

CHAPTER I

Business Issues

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LEARNING OBJECTIVES, CHAPTER 1

The FNGLA Certified Horticulture Professional should be able to:

- Describe benefits of being an FNGLA Certified Horticulture Professional.
- List the requirements for becoming certified and renewing a certification.
- Name the major Florida and national trade or professional nursery organizations & list their benefits.
- Describe the organization and purpose of the Florida Nursery, Growers & Landscape Association.
- Describe the nursery industry in Florida.
- List and describe techniques nurseries can use to increase sales.
- Explain why product knowledge is important for successful selling.
- Describe some personal traits, attitudes, customer approaches and activities that help — or hinder — successful selling.
- Describe briefly the requirements of the plant inspection law, the agriculture license and bond law, the sales tax law and pesticide laws as they apply to the nursery industry.
- Describe the importance Grades & Standards and the Nursery Code of Conduct.
- Describe Best Management Practices and their importance to Florida's nursery and landscape industry.
- Describe a Watershed.
- Understand the concept of Nonpoint Source Pollution

Introduction

This chapter covers several important segments of the nursery business not directly related to plants. It is not intended to be a Business Practices Manual but rather to point out some specific information relative to nursery business which is important to the professional horticulturist.

FNGLA Certified Horticulture Professional



The FNGLA Certified Horticulture Professional (FCHP) program is a voluntary program for the certification of employees in the horticulture industry in Florida. The program, designed for the professional improvement of individuals in the industry, is one of the activities of the Florida

Nursery, Growers and Landscape Association (FNGLA).

Certification is gained after passing an examination that is designed to measure the ability of the individual to meet the standards set forth in this manual. Individuals are not required to attend any special training before taking the examination.

Special courses are offered by various schools throughout the state as well as online to help prepare individuals to take the examination, and attendance at one of these is highly recommended. Contact your local Florida Nursery, Growers and Landscape Association (FNGLA) chapter or the state FNGLA office for information on when and where courses are planned in your area.

Immediately following are policies governing the certification program. The remainder of the chapter provides background information about FNGLA, history and laws relating to the nursery industry in Florida, and some tips on marketing and sales of horticulture products and services.

FCHP Program Policies

The FCHP program is a voluntary program for the certification of individuals in the nursery and landscape industry and closely allied professions. The program is sponsored and administered by FNGLA, but is open to all eligible individuals. No individual shall be refused because of gender, race, color, creed, national origin or any disability. Direct inquiries to:

Florida Nursery, Growers and Landscape Association, Inc.
 1533 Park Center Drive
 Orlando, Florida 32835
 Phone: (407) 295-7994; (800) 375-3642
 Fax: (407) 295-1619; e-mail: info@fn gla.org

Eligibility

The program is intended for individuals employed in the horticulture industry or who are undertaking studies to enter the industry. FCHP serves as the core of all of FNGLA's certification programs. It includes fundamental principles of Florida's nursery and landscape industry.

Eligibility requirements recommend a minimum of 90 days of employment in the industry, but the extensive nature of the material on which an applicant will be tested probably will require two or more years of experience and/or intensive study to become certified.

All applicants will be required to adhere to a code of ethics (see page I-9). Membership in FNGLA is not required as a basis for certification.

Certification

Certification is granted to individuals who have met the eligibility requirements, have taken and passed the examination and have signed an agreement to adhere to a code of ethics. Certification is for a period of three years. Each person certified will receive a certificate and an identification card. Logos and other promotional material may be available and can be obtained from FNGLA.

Certification will expire on the March 31st, June 30th, September 30th or December 31st, whichever is closest to the test date and will be valid for a period of three years.

Certification Renewal

Certification may be renewed for additional periods of three years. As a basis for renewal, the certified professional must submit evidence of satisfactory completion of continuing education in horticulture. This will require a minimum of 15 contact hours completed during the three-year certification period.

You are encouraged to participate in a variety of continuing educational opportunities, including those in the following list. The activities are shown with their corresponding value for meeting the contact hour requirements for continuing education.

<u>Activity</u>	<u>Continuing Education Hours</u>
Industry Trade Show	2
FNGLA Chapter Meeting	1
One-hour Seminar*	1
Two-hour Seminar	2
Three-hour Seminar	3
Four-hour Seminar	4
Five-hour Seminar	4
Full-day Seminar	4
Two-day Seminar	8
Three-day Seminar	12
Pesticide Applicator Training	1 <i>(per hour of training)</i>
Semester College Course**	8
Industry Short Course**	6
Online Horticulture Course***	1-4

* All seminars sponsored by FNGLA and those given by UF Extension Services, botanical gardens or other horticulture training facilities will be recognized for Continuing Education Units (CEUs). Others are recognized on an individual basis.

** A course grade of C or better must have been earned and a copy of the grade report or certificate of completion must be included in the request for CEUs.

*** Online horticulture courses will be recognized for CEUs. Others are recognized on an individual basis.

Retesting may be used for recertification instead of continuing education. This may necessitate the purchase of a new manual because the test will be based on the current FCHP Manual, which is revised as necessary. The following section “About the Examination” explains testing procedures and the manual.

Programs that wish to be considered for CEUs, upon notifying FNGLA, will receive Continuing Education Unit (CEU) forms before each event. These forms will include the date, type of activity and the number of CEUs to be given. When attending an event, request an FNGLA CEU form at the end of the program. **These forms will not be mailed to individuals, and it is up to the individual to request the CEU form following each approved activity.**

Each FNGLA Certified Horticulture Professional (FCHP) seeking recertification must mail his/her CEU forms to the FNGLA office for recording in their file. At renewal time, the individual will mail any other accumulated forms to the FNGLA state office along with the appropriate renewal fee. When the individual signs the application for certification, he/she acknowledges that this recertification procedure has been read, understood and accepted. Any certificate that has not been renewed 30 days after the expiration date will be revoked.

Rights of the Certified Person

Any person who is currently certified will have the right to advertise and represent himself/herself to the public as an FNGLA Certified Horticulture Professional (FCHP), and will have the right to wear and display the FNGLA Certified Horticulture Professional emblem, logo and identification. Additionally, the employer of any FNGLA Certified Horticulture Professional on a full time basis will have the right to publicize that fact.

Revocation of Certificate

Certification may be revoked for failure to adhere to the ethical standard agreement, conviction of a felony crime or failure to renew certification. Revocation of certification may be appealed to the FNGLA Certification Committee.

Advanced Level Certification

The principles tested in FNGLA’s Certified Horticulture Professional serve as the core for all of FNGLA’s industry certifications. FNGLA also offers other certifications, such as the FNGLA Certified Landscape Technician (FCLT), FNGLA Certified Landscape Maintenance Technician (FCLMT), FNGLA Certified Landscape Contractor (FCLC), and FNGLA Certified Landscape Designer (FCLD). For requirements, contact the FNGLA office or see www.fn gla.org.

About the Examination

Certification and recertification via examination is available on line in proctored settings. Some educational facilities are authorized as FCHP examination sites and may conduct exams. At other times, the FNGLA office will be a test site when arrangements are made in advance and proper payment is made. Contact FNGLA for a complete list of approved exam locations.

The FCHP examination consists of four parts. 1) *Horticulture Practices* tests the applicant on general horticulture knowledge. 2) *Safety* covers general safety and specific industry safety knowledge. 3) *Plant Identification* requires the applicant to correctly identify 50 plants and is explained in more detail below. 4) The *Open Book* exam tests the applicants ability to find answers to general horticulture questions in the FCHP text. The Open Book portion of the exam provides for differences in plants and climatic conditions in South, Central and North Florida. In addition to studying all yellow tabs in the FCHP Manual, the applicant is responsible for the information in the green “General” tab and the green tab section for their region.

Plant Identification

Applicants for the Plant Identification section of the exam may choose from one of three separate regions of the state (North, Central and South). The Reference Chapter (Chapter IX) of this manual includes the *Plant Identification List* from which the plants for the exam are randomly selected. Included in the FCHP Manual is a Plant ID CD that complements this list. These

materials are for your reference and to supplement your preparation for the identification portion of the exam. You should study the plants that are adapted for your area.

The sole intent of the *Plant Identification List* is to limit the number of plants which a person must study in preparation for the certification examination. It is not intended as a plant selection or recommendation guide.

To better assist you, the *Plant Identification List* has been divided by type of plant based on growth habit, e.g., Trees, Shrubs, Vines, Palms and Palm-like Plants, etc. Some of the plants listed may occur in more than one category because of their usefulness in a variety of situations. However, for purposes of clarity, a given plant will only appear in one category.

Examination Objectives

The objective of the certification examination is to ensure that the examinee possesses the qualifications that the horticulture employer and the public should expect from a certified professional.

This includes evidence that the examinee:

- 1) possesses reasonable knowledge about Florida's horticulture industry;
- 2) has knowledge of the general methods of plant classification and of plant growth;
- 3) can name the basic plant parts and their major functions;
- 4) can list the environmental factors which affect plant growth and give examples of the ways each affect plants;
- 5) can correctly advise on safe use of common horticultural chemicals and IPM strategies;
- 6) can identify common horticultural pests, pesticides and the broad group of pests they are used to control;
- 7) can identify the common plants used in the industry in the area of the state (north, central or south) from which the examinee is applying;
- 8) can identify correct usage of those plants in keeping with Florida Yards & Neighborhoods' principles;
- 9) can list basic factors which are generally considered as having an effect on sales of plants and the types of effects they produce;
- 10) can identify sources of professional help in solving plant problems; and
- 11) can identify proper irrigation practices and management in keeping with the Florida Green Industries Best Management Practices.

Manual

FNGLA's Certification Committee, with assistance from industry professionals, and utilizing publications of the University of Florida Institute of Food and Agricultural Sciences, publishes the *FNGLA Certified Horticulture Professional Manual*. The manual contains information for certification and provides contacts and relevant reference materials for the horticulture professional.

Examination Methods

Applicants for the online examination must register on line and will receive notification by e-mail of their user name, password and candidate identification number. Applicants will be required to have a copy of the *FNGLA Certified Horticulture Professional Manual* with them during the exam, to be used during the Open Book portion of the exam only. Online exams must be taken in proctored settings.

The FCHP exam will be a combination of multiple choice and true-false questions, and must be answered in accordance with test instructions. Examples of the types of questions and the correct procedure for completing these are included with the sample test questions at the end of each chapter in the FCHP Manual.

A total of three hours will be allowed for the four-part examination. Each part is timed independently of another. Allowable times are 30 minutes each for Plant ID, Horticulture Practices and Safety. 90 minutes is allowed for Open Book. The passing grade is 70%, which must be attained on each part of the examination. Examinees will be notified within 30 days whether they have passed or failed. Online exam applicants receive their pass/fail notifications immediately following completion of the exam sections. Do not call for test results. Examinees will be furnished the scores they have attained for each part, but they will not be permitted to review their certification exams.

Those who has passed all portions of the exam will receive his/her certificate packet with the notification. An examinee need only be re-examined in section(s) failed provided the re-examination is within one year.

Re-examinations

Individuals are eligible for two re-examinations within one year of the previously failed section. Anyone who has failed the examination three times (original and two re-examinations) will be allowed to retest again only upon petition to the FNGLA Certification Committee, or after waiting a period of one year. An online application is required for re-examination online.

Americans with Disabilities Act

It is the intent of FNGLA to comply with the Americans with Disabilities Act. Anyone who has special needs, a disability such as a Special Learning Disability (SLD), deafness, blindness or other physical disability which may cause undue difficulty in the normal testing procedure may petition the FNGLA Certification Committee for special testing. This testing will be administered in the appropriate manner.

Applications

Online applications and all fees must be in the hands of the FNGLA prior to the examination. **Online applications up to one week to process for credit card payments and up to 30 days to process for check payments.** Applicants are approved only after all documentation and payment is received.

FNGLA's Certification Committee

The members of FNGLA's Certifications Committee have the final decision on qualifications for certification, pass or fail decisions, and revocations of certification. Fifty percent of the Certification Committee constitute a quorum to act for the Committee. The Committee has the responsibility of adopting and amending policy, rules and regulations, and for approving the manual, its revisions, tests, testing procedures, etc. The manual revisions and the overall administration and operation of the FNGLA Certified Horticulture Professional program are done under the supervision of the FNGLA Certification Committee, the FNGLA Board of Directors and the Chief Executive Officer of FNGLA.

FCHP Examination Fee Schedule ***

Examination & Re-examination Fee:

FNGLA member **	\$ 85 (for complete exam)
Each section is	\$21.25
Non-member	\$150 (for complete exam)
Each section is	\$37.45

Each applicant for certification must have an FCHP manual at the examination. (The *FNGLA Certified Horticulture Professional Manual* is available through the FNGLA Office.)

Certification renewal (every 3 years):

FNGLA member**	\$60
Non-member	\$90

** Full time employees of an FNGLA member pay member price.

*** Prices subject to change.

Current fee schedule as of July 2010

Trade And Professional Organizations

Trade and/or professional organizations are developed within a particular business area or profession specifically for the common good of that business area or profession. In today's complex society they serve many purposes. They are prevented by law from engaging in price fixing or establishing trade prices. These organizations serve many valuable purposes and perform essential activities, not only for the specific trade profession, but also for the general public.

A major function of trade or professional organizations is the development of standards of conduct and quality. In some professions the codes are exactly stated, while in others they may be broad. In most professions the professional organizations are the major "policing agency" ensuring standards are adhered to by their membership.

Professional and trade organizations identify and seek solutions of common problems of the trade or

profession, exchange ideas, foster innovation, seek new marketing outlets and expand the activities of the profession.

Today the greatest function of professional and trade organizations is to become a voice for the profession. This is certainly important at the legislative level. Along with our great growth in population has come a corresponding reduction in the effect an individual person or business can exert in influencing the decisions of government.

A strong voice in the legislative process is the only protection against regulation of a trade or profession by decision makers who do not know the intricacies of the profession. The following are some of the major professional organizations which directly relate to the horticulture industry.

State Organizations

The Florida Nursery, Growers and Landscape Association, Inc. (FNGLA)

1533 Park Center Dr, Orlando, FL 32835

Telephone: (407) 295-7994
(800) 375-3642
Fax: (407) 295-1619
e-mail: info@fn gla.org
website: www.fn gla.org

Landscape Maintenance Association (LMA)

658 Gates Creek Rd, Bradenton, FL 34212

Telephone: (941) 714-0459
Fax: (941) 714-0462
e-mail: lmaflorida@aol.com
website: www.floridalma.org

Florida Irrigation Society (FIS)

9340 N 56th St, Ste 105, Temple Terrace, FL 33617

Telephone: (800) 441-5341
Fax: (813) 985-9820
e-mail: admininstration@fisstate.org
website: www.fisstate.org

Florida Turfgrass Association (FTGA)

5104 N Orange Blossom Trail, Ste 104
Orlando, FL 32810

Telephone: (800) 882-6721
(407) 291-9415
FAX: (407) 291-4852
e-mail: info@ftga.org
website: www.ftga.org

Association of Florida Native Nurseries (AFNN)

PO Box 434, Melrose FL 32666

Telephone: (877) FLA-AFNN
e-mail: dchiapin@atlantic.net
website: www.afnn.org

National Organizations

American Nursery & Landscape Assn. (ANLA)

1000 Vermont Ave NW, Ste 300

Washington, DC 20005

Telephone: (202) 789-2900
Fax: (202) 789-1893
website: www.anla.org

Professional Landcare Network (PLANET)

950 Herndon Parkway, Ste 450

Herndon, VA 20170

Telephone: (703) 736-9666
(800) 395-2522
Fax: (703) 736-9668
website: www.alca.org

Southern Nursery Association

1827 Powers Ferry Rd SE, Ste 4-100

Atlanta, GA 30339

Telephone: (770) 953-3311
FAX: (770) 953-4411
e-mail: info@sna.org
website: www.sna.org

International Society of Arboriculture (ISA)

P.O. Box 3129, Champaign, IL 61826

Telephone: (217) 355-9411
e-mail: isa@isa-arbor.com
website: www.isa-arbor.com

Association of Professional Landscape Designers (APLD)

1924 N Second Street, Harrisburg, PA 17102

Telephone: (717) 238-9780

Fax: (717) 238-9985
website: www.apld.org

e-mail: fshs@crec.ifas.ufl.edu
website: www.fshs.org

Garden Centers of America

PO Box 2945, LaGrange, GA 30241

Telephone: (888) 648-6463

Fax: (866) 826-4857

e-mail: info@gardencentersofamerica.org

website: www.gardencentersofamerica.org

Florida Native Plant Society (FNPS)

PO Box 278, Melbourne, FL 32902

Telephone: (321) 271-6702

Fax: (815) 361-9166

e-mail: info@fnps.org

website: www.fnps.org

Societies and Clubs

Many other horticultural and plant societies, organizations, clubs and associations are active in the United States and throughout the world with membership based on interest in plants, gardening, special groups of plants or related subject areas. These differ from professional associations in that membership is not limited to persons engaged in the trade, but is open to anyone with an interest. These organizations provide great benefit to the horticulture industry. Many receive portions of their support from trade and professional organizations.

Examples of organizations providing great value for Florida's nursery and landscape industry follow:

American Association of Botanical Gardens and Arboreta (AABGA)

100 West 10th Street, Suite 614

Wilmington, DE 19801

Telephone: (302) 655-7100

Fax: (302) 655-8100

Florida Federation of Garden Clubs

1400 S Denning Dr, Winter Park, FL 32789

Telephone: (407) 647-7016

Fax: (407) 647-5479

e-mail: ffgc@earthlink.net

website: www.ffgc.org

Florida State Horticultural Society (FSHS)

UF Citrus Research and Education Center

700 Experiment Station Rd

Lake Alfred, FL 33850

Telephone: (863) 956-1151

Fax: (863) 956-4631

About the Florida Nursery, Growers and Landscape Association

FNGLA is a not-for-profit organization composed of growers, retailers, landscape professionals, allied suppliers and others professionally engaged in the horticulture industry. It is one of the largest state nursery associations in the country, with close to 2,000 members. The motto of the organization incorporates the terms knowledge, service, integrity and quality, and stresses "In Unity There is Strength."

Leadership of the organization is provided by an elected slate of officers and a Board of Directors. The board of directors provides guidance and makes policy decisions for a professional staff. The professional staff works under the direction of the Chief Executive Officer.

The FNGLA Code of Ethics

Every member of the FNGLA must subscribe to the code of ethics shown below in order to join the organization. There is a similar code of ethics to which an applicant must subscribe before he/she can become certified.

Geographical Chapters

Membership in FNGLA is divided geographically into 18 chapters. These local chapters elect their own officers, conduct their own business and each elect a representative to the state Board of Directors. Much of the "grass roots" activity of the organization takes place at the chapter level.

Divisions

The association is also structured to include a number of groups (divisions) of members with common interests. Divisions are statewide groups to which all members of the association who have the same classification are assigned. The 7 divisions are:

Allied	Foliage
Floriculture	Landscape
Woody Ornamental	Citrus Nursery
Retail Garden Center	

Involvement with FNGLA is the best way for members of Florida's nursery and landscape industry to keep informed of factors affecting the industry. Through its many activities, FNGLA facilitates the pursuit of high professional standards and increased profits. The FNGLA emblem is a recognized hallmark of distinction that shows customers and colleagues alike that you are a professional.

Legislation

On the home front or in Washington, DC, FNGLA works to ensure that the horticulture industry will prosper. In its fifth decade, the association is stronger than ever against the pressures of governmental intervention and in acting as a spokesperson and interpreter for the industry. In many legislative sessions, FNGLA is actively involved in working for proposed legislation that will benefit horticulture and against

legislation that has the potential of adversely affecting the industry.

Promotion and Public Relations

Generating business for the members of the association is the motivational force behind FNGLA's comprehensive marketing program. By keeping association activities in the public eye, FNGLA creates interest in the use of plant material and educates consumers on the importance of dealing with reputable firms. Through its efforts, consumers have learned to associate FNGLA's logo with professional and trusted nursery and landscape operators.

Economic Advantages

Among the numerous economic benefits of membership are discount rates for FNGLA's certification programs, FNGLA trade show booths, FNGLA educational programs and advertisements in the online FNGLA *Locator* and *Greenline*.

Member Communications

The major communication links between the association and its members are *Greenline*, a monthly newsletter and *Ben's Babbles*, a periodic e-mail newsletter for members. Both publications feature information about the latest legislative, regulatory and association news.

Florida Nursery, Growers & Landscape Association (FNGLA) Code of Ethics

To regard the nursery business as an honorable and necessary profession, and to conduct myself and my business in such a manner as to enhance the standing of my vocation in its public acceptance.

To deal fairly and justly with my customers and to condemn all forms of practices which tend to discredit the nursery industry or injure its public relations.

To strive constantly and assiduously to improve my qualifications and proficiency in the industry and thereby merit the approbation and esteem of others.

To adhere to the By-laws of the Association and to foster its objectives.

Education and Research

A variety of seminars and workshops on nursery production, landscape management, landscape design, garden center management, industry innovations, best management practices and marketing are geared to help the horticulture professional achieve increased profits. FNGLA is a members' resource center designed to answer questions and assist with problems. By its nature, it provides a forum for interaction and the exchange of ideas. FNGLA also provides funding to support University of Florida research on a variety of horticultural problems through the FNGLA Endowed Research Fund at SHARE and the National Foliage Foundation.

The Landscape Show

FNGLA is the sponsor of The Landscape Show, a giant among industry shows in the nation. This annual marketplace in Orlando, Florida, features unique plant material, industry innovations and diversified allied products. Growing to meet the demands of consumer interest in plant material and related supplies, The Landscape Show includes exhibitors representing the outdoor living market, furthering the concept of flora as an integral part of leisure living area designs. Attracting buyers and sellers from all segments of the industry, The Landscape Show brings together the best the horticulture industry has to offer.

Tropical Plant Industry Exhibition (TPIE)

Spectacular displays of foliage and interiorscape at TPIE in Ft. Lauderdale, Florida, have become standards of excellence for the foliage industry. Plant material exhibited at the show, produced annually by FNGLA in January, has been described as among the "world's finest foliage." TPIE is one of the best vehicles for promotion and market expansion available to growers and suppliers alike.

Exchange of Ideas

In summary, through its umbrella structure, FNGLA develops programs and activities to address members'

needs and concerns. Its 18 local chapters, annual convention, trade shows, industry certification programs and educational seminars provide a forum for successful horticulture professionals. The *FNGLA Locator* provides a veritable "Who's Who" in Florida's nursery and landscape industry. Finally, outstanding member communications bring to the members the latest news about the industry.

Florida Horticulture Industry

The horticulture industry in Florida dates to the late 19th century. Two of the earliest nurseries in the state were Royal Palm Nurseries of Oneco, which began operations in 1881, and Glen Saint Mary Nurseries of Glen Saint Mary, which dates to 1882. These nurseries grew mainly field grown nursery stock. Many of the early developers and pioneers of Florida contributed to the industry, especially by introducing and trying new plants.

The era between World War I and World War II, and immediately after World War II saw the fledgling industry move into a "salvage can" state of production with the #10 food can, the egg can and salvage oil cans becoming standard containers. The dimensions of the "trade gallon" plastic container are based on the #10 food can and we still refer to three or four gallon containers as egg cans the fact that these containers were used to transport powdered eggs to the bakeries and other large users.

Shortly after World War II, the development of the modern nursery industry accelerated. Advancements in all types of research, our rapid population growth and accompanying urbanization helped to make the industry a multi-million dollar business. In 1952 the Florida Nurserymen and Growers Association (FNGA) was formed. The development of modern plastics at about the same time changed container production within the industry.

In 2004, FNGA changed its name to the Florida Nursery, Growers and Landscape Association (FNGLA) to incorporate the fast-growing landscape segment of the industry. Along with the increased need

for plants, the mushrooming population created a need for many closely related services. Landscape design, landscape installation, grounds maintenance, horticultural pest control and full-scale garden supply centers emerged. Many of these services are offered by nurseries, but the trend throughout the industry has been to specialize.

The nursery industry is one of great diversity. Nurseries range from “Mom & Pop” sole proprietorships to huge international corporations. The Florida Division of Plant Industry (DPI) has registered approximately 7,300 nurseries and more than 5,900 stock dealers and agents. Under the plant industry law, a nursery is considered a business that propagates plants; a stock dealer is one that buys and resells. The industry is comprised of wholesale nursery growers and retailers, however some businesses combine both operations.

Wholesale Growers

The largest nurseries in terms of acreage, dollar investment and number of plants sold are typically wholesale nurseries. Specialization has increased significantly, which has produced great diversity within the wholesale segment. Early individual wholesale nurseries had diversity in the kinds and types of nursery stock grown so that a retailer could purchase all of his/her plant material from one source. Although many wholesale growers offer a full line of plant materials, efficiency in growing fewer kinds of plants has tended to reduce their number. Specialties that have developed within the wholesale nurseries include: liner growers who specialize in propagation but do not produce a finished plant; foliage growers who produce only plants designed for indoor use; and many nurseries that limit their operations to only a single plant group, such as rose growers, palm nurseries, orchid and bromeliad nurseries.

Brokers and Agents

Brokers and agents are persons or firms that do not grow plants but provide a marketing service to the nursery industry. They are especially prevalent in providing sales to northern markets and the increase in their service is at least in part directly tied to specialization.

Retail Nurseries

Florida has more than 5,000 retail plant outlets. Of this number perhaps half could be considered nurseries where the buyer finds plant material suited for the area, along with an assurance of quality and valid information about his/her plants and corresponding plant problems.

Retail nurseries fit into several categories. These include: cash and carry nurseries; garden centers which offer plants and a full line of related items; full service nurseries which typically provide not only plants and other materials on a cash and carry basis, but also delivery, design, installation and maintenance services; and landscape nurseries. Landscape nurseries often specialize in design, installation and/or maintenance. Some cash and carry nurseries provide no service, no quality assurance and little or no warranty. Unfortunately, if the buyer receives any information, it may be incorrect because typically the salesperson has had no plant training. Many plants sold through this type of outlet are of good quality, but unless the buyer knows plant quality he/she cannot be sure about any individual purchase.

Florists can provide goods and services similar to retail nurseries. Many florists handle a line of plants for interior use, and many full service nurseries have an on-site florist in conjunction with their operations.

One factor common to all nurseries today is that in order to prosper, sound business decisions must guide the management of the nursery. One sound business practice is to hire qualified personnel. Although the purpose of this manual is not to provide instruction in business management, the primary goal of the FCHP and this manual is to upgrade the professional qualities of people in the industry.

Selling Plants

Selling is one of the most important activities that occur in the nursery, for if a nursery cannot successfully sell its product or services and keep its customers coming back, it will cease to be in business. Sales personnel must understand the importance of their role in the nursery's success.

It is impossible to write a prescription for selling that would be successful in every situation, but certain basics will almost always apply. Successful selling requires bringing buyer and seller together, relating product or service to a need or desire, and sometimes creating that desire. Good selling occurs when there is mutual satisfaction of the buyer and seller — the buyer is convinced he/she is receiving full value and the seller is pleased with the profit. The factors that produce success in sales are the same whether the product is an automobile or a shade tree.

Specifically, customers want a product that will perform well for them under the conditions in which they will use it. This means that we need to provide plants that will grow well where they are used. For example, if a nursery were located in a beach area, it would be essential that the plants sold had salt tolerance. Here the nursery operator must have plant knowledge in order to meet this need.

If one word were used to describe the desires of customers when purchasing almost anything it would be *quality*. This is especially true with plants. It is imperative that you sell high-quality plants. Although the customer frequently does not know what constitutes plant quality, you must know what a high-quality plant is in order to sell successfully.

A high-quality plant will justify the confidence the customer places in the salesperson. Selection of the right high-quality plant for the right place at a fair price will represent good value. A fair price does not always mean the lowest price. This is a universal truth in sales. A high-quality product at a fair price selected for the appropriate situation means good value, which leads to more sales provided the customer knows about it and recognizes a need. Even a worthy product which is fairly priced requires promotion: advertising, personal selling, publicity, good display — usually a combination of most or all of these. After the high-quality product, the key to successful selling is the salesperson.

Well displayed is half-sold: high-quality plants deserve to be attractively displayed. The initial impression often determines the mood to purchase, and more importantly, whether the customer returns as a regular patron. Therefore, good merchandising displays,

eye-appeal, orderliness, effective lighting, ample aisles, enticing focal points to encourage traffic throughout the sales area — all these factors should be reviewed regularly for maximum sales effectiveness. On peak traffic days or during busy hours, good planning and layout of store and sales areas can induce customers to shop the premises by themselves, or at least keep occupied until a salesperson is available.

Following are a few basic ideas and principles to consider in sales area planning.

1) The area at the entrance probably is the most valuable of all display space; therefore, it should be used for the most attractive, timely, sales-appealing “window-dressing.” Here is where first impression creates the image, good or poor, that can remain fixed in a customer’s mind. The front display should be maintained, interesting, appealing and changed at regular intervals.

2) Merchandise having not only eye-appeal but also rapid turnover and good profit margin should be located in the best traffic areas to generate maximum attention, sales and profits.

3) The common staples, usually lower profit margin items, such as fertilizers, soil amendments and even some of the better known and regularly requested items, can be located in the less accessible stock areas. To reach these areas the customer will then get broader exposure to merchandise commonly purchased on impulse.

4) Attractive, informative displays and strategically located directional signs should have the effect of intriguing customers to explore all of the sales areas.

5) Seasonal merchandise should be given good display, commencing early enough to capitalize on the full season.

6) Housekeeping should be a daily chore, keeping merchandise, fixtures and displays clean and inviting.

7) Feature related items in a sample display. For example, plants, containers, soil or planting media and fertilizers should be displayed together. This type of

merchandising not only serves the interests of the customer but also can increase sales.

8) Feature advertised items prominently for effective point-of-sale promotion.

9) Identify all merchandise and make sure that everything is clearly price marked. Unpriced items are frequently passed by; the customer is often reluctant to inquire about price. Unpriced merchandise can also cause frustrating delay and confusion at the cash register.

Salesmanship

The key to successful selling is good management and well qualified, trained sales personnel. The salesperson must be knowledgeable, experienced, presentable and patient. The confidence of the customer in the salesperson is generated mainly by that person's knowledge of the product and how the product should be used and maintained. Customers remember and ask for the salesperson who has proved to be qualified and reliable. That person, obviously, is an asset to the nursery. Knowledge of the product comes with love of the job, study, observation and seasoned experience.

Selling also requires an ability for relating knowledge of the product to the customer's needs and wants and the patience and skill for completing the sale. Some people acquire these easily while others find the transition to selling so difficult they move into other work.

Personal appearance of the salesperson when meeting the customer is important. In a garden center or nursery, sales personnel usually must perform several roles, such as to maintain stock, set up displays and keep the store and sales areas orderly and inviting. The successful business will have some minimum standards of dress and appearance for its sales personnel.

The decision to buy or not to buy rests always with the customer; therefore, the customer's point of view is of supreme importance at all times. A friendly greeting upon entering the store, or recognition by name for a regular patron, is a courtesy due and generally expected. The customer will usually indicate whether help is needed or he/she is "just looking."

Some Techniques for Successful Selling

Interest in a particular plant or product can provide the clue to whether the need is a landscape project, a gift, a problem with weeds, a disease, an insect or some other need. The salesperson must make a decision of how much time is justified for a particular situation.

With experience, the alert and interested salesperson can sense or determine the customer's needs. Courtesy, tact, knowledge of product and the desire to help can prevent overselling or underselling. Customers sometimes need assistance in making up their mind, but hard pressure selling is seldom justified.

If a salesperson is to advise or recommend, he/she must have all the pertinent facts, which may require some in-depth questioning. The salesperson must know, for example, the size of the area the customer wishes to plant, light, sun, heat or cold exposure, the soil environment, allowances for height and spread, color and texture preferences, and any special conditions such as salt exposure.

Tie-in Sales Serve Mutual Interests

Good salespeople who are prepared to recommend materials and procedures for successful planting provide a vital service to the customer. So-called tie-in sales in a nursery include such items as potting soils, peat, mulches, fertilizers, containers, tools and pesticides. Instructions for proper planting can minimize complaints and returned goods and promote customer satisfaction and goodwill. Appropriate tie-in sales and an expressed interest in the future of the products purchased are marks of good salesmanship, regardless of the product being sold.

How to answer, "Your price is too high."

When price is used as an excuse for not buying, the real reason might be something deeper. Completing

or losing the sale might depend upon a simple, well timed remark or suggestion such as, “Picture how this showy plant will accent the entrance to your home!” When price is the real culprit and the customer cites an advertised special at a discount house, emphasis on grade, quality, service, the nursery’s reputation for standing by its products — thoughts interjected along these lines usually can swing the sale in favor of the nursery.

Downgrading Competition

Regardless of the situation, bad-mouthing or downgrading competition is poor practice and can turn customers off. Emphasize positive reasons for buying rather than negative thoughts.

Customer Satisfaction

Keeping customers (and supervisors) happy should be a top priority. Among the many ways to please customers are simply cultivating the habit of being courteous, helpful and friendly.

Personal appearance of employees is an area that is frequently overlooked or ignored. Landscape maintenance and nursery work is hard, dirty, sweaty work. No one expects workers to be immaculately dressed. Uniforms, however, lend a professional touch, and if changed daily, a worker can still look presentable in late afternoon. Young male workers like to take their shirts off in hot, sweaty situations, but there are many people who object to this even if they won’t say so, and it could be the reason they select a new company to do business with. Additionally, from the standpoint of safety, workers should keep their shirts on.

The appearance of equipment is equally important to a professional image. If your equipment is in poor condition, how can you expect the customer to believe you represent a high-quality company? You’ll find it much easier to keep your customers satisfied if you are professional in all aspects, appearance included. Large equipment also provides an advertising area that is free after you have paid for the cost of neat, attractive signs.

The little finishing touches that are sometimes

overlooked are important to overall customer satisfaction. In landscape maintenance businesses, you should ask: Have all walks been swept or blown clean? Has all debris been properly disposed of? Gates closed? Items that were moved have been replaced, etc.? In the garden center: Did you greet the customer by name upon arrival? Did you let them know of a special item you just received? Did you take their merchandise to their car and carefully secure it for transport?

Remember, it’s the little things that don’t cost you anything that provide the greatest level of customer satisfaction and generate repeat, loyal clients.

Laws and Regulations for the Horticulture Business

Several laws directly affect or regulate nursery and other horticultural businesses. Adherence to these laws is not only the responsibility of management, but in many cases, of every employee. The following summary does not include all of the laws nor does it go into great detail. The purpose is to ensure that certified professionals are aware of the laws they are most likely to encounter.

The Plant Inspection Law (Florida Statutes 581.141 and 581.211; Florida Administrative Code 5B)

The purpose of this law is the protection of agricultural interests of the state of Florida. Most nursery operators consider this a beneficial law in a two-fold way. It helps to protect their product, and it helps them to detect and apply control measures before plant pest problems become serious. The law requires everyone who grows, buys and sells or distributes plants to register with the Division of Plant Industry (DPI) of the Florida Department of Agriculture and Consumer Services.

For the purpose of the law, only those who grow are considered nurseries. Nurseries pay an annual fee for inspection based on their inventory of plants, with a minimum of \$25 to a maximum of \$460. The same fee structure applies to stock dealers, brokers and agents.

Specialists from the division regularly inspect nursery stock in nurseries. They conduct continuing surveys for

all types of agricultural plant pests and periodically inspect nursery stock in dealers' locations. These specialists also provide inspections for out-of-state shipments, out-of-country shipments when special certification is required and for a number of other special purposes. Special fees apply to these inspections.

A valid inspection tag issued by the DPI is required when plants are sold at wholesale, for shipment out of state and for shipment by common carrier. Special tags are required on all sales of citrus.

The plant inspection law provides for the quarantine of plants when serious plant pests are found. Additional measures, which under certain situations may include destruction of nursery stock, may be required for emergency plant pest problems. Detailed information is available from the Division of Plant Industry, Florida Department of Agriculture, PO Box 147100, Gainesville, Florida 32614, phone 352-372-3505 or from local Division of Plant Industry offices listed in the phone book under Florida Department of Agriculture and Consumer Services, Division of Plant Industry.

Beaches, Shores, and Erosion Control Law: Harvesting of Sea Oats and Sea Grapes is Prohibited

(Florida Statutes 161.242; Florida Administrative Code 62B-54)

The purpose of this section of Florida law is to protect beaches and shores from erosion by preserving natural vegetative cover to bind the soil. The law makes it unlawful to harvest either sea grapes or sea oats from any public land or from any private land without the owner's permission. An important provision of the law specifically allows licensed, certified nurserymen to sell commercially grown plants of the two species.

Preservation of Native Flora

(Florida Statutes 581.185; Florida Administrative Code 5B-40)

This section of law provides for the protection of a great number of native plants by prohibiting or restricting their harvest, collection or removal. Licensed certified

nursery growers, however, are allowed to sell commercially grown plants of protected species.

Any nursery or person contemplating buying, selling, digging or transporting plants from their natural habitat should be aware of the provisions of this law. Additional information is available from the Division of Plant Industry at the address on page 15.

Florida Viability Law

(Florida Statutes 581.142; Florida Administrative Code 5B)

The intent of the viability law is to prevent the sale of nursery stock that is not living or that is so deteriorated that it is not capable of living. Basic requirements are that at the time of sale nursery stock must:

- be free of defects that would prevent the essential parts from functioning normally;
- have a functional root system or the ability to grow one;
- have trunks and branches capable of transporting fluids;
- have leaves capable of performing essential functions, or if free of leaves, must have ability to produce new leaves.

The law further requires protection of nursery stock when on display at sales outlets and spells out minimum indices of viability. Additional information can be obtained from the DPI at the address listed above.

Sales and Use Tax Law

(Florida Statutes 212.06)

The information presented here is a limited and an approximate summary of the regulations. It should not be applied to actual tax situations.

This law requires the collection of a sales tax by those persons or concerns engaged in the sale or rental of products or commodities. As a general rule, if you sell a product and you cannot prove the transaction was exempt from sales tax, you are responsible for payment of the tax.

Unless a seller receives from the purchaser a Resale Certificate or an Exemption Certificate which states the property was purchased for resale or some exempt purpose, sales tax is required to be collected. This certificate must be received by the seller prior to or at the time of sale. Horticulture businesses providing certain services, as well as products, are governed by varying sales tax requirements depending on the nature of the contract or agreement. A brief summary of certain types of situations is included below.

Retailer

Sales tax is to be collected at the time of sale, except when a certificate of exemption applies.

Wholesaler

All sales of nursery stock are presumed to be retail sales and must have sales tax added, unless the buyer presents to the seller a Resale Certificate or an Exemption Certificate. Out-of-state sales may be exempt depending on the specific situation. Sellers need to be aware of provisions on out-of-state sales.

Landscape Contractor

A landscape contractor who uses a lump sum, cost plus, fixed fee or guaranteed price contract does not have to collect sales tax if he/she pays tax on items purchased to use on the job. If, however, the landscape contractor itemizes the materials and supplies, then sales tax is required from the customer, and the landscape contractor should use a Resale Exemption when buying plants and supplies under this premise.

Landscape Maintenance

A landscape maintenance contractor does not need to collect sales tax for maintenance only. Installation of plants would be governed by the rules for landscape contractors.

Interior Maintenance

Interior maintenance is governed by the same provisions as for landscape maintenance unless plant material is provided, in which case, see the following paragraph.

Interiorscape Installation

In lump-sum interiorscape contracts, no tax is charged; however, taxes are charged in lease agreements. When interiorscape plants are installed and become a part of the real estate, the rules discussed under the landscape contractor section would be applicable.

Brokers

A broker must charge tax unless the broker receives an Exemption Certificate or a Resale Certificate.

Out-of-State Sales

It depends on whether the sale is deemed as having taken place in Florida or outside of the state as to whether tax is charged. Details are included in state regulations.

Purchase of Items by Nursery Operators

Many items purchased by nursery operators for use in their businesses are exempt.

These include items that are incorporated into the finished plant materials. Specific rules should be checked for important details.

Again, **all** laws, rules and regulations should be carefully checked for specific details. The inclusion of the information here is simply to convey general information. Detailed sales tax information is available from The Florida Department of Revenue, Taxpayers Services, 1379 Blountstown Hwy, Tallahassee, FL 32304-2716, phone 800-352-3671 or 850-488-6800 or see their website www.myflorida.com/dor/.

Agricultural License and Bond Law

(Florida Statutes 604.19 and 604.20 and Florida Administrative Code 5A-1)

The Florida License and Bond Law was enacted in 1941 to give market protection to producers of perishable agricultural commodities. Because the product the Florida grower is selling is perishable – and indistinguishable from other like products once removed from the shipping container – the producer is at the mercy of

the receiver for payment. There is no opportunity to simply return the product. Without the administrative process offered by the law, Florida growers would be faced with lengthy and expensive civil suits. In most cases, the cost of recovery would be greater than the value of the product. The law is specifically designed for the protection of the grower and includes all sod, hay and horticulture.

License and Bond Requirement

This law requires dealers in agricultural products (e.g., landscape contractors, plant brokers or nursery stock dealers) be licensed with the Florida Department of Agriculture's Bureau of Agricultural Dealer's Licenses if they buy directly from the producer or producer's agent and pay for that product in any form other than cash currency. Before receiving a license, the dealer must post a surety bond or certificate of deposit made payable to the Department. The bond amount must be twice the dollar amount during the month of maximum transaction in the preceding 12-month period, not greater than \$100,000 or less than \$5,000. The license fee can be up to \$500 depending on the volume of business transacted by the dealer. Fines are not to exceed \$2,500.

It is unlawful for any dealer in plant products who comes within the terms of this law to engage in such business in this state without a state license issued by the department.

Exceptions

The bond or certificate of deposit is in place to establish the financial responsibility of the dealer and to assist in the final payment of the product. The License and Bond Law currently covers all agricultural products except tobacco, sugar cane, and timber. Citrus is also exempt because citrus dealers operate under the Florida Citrus License and Bond Law.

Exceptions to the provisions of the Law are:

- Dealers who pay for their purchases with cash currency at the immediate time of purchase.
- Growers or groups of growers selling their own product.
- Dealers who operate as bonded licensees under the Federal Packers and Stockyards Act.

- Retail operations that purchase less than \$1,000 per month from Florida producers.

Claims Against Dealers

The Law also requires that dealers account quickly and accurately for the products they purchase or handle for Florida producers. If a producer or his agent feels that he has not been properly paid for his product, he can file a claim with the Department against the dealer's license. The Department may issue a final order in the case after presentation of all the facts in the matter.

If it is found that the dealer does not comply with the order to pay, then the Department will order the bonding company to pay. In cases where the bond is not large enough to pay all claims against the dealer, the funds are distributed pro rata to the claimants. Claims must be filed with the Department within six months from the date of sale and must involve at least \$500.

Additional information about the License and Bond Law can be obtained at www.florida-agriculture.com.

Pesticide Application

(Florida Statutes 487 and 482)

Applying Pesticides Correctly: A Guide for Private and Commercial Applicators, published by the U.S. Department of Agriculture and U.S. Environmental Protection Agency, is a highly recommended reference for the nursery and landscape professional. It includes important information on topics such as pesticide laws, pesticide equipment and calibration procedures, safety precautions that are needed in any pesticide application, and pesticide clean-up and container disposal. Every nursery should have this publication within reach.

Two Florida laws regulate the application of pesticides. The two laws are often confused because "licenses" are issued under each.

The first, the Florida Pesticide Law - Chapter 487, is administered through the Department of Agriculture and Consumer Services in Tallahassee. Under this law a license is required for anyone who applies restricted-use pesticides. Nurseries, citrus groves, golf courses,

parks and cemeteries are examples of where this license could be used.

There are three license classifications (private, public and commercial) under Chapter 487. The appropriate classification depends on who employs the licensee. A certified private applicator license is for the use of restricted-use pesticides on property owned or rented by the licensee's employer. This category applies to most nursery situations. A certified public applicator license applies to persons employed by a governmental agency and a certified commercial applicator license is required by a person hired to apply restricted-use pesticides to agricultural crops. A holder of this license may supervise up to 15 unlicensed applicators, mixers and/or loaders.

Persons in the nursery business must take a core exam plus the Ornamental Turf Pest Control category exam to receive this license. Core exams and exams for the Ornamental and Turf Pest Control category may be taken at any University of Florida IFAS County Extension Office that offers category examinations. Contact IFAS through the addresses provided in Chapter IX for more information.

The Pesticide Certification Section of the Bureau of Compliance Monitoring handles the above pesticide applicator certification and licensing. Contact them at 3125 Conner Blvd., Bldg. 8 (L-29), Tallahassee, FL 32399, phone 850-488-3314 or fax 850-922-6961.

The second law, the Florida Structural Pest Control Law - Chapter 482, enables the licensee to apply any pesticide to lawn and ornamental pests as a business. Licensed pest control businesses must have a certified operator at each business location. Minimum requirements, such as college credit or years of experience with a licensed business, must be met prior to taking a certification exam.

In lieu of full certification there are two categories of Limited Certification available under this law. These are: Limited Certification for Commercial Landscape Maintenance; and Limited Certification for Government and Private Applicators. The former permits limited licensing to individuals to apply a narrow range of

pesticides using a small 3-gallon or backpack sprayer for landscape maintenance other than turf. An example is the application of herbicides to control weeds in plant beds.

The second permits application of pesticides to lawn and ornamentals only on the licensee's own business property, their employers business property, or governmental properties. One notable exemption to Chapter 482 states that a yardworker who applies a pesticide to the lawn or ornamental plants of an individual residential property is exempted from licensing if the pesticides applied are owned and supplied by the individual property owner. The yardworker may not supply his own pesticide application equipment, use pesticide-applying power equipment, or use any equipment other than a handheld container when applying the pesticide.

For more information on the above pesticide applicator certification and licensing, contact the Bureau of Entomology and Pest Control at 1203 Governors Square Blvd., Suite 300, Tallahassee, FL 32301, phone 850-921-4177.

Additional information about pesticide licensing is available from the University of Florida Pesticide Information Office at pested.ifas.ufl.edu or from the Florida Department of Agriculture and Consumer Services Agriculture Environmental Services at www.flaes.org.

Worker Protection Standards (Environmental Protection Agency)

The federal Worker Protection Standard for Agricultural Pesticides (WPS) was implemented by EPA in 1992. Its goal is to ensure the health and safety of agricultural workers and pesticide handlers who work on agricultural establishments.

The Florida Department of Agriculture and Consumer Services (FDACS) is the state agency that implements and enforces this federal regulation in Florida. The Division of Agricultural Environmental Services, Bureau of Compliance Monitoring is responsible for outreach, compliance assistance, interpretive guidance, enforcement and limited training.

WPS requires employers to take several precautionary steps to help prevent their employees from being exposed to pesticides. These steps include but are not limited to:

- providing pesticide safety training to agricultural workers and pesticide handlers they employ;
- providing personal protective equipment and decontamination supplies to employees in order to minimize the risk of pesticide exposure; and
- providing information to employees so they know when, where and what pesticides have been applied.

The types of establishments covered under WPS are very specific. They include farms that produce agricultural crops, such as oranges, peanuts, watermelons, etc. Also covered under WPS are greenhouses and plant nurseries. These establishments produce agricultural crops such as flowers, ferns and ornamentals. Forestry operations that grow trees for the production of wood fiber or timber are also covered under the WPS. The following areas are not covered by WPS: golf courses, pasture lands, vertebrate pests, mosquito control, dwellings and other structures, and lawn and landscape maintenance.

Only pesticides designed for use in the production of agricultural plants are covered under the WPS. If a pesticide is covered under WPS, it will be stated on the label under the "Agricultural Use Requirements" section of the pesticide label. If a pesticide with WPS labeling is used on an agricultural establishment covered by the standard, WPS requirements must be complied with.

The Florida Agricultural Worker Safety Act (FAWSA) became effective July 1, 2004. Its intent is to ensure that agricultural workers employed in Florida receive protection from agricultural pesticides and are given information concerning agricultural pesticides. The law is implemented and enforced by the Florida Department of Agriculture and Consumer Services.

The specific provisions of FAWSA are as follows:

- Pesticide dealers, distributors, manufacturers, and importers selling agricultural pesticides must provide a Material Safety Data Sheet (MSDS) to the purchaser in written, printed, or electronic format.

- Agricultural employers must make available to farm workers upon request either an MSDS or fact sheet approved by the state or federal government in written format.

- FDACS must make available to trainers a one page general agricultural safety sheet in a language understood by the worker and must include 1) illustrated instructions on preventing pesticide exposure and 2) toll free telephone numbers to the Florida Poison Control Centers.

- The FAWSA prohibits the agricultural employer from taking any retaliatory action against employees who attempt to exercise their rights under this bill.

Invasive Species

(Florida Statute 581.091, Florida Administrative Code 5B-57.007)

Certain non-indigenous plant species have been termed biological pollutants because their presence upsets the balance among native species within natural and man-made ecosystems. Noxious weeds and undesirable plant species have the potential to persist, multiply and spread into natural areas and often displace native plant life over a period of time. These plants then have the potential to become invasive. The Federal Noxious Weed Act contains a list of plants considered harmful. Additional lists of prohibited aquatic, wetland and invasive plants are available through the Florida Department of Agriculture and Consumer Services.

Florida Statutes provide the Florida Division of Plant Industry the authority to make all rules governing nurseries and the movement of nursery stock as may be necessary for the eradication, control, or prevention of the dissemination of plant pests or noxious weeds. This means it can declare a plant pest, noxious weed, or arthropod a nuisance as well as any plant or other thing infested or infected therewith or that has been exposed to infestation or infection and is therefore likely to contaminate other plants or things.

It is unlawful for any person to knowingly sell, offer for sale, or distribute any noxious weed, or any plant or plant product or regulated article infested or infected with any plant pest declared, by rule of the department, to be a public nuisance or a threat to the state's agricultural and horticultural interests.

Aquatic vegetation plays an important role in maintaining and protecting water quality, providing shoreline stabilization and ensuring balanced fish and wildlife populations. Therefore, *Florida law (F.S. 369.20)* requires all persons intending to control or remove aquatic vegetation from the waters of the state to obtain a permit from the Florida Fish and Wildlife Conservation Commission.

The Aquatic Plant Management Field Operations Section maintains offices strategically placed throughout the state and provide the following services:

- * Provide extension/education services concerning aquatic plant management
- * Annually survey the aquatic plant communities in approximately 450 public water bodies comprising 1.25 million acres
- * Direct, review and monitor the control of non-native aquatic plants by contractors of the Commission
- * Assist and coordinate with federal, state and local governments on issues related to aquatic plant management
- * Regulate aquatic plant management activities through 2 permitting programs
- * Perform compliance/enforcement activities related to aquatic plant management

For questions or more information about the Section's field operations program, please call 850-245-2809.

Mangrove Trimming and Preservation Act

(Florida Statutes 403.9321-403.9333)

The 1996 Mangrove Trimming and Preservation Act governs the trimming and alterations of mangroves. The Florida Department of Environmental Protection and several delegated local governments implement the mangrove program. Mangrove trimming and alterations may be done by property owners under certain circumstances, but other trimming requires the services of a professional mangrove trimmer and may require a permit.

It is especially important that professionals understand that homeowners and the individuals they hire to trim

their mangroves are jointly and severally responsible for the appropriate trimming of mangroves. Also, be aware that dead mangrove trees are covered by the same regulations as living mangrove trees.

The booklet *Mangrove Trimming Guidelines for Homeowners* is available through the Florida Department of Environmental Protection at 850-245-8482.

Florida Watershed Restoration Act

(Florida Statutes 403.067)

In 1999, the Florida Legislature enacted the Florida Watershed Restoration Act (FWRA). A watershed is a region of land within which water flows down into a specified body, such as a river, lake, sea, or ocean; a drainage basin or catchment basin.

The FWRA specifically outlines the process for the Florida Department of Environmental Protection (FDEP) to develop and implement Total Maximum Daily Loads (TMDLs) for impaired waters of the state. The FWRA requires that TMDLs be developed for all pollution sources "agricultural and urban" to ensure water quality standards are achieved.

One part of developing and implementing the TMDL program requires FDEP to develop a list of surface waters that do not meet their designated use and delineate a prioritized schedule for addressing specific pollutants which result in the waterbody's impairment. TMDLs are defined as the maximum amount of an identified pollutant (e.g. phosphorous and nitrogen) that a water body can assimilate without exceeding federal/ state water quality standards. When establishing a TMDL load allocation for a given water body, all land uses within the hydrological boundaries of the water shed are considered and a portion of the allowable amount for each pollutant is allocated to all contributing sources (i.e. citrus, pasture, urban areas, golf courses, etc.).

In order to effectively implement the TMDL program, the FDEP coordinates its efforts with a variety of entities including the Florida Department of Agriculture and Consumer Services, the water management districts, the local Soil and Water Conservation Districts, the

environmental community, the agricultural community, and concerned citizens.

While the ultimate responsibility for establishing and meeting TMDL water quality goals rests with FDEP, FDACS has 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 they must be verified to be effective by FDEP. In return, agricultural land owners who choose to implement adopted best management practices will receive a presumption of compliance with state water quality standards. This unique approach to addressing water quality concerns related to agricultural has been well received by the environmental and agricultural communities alike and as a result is becoming the primary method for addressing water quality concerns.

Best Management Practices

This program derived from an initiative by the Green Industries to implement alternative measures to protect the environment. Consequently, they have actively participated in the development of the GI-BMPs. "By the Green Industries" on the program's title highlights the active involvement of the green industry and their leading role in training, disseminating, and implementing these practices.

"Protection of water resources by the Green Industries" means that the green industry plays a leading role in the protection of the Florida water resources by implementing the GI-BMPs. The program uses an inside-out approach, meaning the industry is taking a proactive approach towards environmental protection. How each one of you does your job, every day, matters.

Nonpoint Source Pollution

Pollution that comes from diverse sources that can't be "pointed" at as the known source.

GI-BMPs

- o Contrary to Popular Belief, GI-BMPs are NOT just about fertilizer.
- o Design & installation workers affect the health and maintenance of plants for the life of a yard.
- o Irrigation - too dry or wet promotes disease, excessive use of water, fertilizers and pesticides, and erosion. Too much water promotes leaching & runoff.
- o Improper mowing, pruning, mulching, etc. promotes disease, excessive use of water, fertilizer and pesticides, and erosion.
- o Sales staff affect client expectations.

Business reasons to use BMPs

- o More efficient use of resources
- o Reduced maintenance costs - less fertilizer, less pesticide, fewer callbacks
- o Better educated workers = better morale, less turnover
- o Improved worker safety, reduced insurance rates
- o Higher professional industry standard
- o Improved productivity = higher profits
- o Improved landscape and turf quality
- o Happier customers = more customers
- o Reduced environmental impacts
- o Reduced regulatory requirements
- o Opportunity for industry self-regulation

Nonpoint Source (NPS) Pollution, unlike pollution from industrial and sewage treatment plants, comes from many diffuse sources. NPS pollution is caused by rainfall moving over and through the ground. As the runoff moves, it transports natural and human-made pollutants, depositing them into lakes, rivers, wetlands, coastal waters, and even into underground sources of drinking water. These pollutants include excess fertilizers, herbicides, insecticides from agricultural lands and residential areas, oil, grease, toxic chemicals, sediment from construction sites and eroding streambanks, bacteria and nutrients from livestock, pet waste and faulty septic systems. In Florida, urban nutrient runoff and leaching are significant causes of water pollution.

High levels of nitrogen and phosphorus, a common problem in Florida waters, can have devastating impacts on the coastal ecology.

Atmospheric deposition and hydromodification are also sources of nonpoint source pollution. Atmospheric deposition occurs when pollutants are transferred from the air to the earth's surface. Hydromodification refers to manmade changes in the natural physical structure of a waterbody and/or its natural function through channelization, channel modification, dams, and streambank and shoreline erosion. These changes can alter the natural flow of water, increase sedimentation, raise water temperature, lower dissolved oxygen levels, degrade aquatic habitat structure, diminish aquatic populations, and decrease water quality. Eventually this results in economic, social and health impacts on humans.

Effects on Water Quality

Direct effects of incorrect maintenance practices.

- o Excess N and P may encourage excessive plant and algal growth in water bodies, lower oxygen levels, fish kills and other effects. Inappropriate pesticides application may also harm aquatic life.

- o Practices such as incorrect irrigation or that leave bare or thinly vegetated ground may lead to Erosion, which

- o Clogs gills and smothers bottom dwellers that are the food source for many other organisms
- o Carries nutrients and other chemicals into water
- o Increases turbidity and blocks sunlight

Indirect effects of incorrect maintenance practices.

- o Erosion can further harm roots by washing away soil, or sediments may smother the roots.

- o Too little nutrition makes weak plants, but too much, or an imbalance, can also weaken plant or invite pests.

- o Weak plants cannot outcompete weeds, which then shade them and rob nutrients; or are unable to fight off pests and disease; so more pesticide must be used than with healthy plants.

- o Overwatering wastes water and it is the most common way people kill their lawn. It promotes shallow root growth, fungus, pests and disease, excessive growth, leaching away of nutrients, and weakens the plants. It also promotes runoff, erosion and many weeds.

- o Direct effects of incorrect maintenance practices.

What other effects can NPS cause?

- o Higher treatment, maintenance, and erosion repair costs, and higher impact and stormwater fees.

- o Reduced tourism, lower property values, reduced commercial fishing and waterfront use, etc.

- o Algal and weed-choked water bodies, fish kills, reduced swimming, fishing and boating, ugly, smelly water bodies, loss of fish and wildlife, etc.

Landscape Irrigation & Florida Friendly Design Standards

(Florida Statutes 376.228)

Up to one-half of Florida's public water supply is devoted to landscape irrigation. Given Florida's limited water resources, in combination with a rapidly growing population, wise irrigation practices will play an essential role in providing a sustainable water future for our state. Proper landscape design and irrigation system standards can help save significant amounts of water and money, and achieve both attractive landscapes and protection of our natural resources.

The Landscape Irrigation & Florida Friendly Design Standards are based on the irrigation code defined in the Florida Building Code, Plumbing Volume, Appendix F and directs that local governments use these standards when developing ordinances.

Standards include 1) low impact site design practices, 2) choosing a plant palette and irrigation system that is appropriate for site conditions, 3) grouping plants by irrigation demand and, 4) minimizing the percentage of landscape area in irrigated high water use hydrozones.

Urban Fertilizer Application

Senate Bill 494, enacted in 2009, creates a limited certification for urban landscape commercial fertilizer application to be implemented January 1, 2014. This limited certification will provide a means of documenting and ensuring compliance with best management practices for commercial fertilizer application to urban landscapes.

Pursuant to 403.9338 the Florida Department of

Environmental Protection (FDEP) will provide training and testing programs in urban landscape best management practices and may issue certificates demonstrating satisfactory completion of the training. FDEP will also approve other training and testing programs equivalent to or more comprehensive, such as the FNGLA Certified Horticulture Professionals (FCHP) program.

Based on successful completion of a FDEP training program, or a FDEP-approved training program, the Florida Department of Agriculture and Consumer Services will grant the limited certification for urban landscape commercial fertilizer application under s. 482.1562.

In addition, Senate Bill 494 creates Florida Statutes 403.9335-403.9336 that encourages county and municipal governments to adopt and enforce the Model Ordinance for Florida-Friendly Fertilizer Use on Urban Landscapes, or an equivalent requirement, as a mechanism for protecting local surface water and groundwater quality.

Irrigation Systems

Senate Bill 494 amends Florida Statutes 373.62 in many water conservation-related items. This includes 1) revising the requirements for automatic landscape irrigation systems; 2) requiring irrigation contractors to test for correct operation of system devices or switches and ensure their proper operation before completing other work on the system; 3) authorizing local government to approve smart irrigation controller; 4) providing legislative findings relating to the adoption of soil moisture sensor control irrigation systems; 5) providing a statewide process and conditions for obtaining a variance from water management district restrictions on water use.

Water Conservation in Landscapes

Senate Bill 2080, also enacted in 2009, amends 373.185, revising the definition of Florida-friendly landscaping, deleting references to “xeriscape” and capturing the nine principles of Florida Friendly

landscape. It also requires water management districts to consult with additional entities for activities relating to Florida-friendly landscaping practices; specifying programs for the delivery of educational programs relating to such practices

The bill directs water management districts to work with the department, local governments, county extension agents or offices, nursery and landscape industry groups, and other interested stakeholders to promote, through educational programs and publications, the use of Florida friendly landscaping practices. Each district shall use the materials developed by the department, the Institute of Food and Agricultural Sciences at the University of Florida, and the Center for Landscape Conservation and Ecology Florida Friendly Landscaping program, including, but not limited to, the Florida Yards and Neighborhoods Program for homeowners, the Florida Yards and Neighborhoods Builder Developer Program for developers, and the Green Industries Best Management Practices Program for landscaping professionals.

In addition, the Legislature finds that the use of Florida Friendly landscaping and other water use and pollution prevention measures to conserve or protect the state’s water resources serves a compelling public interest and that the participation of homeowners' associations and local governments is essential to the state's efforts in water conservation and water quality protection and restoration.

Therefore, homeowners’ association documents, including declarations of covenants, articles of incorporation, or bylaws may not prohibit or be enforced so as to prohibit any property owner from implementing Florida-friendly landscaping landscape.

Voluntary Compliance Issues

Horticulture businesses are concerned about providing quality goods and services in production and maintenance. Additionally, business activities should maintain standards that promote environmental stewardship.

Grades and Standards

There are two sets of standards that assist in the selection of plant material and provide a guide to specify and negotiate plant 'quality'. Florida Statute 581.031 (2)(3) establishes a vehicle for buyer and seller communications.

Florida Grades and Standards are detailed in *Grades and Standards for Nursery Plants*, 2nd Edition 1998 by the Florida Department of Agriculture and Consumer Services, Division of Plant Industry (DPI). For information, contact DPI at PO Box 1269, Gainesville, Florida 32602, 352-372-3505. The guide can be accessed online at www.doacs.state.fl.us/pi/pubs.html.

Grades established by Florida Grades and Standards are Florida Fancy, Florida #1 and Florida #2. Florida Fancy is the premium grade with decreasing quality indicated by #1 and #2. Plants that fall below the Florida #2 grade are culls.

The use of Florida Grades and Standards is becoming widespread. A common specification on landscape plans is all plants shall be Florida #1 or better. While this specification is good, it is limited by the fact that only those plants that are listed in the Grades and Standards Manuals can be graded. A result is that some of the plant material available is not graded. A study of the standards will indicate aspects that make a quality plant and those that make a poor plant. With this knowledge, one can do a much better job of selecting quality plant material.

The *American Standard for Nursery Stock* published by the American Nursery and Landscape Association (ANLA) is a standardized system of sizing and describing plants to facilitate the trade in nursery stock. Its use should help prevent disputes between buyer and seller. It provides standards for plants ranging from fruit and shade trees to bulbs and Christmas trees.

The most recent revision took place in 2004 and is available from ANLA at 202-789-2900 or can be accessed online at <http://www.anla.org/applications/Documents/Docs/ANLStandard2004.pdf>.

FNGLA Do Not Grow List

Scientific name, common name

Adenanthera pavonina, red sandalwood
Agave sisalana, sisal hemp
Albizia lebbbeck, woman's tongue
Aleurites fordii, tung oil tree
Alstonia macrophylla, devil-tree
Alternanthera philoxeroides *, alligator weed
Anredera leptostachya, Madeira vine
Aristolochia littoralis, calico flower
Bauhinia variegata, orchid tree
Bischofia javanica, bischofia
Broussonetia papyrifera, paper mulberry
Callisia fragrans, inch plant
Casuarina cunninghamiana *, Australian pine
Cereus undatus, night-blooming cereus
Cupaniopsis anacardioides §, carrotwood
Dalbergia sissoo, Indian rosewood
Enterolobium contortisliquum, ear-pod tree
Flacourtia indica, governor's plum
Flueggea virosa, Chinese waterberry
Hiptage benghalensis, hiptage
Leucaena leucocephala, lead tree
Macfadyena unguis-cati, cat's claw vine
Melia azedarach, Chinaberry
Melinis minutiflora, molasses grass
Merremia tuberosa, wood-rose
Muriophyllum spicatum *, Eurasian watermilfoil
Nephrolepis cordifolia, sword fern
Ochrosia parviflora, kopsia
Oeceoclades maculate, lawn orchid
Passiflora foetida, stinking passion vine
Psidium guajava, guava
Pteris vittata, Chinese brake fern
Rhoeo spathacea, oyster plant (non-dwarf variety)
Rhynchelytrum repens, Natal grass
Ricinus communis, castor bean
Sesbania punicea, purple sesban
Solanum diphyllum, two-leaf nightshade
Solanum jamaicense, Jamaica nightshade
Syzygium cumini, Java plum; jambolan
Syzygium jambos, rose-apple
Terminalia catappa, tropical almond
Thespesia populnea, seaside mahoe
Tribulus cistoides, burrnut
Triphasia trifoliata, limeberry
Urena lobata, Caesar's weed

* Prohibited by Florida DEP

§ Prohibited by FDACS

Invasives in Florida

Nursery and landscape industry professionals have a strong vested interest in environmental stewardship. Since 1997, FNGLA has participated in on-going discussions with the environmental community. As a direct result, FNGLA was one of the nation's first industry associations to urge its members to cease production, installation and sale of 43 plants widely believed to have invasive potential in the landscape.

The consumer's desire for new plants exhibiting color, hardiness and ease of maintenance is driving new plant introductions in the market. FNGLA strongly supports the industry's shifting focus to the research and breeding of new plant selections or cultivars lacking invasive characteristics.

Nursery Code of Conduct

At an international meeting on invasive plants held in St. Louis in 2001, a Voluntary Code of Conduct for nursery professionals was developed and subsequently endorsed by FNGLA. In part, its principles are intended to ensure that invasive potential is assessed prior to introducing and marketing plants new to North America. The principles of the Code follow:

- Ensure that invasive potential is assessed prior to in-

roducing and marketing plant species new to North America. Invasive potential should be assessed by the introducer or qualified experts using emerging risk assessment methods that consider plant characteristics and prior observations or experience with the plant elsewhere in the world. Additional insights may be gained through extensive monitoring on the nursery site prior to further distribution.

- Work with regional experts and stakeholders to determine which species in your region are either currently invasive or will become invasive. Identify plants that could be suitable alternatives in your region.
- Develop and promote alternative plant material through plant selection and breeding.
- Where agreement has been reached among nursery associations, government, academia and ecology and conservation organizations, phase-out existing stocks of those specific invasive species in regions where they are considered to be a threat.
- Follow all laws on importation and quarantine of plant materials across political boundaries.
- Encourage customers to use, and garden writers to promote, non-invasive plants.

Sample Exam Questions

Immediately following each chapter are 10 sample questions, similar to what you may find on your FCHP exam. All questions on the examination will be of two types:

1. **True-false.** In true-false questions you will be given a statement to read. If the statement is true, mark the T (or A) answer. If the statement is false, mark the F (or B) answer.
2. **Multiple choice.** With this type of question, you will have a choice of five possible answers to a question. Choose the best answer and mark that answer.

Please Note: The answers to these and all other sample questions in the manual are found in the Reference Chapter IX, page IX-10.

Sample Questions — Business Issues Chapter I

True-False:

1. Any certification that has not been renewed within 30 days after the expiration date will be revoked.
2. The FCHP program is a mandatory program for the certification of persons employed in the horticulture industry in the state of Florida.
3. Trade and professional organizations are prevented by law from establishing trade prices or engaging in price fixing.
4. If one word were used to describe the desires of customers when purchasing almost anything, it would be price.
5. Pesticide application is not regulated by law.

Multiple Choice:

6. The confidence of the customer in a sales person is generated mainly by:
 - A. Dress
 - B. Speech
 - C. The person's knowledge of the product
 - D. The person's knowledge of how to sell
 - E. All of the above

(Continued)

7. Basic requirements of the Florida Viability Law are that the plant must:

- A. Be free of defects
- B. Have a functional root system
- C. Have trunks and branches capable of transporting fluids
- D. Have leaves capable of performing essential functions
- E. All of the above

8. Which of the following is not a division of FNGLA?

- A. Allied
- B. Retail
- C. Foliage/Interiorscape
- D. Golf Course/Turf
- E. Floriculture

9. Successful selling requires:

- A. Bringing buyer and seller together with a hard sell
- B. Getting buyer into place of business
- C. Bringing buyer with money together with seller
- D. Bringing buyer and seller together and relating product to need
- E. None of the above

10. So-called “tie-in” sales in a nursery include such items as:

- A. Potting soils
- B. Fertilizers
- C. Pesticides
- D. Tools
- E. All of the above