“We absolutely have to broaden the base,” Yount said. “So far, about 80 percent of the money has been coming from the superintendents. We have to get everybody involved in this—not just the turf industry but golfers as well. Five million dollars is a lot of money.”

In the meantime, Yount and Pauley have primed the money pump and already more than $60,000 has been raised, most of it from a special $100 “charter membership” offer that will close at the end of the conference and show.

“Those $100 checks are rolling in,” Yount said. “They get a lapel pin and I guess everybody wants to be wearing one at the show.” Most of the checks have been from superintendents.

“Don’t hold me to the figure, but I’d guess that about 80 percent of the money is from (superintendents),” he said.

After the conference, individuals will be asked to contribute in one of six categories ranging from $500 “partners” to members of the “president’s council,” with initiation fees of $50,000 and up.

Precious minerals is the metaphor for corporate donors. The five categories start at bronze ($500) and work their way up to diamonds ($10,000).

Yount expects the five-year drive to start slowly and gather momentum, with more than half the money being raised in the second half of the drive. He didn’t give any intermediate goals.

When the full amount is raised, the foundation will be able to bestow more than a $500,000 annually in research grants.

“And I have a laundry list as long as your arm,” he said. “Mole crickets and nematodes are the glamor projects, but we need to look a lot of things like drought stress, turf regulators, warm-season grasses . . . I could go on and on.”

He also stressed that the solutions probably will be biological rather than chemical.

“I think in your lifetime and mine, we’re going to see the elimination of chemical treatment of turf,” Yount said.

The research grants will be decided by five members of the foundation’s executive committee, who will take an active, rather than passive role in passing out the money. That is, instead of waiting for researchers to submit grant proposals, they will approach “any institution that does credible research on warm-season turf” with specific proposals.

“Instead of going to those colleges and universities with hat in hand,” Yount said, “we’ll go with check in hand and say, ‘Here’s the money. Now this is the job we want done.’”
FERTILIZATION TECHNIQUES
FOR YOUR TREES AND SHRUBS

By Tom Teets, Urban Horticulturist Palm Beach County

There have been a lot of questions lately about the best method to fertilize trees and shrubs in the landscapes. What do you think we should do; punch holes and pour fertilizer in (spiking), stick a pipe below the soil and inject liquid fertilizer (deep-root feeding), spray fertilizer on the leaves (foliar feeding), should we drill a hole in the tree trunk and inject into the tree (injection), or scatter fertilizer on the soil surface (broadcast)? I don’t know how you feel about fertilizing, but most people prefer to get it done as quickly, most efficiently and most effectively as possible. Certain situations, conditions and deficiencies will influence the method to be used as well.

Let’s look at the different methods and what they have to offer.

1) Spiking — Granular fertilizer is placed in holes either dug or punched in the soil. These holes are scattered beyond the dripline around the tree. The problem occurring in this situation is the fertilizer is being applied at a high concentration to a small area. Where the fertilizer is applied the high salt concentration may burn roots, while in areas between the holes the roots receive no fertilizer. In sandy soils fertilizer moves only downward and very little laterally.

2) Deep-root feeding — This Method uses primarily soluble liquid fertilizers which are injected below the soil surface. For quick green-up deep-root injection can be effective if the fertilizer is applied very shallow. In the vast majority of cases 80-90% of tree roots are located in the top 8-16 inches of soil. Most trees do not truly have deep roots, therefore, injecting liquid fertilizer will probably miss a large portion of the root area. Liquid fertilizer is more soluble than granular, therefore, leaching below the root zone will be fairly rapid.

3) Foliar feeding — This method is frequently used to apply micronutrients such as iron, manganese and zinc. In situations where there is a high soil pH the micronutrients are unavailable and deficiency symptoms persist this method is very effective. Addition of urea to the spray mixture will help to increase the micronutrient uptake. If buildings are located nearby, it is important to avoid hitting them with these sprays since they may stain.

4) Trunk injection — Usually this method is only used as the technique of last resort. Primarily micronutrients are injected using this method. Injection has been used on slash pines in order to rectify micronutrient deficiencies caused by elevated pH and high nitrogen levels found in golf course situations. A potential problem caused by trunk injection is the introduction of fungus into the tree at the site of the injection wound.

5) Broadcast fertilization — This method is employed using granular fertilizers. The fertilizer should be scattered starting at the dripline and outward over a broad area. Where grass is present the fertilizer should be watered in thoroughly to work it below the grass. Since most tree roots are quite shallow, the fertilizer will be introduced into the area of soil where it will be the most beneficial. By using the granular formulations slow-release sources of the more soluble nutrients can be used in an efficient manner. Broadcast fertilization has been found to be the most effective as well as most cost effective way to fertilize trees and shrubs.

As you can see there are many fertilization techniques available. It is important to use the technique which will be most beneficial to the trees and shrubs you are trying to grow.
“Snakes”! For many not a pleasant topic but one which we all must face at one time or another. In our business of course and grounds maintenance, happening across one of these ancient reptiles is an almost inevitable occurrence. As increased development continues in our state, club grounds and golf courses offer a haven and possibly a chance of survival for these “usually” most beneficial creatures.

Here in Florida with our sub-tropical climate we are host to many different species, most of which are totally harmless. These can range from the small ring-necked snake 10'-12’ to some members of the racer family reaching lengths in excess of 7’. Many of these snakes will live an entire life time in a flower bed or mulch garden the size of a small putting green. To go into detail about habits and environments of our numerous species could consume volumes.

The real reason for this article is to possibly help you and your staff avoid some of the serious problems that may be encountered on your course. We in Florida happen to have the dubious honor of having 3 of the 4 venomous snakes native to North American, these being the rattlesnake, cottonmouth moccasin
and the coral snake. (Yes, the copperhead is found in Florida but generally only in the Northern Panhandle areas).

Having been the victim of a large rattlesnake bite, I feel it necessary to shed some light on conditions and Rx that may help someone else avoid this most unpleasant and painful experience. As noted earlier with new construction and building taking place in our state these reptiles are being forced into many areas where they might not be expected. I know many of you with courses in city areas might not think of snakes as a problem, but save man and his shovel, they are there.

On the golf course there are many instances where yourself or a member of your crew may come into contact with one of these unique creatures. For example, using your hand rather than a cup puller (when doing cups) in the morning a common practice, should always be avoided, cleaning beds and such without gloves (a favorite habitat of the very dangerous coral snake), dumping clippings in a nearby bush areas, etc. A little time watching your step and where a person sticks his or her hand could save a life or a limb. Sounds drastic but it is a possibility.

Our poisonous snakes possess two different types of toxins, the Hemotoxins (rattler, moccasin) and Neurotoxins (coral snake). The Hemotoxins affect the blood and tissue systems, the Neurotoxins affect the nervous system. A bite from either of these types of snakes is a matter not to be taken lightly. NOTE: an inexpensive pamphlet should be kept on hand for positive I.D. as most harmless snakes will snap and bite if provoked. These bites are usually small, barely skin breaking and cause no problems unless uninformed.

There have been many medical recommendations over the years as to proper Rx. The movie and TV method of making a cut and sucking out the poison is probably the most widely known and most dangerous, a small cut in your mouth, your worse off than the victim. Ice packs recently considered a plus are now not recommended.

![Eastern Coral Snake](image)

A tourniquet should only be used unless immediate medical attention is not available, then only to slow not stop the bleeding as this can concentrate the venom and cause increased tissue damage. The best method is to simply call for an ambulance and watch for sign of shock.

These paragraphs may seem old hat for some of you, but these things do happen. As for myself (I hope you didn't skip to the end for the gory details) as I mentioned earlier approx. 1 1/2 years ago, I was bitten on my right hand by a 6 1/2 foot Florida diamond back rattler (not on the course). The initial bite probably ranks with a bee sting but the after effects were a different story. My partner and I were 45 minutes from a telephone and by the time we reached an ambulance, I was already losing consciousness. After reaching a hospital 1 1/2 hours after the bite, I had almost no blood pressure (this due mainly because of the location of the bite, a main vein in my right hand). I had to be airlifted to an Orlando hospital where they were better equipped to handle my condition. After 30 units of anti-venom and 6 days in the hospital, I was able to go home. I am just recovering 100% use of my hand but thanks to having some knowledge of what to do. I still have it.
Please let me start this article by thanking my wife Maureen for her help in writing my articles. Without her editing help these articles would not be.

When a job ceases to be a challenge it ceases to be work. A worker in his workplace has to have the challenge which he can meet and conquer. Once he has met that challenge you, as his supervisor, have to let the worker know that the job was well done. As the personnel manager the superintendent should hold a staff meeting with all the grounds personnel at least once a month to let his crew know what their job performance means to the operation of the course, grounds and over-all golf course project. He also needs to let each individual know that their job performance reflects on everyone connected with the golf course. In a full staff meeting you have to bring out the efforts put forth not only by the entire crew but make sure to point out the individual efforts that each crew member has contributed to the team. There is no better way to be fulfilled in your workplace than to be recognized by all your fellow workers. By letting the crew know that the course is in good condition because of everyones effort, the individual will know that he is meeting his challenge.

Don’t forget that each worker is an important part of the work team. When you are out on the course checking the greens or fairways just flag your operator down and stop and talk for a few minutes. Let the operator know that he is doing a good job. Tell him that his operation of the equipment has been done properly and that you observed him looking back at the area that he just mowed to make sure it was done right before moving on to the next area. Don’t forget to tell the operators that the job performance they give to the course is appreciated and needed. There is no place a person would want to be at less than a place where you are not appreciated or needed.

To keep an employee interested and involved in his work place you, as his immediate supervisor, must provide a work place that is challenging and rewarding toward his work advancement. Make sure that all employees have the chance to advance themselves in their work area. If you have an employee that does a good job that he was hired to do and shows an interest in other areas, let him take on the challenge. By letting the employee have this chance to show what he can do will give him another challenge at his work place. The worker will respect you for believing that he can perform above the area which he was first hired for. Not only will you have a happy employee but a good person that can move into a job opening when it becomes available.
A continuous training program is invaluable toward employee development and job security for your personnel. When personnel are continuously trained on new equipment operations, they will not only feel comfortable with the operation and safety, but this training will make their job easier. Don't forget to keep your staff informed of changes in safety rules and regulations concerning equipment, chemicals, clothing, wages, taxes, etc. During a staff meeting, bringing these things up will show your staff that you are genuinely interested in their well being.

Offering training and education other than at the work place will show your employee that you are concerned with their development. When providing education and training for employees they will know that you are interested in their development as a well-trained long term employee.

Staff meetings are an excellent way of keeping the communication line open between management and the staff. Remember that some people are shy and don't like to talk in groups of people. At the end of our staff meetings I always let my personnel know that my door is always open. If there is anyone on my staff that has any problems I let them know that they can come and talk to me any time.

As the grounds manager and supervisor you have the well being of your crew to think about. You not only provide these people with a wage that will meet their needs of living but also a challenge to succeed at their vocation. When talking to an individual employee in your office you have a much more relaxed atmosphere. You can and must let the employee know at this time how much he is needed as an individual and what his participation in the entire golf operation means. You have to let the employee know that you depend on and need his individual efforts. While talking one to one let the employee know that you as a person are interested in him or her as a person and not just an employee or a number. This is the best time to let the person know how much you appreciate the job that they are doing. Now point out the good points of their work performance and bring out their weak points also.

There are people who work for money and there are those that work for satisfaction in the job place. Remember that money is a great motivator and satisfaction is achieved through motivation. As an employer when you have a satisfied crew you will be able to supply the motivation on the upswing. A well informed trained employee paid a fair wage will give you all the support you need to keep a strong working crew.

I now thank my crew at Willow Lakes for their efforts and an excellent job well done.

LIFETIME WARRANTY
ON REELS AND BEDKNIVES

TORO/JACOBSEN

TORO 8-BLADE GREENSMOWER
G-M 3 or GM 3000 ... $210.00
TORO 11-BLADE GREENSMOWER
G-M 3 or GM 3000 ... $220.00
TORO SPARTAN 7 BLADE
Ground Driven ... $215.00
TORO SPARTAN 11 BLADE
Ground Driven ... $299.00
JACOBSEN GREENSKING
9 Blade ... $165.00
JACOBSEN 5 BLADE BLITZER
Ground Driven ... $173.00
JACOBSEN 6 BLADE FAIRWAY
Ground Driven ... $178.00
JACOBSEN 10 BLADE FAIRWAY
Ground Driven ... $233.00
NATIONAL 84" REEL ... $179.00

CONSTRUCTED WITH SHEFFIELD STEEL
PRACTICALLY ELIMINATES BREAKING, BENDING OR MID-SEASON GRINDING
REPLACES ANY MAKE REEL-TYPE MOWER

1350 Indiantown Rd. Toll Free 1-800-321-8374
Jupiter, FL 33458 Local (305) 748-5321
Fax (305) 748-5510
Think Of Us
As Turf Insurance.

We pack peace of mind into every pound of Par Ex.®
And we call it IBDU® It's pure nitrogen and it's 100% available to your turf in the space of a single growing season.

You're in charge.
Ordinary slow release nitrogens are temperature activated. They depend on bacterial activity or coating thickness or other factors which are out of your control. When activated by hydrolysis, nitrogen from IBDU becomes available to your turf. Normal soil moisture is all you need; excessive moisture will not adversely affect IBDU's performance.

Nitrogen efficiency—the IBDU key to quality turf.
A nitrogen source is efficient if most of the applied N is absorbed by the plant and not lost in the environment by leaching past the root system, volatilization, or other factors. Studies have shown that IBDU trickles slowly past the root system, increasing total N uptake over time, resulting in better nutrient efficiency and less nitrate pollution of ground water when compared to soluble N sources.

Late season fertilization—the IBDU advantage.
Studies have shown IBDU to be a superior slow-release nitrogen source for producing excellent turf in the spring, after application the previous fall on cool season grasses. IBDU is also superior on over-seeded Bermudagrass in southern areas.

Sure, you can buy cheaper fertilizer. But run into a turf problem or two, then check your costs. There's a good chance they'll be rising as fast as your blood pressure. So why take the risk when, for a few pennies more, you can take control with IBDU.
Sonar.  
Weeds out your water without the worry.

Maybe you never thought you had a season-long solution to your aquatic weed problems. But now, Sonar can keep swimmers from getting tangled, fishermen from losing lures, boaters from ruining motors and property values from sliding into the lake.

Sonar handles weed-choked water.
Sonar is an aquatic herbicide breakthrough. It controls many of your problem water weeds without worry. And it handles them all season long. No going back for a second or third treatment. Sonar does it right the first time.

Sonar won't restrict you like other aquatic herbicides.
When used properly, the Sonar label does not restrict swimming, fishing or drinking. So there is no need to stop using your water after treating with Sonar.

Apply Sonar whenever...
...weeds are a problem. In the spring,
summer, or fall. Treat early and keep weeds away, or treat late and clear them out. Whenever they grow, just use easy-to-apply liquid or pellets.

Apply Sonar wherever... water weeds grow. Golf course ponds. Canals. Private lakes. Even large recreation lakes. Sonar is ready to go to work.

Apply Sonar to water-spoiling weeds. Knock them out of commission. All season long. And claim back your water rights with the breakthrough aquatic herbicide that delivers full-season, broad-spectrum weed control. Sonar. See your Elanco distributor. Or call toll-free: 1-800-352-6776.

Gently restores nature's balance.

Elanco Products Company
A Division of Eli Lilly and Company
Lilly Corporate Center
Dept. E-455, Indianapolis, IN 46285, U.S.A.
Sonar®—(fluridone, Elanco)
NEW STANDARD GOLF INFORMATION SIGNS

A newly designed line of Pro-Line golf course Information Signs featuring updated graphics and easy installation has been introduced by Standard Golf Company.

The new line includes signs that provide easy directions and course status information as well as signs that help maintenance crews by reminding players to rake sand or repair ball damage.

All 6" x 12" Pro-Line Information Signs are now available in tough 1/4" longer-lasting flexible plastic as well as the original sturdy aluminum. They have attached stakes to hold them firmly in place.

Standard's new large line of 12" x 12" Information Signs are available in sturdy aluminum. They can be installed quickly and easily with Standard's sturdy Sign Posts. Sharpened spikes make post placement easy with simple foot pressure. Signs bolt on quickly with two pre-drilled holes in both sign and post. All signs are single faced and silkscreened with weather-resistant inks.

For more information on the new Standard Golf Information Signs and other golf course accessory equipment, contact your Standard Golf Distributor or Standard Golf Company, P.O. Box 68, Cedar Falls, Iowa 50613 or phone (319) 266-2638.

SAFE PESTICIDE MIXING

LESCO, Inc., has introduced a new concept in reducing worker risk to pesticide exposure in the turf industry. The LESCO Closed Mixing System provides additional safety during the filling of spray tanks.

The LESCO Closed Mixing System is a portable unit that is designed to mount in the fill well of most power sprayers. The system mixes bagged pesticides into a sprayer without the operator opening the bag. The closed system eliminates the possibility of inhaling pesticide dust during the tank filling.

The system is also capable of cleaning one, two-and-one-half and five-gallon containers to triple-rinse standards. Empty containers are placed upside down in the unit with the spout over the container nozzle. The lid of the LESCO Closed Mixing System is then shut. Fresh water efficiently washes the residue into the spray tank. The large, 16-inch opening allows for easy placement of pesticide containers into the system.

Constructed of corrosion-resistant materials, the LESCO Closed Mixing System is designed for long, trouble-free operation and uses any fresh-water supply.

SUPERIOR TURF CARE PRODUCTS AND SERVICE

SINCE 1923

AFEC

TOLL FREE
1-800-432-3413

Atlantic-Florida
East Coast Fertilizer & Chemical Co.
P.O. Box 1488 Homestead, Fla.

Fertilizer
Pesticides
Micronutrients