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"Elements of Color" and "Color Magic"

The Floriculture Division of FNGA and Walt Disney World Horticulture have announced their annual seminar and tour event. "Elements of Color," a series of seminars on all aspects of the use of color in Florida landscapes, will be held on April 22nd. "Color Magic", will be held on April 23rd, and will offer a tour of Epcot's Gardens of the World, and seminars on horticulture - Disney style. This is a great opportunity to combine professional development, a personal interest in horticulture, and the fun of Disney. For more info Call Merry Mott at FNGA 1-800-375-3642.

LMA Re-Organizational Meeting

The Tampa Bay Chapter of the Landscape Maintenance Association will hold an organizational meeting April 22nd at 7:00 PM at Cypress Creek 12733 N. Florida Ave, Tampa. Harold Parker, who was recently appointed Chapter President by the LMA State Board of Directors, will demonstrate a spreadsheet capable of tracking of income, productivity, and man hour costs. Dave Palmer, Urban Commercial Extension Agent for Hillsborough County will also speak.

Natives: No Guarantee of Pest Free

Many people, both outside the green industry, and even within, believe that native plants are adapted to native pests and therefore need little or even no pest control. Nothing could be further from the truth. Current research is showing that plant density (number of similar plants in an area) and plant diversity (the number of unrelated species) in a landscape are major factors in determining, and even predicting, the severity of plant pest problems. Native plants, for example, in an undisturbed or "wild" situation, will sometimes appear to be largely unaffected by pests. This is due to the low density and high diversity of most native species in the wild. Generally, as the number of different species on a site increases, the number and severity of pest problems decrease. Why is this so? One reason that pests are suppressed in a natural site is because they have a more difficult time locating their specific host plant. Another reason is that a mixture of plant species support a more diverse insect population, including beneficials, which prey on the harmful pests. Native plants may also appear more pest resistant because limited light, nutrients and water change the biochemistry of the plants, thus making them less desirable to pests. In an urban setting these limitations are lifted, making natives more attractive to pests. The bottom line is that plant selection should be based on the plant's adaptability to a site, the "right plant - right place" concept, whether the plant is a Florida native or not. (Source: Article in American Nurseryman by Dr Gary Knox and Dr Russ Mizell, November, 1998)

Pesticide Potpourri

Did you know that there are about 4,000 species of cockroaches in the world? Fortunately only about 25 to 30 (less than 1%) are actually pests to humans. (*Pest Management Quarterly, Dec 1998*)

The pesticide industry is reportedly losing \$200 million per year in sales, primarily because new crop varieties have lowered chemical costs. Additionally, next year the loss is estimated to be \$300 million or more, and in two or three years the loss will be \$700 million a year. Roundup-ready beans, for example, have lowered herbicide costs from about \$20 an acre to about \$10-\$12 an acre. These changes have reduced pesticide sales across North America from \$8.7 billion last year to about \$8.5 billion this year. Next year it will be down to \$8.4 billion and then decline to about \$8 billion. The big companies that have invested heavily in biotechnology will be hard pressed to capture enough sales revenue from the new crop varieties to cover their costs and they are losing revenue on pesticide sales. The companies that have stuck to chemicals and stayed out of biotechnology and seeds are also losing revenues, so they have less to spend on research and development for the next generation of pesticides. (*Ontario Farmer, 9/29/98 via Agnet*)

Scientists at a pest control company in England have developed a remote-control mousetrap that automatically monitors itself for mice and sends a message to a base miles away when it needs service. The traps are projected to be used in sites that are less likely to see an infestation. They save time as they only need to be visited when they have captured a rodent. (*BBC News, January 15, 1999*)

Ants are social insects and live in colonies. Sometimes these colonies may contain only 50 or so individuals, but one supercolony of *Formica yessensis* ants on the coast of Japan is reported to have 1,080,000 queens and 306,000,000 workers in 45,000 interconnected nests. (Source:

Did You Know?

Ž FDACS is the State agency that governs all pest control applicators in Florida. The Bureau of Entomology & Pest control in Jacksonville governs all pest control businesses, mosquito control and the "Limited" licenses. Their phone number is 904-727-6590 and their new homepage is at

The Bureau of Compliance Monitoring governs all Restricted-Use applicators in the state of Florida. Their phone number is 850-488-6838 and their new home page is at

Ž From October 1, 1998 to December 31, 1998, the Florida Dept of Agriculture & Consumer Services (FDACS) issued 25 "Cease and Desist" orders to unlicensed pest control operators in Florida.

Ž The Hillsborough Extension Service is now offering pesticide exam prep courses for Core, Private, Right-of-Way, Aquatic, and Ornamental & Turf exams. The O & T class will help prepare potential applicants for the Restricted-Use Ornamental & Turf Exam, the Limited Commercial Landscape Maintenance Exam and the Limited Lawn & Ornamental Exam. The classes also offer CEU's for those already licensed. See the flyer included in this newsletter or call 813-744-5519x103

Ž A total of 76 different insects are now included on the Featured Creatures website. Nearly all have color pictures, hosts, damage etc. the site is at

Ž *Best Management Practices for Golf Courses* (SP141, \$20) has been updated with new photos, a chapter on Bermuda-grass varieties, new putting green construction information and tips on integrated pest management. Call 1-800-226-1764

Ž *Identification and Biology of Non-Native Plants in Florida's Natural Areas* (SP257, \$16) A field guide that covers 62 non-native plant species considered weeds in Florida's natural areas. Contains descriptions & color photos and provides ecological significance, distribution and life history. Call 1-800-226-1764

Ž *The Florida Plant Selector CD-ROM 2nd Edition* (SW-114 \$50) - Helps you find the right plant for the right place. Includes 600 Florida annuals, perennials, trees, shrubs, vines and groundcovers with detailed information, and indexes of common and scientific names. Call 1-800-226-1764

Ž *The Woodybug CD-ROM (SW 119 \$30)* A knowledgebase of pests and beneficial insect of Florida's woody ornamental plants including life cycle, biology, damage, hosts, scouting and biological and chemical control. The price on this CD has been dropped from \$50 to \$30. Call 1-800-226-1764

Ž *Grasses, Sedges, and Rushes of Wetlands* (SP255, \$12) An identification card deck, has been released. It features habitats that provide food for wildlife. It was developed by Victor Ramey of the Center for Aquatic and Invasive Plants, With many photos and illustrations by the center's Ann Murray. Call 1-800-226-1764

Ž What makes a plant a Florida native? If the plant was here in Florida when Ponce DeLeon toured in 1513, or if the plant showed up later by non-human methods, such as washing ashore, or hitching a ride in or on creatures, such as birds, or being blown in by wind, then

Mulch Application Chart

Yards

1 cubic yard contains 27 cubic feet
1 cubic yard spread 4" deep covers 81 sq.ft.
1 cubic yard spread 3" deep covers 108sq.ft.

Bags

13 ½ of the 2 cu.ft. bags = 1 cubic yard
9 of the 3 cu.ft. bags = 1 cubic yard
1 bag, 2 cu.ft. spread 4" deep covers 6 sq.ft.
1 bag, 2 cu.ft. spread 3" deep covers 8 cu.ft.
1 bag, 3 cu.ft. spread 4" deep covers 9 cu.ft.
1 bag, 3 cu.ft. spread 3" deep covers 12 sq.ft.

Recommendations

New mulch - Apply 4" deep
Remulch - Apply 3" deep
(Be sure to keep mulch away from trunks and stems of plants.)

the plant is considered to be a native. (Source: *Ornamental Outlook*, Mar. '99)

Business Classes

The following business classes are offered by the Small Business development Center (SBDC). Please call 813-554-2341 for more details.

4/1 Starting a Small Business: The Necessary Steps - 6-8:45pm

4/7 Where to Find the Money - 6-9:30pm

4/8 Marketing on the Internet - 6-8:30pm

4/9 Starting a Small Business: The Necessary Steps - 1-3:45pm

4/14 Business Accounting Made Simple - 6-8:30pm

4/15 Starting a Small Business: The Necessary Steps - 6-8:45pm

4/19 Red Hot Marketing Tips - 6-8pm

4/21 Starting a Small Business: The Necessary Steps - 6-8:45pm

4/28 How to Write an Effective Business Plan - 6-8:30pm

4/1 Starting a Small Business: The Necessary Steps - 1-3:45pm

The SBDC also offers a class to help women and minority businesses get certified to do business with the State of Florida. This class will be held on April 7 and April 19 from 1-3pm and are free. Call 813-554-2341 for more details

Mulch Confusion?

Does cypress mulch repel termites? Not according to Dr. Mary Duryea, a professor in the School of Forest Resources and Conservation at the University of Florida. Dr. Duryea tested 6 different mulches for durability, nutrient content, ability to maintain color and whether the termites are repelled by the mulch, among other characteristics. What she found was that only melaleuca mulch repelled termites. Melaleuca, pine bark and cypress scored high for durability and color maintenance. Melaleuca mulch is made from a fast growing invasive tree that has crowded out native species in the Everglades. Mulch is used to retain water and inhibit weed growth, and sometimes to add nutrients to soil and decorate yards. *(Source: Presentation by Dr. Duryea at the Tree & Landscape Short Course in Tampa)*

Remote CEU Program

The Florida Department of Agricultural and Consumer Services (FDACS) encourages pesticide applicators to renew their Restricted-Use Pesticide Certification through training rather than re-examination because there is a greater benefit derived through education. High workloads and busy schedules sometimes make it difficult to earn CEU's.

The Pesticide Certification Office has developed a Remote CEU study program to allow applicators to earn CEU's at home at the applicators convenience. The Remote CEU Program consists of worksheets and instructions that accompany educational materials. Remote CEU modules vary in length and CEU value. The questions focus on the study material. Applicators can complete the worksheets on their own time and submit them directly to the Pesticide Certification Office for review and issue of CEU's. For further information, call the Pesticide Certification Office at 850-488-6838.

More Pesticide License Inspectors?

CPCO, the Certified Pest Control Operators Association has proposed raising the annual cost of pest control employee ID cards from \$10 to \$25. They are asking that the funds be used strictly for enforcement of Statue 482. FDACS - the Florida Department of Agriculture and Consumer Services, is the agency charged with pesticide licensing and enforcement, among other things, is severely understaffed. FDACS Bureau of Entomology has 14 inspectors to cover Florida - a state with 14 million residents, 4000 pest control companies, 6000 certified operators, and 30,000 pest control technicians. The money raised by this fee increase will allow the Department to hire 7 new inspectors, a 50% increase in enforcement. With this additional money, the Bureau of Entomology will be better able to protect the safety of Florida's residents and environment. (Source: CPCO Advantage Feb '99 and Mel Edelstein - Executive Director of CPCO)

Horticultural Oils

Horticultural oils were an important pest-control tool prior to the advent of synthetic pesticides after WWII. These early oils were not highly refined and could easily cause damage if used during the growing season. Their use was therefore restricted to dormant season applications. To this day many people think of any horticultural oil as a "dormant" oil. However, many modern oils are highly refined and less phytotoxic (damaging) to foliage.

To underscore the relative safety of modern oils, Dr. Fredric Miller, a researcher with the University of Illinois Cooperative Extension, studied the effects of a modern summer oil on shade trees, woody shrubs and evergreen conifers (a total of 52 species and cultivars). Not only did Miller find no phytotoxic effects, his results showed no inhibition of growth at all compared to the control plants. This research confirms that spray oils are a valuable option for pest control during the growing season, not just the dormant season. Please note that not all horticultural oils are labeled for summer use. As with all pesticides, READ THE LABEL before *using*. (Source: *Grounds Maintenance June, 1998*)

E-Mail Story

(Note - I normally stick to business in this newsletter, but when I read this, I felt I had to include it. I hope you enjoy this as much as I did. - Dave)

Read this and let it really sink in. Then choose how you start your day tomorrow. Jerry is the kind of guy you love to hate. He is always in a good mood and always has something positive to say. When someone would ask him how he was doing, he would reply, "If I were any better, I would be twins." He was a unique manager because he had several waiters who had followed him around from restaurant to restaurant. The reason the waiters followed Jerry was because of his attitude. He was a natural motivator. If an employee was having a bad day, Jerry was there telling the employee how to look on the positive side of the situation. Seeing his style really made me curious, so one day I went up to Jerry and asked him "I don't get it. You can't be a positive person all the time. How do you do it?" Jerry replied, "Each morning I wake up and say to myself, Jerry, you have two choices today. You can choose to be in a good mood, or you can choose to be in a bad mood. I choose to be in a good mood. Each time someone comes to me complaining, I can choose to be a victim or I can choose to learn from it. I choose to learn from it. Every time someone comes to me complaining, I can choose to accept their complaining or I can point out the positive side of life. I choose the positive side of life."

Yeah...right. It's not that easy I protested. "Yes it is, Jerry said. "Life is all about choices. When you cut away all the junk, every situation is a choice. You choose how to react to situations. You choose how people will affect your mood. You choose to be in a good mood or a bad mood. The

bottom line is: It's your choice how you live life." I reflected on what Jerry said. Soon thereafter, I left the restaurant business to start my own business. We lost touch, but I often thought about him when I made a choice about life instead of reacting to it.

Several years later, I heard that Jerry did something you are never supposed to do in the restaurant business: he left the back door open one morning and was held up at gunpoint by three armed robbers. While trying to open the safe, his hand, shaking from nervousness, slipped off the combination. The robbers panicked and shot him. Luckily Jerry was found relatively quickly and rushed to the local trauma center. After 18 hours of surgery and weeks of intensive care, Jerry was released from the hospital with fragments of the bullets still in his body.

I saw Jerry about six months after the accident. When I asked him how he was, he replied, "If I was any better, I'd be twins. Wanna see my scars?" I declined to see his wounds, but did ask him what had gone through his mind as the robbery took place.

"The first thing that went through my mind was that I should have locked the back door, Jerry replied. "Then, as I lay on the floor, I remembered that I had two choices: I could choose to live, or I could choose to die. I chose to live."

"Weren't you scared? Did you lose consciousness?" I asked. Jerry continued, "... the paramedics were great. They kept telling me I was going to be fine. But when they wheeled me into the ER and I saw the expressions on the faces of the doctors and nurses, I got really scared. In their eyes, I read 'He's a dead man.' I knew I needed to take action. What did you do?" I asked. "Well there was a big burley nurse shouting questions at me," said Jerry. "She asked if I was allergic to anything." "Yes," I replied. The doctors and nurses stopped working as they waited for my reply. I took a deep breath and yelled, "Bullets!" Over their laughter, I told them, "I am choosing to live. Operate on me as if I am alive, not dead."

Jerry lived to give thanks to the skill of his doctors, but also because of his amazing attitude. I learned from him that every day we have the choice to live fully. Attitude, after all, is everything. You have two choices now: 1) Delete this; or 2) Forward this to the people you care about. I hope you choose #2. (Source: The CPCO Advantage - Feb '99)

Calendar of Events

Mar 26 FPCA Florida Pest Control Association - Ant Symposium 800-426-4829

Mar 29-30 Landscape Design Study Course - Fla Federation of Garden Clubs, Jacksonville, Contact Karen McCombs 904-398-6458

Apr 8-14 4th Annual North American Native Orchid Conference - Univ of South Fla

Email: naorchid@aol.com Phone: 352-861-2565 Fax: 352-861-2565

Apr 10-11 - USF Botanical Gardens Spring Plant Festival 813-974-2329

Apr 11-13, 1999 - Menninger Flowering Tree Conference - Miami, FL, FNGA
407-295-7994

April 17, ISA Certification Exam, Orlando 727-786-8128 or see the website at <http://www.ag.uiuc.edu/~isa/conferences/cert.html>

Apr 17-18, 1999 - Bromeliad Society Show - Sarasota, FL, Marie Selby Botanical Gardens 941-366-5731

Apr 18-20, Menninger Flowering Tree Conference, Fairchild Gardens, Miami, FL., Contact Linda Reindle
FNGA - 800-375-3642

April 22-23, "Elements of color / color Magic

Apr 27-29, 5th Annual Convention - Certified Pest Control Operators, Ft. Lauderdale, Contact CPCO at 954-724-8806

April 30 Florida Pest Control Association CEU's - Jacksonville 800-426-4829

May 6-9 19th Annual Conference of the Florida Native Plant Society at the Palm Coast Resort in Flagler County, contact Betsy Bicknell at [fnpsbetsy@aol.com](mailto:fnpsetsy@aol.com) or call 813-856-8202.

May 7 Florida Pest Control Association CEU's - Davie, FL., 800-426-4829

May 15 Certified Pest Control Operators Assn CEU's - Orlando -407-275-9000 or see the webpage at <http://www.pestweb.com/cpco/ceu.htm>

May 15 Florida Pest Control Association CEU's - Defuniak Springs 800-426-4829

May 17-20 Aquatic Weed Control, Aquatic Plant Culture and Revegetation Short Course - Ft Lauderdale Research Center 954-475-8990 or for complete info, agenda & registration see the website at <http://www.ifas.ufl.edu/~conferweb/aw99.htm>

May 18, ISA Certification Exam, Key West, 727-786-8128 or see the website at <http://www.ag.uiuc.edu/~isa/conferences/cert.html>

May 21 Florida Pest Control Association CEU's - Orlando 800-426-4829

May 22 Certified Pest Control Operators Assn CEU's - Jacksonville - 904-396-5100 or see the webpage at <http://www.pestweb.com/cpco/ceu.htm>

May 28 April 30 Florida Pest Control Association CEU's - Tampa 800-426-4829

Jun 5 Certified Pest Control Operators Assn CEU's - Tampa - 813-877-6061 or see the webpage at <http://www.pestweb.com/cpco/ceu.htm>

Jun 6-7 Herb & Butterfly Plant Fair (FREE) USF Botanical Garden Sat 9:30-4pm Sun 11-4pm 813- 974-2329

June 10-13 FNGA Annual Convention - Naples 800-375-3642

Jun 12 Certified Pest Control Operators Assn CEU's - West Palm Beach - 561-689-6888 or see the webpage at <http://www.pestweb.com/cpco/ceu.htm>

June 12, ISA Certification Exam, Palm Harbor, 727-786-8128 or see the website at <http://www.ag.uiuc.edu/~isa/conferences/cert.html>

June 13 ISA Florida Chapter Annual Meeting - Contact 727-786-8128 or joesamnik@aol.com

June 17-19, 1999 - Southeast Greenhouse Conference & Trade Show - Greenville, SC
800-453-3070

Jun 19 Certified Pest Control Operators Assn CEU's - Ft Lauderdale - 954-475-6500 or see the webpage at <http://www.pestweb.com/cpco/ceu.htm>

Jun 22-24 Florida Pest Control Assn Annual Convention - Panama City Beach 800-426-4826 or see the website at <http://fpca.org/conv.html>

Jun 26 Certified Pest Control Operators Assn CEU's - Miami - 407-275-9000 or see the webpage at <http://www.pestweb.com/cpco/ceu.htm>

July 12-Aug. 13, 1999 - Landscape Design Five-week Intensive Program- Bronx, NY, New York Botanical Garden 718-817-8743

July 11-12 - Tropical Plant Fair (FREE) USF Botanical Garden Sat 9:30-4pm Sun 11-4pm 813-974-2329

July 17, 1999 - Summer Plant Fair - Sarasota, FL, Marie Selby Botanical Gardens
941-366-2751

July 30-Aug. 1 SNA '99 Trade Show & Convention - Atlanta, GA, Southern Nursery Association 770-973-9026

Aug 1-4 International Society of Arboriculture - Stamford, Conn. 217-355-9411

Aug 10-13 47th FTGA Conference & Show - Gainesville 800-882-6721

Aug 20 - OSHA Level II Emergency Response Training, HCC Plant City - Florida Studies Center Contact Hillsborough Extension Service 813-744-5519

August 28, ISA Certification Exam, Jacksonville, 727-786-8128 or see the website at <http://www.ag.uiuc.edu/~isa/conferences/cert.html>

Sept 16-18, 1999 -FNATS (Florida Nursery & Allied Trade Show) FNATS - Orlando FNGA 800-375-3642 or see the website at <http://www.fnga.org>

November 7-9 International Irrigation Association convention & Trade Show - Orlando 703-573-3551

November 20, ISA Certification Exam, Miami, 727-786-8128 or see the website at <http://www.ag.uiuc.edu/~isa/conferences/cert.html>

Sept 28-29 FACTS Florida Agricultural Conference & Trade Show, Lakeland, FL., (407) 678-5337

Nov 7-9 Irrigation Association International Show, Orlando, FL., (703) 573-3551

Dec 12-16 Entomological Society of America Annual Meeting & Exhibition Atlanta, Ga., (301) 731-4535 x 3022

Jan 20-22 TPIE 2000 - Tropical Plant Industry Exhibition - Ft Lauderdale 800-375-3642 or e-mail fnga@aol.com

Interesting Websites

<http://www.florapersonnel> Home page of Florapersonnel Inc., an employment service specializing in the horticulture industry

www.hortjobs.com/ Home page of Ferrell's Jobs in Horticulture - another horticulture employment service

<http://www.interiorscape.com/> Homepage of Interiorscape Online - check out the link called "Websightings" where you can look at interiorscape webpages around the world. Across the US including Anchorage, Alaska! From Dublin, Ireland and London, England to Melbourne, Australia and Singapore. In Singapore they use a form of hydroculture. Interesting stuff. My favorite interiorscape business name - "Diversifolia."

<http://doacs.state.fl.us/~aes-ent/index.htm> - FDACS - The Bureau of Entomology & Pest Control in Jacksonville

<http://doacs.state.fl.us/~aes/compli.htm> - FDACS - The Bureau of Compliance Monitoring in Tallahassee

<http://fshn.ifas.ufl.edu/pest/ceu.htm> - A complete listing of all FDACS approved CEU's statewide for all pesticide licenses