations. Leaf samples must also be taken at the proper time because nutrient levels within leaves are continually changing. Nitrogen (N), P and K levels normally decrease, while Ca and Mg increase as the leaf ages from the spring through the fall. However, leaf

mineral concentrations of most nutrients are relatively stable within 4 to 6 months after emergence of the spring flush.

Therefore, for mature tree blocks, the best time would be in July and August to collect four- to six-month-old spring flush leaves. If taken later in the season, the summer flush would probably be confused with the spring flush.

Each leaf sample should consist of about 100 leaves taken from non-fruiting twigs of 15- 20 uniform trees of the same variety and rootstock, and under the same fertilizer program. Clean brown paper bag should be used. Information sheets from the testing lab should be completed for each sample as this information helps when interpreting the results. The sample bag and the corresponding information sheet should each be carefully labeled with the same identity so that samples and sheets can be matched in the laboratory.



Sampling techniques for leaves

- Immature leaves should be avoided because of their rapidly changing composition.
- Abnormal-appearing trees, trees at the edge of the block and trees at the end of rows should not be sampled because they may be coated with soil particles and dust or have other problems.
- Do not include diseased, insect damaged, or dead leaves in a sample. Use good judgment.
- Select only one leaf from a shoot and remove it with its petiole (leaf stem).

Diagnosing growth disorders

- Collect samples from both affected trees as well as normal trees.
- Trees selected for sampling should be at similar stage of development and age.
- Whenever possible, confine the sampling area to trees in close proximity to each other.

Handling of leaf samples

- Samples should be collected in clean paper bags and clearly identified.
- They should be protected from heat and kept dry and cool (stored in portable ice chests), and placed in a refrigerator for overnight storage if they cannot be washed and oven dried the same day of collection.
- For macronutrient analysis, leaves usually do not need to be washed.
- Leaves should be dried in a ventilated oven at 60-70°C.

Preparation for analysis

- Leaves that have been recently sprayed with micronutrients for fungicidal (Cu) or nutritional (Mn, Zn) purposes should not be analyzed for those micronutrients because it is unlikely to remove all surface contamination from sprayed leaves.
- For accurate Fe and B or other micronutrient determination, samples

would require hand washing, which is best done when leaves are still in a fresh condition.

--For micronutrients determination, the leaves should be washed with a detergent and rinsed with tap water, then rinsed in diluted hydrochloric acid (5%) solution and finally rinsed 3 times with distilled water. It is difficult to remove all surface residue even with the acid rinse, but this procedure removes substantially most of it.

The laboratory will determine the levels of each nutrient in the plant sample, and will indicate if each nutrient level is excessive, high, adequate, low or deficient. Leaf analysis standards are shown in the Table below. The balance between nutrients should be carefully examined. For example, increasing K rate when Mg is low may cause Mg deficiency. An increase in N when K is low may result in K deficiency.

Soil analysis

Soil analysis is an important method for gaining basic information regarding the chemical status of the soil. It can also provide data on extractable and available nutrients, which are useful in formulating and improving a fertilizer program. Soil analysis is particularly useful when conducted over several years so that trends can be seen, solid information can be gathered, and proper adjustment of fertilizer programs can be achieved. However, it should be understood that soil analysis alone cannot be relied upon totally to formulate a fertilizer program or diagnose a nutritional problem in a grove.

Unlike leaf analysis, there are various methods and analytical procedures of soil analysis used by laboratories. Different procedures extract different amounts of nutrients from the soil. Therefore, to draw accurate conclusions from soil tests, consistency in adopting the

same methodology and extracting solution is very important because an optimum value for a nutrient with a particular extractant may be a deficient value with another extractant.

The total quantity of a nutrient measured by soil analysis is very often not the exact measure of the quantity actually available to the trees. Even the so-called "available" portion of a nutrient determined by soil analysis is at best a tentative estimation because it is measured by empirical methods using particular solvents which cannot be taken to duplicate the action of the plant roots.

In Florida, soil tests for the relatively mobile and readily leached elements such as N and K are of no value. Soil tests are mainly important for pH, P, Mg, Ca, and Cu. For Florida sandy soils, using the Mehlich-1 or double acid (hydrochloric acid + sulfuric acid) extraction procedure adopted by the University of Florida analytical lab, 40-60 lbs/acre (20-30 ppm) of P, 70-120 lbs/acre (35-60 ppm) of Mg, 500-800 lbs/acre (250-400 ppm) of Ca, and 5-10 lbs/acre (2.5-5 ppm) of Cu are considered adequate for citrus. A Ca:Mg ratio of 7:1 seems desirable and ratios of higher than 10 may induce Mg deficiency problems. Copper levels higher than 50 lbs/acre may be toxic to citrus trees if the soil pH is below 6.

Soil tests are most useful in monitoring soil pH in established citrus groves. Soil pH greatly influences nutrient availability, and many nutrient deficiency can be avoided by maintaining soil pH between 6 and 7. Nutrient deficiencies or excesses (toxicities) are more likely when the pH is outside of this range.

In some cases, soil tests are needed to determine the best method of correcting a deficiency identified through leaf analysis. For example, Mg deficiencies may result from low soil pH or excessively high soil Ca. Dolomitic lime

applications are advised if the pH is too low, but magnesium sulfate is preferred if soil Ca levels are very high and the soil pH is adequate. If the soil Ca levels are excessive and the soil pH is relatively high, then foliar application of magnesium nitrate is recommended.

A poor relationship may exist between soil and plant nutrient levels in perennial crops including citrus. Often fruit trees contain sufficient levels of a nutrient even though soil test values are low. On the other hand, high soil nutrient levels do not assure an adequate supply to the trees. Adequate nutrient uptake by trees can be hindered by other problems such as drought stress, flooding stress, root damage, and cool weather. Tissue analysis along with soil tests can help pinpoint the problem.

Furthermore, several other factors such as plant species, cultivars, rootstocks, microbiological activity, climatic conditions, and plant needs at different growth stages have to be considered for more reliable interpretation and application of the soil analytical data and formulation of a fertilizer program.

Soil sampling

The accuracy of a fertilizer recommendation depends on how well the soil sample on which the recommendation was based represents the area of the grove. In Florida, if soil samples were to be collected once a year, the best time would be at the end of the summer rainy season and prior to fall fertilization, usually during September and October. However, soil sampling may be conducted at the same time as leaf sampling to save time and reduce cost.

Standard procedures for proper sampling, preparation and analysis have to be followed for meaningful interpretations of the test results and accurate recommendations. Each soil sample should consist of 15-20 soil cores taken at

the dripline of 15-20 trees within the area wetted by the irrigation system to a depth of 6 inches. The area sampled should be uniform in terms of soil and tree characteristics and correspond to the area from which the leaf sample was taken. Individual cores should be mixed thoroughly in a plastic bucket to form a composite sample. Subsample of appropriate size should be taken from the composite mixture and put into labeled paper bags supplied by the lab. Soil samples should be air-dried but not oven-dried before shipping to the testing laboratory for analysis.

Traditional sampling vs. other sampling strategies

Tissue and soil sampling and testing to determine fertilizer recommendations for the whole grove followed by uniformly applying a fertilizer over the entire area is still the most practiced and accepted nutrient management strategy. However, there is a problem with this method because some trees may be over fertilized and others may be under fertilized. It is well known that variability exists within groves. Understanding this variability and taking it into consideration allows the grove to be efficiently managed.

The basic principle of the “traditional way” is continued sampling at the same location from year to year. This technique assumes that the selected area is less variable but representative of the entire grove or major portion of the block. Representative sites are selected based on several things including close observation of the trees, past grower experience, crop load, soil surveys, and remote sensed images. This technique has the advantage of minimizing sampling errors and the number of samples, and is less expensive and less time-consuming than the grid

sampling method, but does not provide a full indication of field variability.

With the new advances in technology, “grid sampling” for precision agriculture has been gaining ground. The first step in grid sampling is to divide the field into small areas. The second step is to identify a representative location within the grid from which the sample will be collected. Grid sampling has the advantage in being integrated into commercial Global Positioning System (GPS) based soil sampling and nutrient-mapping Geographic Information System (GIS) to use Variable Rate Technology (VRT) management. However, dense grid sampling can be quite expensive and non-profitable for some growers.

Between the traditional way of sampling and the grid sampling strategy there is interest in the “management zone” method. Prior knowledge by growers and production managers can help delineate management zones based on several characteristics such as soil type, high and low yielding areas, soil water and nutrient holding capacities, and depth to the water table. This method involves less sampling than the grid method but is based on more targeted sampling than the traditional way. With this technique, different fertilizer rates can be applied to a smaller number of zones even without the need of VRT equipment.

Growers should stay flexible and prepared to adjust their sampling and management strategies because emerging technology will keep refining sampling systems and integrating useful information from database including yield maps, tree age, size, and performance, soil characteristics, satellite images, and aerial photographs.

Soil pH

The optimum soil pH range for citrus trees is between 6 and 7. Trifoliolate hybrid rootstocks such as citrumelos and

citranges do better at the low end of this pH range. For sandy soils, one ton of liming material such as dolomite will generally raise the soil pH by about one unit. Liming is economically sound and essential for profitable crop production. Soil pH must be monitored every year through soil testing because development of soil acidity is a continuous process that requires repeated applications of liming materials.

It should not be assumed that lime is always needed. Soil test must be conducted before liming. Certain soils may already contain excess lime. Such soils will typically have pHs between 7 and 8. When soil pH is high because of naturally occurring lime such as limestone, marl, and seashells, there is no practical, economical way of lowering the soil pH. Under these conditions, tolerant rootstocks to high pH soils should be selected to reduce nutritional disorders and deficiency problems. Sulfur added to soil can reduce the soil pH through the help of bacteria which transform elemental sulfur to sulfuric acid. However, the soil pH can return to its original value as soon as sulfuric acid is used up.

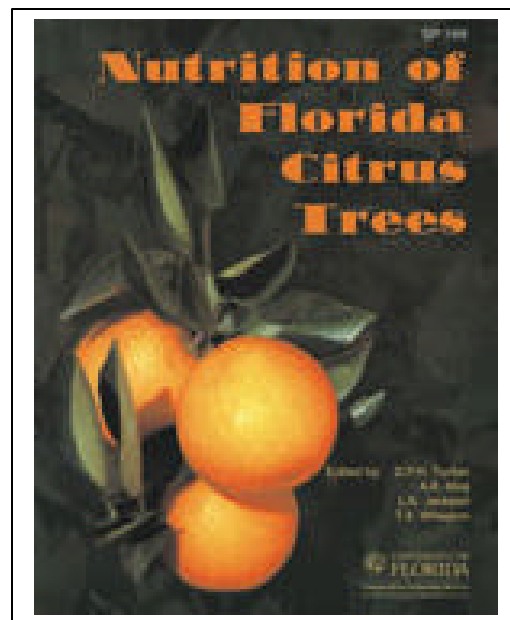
Benefits of liming to correct soil acidity

- Increased nutrient availability
- Improved fertilizer use efficiency
- Increased soil microbial activity
- Higher nitrogen fixation by legumes
- Reduced toxicity of copper, manganese and aluminum
- Provision of additional amounts of calcium and magnesium
- Improved availability of molybdenum
- Improved soil physical conditions
- Increased cation exchange capacity (CEC)
- Improved herbicide activity
- Increased growth and crop yield

Conclusion

Tissue and soil analyses are a powerful tool for confirming nutrient deficiencies, toxicities and imbalances, identifying "hidden hunger," evaluating fertilizer programs, studying nutrient interactions. However, if initial plant and soil sampling, handling, and analysis of the sample were faulty, the results would be misleading. Experience with interpreting the overall tissue analysis reports is essential because of the many interacting factors, which influence the concentrations of elements in plant tissue. Thus, tree size, cropping history, sampling techniques, soil test data, and knowledge of nutrient concentrations and leaf analysis standards all need to be considered in the final diagnosis. If properly done, tissue and soil analyses can point the way toward more economical and efficient use of fertilizer materials, avoiding excessive or inadequate application rates.

For more information on fertilizer recommendations and methods of application check the previous two articles published in the Citrus Industry magazine (March & April 2002), and "Nutrition of Florida citrus trees", UF-IFAS publication SP 169.



Standard Table for Assessing Nutritional Status and Adjusting Fertilizer Programs for Citrus

Leaf analysis standard for assessing current nutrient status of citrus trees based on concentration of mineral elements in 4- to 6-month-old-spring-cycle leaves from non-fruiting terminals.

Element	Deficient less than	Low	Satisfactory	High	Excess more than
Nitrogen (N) (%)	2.2	2.2-2.4	2.5-2.8	2.9-3.2	3.3
Phosphorus (P) (%)	0.09	0.09-0.11	0.12-0.17	0.18-0.29	0.30
Potassium (K) (%)	0.7	0.7-1.1	1.2-1.7	1.8-2.3	2.4
Calcium (Ca) (%)	1.5	1.5-2.9	3.0-5.0	5.1-6.9	7.0
Magnesium (Mg) (%)	0.20	0.20-0.29	0.30-0.50	0.51-0.70	0.80
Sulfur (S) (%)	0.14	0.14-0.19	0.20-0.40	0.41-0.60	0.60
Chlorine (Cl) (%)	-----	-----	less than 0.5	0.5-0.7	0.7
Sodium (Na) (%)	-----	-----	less than 0.2	0.2-0.5	0.5
Iron (Fe) (ppm)	35	35-59	60-120	121-200	250
Boron (B) (ppm)	20	20-35	36-100	101-200	250
Manganese (Mn) (ppm)	18	18-24	25-100	101-300	500
Zinc (Zn) (ppm)	18	18-24	25-100	101-300	300
Copper (Cu) (ppm)	4	4-5	6-16	17-20	20
Molybdenum (Mo) (ppm)	0.06	0.06-0.09	0.1-1.0	2-50	50



Gulf Citrus Growers Association (GCGA)

GCGA is a trade association representing citrus growers in southwest Florida (Charlotte, Collier, Glades, Hendry and Lee Counties). Gulf Citrus addresses key issue of economic importance to the sustainable growth and development of the citrus industry of southwest Florida. These issues include land and water use, environmental regulation, farm worker relations, transportation, domestic and international trade and marketing programs. The association is supported by volunteer grower membership and participation and by support from allied trades, agribusiness and associate members. If you are not a member, you need to join GCGA. Call 863 675 2180.

Ron Hamel: Executive Vice President/General Manager

Betsy McGill: Director, Member & Industry Relations

Elaine Antonacci: Administrative Assistant/Office Manager



2001-2002 GCGA Officers

Billy Heller, President

Mark Colbert, Vice President

W. Bernard Lester, Secretary

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Gulf Citrus Growers Association Scholarship Foundation, Inc.

P. O. Box 1319, LaBelle, Florida 33975 (863) 675-2180 / Fax: (863) 675-8087 / Email: gulfcitrus@aol.com

About the Gulf Citrus Growers Association

The citrus growers of southwest Florida are committed to supporting education as a long-term investment in the future of our industry. The first Gulf Citrus scholarship was awarded in 1992 through the Gulf Citrus Growers Association, a trade organization representing growers in Charlotte, Collier, Glades, Hendry and Lee Counties. These scholarships were created specifically to assist students pursuing degrees in citrus-related programs.

The Gulf Citrus Growers Association Scholarship Foundation was established in 2000 as a non-profit entity to oversee the distribution of these awards. Scholarship applications are accepted throughout the year and are reviewed semi-annually by a Scholarship Selection Committee comprised of academic and industry members. The number and amount of awards vary depending upon the number of applications received and available funds.

Applicants who are not selected may submit a new application for consideration in the next selection cycle. Previous award winners may also reapply.

Scholarship Criteria

Preferred requirements for scholarships are as follows:

Edison Community College / AA Degree:

- Completion of all placement testing.
- Completion of **12 credit hours** with continuous enrollment.
- Minimum overall grade point average of **2.5**.
- A demonstrated **commitment** to complete the AA degree with citrus courses.

BS, MS and PhD Degrees:

- Completion of all placement testing and a **declared major** in citrus or a citrus-related major.
- Completion of **12 credit hours** towards a citrus degree.
- Minimum overall grade point average of **2.5** for a BS degree; **3.0** for MS and PhD degrees.
- A demonstrated **commitment** to complete the degree at a state college or university.

Applicants must complete the attached application, which includes a statement of release giving the selection committee permission to verify information submitted.



Gulf Citrus Growers Association Scholarship Foundation, Inc.

P. O. Box 1319, LaBelle, Florida 33975 (863) 675-2180 / Fax: (863) 675-8087 / Email: gulfcitrus@aol.com

Scholarship Application

Personal Data

Name: _____ SS #: _____

Address: _____

City/State: _____ Zip: _____ Phone: _____

Employer: _____

Address: _____

City/State: _____ Zip: _____ Phone: _____

Does your employer reimburse you for tuition or other expenses incurred toward your degree? Yes _____ No _____

Educational Information

College or University in which you are enrolled: _____

Department / Degree Program: _____

I am working toward the following: AA ____ BS ____ MS ____ PhD ____ Other ____

Courses Taken in Major (*both completed and those in which you are currently enrolled*):

Total Credit Hours Toward Degree: _____ Cumulative Grade Point Average (GPA): _____

Expected Date of Graduation: _____

Please answer the following questions in complete sentences with as much detail as possible.

What are your career goals? _____

What is the potential value of your education to the citrus industry *in southwest Florida*?

I authorize the release of this application and any relevant supporting information to persons involved in the selection of recipients for Gulf Citrus Growers Association scholarships.

Applicant's Signature

Date

*****APPLICATION DEADLINES ARE DECEMBER 1 AND JULY 1*****

Please return this application to:

Gulf Citrus Growers Association Scholarship Foundation, Inc.
Dr. Mongi Zekri, Application Coordinator
Hendry County Extension Office
P. O. Box 68
LaBelle, Florida 33975
(863) 674-4092 / Fax: (863) 674-4636