UNIVERSITY OF FLORIDA
EXTENSION
Institute of Food and Agricultural Sciences

Growing Concerns

News & Information for the Horticulture Professional **Oct - Nov - Dec 1998 Hillsborough**
County Extension Service 5339 S. CR 579
Seffner Fl., 33584 (813) 744-5519 fax (813) 744-5776 **Editor - Dave Palmer**

Contents

Changes....

by Sydney Park Brown

Fall has arrived at last after a bizarre, wet winter and a particularly brutal summer. This Fall issue of the Growing Concerns Newsletter brings another transition: a new addition to our Extension staff - DAVE PALMER.

Dave will assume program responsibility for the "commercial urban" sector: landscape maintenance, retail garden centers, arboriculture and pesticide certification. This newsletter also passes into his capable hands. Let me tell you something about Dave. He hails from Tampa and his college background is in education and horticulture. He owned and operated a landscape installation and maintenance business, "Artistic Gardens", for 12 years. During that time, he was president of the Bay Area chapter of the Landscape Maintenance Association for two years. More recently, Dave worked in the garden department of a local Home Depot. He also holds a PCO (Pest Control Operators) license.

It's been a pleasure for me to work with this sector of the industry for nineteen years. My educational efforts will now be solely focused on homeowner horticulture programs. For many of you, these are your clients, so call me with your thoughts and ideas on educating these folks. Dave is uniquely qualified and talented to take on this job and he has got a lot of great ideas. Please don't hesitate to call him too!

FNATS 1998

The Florida Nursery and Allied Trade Show held Sept 10-12 in Orlando was a big success, and the keyword is BIG. At 850 booths, this show is one of the biggest in the nation. If you missed it this year, mark your calendar for next year. The National Horticulture Short Course occurred on Friday with separate sessions for Retailers, Landscapers, and Growers.

Unlicensed Applicators - Seminar Dec. 4th

On Friday Dec. 4th the Hillsborough County Extension service will host the LMA Limited Certification Seminar. This seminar will provide the 8 CEU's required for application for this certification. Contact the Extension Service at 744-5519 for more details. This seminar is specifically designed for those of you in the commercial and residential landscape maintenance business that don't yet have your Limited Commercial Landscape Maintenance certificate.

The way Florida laws are set up, nearly everyone that applies chemicals, as part of their job or business, is required to be certified by the state of Florida. At the County Extension Office, where most of the testing is done, we see a wide variety of applicants each year, from private farmers to citrus growers to city and county employees involved in pest control, landscape maintenance, or wetland mitigation. We see employees of lumber companies and fertilizer plants, aquatic and crop consultants, aerial sprayers, mosquito control specialists and in-house landscape personnel from private companies. In short, nearly everyone that applies chemicals as part of their job.

The Extension Service in Hillsborough County conducts testing for pesticide certification on the 2nd Tuesday of each month. We test 25-30 applicants each month. These applicants come from every industry that applies chemicals. One group of applicators that is conspicuous by their absence is the commercial and residential landscape maintenance businesses.

Many of you in these businesses may not know that there is a pest control certification specifically for the type of work you do. It is called the Limited Commercial Landscape Maintenance certificate. This certification allows landscape maintenance personnel to apply herbicides to plant beds to control weeds and to perform IPM - Integrated Pest Management - on ornamental plants. There are limits on the types of chemicals allowed and the types of equipment used. The certification does not allow the applicator to apply pesticides to turf, to operate a pest control business, or to supervise uncertified applicators. What that means is that every employee of these firms that applies chemicals must be certified.

The Landscape Maintenance Association has occasionally offered seminars to help qualify personnel. This year is no exception. So far, enforcement of these statutes has not been widespread nor severe. It is not reasonable to believe that this situation will continue unless the industry cooperates and supports the certification program.

Pesticide Telemarketing Scam

In Indian River County recently, a pesticide telemarketing scam was discovered. A landscape architect was offered an herbicide that the telemarketer described as comparable to Roundup. The pesticide information was routed thru the local Extension Service to the Pesticide Information Office of IFAS. The pesticide being telemarketed turned out to be an EC formulation of prometon, a soil sterilant. It is in no way comparable to Roundup. In fact it leaves a persistent residue in the soil for some time.

The moral of the story? Don't buy pesticides from telemarketers. Purchase pesticides from known and reputable local dealers. The pesticides offered by telemarketers usually contain a much lower percent active ingredient than comparable products. The products offered contain a high percentage water or solvent and therefore a larger quantity of the offered product is required

to achieve an effective rate of application. If you are tempted to purchase pesticides over the phone, request a label and that they put any claims in writing. If you actually receive a label read it closely. If it seems too good to be true, it probably is. (Source-Pesticide Information Office at the University of Fla.)

Congratulations in Order

TBWG, Tampa Bay Wholesale Growers, recently re-elected J.C. Tort of Sun City Tree Farm as it's President; Brenda Shamblin of Basically Groundcovers as Vice-President; Greg Shiver of J & R Nursery as Secretary and Johnny Thompson of Emerald Hill Nursery as Treasurer.

Small Business Classes

The University of South Florida's Small Business Development Center is your source for information and guidance when starting a new business or expanding an existing business. SBDC has assisted more than 75,000 small-business owners during the past 17 years. The schedule of classes offered by SBDC won't fit in our limited space, some of their courses are: "Where to Find the Money", "Design Your Business Web Site", "How to Develop Profitable Pricing Strategies", "Starting a Small Business - the Necessary Steps", "How to Hire an Extraordinary Employee" and "Unlocking Your Business Potential". These are only some of the many classes offered by SBDC each month. These classes cost $25-$40 and are usually held in the evening. Call the SBDC for more info at (813) 554-2341**.**

Pesticide Mixing/Handling Manual

A new manual titled "Best Management Practices for Agrichemical Handling and Farm Equipment Maintenance" is now available at the Extension Office. It was published by FDACS and DEP with cooperation from the IFAS and their Pesticide Information Office. With widespread and conscientious adoption of management practices listed in this publication, the need for regulations in this area can be minimized. The manual references several IFAS publications relating to building and managing pesticide storage and mixing and loading sites and pesticide disposal.

"Tailored" Compost

Professional growers are discovering that compost-enriched soil can be used to suppress disease and ward off pests. That helps growers reduce pesticide use, save money and conserve natural resources. In addition, scientists have learned to enhance the natural ability of compost to suppress diseases by enriching it with specific disease-fighting micro-organisms or other amendments. This amended or "tailored" compost can then be applied to crops infected by known disease.

Research has shown that tailored compost significantly reduced or replaced the application of pesticides, fungicides, and nematicides. The use of tailored compost can also be more cost-effective than chemical soil treatments, such as methyl bromide. Studies have shown yields of some crops 25%-50% higher using tailored compost. Research has also shown that compost can also eradicate or halt the spread of some types of pests such as parasitic nematodes. As of October 1997, one type of tailored compost that is inoculated by a patented process was already registered as a biopesticide with EPA. Many more are expected to follow suit. (EPA document# EPA530-F-97-044)

Take - All Root Rot

Take-all root rot is a disease of St. Augustine grass. It is caused by a fungus that lives on the root system year around. It usually does not cause a problem until the rainy season begins AND the turfgrass is stressed for other reasons. Turfgrass stress could come from inappropriate

fertilizers and amounts, herbicide damage, scalping the lawn, etc. 95% of the samples sent to the University of Florida for analysis test positive for this disease.

The disease will first appear as yellow patches in the yard. The lower leaves are affected first. There are no spots or lesions above ground; it is the roots that are affected. As the roots rot, the plant is unable to use the water and nutrients available to it in the soil nor can it store the products used for growth that are being produced by he green leaves. If the diseases severe, eventually the entire plant will die. Again the roots will be rotted - short and black.

No fungicide will solve the problem. You simply have to give the turfgrass lots of attention. First raise the height of the cut as high as possible - 4 inches is preferable - and mow it frequently making sure to never remove more than 1/3 of the blade at any one mowing.

Next apply foliar applications of a complete fertilizer twice a month. Since the roots are not functioning properly ,the plant still needs nutrients. If the rains stop and it becomes dry, these areas may need more water than the rest of the lawn, again because the roots are not functioning properly.

Finally you must be patient. It may take the grass a long time to recover. If you do not want to wait, simply replace the turf with new sod.

Because this disease usually recurs every summer in the same location, you can lessen the damage or prevent it altogether by determining what factors are causing the stress and making the appropriate changes. (Taken from an article by Monica L. Elliot in *Turfgrass Pathology Notes*)

Fall Blooming Azaleas??

Are your eyes deceiving you? Fall blooming azaleas? It's true, fall blooming azaleas are new this year from Flowerwood Nursery. If you went to FNATS this year, you might have seen them there. They have also been installed at botanical gardens throughout the southeast. In brief, they bloom in the early spring, and then bloom again in mid to late summer and continue blooming until frost. For more information see the article in the September Landscape & Nursery Digest, or call Flowerwood Nurseries.

Surveys

A survey called The Boomer Report found that 26 percent of Americans between the ages of 30 - 44 spend time gardening. (Tampa Bay Business Journal - July 1998) An increase of a million households used professional landscape / lawn services in 1997 over 1996 according to a Gallup survey commissioned by ANLA, ALCA and other industry organizations. The study also estimated that 24.4 million households plan to use these services in 1998 a 9% increase over last year. Americans over 50 represented the largest consumer group in 1997, accounting for nearly half of total spending. Homeowner spending for tree care showed the largest increase, rising by 50%. Lawn and landscape maintenance accounted for the large dollar volume spent. (Source: Weekly NMPRO e-mail) Florida continues to lead the state in foliage production with 63% of the national total in 1997 according to an annual report issued by the Florida Agricultural reporting Service. Total 1997 sales total $330.4 million. Our closest competitor is California with $84.7 million. The southeastern counties of Broward, Dade and Palm Beach account for 53% of the states' total. The Apopka area produces an estimated 38% of the states foliage. (Source- Interior Landscape, Spring 1998)

Palm Fertilizers

PROBLEM: why do so many palms look so bad? Is it because they haven't been fertilized or because they have? The latest research says it could be either.

Twenty years ago, palm fertilizer had ratios of 3:1:2. Once the importance of potassium (K) and magnesium (Mg) was better understood, the ratios changed to 3:1:3 - equivalent to a 50% increase in potassium. One problem of these fertilizers is that the nitrogen (N) is controlled release but the potassium is soluble. The K leached through the soil quickly but the N continued to stimulate plant growth. The new growth, lacking K, results in a palm that looks worse than before it was fertilized.

This new generation of palm fertilizers was recently tested at UF's research facility in Ft Lauderdale. They tested a typical palm special on 509 palms for 2 years. They concluded that it was impossible to grow a palm tree free from K or Mg deficiency symptoms or soluble salt injury in sandy south Florida soil when using this product at it's recommended rate. They found that over half of the 5-8 lbs of fertilizer applied per tree is quickly (within one week!) leached out of the root zone if moderate to heavy rainfall or irrigation occurs. On the other hand, with minimal rainfall or irrigation, the solubilized fertilizer will remain in the root zone at concentrations high enough to cause injury to many species of palms, ornamentals and adjacent turfgrass.

Another palm fertilizer problem is magnesium. Like potassium, Mg is readily leached thru sandy soils and Mg deficiencies are common on a wide range of plants including palms. Controlled release Mg would resolve the problem but, but due to the physical properties of the Mg salts, coating them has been unsuccessful. Several manufacturers are working on the problem.

SOLUTION 1: Current palm fertilizer recommendations aren't working as well as they could and can cause injury under certain conditions. If current palm fertilizers are going to be used,, they should be applied at much lower rates (about 2 lbs / 100 sq ft) much more frequently-even monthly.

SOLUTION 2: Numerous studies have shown that 100% controlled release fertilizers are much more effective than water soluble fertilizers. Osmocote Plus, Florikan Total and other equivalent products which contain micro-nutrients as well as N, P and K do an excellent job and are available in formulations that last up to a year. The release rate of most of these products is temperature-based (the higher the temperature , the faster the release). For Florida, always look for the 90 degree release rate to determine how often the product needs to be applied.

These polymer-coated materials are expensive but application costs are lower because they are applied only infrequently. The sulfur-coated products have a useful life of about 3-4 months under South Florida conditions. (Fla. Arborist July-Aug 1998)

Flood Damage to Trees & Plants

Many of the problems we've seen this year relate directly or indirectly to the record amount of rain we've gotten. Flood damage to trees and plants occurs in three main ways: 1) acute problems resulting from severe short-term flooding, 2) floods physically knocking over trees and uprooting plants, and 3) chronic problems resulting from recurring flood conditions. The major impacts of heavy rainfall and standing water are:

1)Poor aeration - Flooding immediately slows the gas exchange process that normally occurs in the upper soil levels. Oxygen is quickly used up. (1-3 hours) Waste gases build up.

2) Soil Structure - Flooding physically alters the soil structure by collapsing pore space, dissolving nutrients and dispersing some organic material.

3) Soil Ecology - Flooding causes a major upheaval in the balance of micro-organisms in the soil. Aerobic (oxygen-loving) organisms are replaced with anaerobic organisms (those that do not require oxygen), primarily bacteria that use up the any remaining soil nutrients and create some toxic substances.

4) Disrupts the normal decomposition of organic material in the soil. Normal decomposition releases essential nutrients and prevents leaching of nutrients.

When roots are flooded, photosynthesis is shut down within 5 hours.. Growth declines immediately. Leaves turn yellow before long and may drop within weeks. Root growth declines. Roots can only grow where the soil contains 5% oxygen. Loss of root mass through pathogen attack and decay may leave the plant or tree unable to take up water quickly. This leaves the plant prone to drought damage after the soil dries out, so adequate irrigation will be necessary during dry times. Stagnant water is more damaging than flowing water due to the lower oxygen and gas levels. A major long-term problem is siltation, or the deposit of soil and silt on top of the root system, further reducing the oxygen and gas exchange in the soil even when the flood waters recede. Over the long run, vigor and stability may be questionable on many plants and trees. Flood damage effects will be present for 2-3 years. Pest problems will increase due to the stressed condition of the plants and trees. These plants may present health and pest management problems as much as five years in the future.

New - On-Line CEU's

CPCO, Certified Pest Control Operators, a trade association, has entered into an arrangement with JPC Enterprise to allow their members to earn CEU's on the Web. CPCO members that wish to obtain CEU's on the Web need to contact Mel Edelstein at CPCO headquarters (954) 724-8806 to obtain a user name and password to gain entry at a discounted rate. Non-members that wish to obtain CEU's over the Web, check out the website at http://www.ceuweb.com

More CEU'S

The Entomology & Nematology Department at UF has released a new series of computer verified training tutorials on arthropod pests and beneficials of turfgrass, ornamentals, household and wood. Other tutorials on pesticides will also be released. Each tutorial takes about 4MB of hard disk space and requires Windows. The first 5 tutorials currently available are:

Turfgrass insects #1, Ornamental Insects #1, Pest Ants, Cockroaches, Eastern Subterranean Termites

Another 10 tutorials are currently in various stages of development and many more are planned. Each tutorial is authorized by the State of Florida for 1 CEU for recertification. More details on these tutorials are posted of the UF Buggy Software WWW site at:

http://www.ifas.edu/~ent1/software/fasulo.htm

Aquatic / Vegetation Management CEU Class

Terra Sales is co-sponsoring a CEU class for those applicators that need CEU's for their Aquatic, Forest, Right of Way, and Ornamental and Turf restricted use pesticide licenses. The class will be held on November 18th from 2:00 - 4:00 PM at the Cooperative Extension Service 5339 S. CR 579 in Seffner. There is no charge for this class but you must register by calling Linda at 744-5519 x 146 by November 9th, 2 CEU's will be awarded for attending this class.

New Pesticide License Fees

The FDACS Bureau of Entomology and Pest Control have announced fee increases for the licenses issued by that bureau. The fee increases are effective July 1, 1998, except where noted. Applications received (not postmarked) after June 30, 1998 will require the payment of the new fees.

The fee for limited structural, limited lawn and ornamental, and limited commercial landscape maintenance certification exams has increased from $50 to $75. The fee for renewal of limited certification licenses has increased from $25 to $35. The fee for a new Pest Control Business License or it's renewal has increased from $100 to $150. The fee for the issuance of a Pest Control Operator Certificate has increase from $75 to $100. The fee for the issuance of a Special Fumigation ID Card has increased from $50 to $75. The fee increase for renewals of the Pest Control Operator certificates and Special Fumigation ID cards is effective for the renewal year of 1999-2000.

Examination fees for the Fumigation, General Household Pest Control, Lawn & Ornamental, and Termite and Wood Destroying Organism categories have increased from $150 to $225. The fee for the Special Fumigation Identification Card examination has increased from $100 to $150. These exam fees are in effect from the scheduled September exam for these categories.

More Landscape Contractors Get Certified

In July the FNGA sponsored the Florida Certified Landscape Contractor (FCC) and Technician (FCLT) exams at the Pinellas Technical Education Center. These certifications are a good way to increase your skill, knowledge and credibility. It's also a great way to separate yourself and your company from "the crowd". There are now 158 FCLC's in the state and 10 FCLT's. For more info contact the FNGA at 1-800-375-3642.

New Pests

UF / IFAS scientists recently discovered two new pests in the state, The Asiatic citrus psyllid, a vector (an agent that spreads) of the greening disease that can cause serious problems for the citrus industry, and Aethina tumida, a beetle in the Nitidulidae family and a serious pest of honeybees. Information on both pests is listed on Pest Alert on the WWW at http://extlab1.entnem.ufl.edu/PestAlert/

WEBSITES

www.selby.org - Marie Selby Botanical Gardens in Sarasota

http://edis.ifas.ufl.edu - This is the new IFAS information site. It replaces FAIRS (Florida Agricultural Information Retrieval System) Don't let the name slow you down, it contains a lot more than agricultural information, lots of horticulture, pest control, insects, etc.

www.flmnh.ufl.edu/fnps/fnps.htm - Florida Native Plant Society

www.irrigation.org/ia/main.html - The Irrigation Association

www.ag.uiuc.edu/~isa/welcome.html - International Society of Arborists

www.igin.com/ - Irrigation & Green Industry Network

www.fpca.org - Florida Pest Control Association

www.pestweb.com/cpco/ - Certified Pest Control Operators Association of Fla

www.webcom.clm/right/lma - Landscape Maintenance Association

www.floridaplants.com/eflora/cover.htm - E-Flora Illustrated Atlas of Florida Plants

If you'd like to know more about native plants of Florida, this site is for you. The site can be searched by common name, genus, family and ecosystem. Great photography by Kerry Dressler of Bio-Photo Services Inc. Lots of great info.

www.ficus.usf.edu/default.htm - Florida Internet Center for Understanding Sustainability - a site dedicated to high quality multimedia educational resources & communication to assist citizens in the creation of a more sustainable Florida Provide by the Florida Center for Community Design & Research. Another interesting site.

http://ace.orst.edu/info/nptn - National Pesticide Telecommunictions Network

Great site for pesticide information, many pesticide databases, a listing of 60+ major manufacturers with phone numbers and links to websites, EPA information, regulatory agencies, links to state and national Extension services. One of the many links is to ChemFinder WebServer - a database of 75,000 substances indexed from over 350 websites, by their claim the largest single list of chemical information sites in the world.

CALENDAR OF EVENTS

1998

Sep 29-30 FACTS - Fla. Agricultural Conference & Trade Show - Lakeland CEU's available - call for more information (407) 678-5337

Oct 2 Fla Pest Control Association - **PCO CEU classes** for GHP, Term, Fum, Core, and O & T (813) 744-5519 x 103

Oct 2-3 Tree Climbing & Pruning School contact Bob Der (813) 744-5519

Oct 12-15 22nd Annual Meeting of the Fla Aquatic Plant Mgmt Soc - Cocoa Beach (407) 836-7422

Oct 27-28 Florida Environmental Expo - Tampa Convention Center (352) 392-9570 x 127

Oct 6 Irrigation Association Certification Exams at South Florida Community College Avon Park Call Elena Daly, IA, (703) 573-3551

Oct 10-11 USF Botanical Gardens **Fall Plant Festival** (813) 974-2329

Nov 1-3 Florida State Horticultural Society Annual Meeting - St. Pete Bayfront Hilton (407) 673-7595 or check online at http://valencia.lal.ufl.edu/jkbu/fshs/index.html

Nov 4-8 2nd Int'l Forest Canopy Conference at Marie Selby Botanical Gardens(941) 366-5731 x 10

Nov 17 Building With Trees Seminar - The Florida Aquarium (402) 474-5655

Nov 18 Tree Grades & Standards Seminar Orange County Extension Office(407) 836-7570

Nov 18 Terra Aquatic / Vegetation Mgmt CEU class must RSVP by Nov 9 (813) 744-5519 CEU's for Aquatic, Forest, Right-of-Way, Aerial, and O & T

Nov 21 ISA International Society of Arborists Certification Exams - Miami (941) 316-1155

Dec 1-2 Advanced Tree Grading and Pruning School - Marshall Tree Farm, Morriston, Fl. A Tree Buyers and Growers Workshop (813) 786-8128

Dec 4 Landscape Maintenance Association - **Qualifying seminar for Limited Commercial Landscape Maintenance Certification** (407) 672-0633

Dec 4-5 2nd Annual Selby Botanical Gardens by Candlelight (941) 366-5731 x 10

1999

Jan 21-23 TPIE Tropical Plant Industry Exhibition - Ft. Lauderdale

Feb 19-20 1999 Northeast Florida Horticultural Trade Show - Jacksonville (904) 292-1117

Mar 5 Tree & Landscape Short Course Tampa, (813) 744-5519 x 103

Mar 5-6 Tampa Spring Expo - Florida State Fairgrounds, Tampa (813) 655-1914

April 11-12 USF Botanical Gardens - **Spring Plant Festival** (813) 974-2329

May 17-20 Aquatic Weed Control, Aquatic Plant Culture & Revegetation Short Course Ft Lauderdale Research & Education Center (954) 475-8990 or http://www.ifas.ufl.edu/~conferweb/awpre.htm#info