



# The Florida Green

WINTER 1987

GRAND CANYON  
Pheonix, Arizona, Site for the 58th  
International Golf Course Conference  
and Show January 26 - February 2,  
1987.

# The LESCO 300 Greensmower



## We did it!

We're so proud of the fact that the LESCO 300 Greensmower is now in production that we wanted to show you the unit and give recognition to the many people who made it possible.

Built at our greatly expanded Sebring, Florida manufacturing facility, the LESCO 300 Greensmower is engineered and designed with your needs in mind. This new triplex unit offers more power, better maneuverability, easier service, improved filtration and more convenient backlapping — all at a very substantial savings.



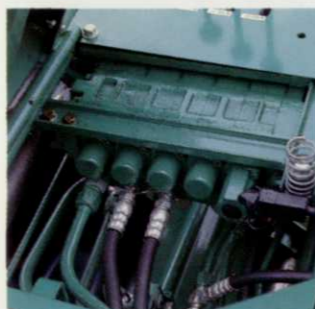
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- For added power, less vibration and longer life, features an 18-horsepower, twin-cylinder engine.



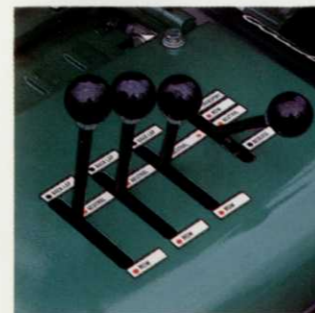
- For better maneuverability — without cables — equipped with power steering.



- For easier servicing, features access to valve spools without removing valve bank.



- For minimized downtime and increased life of hydraulic components, features 10-micron oil filtration system.



- For added convenience, specially engineered hydraulic system allows backlapping of individual reel units while on mower.

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☐ Yes, I'd like to see the LESCO 300 Greensmower demonstrated on my course. Give me a call so we can set up a day and time.

Name

Name of Course/Club

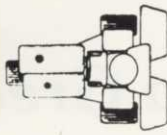
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# The Florida Green

The Official Bulletin of the Florida Golf Course Superintendents Association

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## ABOUT OUR COVER

Phoenix, Arizona site for the 58th Internaitonal Golf Course Conference and Show, January 26 - February 2, 1987. On our cover is the majestic Grand Canyon, located 200 miles from our conference site. See article on page 41.

**DANIEL ZELAZEK**

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# President's Message



**This year's GCSAA Conference and Show in Phoenix promises to be one of the best yet.**

**I have attended every one since I joined the National some 14-15 years ago. I have never failed to be able to justify the cost of attending. If you have a problem putting a dollar value on the knowledge gained at the Educational Sessions, see how much fertilizer, fungicide, or pesticide you can save by improved methods of application. Look over the new equipment — much of it saves time and labor. All the above translates into dollars. One wise, enlightened equipment purchase or chemical application would probably justify the costs of attending.**

**I would like to urge all Florida members to attend this year's GCSAA Conference. If you're not currently a member of the GCSAA, join up now and attend next year.**

**With all the golf courses we have in the state, we have the potential of almost being the National!**

*Reed LeFebvre*

---

Look to Chipco for full-course  
protection against disease,  
insects and weeds.

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When it comes to turf care, you look for products from companies you can count on, year in and year out. That's why more golf course superintendents look to Chipco professional turf products than any other brand.

Over the past 30 years, Chipco has developed outstanding turf products such as Chip Cal many superintendents will remember for its outstanding control of poa annua. More recently we introduced Chipco® Ronstar® preemergence herbicide, Chipco 26019 fungicide and Chipco Mocap® nematocide-insecticide.

But we're not standing still. Just last year, we ushered in a new era in pythium prevention with our new Chipco Aliette® fungicide—the first of a new generation of advanced chemistry to carry the Chipco name.

Naturally, products like these are only as good as the company that stands behind them. And nobody offers you more technical support than Chipco with our field force exclusive to turf and ornamentals.

In 1987, Chipco will introduce new formulations of three Chipco products. But we're not stopping. Exciting new products soon to earn the Chipco name are in various stages of development.

So when it's time to order your turf care products, remember Chipco, the company with the ongoing commitment to helping you care for your course.

Rhone-Poulenc Inc., CHIPCO Department,  
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# Letters to the Editor

Dear Editor:

I'm sure you are aware of the current practices taking place in the turf industry—that of harvesting and marketing patented varieties of turfgrass seed illegally.

The attached news release announces steps that two industry leaders are taking in efforts to put an end to such illegal practices.

If you have any questions concerning the contents, please do not hesitate to give me a call. Thank you for your attention and support.

Sincerely,

Karna L. Godridge  
Executive Vice President  
H. T. Fenton Associates, Inc.  
Editors Note: See Article on Page 50

Dear Dan and Irene:

I have received many compliments since the last issue. We had to enlarge all the doors so the staff could get their heads through.

It is truly a privilege and a pleasure to be on the cover of the Florida Green.

Please stop by for a round of golf. Also, please thank Dan Zelazek for the excellent photographs of the course.

Sincerely,

J. Mark Black  
Golf Course Superintendent

Dear Mr. Jones:

I just wanted to extend to you my personal thanks for your prompt and very encouraging response to my letter.

It is so gratifying to know that there are people like yourself who go the extra mile!

Again, many thanks and I am really looking forward to working with your staff in an effort to do a really great story.

Sincerely,

Sara J. Moniz  
Public Relations Department  
El Conquistador Country Club

Dear Dan,

We at The Plantation Golf & Country Club are very proud of our existing 18 holes of golf and with the addition of our new course, also designed by Ron Carl, we feel we will have the finest facility on the West Coast!.

We would very much like to have a photograph of our golf course featured on one of the covers of the Florida Green in the future. We have quite a few breathtaking shots for the camera.

We will be grassing our new course, the Panther, sometime in October, so by April we should have one or two "green sprigs".

Your summer issue was great! Keep up the good work, you and your staff do an excellent job.

Sincereley,

Ed Faticia  
Golf Course Superintendent  
The Plantation Golf & Country Club  
Venice, Florida

Gentlemen:

For several years, while managing properties with golf courses, I was privileged to be on your mailing list for complimentary copies of The Florida Green.

I changed positions and have been managing The Biltmore in Palm Beach since March. I sent you a change of address at that time and requested continuance. I have not received the magazine since.

The Biltmore has no golf course, but it does have large grounds with pool, dock, tennis courts, beach club, etc. all requiring extensive maintenance. Your magazine's editorial content not only touched directly on my problems of lawn and plant care, for example, but your advertisers were frequently contacted and retained. Indeed, I feel your magazine has as much value to me as to a golf course operator.

Thank you. I would hope to see The Florida Green in the future.

Very truly yours,

Robert G. McGarvey  
General Manager  
Palm Beach Biltmore  
Condominium Association

A photograph of a golf course green. A yellow flagstick is in the foreground, and a white golf ball is on the grass to its right. The background is a lush green lawn.

# CHIPCO® 26019 HAS BEEN CONTROLLING DISEASES FOR A LONG TIME, FOR A LONG TIME.

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Years of excellent, long-lasting performance have made CHIPCO® 26019 fungicide the leader in its field.

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When it's your business to keep turf healthy and handsome, you don't wait for disease to break out. You strike first and play for keeps.

That's why thousands of superintendents base their disease control programs on CHIPCO 26019 fungicide.

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Add a few extras — no phytotoxicity, low toxicity, pesticide compatibility, and no corrosiveness — and you've got a fungicide that's earned its place as the standard of the industry.

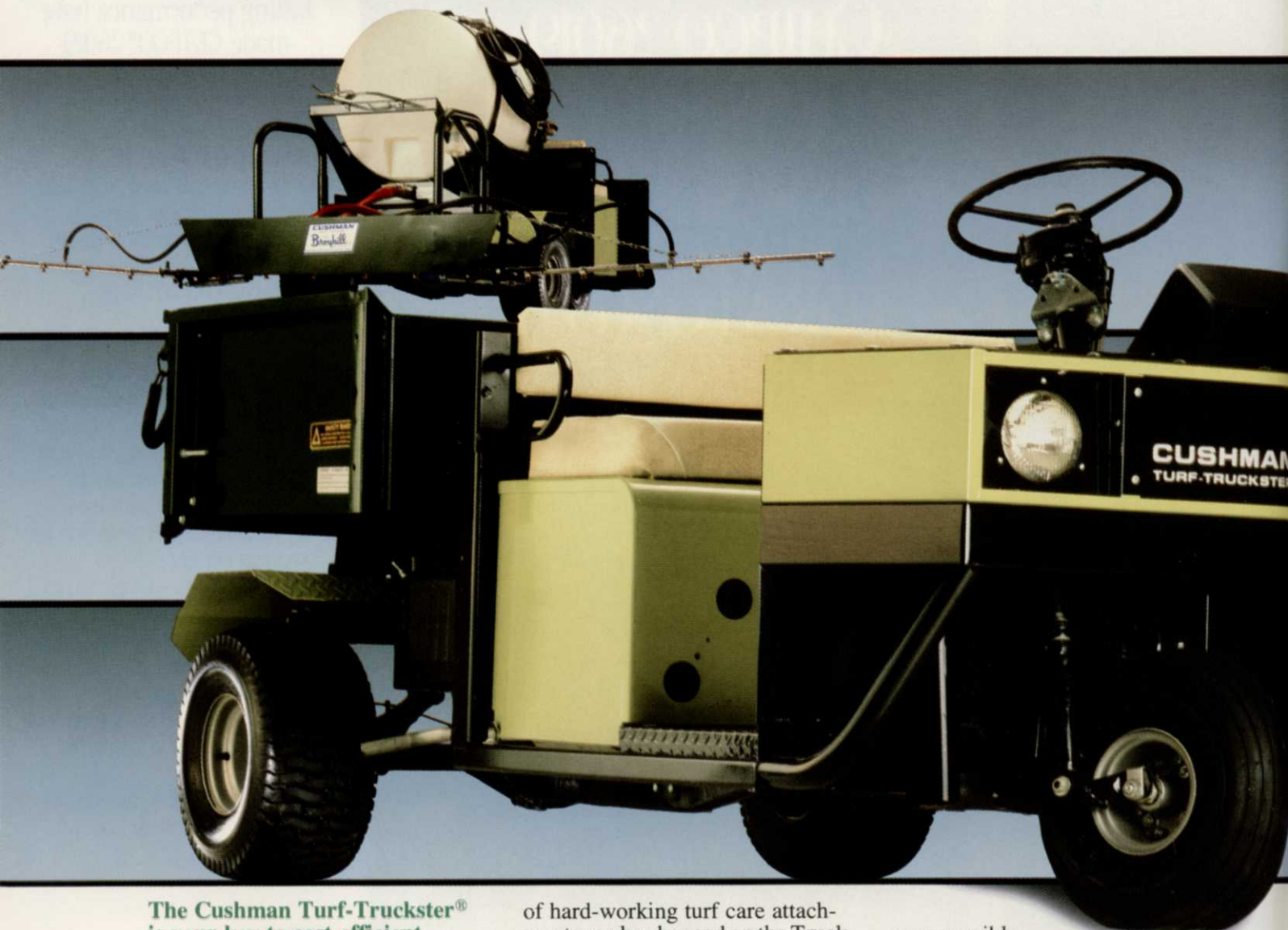
Use CHIPCO 26019 this season and you'll stay with it for a long time to come.

Rhône-Poulenc Inc., Agrochemical Division, Monmouth Junction, NJ 08852.  RHÔNE-POULENC

# CHIPCO 26019

Taking care of business.

# Built like a truck... works like a fleet.



## **The Cushman Turf-Truckster® is your key to cost-efficient turf care.**

You get more mileage out of a Cushman Turf-Truckster because it's not only built to go the distance, it's designed to do more jobs, and do them better. Because no other turf vehicle gives you the rugged versatility of Cushman's exclusive pin-disconnect system.

## **The pin-disconnect system puts it all together.**

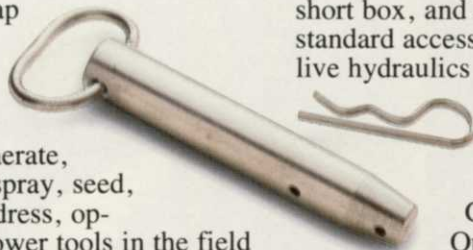
The industry's largest selection

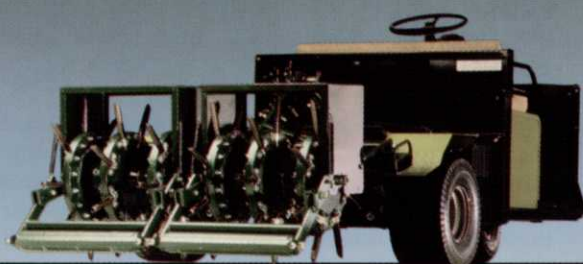
of hard-working turf care attachments can be changed on the Truckster in just minutes. No bolting. No tools. Just snap in two or three pins, and you're ready to go.

You can aerate, haul, dump, spray, seed, fertilize, top dress, operate small power tools in the field — now you can even pick up cores. You'll save time, stretch your budget, and give your turf the finest

care possible.

Bar set, drag mat, flatbed box, short box, and Power Converter are standard accessories. Add optional live hydraulics and you can add shortbox dumping, flatbed box dumping, the Quick Aerator, and the Greensaver Aerator. Optional PTO for the spreader/seeder, Vicon Spreader, Cushman Top Dresser, 100 or 150-Gallon sprayers, hand gun and





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### Introducing the new Cushman Core Harvester.™

The newest addition to the Cushman Turf-Truckster fleet saves time and cuts labor 75% on greens aeration. Because with live hydraulics and the new Cushman Core Harvester accessory, one person can do the work of four.

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maintenance 22-hp. gas engine has plenty of stamina to pull tough loads over the long run.

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For more information or a free demonstration of what the Cushman Turf-Truckster can do for you, contact the Cushman dealer nearest you today. Or call toll-free: 1-800-228-4444.

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# PESTICIDE INSPECTION — ARE YOU IN VIOLATION?

Should your business, research center or departmental unit be inspected for compliance with the pesticide law and rules, would you receive a clean bill of health? To answer this question you may choose to run an internal inspection audit of your operation using the following inspection format:

**Certification:** Are all persons who apply restricted-use pesticides (RUP) certified applicators? Do they hold a valid license?

**Pesticide Storage and Use:** Are RUP's stored in a nonhazardous, orderly and secure fashion? Are any of the pesticides cancelled, suspended, (e.g. DDT, Aldrin, DBCP, EDB, etc.) or otherwise subject to special restrictions (e.g. Temik, Toxaphene, 2, 4-D etc.)? Are the pesticides labeled or registered for applications to targets to which they are being or were applied? Do you have shipping and use records for each product in storage?

**Records:** Do you have records relating to all applications of RUP's for the past two years? These records shall include for each operation—date and time of treatment, person authorizing treatment, location, crop or target area, total acreage treated, pest to be controlled, pesti-

cide used and application rate, type of application equipment used and name of applicator.

**Worker Protection:** Is the proper protective equipment available for the applicator(s) of each pesticide in storage or use? Is the equipment clean and in proper working condition? Are unlicensed workers mixing/loading and/or applying RUP's? If so, have they received adequate instructions and training for handling the pesticide? This shall include instructions in safety procedures and precautions, proper use and care of safety equipment and clothing required to be worn or used by the label, common symptoms of pesticide poisoning, dangers of eating, drinking, smoking or toileting while handling or applying the pesticide, and the need to wash clothing worn and to bathe after working with pesticides and the name and location of nearby medical facilities at which emergency treatment for pesticide exposure may be obtained.

What is the number of noncertified applicators working under the direct supervision of a certified applicator at any one time? A certified applicator can only supervise 15 unlicensed applicators at any one time. Are medical examinations, including cholinesterase levels provided for applicators, mixer/loaders or other personnel handling pesticides?

**Mixing and Loading:** How are spray solutions measured, mixed and loaded? Is the applicator equipment (hoses, pumps, nozzles, etc.) in good operating condition and not leaking? Who mixes and loads the application equipment?

**Application:** What type of equipment is used? Is it suitable for the intended purpose? Do you have adequate control over pesticide drift? What are the normal operating routines, e.g. timing, maximum wind speed, placement, etc. in which applications are made? How is the equipment calibrated and what is its state of repair? Are nozzles replaced when needed?

**Disposal:** What is the normal treatment and handling procedures for disposal of bags, cans, drums, etc.? What is done with container rinsates? Have all used containers been triple rinsed or otherwise treated according to label directions? Can containers that are ready for disposal pass a swab test? Where do you dispose of containers—recycle, dump, burned, buried, etc.? What happens to excess spray solutions left over at the end of a daily spray operation? What happens to the washdown water generated from the cleaning of applicator equipment? Do you have excess concentrate or dilute pesticides being held for disposal or other disposition? How is the final disposition to be handled? Will the site pass a pesticide residue analysis? Is the site environmentally sensitive? Are there drainage problems? ■

Chemically Speaking

June, 1986

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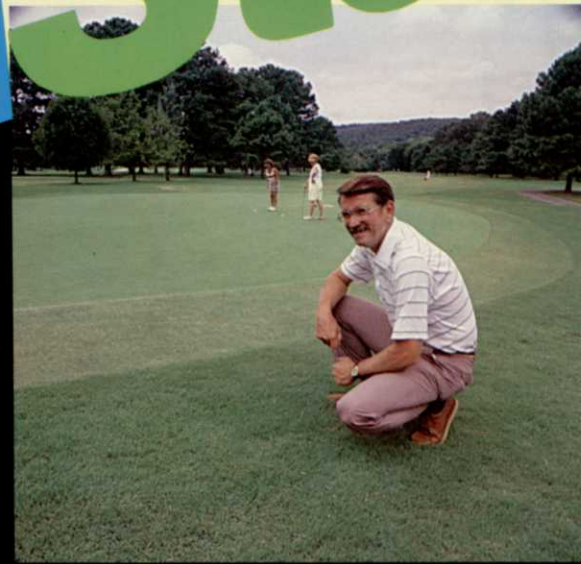
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**Dick Schultz**, Certified GCSAA, Atlanta Country Club . . . checks his 100% RegalStar results.

Knotweed, Spotted Spurge, and Chickweed, are three noxious annual weeds that other herbicides commonly fail to control. But where others fail, RegalStar succeeds . . . 100% weed-free turf is the standard result, not possible

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Phone 404/475-4837



# Palm Beach Trade Winds



By: Mike Bailey  
The Falls Country Club

## I've Got the Deed in my Hip Pocket

Would you manage your golf course any differently if you were the owner and the money was actually your very own? Our first natural defensive reaction to this question should be, "Of course not, I already operate the golf course to the very best of my ability!"

Perhaps this is true, especially from our point of view. But what about the individuals who lack the technical expertise to truly understand why we spend so much money on maintenance, when they know they can operate the department far better for far less.

Surely you've had someone propose to you, "If you can operate this golf course for less money, I'll give you the

difference." To the extreme, we could initiate many cost-saving measures such as less frequent mowings, top-dressing greens with just any sort of sand, rebuilding old equipment rather than purchasing new, eliminating your employee's vacations, and perhaps even eliminating your preventive fungicide programs. We might try this ploy for a few months. However, after the greens become too shaggy and hard, the old equipment just can not be repaired again, the employees resign, and ultimately, the greens die of a pythium outbreak, we would quickly return the money and want our job back.

This is the heart of the problem. The owners agree that we should receive the full 100% value of every dollar that we spend. I believe that if we could convince our owners that we do manage our department as if the money spent were our very own, we would overcome the economic barrier and the owner would feel at ease.

Somewhere there is a happy median blend between being frugal and being wasteful. Let us analyze a little deeper the difference in philosophy between the owner and the employee relationship. In our profession, we have been formally educated to manage the golf course to optimal conditions. This does not come cheaply! We are often severely criticized and compared to the course down the road where, too often, they also are striving for ultimate perfection. This competitive factor automatically drives the budget upward. If that club invents the wheel and incorporates an innovative process you can bet that your club will soon follow suit. You can see that we have influenced to overachieve, not underachieve. How can we back down from the overachieving philosophy, yet strive for ultimate dollar value?

Perhaps the best way to analyze philosophy is to visualize your expenses as if the money spent were your very own. First off, we might change some policies. However, seldom can policies be altered greatly from their present concept without some sort of ultimate reduction in overall quality. If we were to become more frugal, we might not purchase the very best product. Will your second choice prove to be inferior? Probably so. You can't get something for nothing.

Maybe we will purchase cheaper grades of fertilizer. I'm sure you've had someone comment to you, "The local

(cont. on page 17)



IRRIGATION & TURF CARE EQUIPMENT



Behind our  
own good name  
are a lot more  
good names.

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(cont. from page 16)

hardware store is having a sale on 6-6-6 for only \$3.99 a bag!" It's immaterial that your greensmix fertilizer is six times better and only three times more expensive. The layman can only comprehend the fact that his 50 lb. bag of fertilizer is less expensive than your blend.

Maybe we could topdress the greens next week with that sand out back in the woods. Who cares if the material contains a few weed seeds and the particle sizes are too fine. The point is, the stuff is cheap and who will ever know the difference, once you pick out the shell rock. Sand is just sand, Right? Obviously we go to great lengths to lab test our existing soil and purchase the material which is best suited for sound agronomic growth. Such factors as pH, CEC, particle sizes organic content, and sterilization are key elements when ordering content, and sterilization are key elements when ordering the proper blend greensmix.

How about the superintendents who oversee. I know you can purchase last year's seed at reduced rates, not to mention some of those fancy high breeds cost far too much when common types are cheaper. After all, our priority is to make the greens look green, Right? Who cares that high breed varieties are more resistant to disease and drought, tolerate lower mowing heights, and are superior in color.

Maybe we could cut costs by spraying a curative program rather than a preventive one. I bet we could save more than 50% of the chemical budget. Don't worry about the fear of quick striking pythium disease wiping out an entire green or two within 24 hours is not caught in time, or the fear of insects gnawing on the manicured greens the day before your member/guest tournament. Much like an insurance policy, the additional cost for a preventive spray program far outweighs the potential risks.

What about equipment repairs? Maybe we could try to eliminate new equipment purchases by simply rebuilding the old for less money. This theory holds true only up to a certain point when, finally, new equipment is justified. To an outsider, it seems rather difficult to appreciate that new turfgrass mowing machinery can cost more than a new Mercedes. However, in the manufacturing world, turf equipment is considered to be relatively low volume production and therefore justifiably expensive to produce. When an automobile turns over the one hundred thousand mile mark, we quickly think of trade-in time. In our business, however, it is common to pour money into old equipment although it would have been economically more sound to trade and purchase new.

Speaking of machinery, what about purchasing aftermarket parts at less than original equipment manufacturer's cost. Sometimes this application appears effective. Whether the part be a bearing, seal, belt, tire, or whatever, more often than not certain specifications have been cut short. This is probably one of the most altered programs within our budget. There are risks to encounter. Contemplate the inferior strength of a whirling blade shattering, resulting in a liability suit that would be difficult to win in court.

Let's go onto the next area—people. How can we cut

costs here? Nowhere, because money speaks! In order to get good people, you have to pay good money. Sure, there are incentives, but if you take away the incentives, you can bet the employee will move on. Every year at budget time, I hear employees moan and groan because they aren't getting paid enough. What is considered enough? I believe the answer lies within the employees motivated attitude. As long as the desire exists, the employee will be productive if he is justifiably rewarded. The employee must be paid above the average norm. The Palm Beach chapter of the FGCSA conducts an excellent yearly survey that can be a valuable management tool for both the employee and the employer. Money is not everything, although more often than not this appears to be the case. The employee must feel totally fulfilled with insurance benefits, vacation pay, sick days, yearly Christmas bonuses, uniforms, and good working conditions.

At the end of the year when budget reviews preclude even a token raise, employees look elsewhere for better pay or benefits. Many clubs are experiencing greater turnover because of these budget cutbacks or minimal percentage increases. Additional training costs coupled with lower productivity due to new employees, tends to outweigh the money theoretically saved from raises. If we try to cut corners in the payroll department we will realize very little, if any economic gains.

In review, after analyzing the budget from fertilizer purchasing to the human factor, there is very little to take off the top. Perhaps we can cut the budget or reduce the percentage increase for a few years, but this only a short term gimmick. All will soon turn sour.

I believe that we, as professional golf course superintendents, manage the maintenance budget to the best of our ability. To the outsider it may appear that we are extravagant, excessive, and wasteful. Yet, when making equal comparisons with other equal-status clubs, there will seldom be a great difference in operational costs. The best way to put this into perspective is to pretend that "I've got the deed in my hip pocket and I will operate this business as if I were the owner." ■

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Now, both stakes and rope are available from Standard Golf Distributors to make ordering easier. ■

# In The Real World, The Education Continues . . .

by Cheryl Jones

Just when you thought you knew it all. . .WHAM. Let's talk freight train in the face feelings here. Fresh out of school, smug with the feeling of **ACCOMPLISHMENT** - of finally *arriving* but arriving only to find out how wet behind the ears you really are. If only your new fairways were as "green" as you!

A young man graduated from Lake City Community College in April and entered the golf course profession. The transition went smoothly. When asked what was the most difficult aspect in making this transition from school to his Assistant Superintendents position, he replied "getting your plans accomplished." Projects that look absolutely beautiful on paper, with all the "T's dotted and "T's crossed, in reality may not see the light of day unscathed. Those plans must come face to face with the dreaded unforeseen and uncontrollable circumstances. Included in (but certainly not limited to!) these are the following:

- 1) Weather
- 2) Employee personality conflicts and absenteeism
- 3) Supplier delays
- 4) Owner's suggestions - which you want to implement

as quickly as possible, but may have to alter your non-essential plans to do so.

Let's look at a typical day, and eliminate many of these hypothetical circumstances. The day is bright and sunny, your outstanding crew gets along together very well and all show up, the owner is happy and satisfied with your progress - but late this Monday afternoon your herbicide supplier calls to say your delivery, due tomorrow, will be a little late. An unforeseen and uncontrollable circumstance has just reared its ugly head. It's frustrating to be a day behind in your carefully laid-out plans. It's even more frustrating to fall a week behind. The herbicides are finally delivered late Saturday afternoon. Since it looks like rain you don't begin to apply the chemicals. How bright you were, you congratulate yourself as it begins to rain on Sunday morning. By Sunday afternoon the steady light rain has become a steady downpour. Driving home from the course Sunday night, you assure yourself that the weather will clear, and your plans will be accomplished tomorrow. Have you forgotten Murphy's Law?

Your dependable employees all slosh in cheerfully on Monday. . .wade in on Tuesday. . .swim in on Wednesday. . .row in on Thursday. . .and by Friday you haul out the old pontoon boat, skim lightly past the alligators on the lakes (which used to be your fairways) to rescue an indomitable golfer stranded on a high tee. On Saturday you snorkle out to check your drains and come to the conclusion that this indeed is one of those unforeseen and uncontrollable problems.

Sunday dawns bright and clear, and your whole crew voluntarily shows up to help clean up any damage. Shortly thereafter, your employees report that your carefully pampered greens are now lovely lime-green and buttercup yellow colors. And the television weatherman grinningly announces that you can expect rain, rain, and more rain for the next two weeks. College instructors never gave you a "WHAT TO DO IN THIS SITUATION" manual. . .

One lesson this former student learned outside the lecture halls is how very valuable a good employee can be. Those rare gems who are prompt, reliable, trust-worthy, take the initiative, "work-plus" and have common sense are worth their weight in gold. All the meticulous planning in the world will not lead to timely accomplishment without good employees. What follows is a list of incentives our new assistant Superintendent will attempt to implement to KEEP his good employees.

## 1) WAGES GOOD

After spending years on the other side of the desk this concept is underlined. You get what you pay for.

(cont. on page 20)



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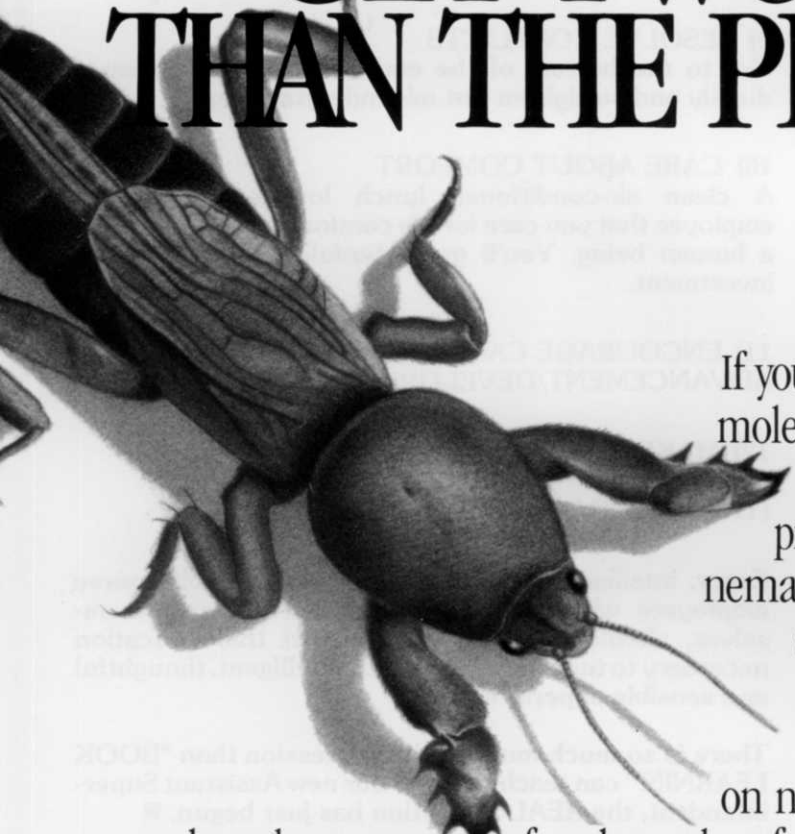
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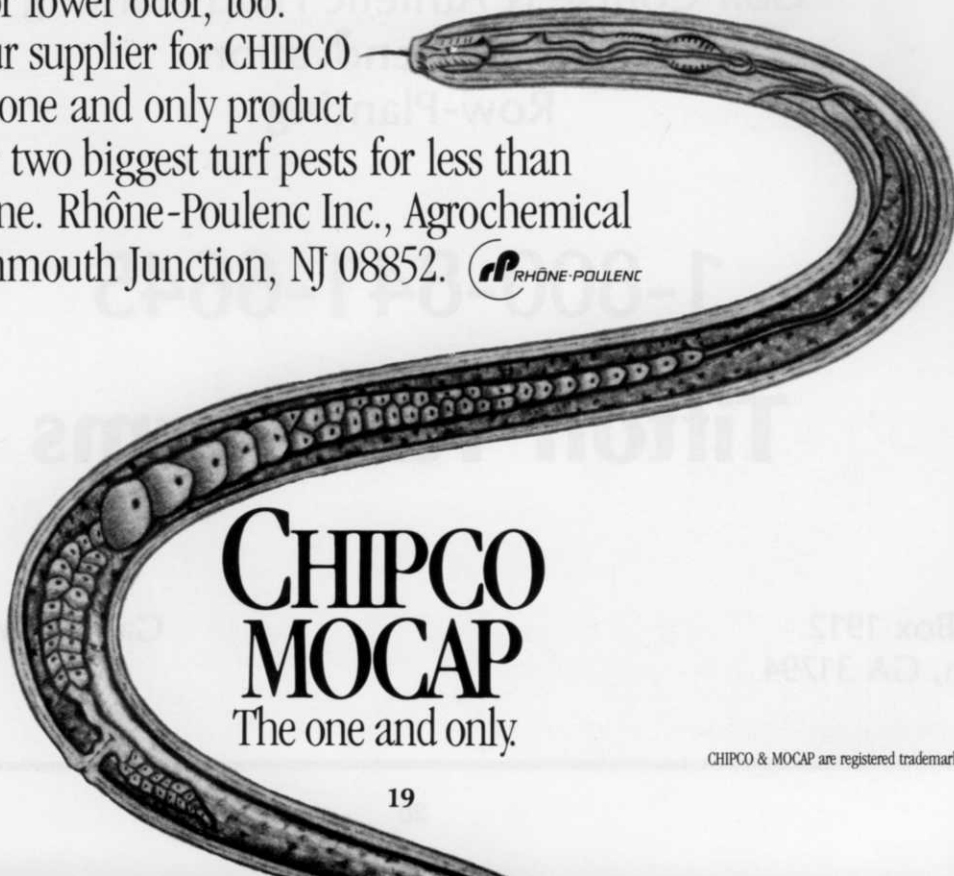
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(cont. from page 18)

**2) BENEFITS**

This is another *BIGGIE* to provide if at all possible. A health insurance option is a large Plus to the good employee with three kids at home.

**3) EQUAL TREATMENT**

Show no favoritism. Bad feelings produce poor work.

**4) PRAISE**

Everybody needs strokes. If a job is well done, a pat on the back with sincere thanks costs nothing but goes a long way.

**5) GENUINE CONCERN**

A troubled employee may have difficulty producing. Show your employee that you care and are available to listen.

**6) ENCOURAGE INPUT**

Answer your employees questions and invite him to ask questions when he needs clarification of his work. Encourage suggestions! All those paid eyes on the course may see ways to cut costs and time spent that you have overlooked.

**7) SHOW INTEREST IN DAILY PROGRESS**

Ride around when you can to check on the progression of work. Knowing the boss is interested enough to get down and show the employees the best way to lay sod — and why — sparks interest and renews effort.

**8) PROVIDE WELL-MAINTAINED EQUIPMENT**

An employee should expect that the mower he takes out

in the morning will not break down a dozen times before noon, wasting both his time and your money. At no time should an employee feel qualms about the safety of operating his machine.

**9) RESOLVE CONFLICTS**

Get to the bottom of the employees conflicts immediately and straighten out misunderstandings.

**10) CARE ABOUT COMFORT**

A clean air-conditioned lunch lounge shows the employee that you care for his comfort and value him as a human being. You'll get a tenfold return on your investment.

**11) ENCOURAGE CAREER  
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**12) MAKE AVAILABLE TRADE  
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Eager, intelligent, thoughtful and sensible golf course employees who show an interest in bettering themselves, should be encouraged to get that education necessary to turn them into eager, intelligent, thoughtful and sensible superintendents.

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# The Gator Growls

by Norman E. Carmouche  
Hole-in-the-Wall Country Club



## Fishing is Cheaper

According to statistics published by the USGA, the NGF, and the GCSAA, over the past ten years the average 18-hole golf course budget has soared from \$150,000 in operating expenses and \$25,000 in capital expenditures to \$400,000 in operating expenses and \$75,000 in capital expenditures.

Due to inflation and governmental regulation, the superintendent who managed a golf course in 1976 actually had much more leeway than the superintendent of an average course today.

Since these two items have become a fact of life in all phases of society, golfers should be sympathetic to the problems facing superintendents today.

Yet the majority of golfers don't want to hear about the difficulties encountered in managing a golf course.

To understand this contradiction, all a superintendent need do is look at golf membership. On most courses in Florida the average golfer is retired, somewhere between the age of 60 and 80.

The key word here is retired (fixed income). These average golfers simply want to play golf everyday for the rest of their lives without it wiping out their retirement.

And since fishing is less expensive than golf and there are no membership dues, it is important that superintendents, as professionals, give them the best course for the dollar.

Accomplishing this feat is no easy task and it helps if a superintendent has a guideline to follow, such as the one listed below.

### Operation Evaluation

Begin with the most difficult assessment by asking yourself the following questions.

DO I:

1. Enjoy going to work every morning?
2. Give 100 % to my job?
3. Keep up with current trends in maintenance?
4. Attend meetings and conferences?
5. Promote the game of golf?

6. Know what kind of conditions my members want and expect?

AM I:

1. A good manager?
2. Working toward certification?
3. Involved in continuing education?
4. Delegating work in the most efficient manner?

If you can't answer in the affirmative to all these questions, you may have a beautiful course, but you are probably wasting some of your member's money.

Now move on to the most expensive budget item, employee salaries and wages, which usually comprise about 60 % of a golf course budget.

If your employees are working over time (we all have to mow, etc., on weekends), shuffle your schedules to give crew members an amount of time off during the week equaling the amount of time they put in on weekends.

Not only will you save over-time pay, your employees will miss less work time because they will be able to do things during the week that cannot be attended to on weekends (doctor and dentist appointments, etc.).

While evaluating employees, look at their efficiency in completing daily operations. Ask them for their ideas on improving job output. Frequently, you will find that crew members are looking at a problem from a totally different perspective than yours; and sometimes their ideas have merit.

Next, take a look at your equipment. This category includes equipment maintenance, capital purchases of equipment, fuel, insurance, etc., and claims approximately 20 % of the average golf course budget.

Preventative maintenance will result in fewer breakdowns and longer life from your equipment, and it is obviously the least costly form of maintenance. Educate your employees on operation and use of equipment. Your mechanic should routinely change oil, filters and lubricate, etc. and keep up-to-date records on all equipment.

When buying replacement parts, check with local or national parts houses and use dealers only when all other avenues have been exhausted.

(cont. on page 23)

(cont. from page 22)

When making major equipment purchases, have the equipment demonstrated on your course. Contact other superintendents who use this piece of equipment and get their opinions. Then buy the piece with the best performance and the least amount of down time, not necessarily the cheapest.

Reduce fuel costs by eliminating unnecessary trips around the course. In other words, don't send a crew member from point A to point Z and then back to point B.

Check with your insurance agent to see what you might do to qualify for lower rates. For example, providing a sprinkler system in your equipment building could reduce the risk of damage from fire, thereby lowering your rates.

Fertilizers and chemicals are the next budget item. Government regulations have really limited the superintendent's flexibility in this area. Cutting costs here is made doubly difficult by insects like the mole cricket which, like any unwelcome guest, overstays its welcome.

Calibrate spreaders and spray rigs to ensure proper coverage. In order to save material costs and labor time, use fertigation as a supplement to your fertilizer program. Also, don't rely on memory for application rates. Read all chemical labels to avoid mistakes.

Of course there are still miscellaneous items, such as supplies, topdressing, sand, etc., which require that you shop around for quality and price.

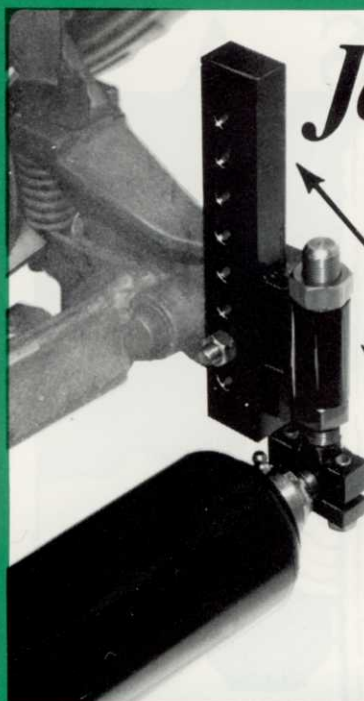
As a final recommendation, keep daily records. Frequently things that happen on a golf course have a tendency to recur about the same time year after year. If you know something is going to happen, you can prepare for it and save money by solving the problem before damage occurs.

And remember, fishing is cheaper. ■

## VALLEY RESERVATION SYSTEM

The Phoenix and Valley of the Sun Convention and Visitors Bureau is one of few such organizations in the United States to have a central reservation system. Visitors can call toll free 800/528-0483 or 602/257-4111 in Arizona, to make reservations at over 100 hotels and resorts in the metropolitan Phoenix area, as well as the Grand Canyon National Park Lodges. Reservations can also be made for car rentals, apartments and condominiums, bus tours, air tours from Phoenix, and even mule rides in the Grand Canyon.

The reservation system was developed in 1978 to meet ever increasing tourism needs. By making one toll free call, visitors can check availability at all participating hotels and resorts, rather than calling each hotel individually. This service is especially helpful to the traveller during the winter months which is the Valley of the Sun's peak tourist season. ■



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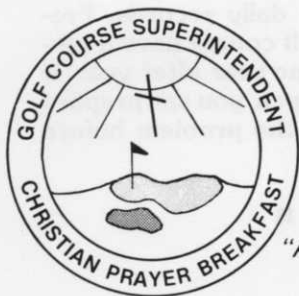
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## GCS Christian Prayer Breakfast

"As for man, his days are as grass, but the mercy of the LORD is from Everlasting to Everlasting."  
(PS. 103)

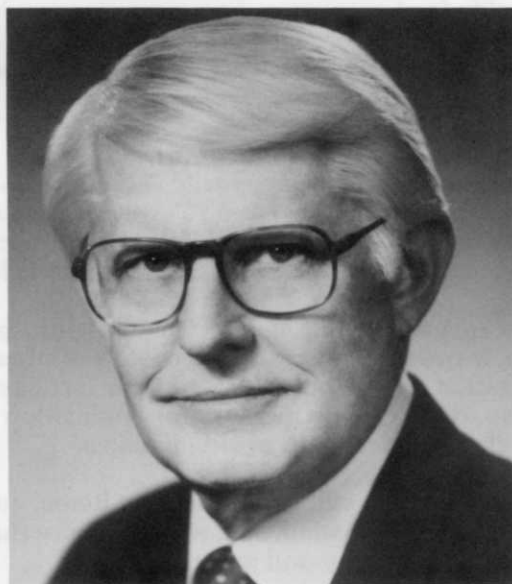
### The Impossible Dream

How does a Kansas farm boy succeed in overcoming impossible situations that few people could comprehend? A personal story of persevering faith and spiritual success is one that you will want to hear.

Owen C. Carr of Tulsa, Oklahoma will be guest speaker at the 8th annual GCSC Prayer Breakfast in Phoenix. Carr, teacher, conference speaker, pastor and author is past president of Valley Forge Christian College, Pennsylvania. Prior to accepting the presidency of the college he founded CHANNEL 38, WCFC-TV in Chicago. For more than 40 years he has served the Lord in Kansas, Texas, Illinois, California and in 30 foreign countries.

He has authored the books, *The Battle Is The Lord's*, and *Faith in Focus*.

His personal story will encourage all, especially those who face a mission impossible in their own lives. ■



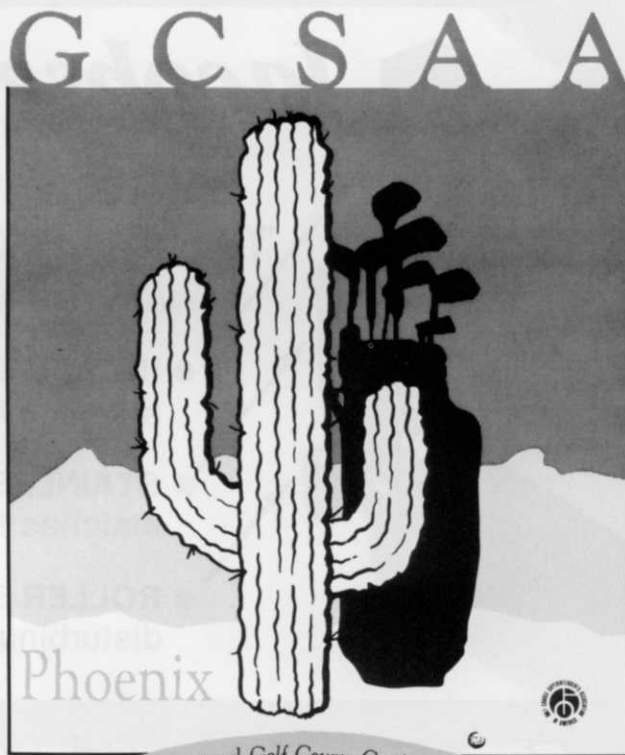
### 8th ANNUAL GOLF COURSE SUPER- INTENDENTS CHRISTIAN PRAYER BREAKFAST

Everyone is invited, and we especially encourage families, ladies and children, to share in the fellowship at the 8th Annual GCSA Prayer Breakfast on Saturday, January 31, from 7:00 to 8:00 a.m. at the Phoenix Civic Plaza. Coffee and rolls will be served starting at 6:30 a.m.

The guest speaker will be the Reverend Mr. Owen C. Carr, teacher, conference speaker, pastor and author, who is past president of Valley Forge Christian College, Pennsylvania.

His personal story, on how a Kansas farm boy has succeeded in overcoming impossible situations that few of us can comprehend, will encourage all who attend.

The Prayer Breakfast has been scheduled at the start of the Conference and Show for seven years, and is open to all faiths. ■



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# 10th Annual Crowfoot Open

The 10th Annual Crowfoot Open was held at Suntree Country Club in Melbourne on Sunday and Monday, August 3 & 4.

Activities began on Sunday morning at the Holiday Inn Oceanfront with a half day seminar entitled "Designing and Redesigning your Golf Course Maintenance Facilities." An informative talk was given by Mr. H. A. Dehayes and was enjoyed by those who attended. Two of his most recent buildings are Isleworth and Hunter's Creek in Orlando. The seminar was followed by the FGCSA Board Meeting. Special guest was Mr. Riley Stottern CGCS, GCSAA President who gave us a current review of GCSAA affairs. The meeting was well attended and highlights will be in the next Green sheet.

The buffet dinner followed by dancing was well attended. A caricaturist was on hand to draw imitations of everyone at the dance.

On Monday morning, Suntree Country Club was at its best as host superintendent Steve Wright and his staff had the golf course in excellent condition.

The host Central Florida chapter won its second Crowfoot trophy in a row as the team of Jim Ellison. Tom Heard, Joe Ondo, and Sid Solomon defeated the Everglades Chapter by 3 shots.

Joe Ondo defeated Gary Smithers on the 3rd hole of sudden death to win low gross honors and gain a spot on

the state team for the GCSAA tournament in Arizona. 1st low net was won by Buddy Carmouche with Chuck Rogers second. Low gross commercial honors went to Joe O'Donnel in a match of cards with Ken Ezell. Low Calloway was won by Bernie Smith with Russ Waterman second.

While the scoring was going on a club throwing contest was held on the driving range.

Bob Shevlin tossed a 7 iron 265 feet to win the event. Tim Hiers was second.

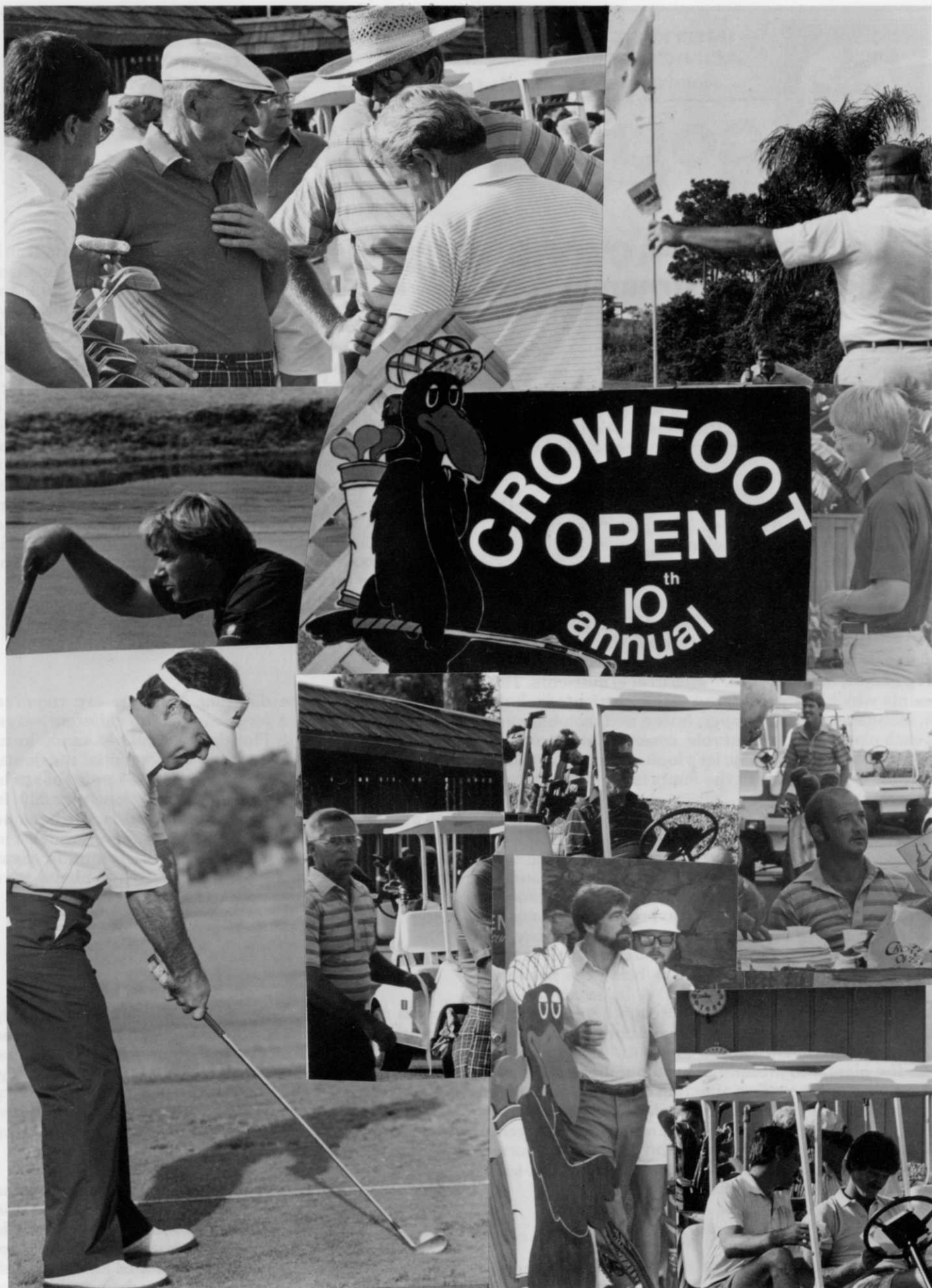
Winners of the specialty contests were as follows: Lons Drive Supt. Dennis Parker, Comm. Glenn ZaKay. Putting Contest, Dave Lottes. Closest to the pin winners were Dick Nacarrata, Karl Anken, Bob Bittner, and Dick Hahne.

Some of the prizes enjoyed by contestants were T.V.'s, VCR's, Phones, answering machines, and Diamond watches.

Special thanks to all the Diamond and Gold sponsors and all contest sponsors for another successful tournament. We could not do it without you.

A great job by Larry and Vilma Kamphaus an the Crowfoot committee. Special thanks to Suntree Country Club and volunteers, Steve Wright Supt, and Ken Boozer, pro for being great hosts. Hope to see all of you at the FTGA show and Golf Tournament. ■







# GOLF TURF NEWS

## NUTRITIONAL FACTORS Affecting Woody Ornamentals

by Tom Teets  
Extension Agent I

An extensive amount of time and money is spent for fertilization of landscape and nursery plants. Sometimes fertilizer is applied without really knowing what role a particular nutrient plays in the plant. Let's take a brief look at the different nutrients plants need and why they are necessary.

Basically, 15 different chemical elements are essential to the plant's growth and survival. The quantity needed varies greatly from element to element; however, even the elements required in minute amounts are essential for proper plant growth. Three of the elements, carbon, hydrogen, and oxygen are adequately supplied to the plant in the atmosphere. The 12 remaining essential elements are taken up by the plant through the roots. These 12 elements are generally divided into two categories the macro (major) nutrients and micro (trace) nutrients. The elements which are considered macronutrients include iron, manganese, zinc, copper, boron and molybdenum and each plays an important role, essential to the plant's growth and survival. Briefly, let's look at the role of these elements to get an idea of the importance to the plant.

### *The Macronutrients*

The role of *nitrogen* can be very simply described. It is the basis of amino acids which then form into proteins within the plant. *Phosphorus* is an important component of cell membranes and DNA. It also provides a means of allowing the energy produced in one area of the plant to be consumed in another area. *Potassium* controls stomatal opening and closing as well as being the primary enzyme activator within the plant. A large amount of *potassium* is also used in the photosynthetic process. *Calcium* plays an important role in pH control in the soil as well as detoxifying excess amounts of metal ions within the plant. *Magnesium* plays a number of diverse roles in the plant including affecting cell division, acting as a phosphate carrier through the plant and being a part of the chlorophyll molecule. *Sulfur*, much like nitrogen, is an important constituent of amino acids which form plant proteins. This element has the ability to acidify soil areas where the pH is excessively high.

### *The Micronutrients*

The micronutrients (trace elements) may not be needed in the great amounts, however, they are involved in many

complex and essential functions within the plant. Iron is a vital part of proteins which provide energy for many important plant functions such as photosynthesis and respiration. *Iron* is also important in the formative stages of chlorophyll. *Manganese* is involved in fatty acid and vitamin production as well as playing an essential role in oxygen production during photosynthesis. *Zinc* has been found to be necessary in the process which makes nitrogen and phosphorus usable in the plant. It is also necessary for proper production of auxins within plants. *Copper* even though it is required in very small quantities, plays an important role in respiration and is constituent of enzymes and pigments. *Boron* is needed in the transport of sugars across the membrane of a plant cell as well as being involved in the hardening (lignification) of cells. Finally, *molybdenum* which is required in minute amounts, is needed to convert nitrogen and phosphorus into a form useful to the plant.

### WHY DEFICIENCIES OCCUR

As you can see, the different nutrients are required within the plant in a large number of different ways. Many areas of South Florida, particularly sandy locations, are deficient in some of the essential nutrients. When the nutrients are applied to these sandy soils or in situations with extremely low pH they leach readily. In high pH soils many nutrients have a tendency to become chemically bound in the soil and therefore unavailable to the plant. High pH soils are frequently found in areas where fill has been used. Most landscape plants here grow best in a slightly acid soil.

### COMMON NUTRIENT DEFICIENCIES IN SOUTH FLORIDA

Certain nutrient deficiencies occur more commonly than others in South Florida soils. It is useful to know the relative mobility of a nutrient within the plant when attempting to diagnose a possible nutritional deficiency. If a nutrient is mobile within the plant, the deficiency symptom will occur on older leaves while a nutrient which is immobile will show deficiency symptoms on younger leaves.

The most common deficiencies which are found in the South Florida area are nitrogen, magnesium, iron and manganese. Nitrogen and manganese are quite mobile within the plant, while iron and manganese are immobile. *Nitrogen* deficiency symptoms appear as an overall yellowing of the plant foliage without any definite patterns.

(cont. on page 30)



## **"Give me 10% Sabre and 90% Gator and ~~GREAT~~ I'll Guarantee You Superior Turf."**

*Skip Harrison, Superintendent  
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Mixing Gator turf-type perennial ryegrass and Sabre *Poa trivialis* provides a superintendent with a handsome, thick, dark green turf with excellent putting and mowing qualities.

Sabre is the renowned domestic variety of *Poa trivialis* which is very dark green and extra-fine bladed. Unlike older foreign varieties which were often contaminated with *Poa annua*, Sabre is *Poa* free.

It's a fast germinating, shade tolerant variety which thrives during the winter months and fades quickly when hot weather arrives.

Gator was developed by hybridizing dark green, heat tolerant U.S. varieties such as Derby and Regal with denser and lower growing European turf-type ryegrasses.

Gator soared into prominence after a shining performance in a year-long trial at Mississippi State in 1981 and has since proved its qualities on many prestigious courses.

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(cont. from page 28)

These symptoms will appear first on the older foliage then rapidly spread over the entire plant. This situation is most often found on plants which have not received fertilization for a long period of time. *Magnesium* deficiency appears on the older foliage with yellowing or bronzing occurring at the base of the leaf and working its way up the leaf as the deficiency progresses. This deficiency is commonly seen on a number of palm species, podocarpus and pittosporum. Symptoms of *iron* deficiency first appear on young leaves at shoot terminals. During the early stages of iron deficiency a pronounced yellowing of foliage occurs with the veins and veinlets remaining green thus giving a netted appearance. In the latter stages of this deficiency leaves become smaller and dead spots and marginal burning may appear. A few of the many plants affected by iron deficiency include ixora, citrus, hibiscus and camellia. *Manganese* deficiency appears as two different symptoms depending on the plant type. Broadleaf species show this deficiency as a yellowing of leaf tissue between the midrib and the main vein. *Manganese deficiency differs from iron* deficiency. In *manganese* deficiency a broader green area remains along the veins. *Iron* deficiency and *manganese* deficiency may be quite difficult to differentiate. Some of the species which exhibit this deficiency include allamanda, bougainvillea, ligustrum and viburnum. On palm and cycad species the *manganese* deficiency symptoms are quite different. New emerging leaves become smaller and malformed. These leaves fail to expand and appear to be crinkled. This condition is called frizzle top. Palms which may show these symptoms include Queen Palm, Date Palms, Fishtail palms, and Sago Palm.

Other nutritional deficiencies may occasionally appear in nursery or landscape situations from time to time. To add to the confusion of what a deficiency may be, more than one deficiency may occur at one time. Particularly in cases when the soil pH is quite high. Two IFAS Cooperative Extension Service publications which may be helpful are Bullentin 791, *Nutritional Deficiencies of Woody Ornamental Plants Used in Florida Landscapes* and Circular 352-A, *Soil Reaction (pH) for Flowers, Shrubs and Lawn Around the Home*. Other publications are available concerning each of the essential elements. Contact the Extension at 689-1723 for these publications. ■

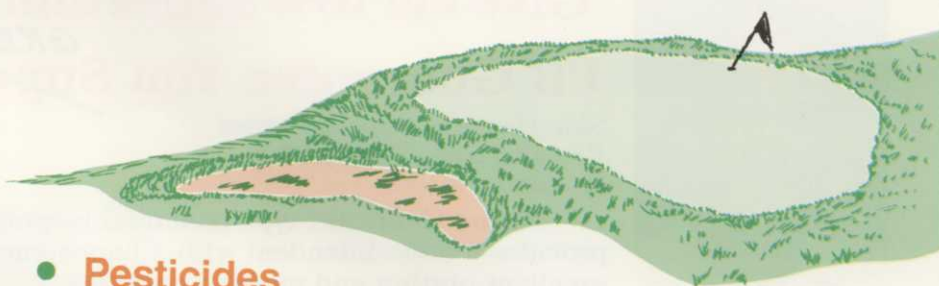
## STALFORD NAMED DIRECTOR OF SEED DEVELOPMENT

Harry Stalford has been named director of turf seed development at International Seeds, Inc., Halsey, Ore. according to J. L. Carnes, president.

Stalford returns to ISI after a two-year sabbatical during which he was manager/partner of one the largest turf and forage seed farms in Oregon's Willamette Valley.

His responsibilities at International Seeds will include customer contact, distributor sales and the overseeing of convention activities.

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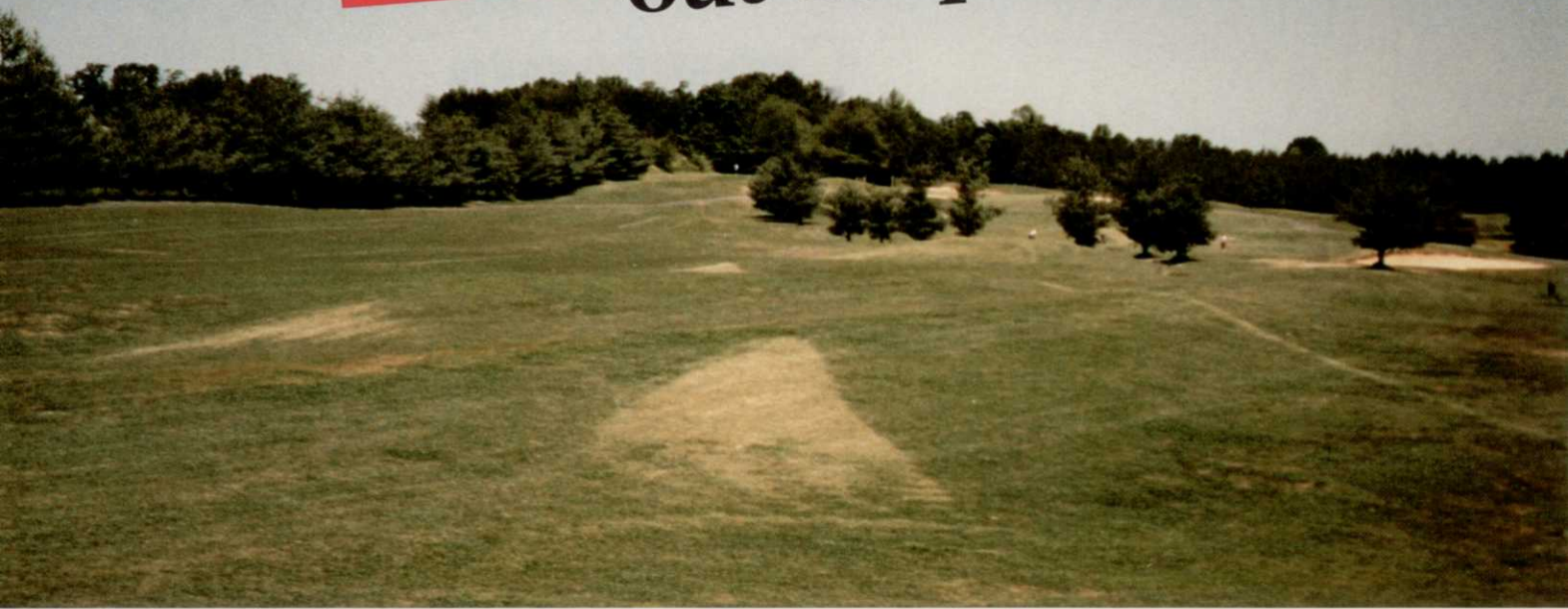
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# Central Florida Crowfoots

By: Joel D. Jackson  
Lake Buena Vista Club



## SQUEEZE THAT DOLLAR Till The Eagle Screams

During the buffet lunch at our September meeting of the Central Florida Chapter at Errol Estate Country Club, I took pen and pad in hand and stalked the buffet line like a hungry snook moving in on a nervous school of mullet. Well, I was *hungry* for some original ideas for this article, and I had my fellow superintendents somewhat cornered in the slow moving line. I made eight successful strikes before the school, I mean members, scattered for their tables and tee times. After being productive, here are the ramblings and pearls of wisdom from the "Errol Estate Eight" as I call them. Alphabetically:

**Karl Anken, Tuscaawilla Country Club** — "We are trying to cut back on the amount of fertilizer we use. It is a challenge to educate the golfing public that "LUSH GREEN" is not necessarily a healthy green for grooming and conditioning."

**Jim Ellison, Bay Hill Club** — "We have 152 bunkers on the course and it was taking two men 3-3 1/2 days per week to edge and clean up the traps. We are now trying one man three days a week with a weedeater to keep them trimmed lightly without excessive trimmings to clean up and with out the harsh, sheared look around the edges. Another problem we have had was the maintainence of the cart path edges. We have reduced a formerly 60-70 hour per month task to just 4 hours per month by utilizing a 26 gallon tank mixed with Round-up and mounted on a golf cart. The driver edges the path chemically with a fixed nozzle by driving slowly. It has worked great so far this summer."

**Brad Fellrath, Sweetwater Club** — "I am using flexible scheduling to eliminate the over-time on weekends. We also have frequent meetings to stress productivity and set goals. We have each operator service his equipment at the end of the day to save the mechanic some time. We utilize R & R and other generic parts whenever feasible. I like to "brainstorm" with other superintendents to get

more ideas."

**Charles Garrett, Florida Irrigation** — "People should consider installing computer controlled irrigation systems for more efficient use of water and electricity to save on utility bills and conserve water. Of course there is also the side benefit of record keeping with the computers."

**Dick Medford, Daytona Beach Golf & Country Club** — "We have eliminated our rough cut. This speeds up play which means more rounds of golf, and it frees up a mower or eliminates it. We schedule our mechanics to start before the crew to check out the equipment to avoid wasted time in the morning due to balky equipment. The second mechanic ends his shift after the crew leaves to service and/or repair equipment for the next day. The mechanics also service all seasonal equipment in advance of renovations to minimize down time at this critical time when the course is closed. We plan 10 hours of work for an 8 hour day so that the crew will always have something to do and won't be wasting time finding something else to do when a task is done. All of our purchasing is done by competitive bidding between vendors."

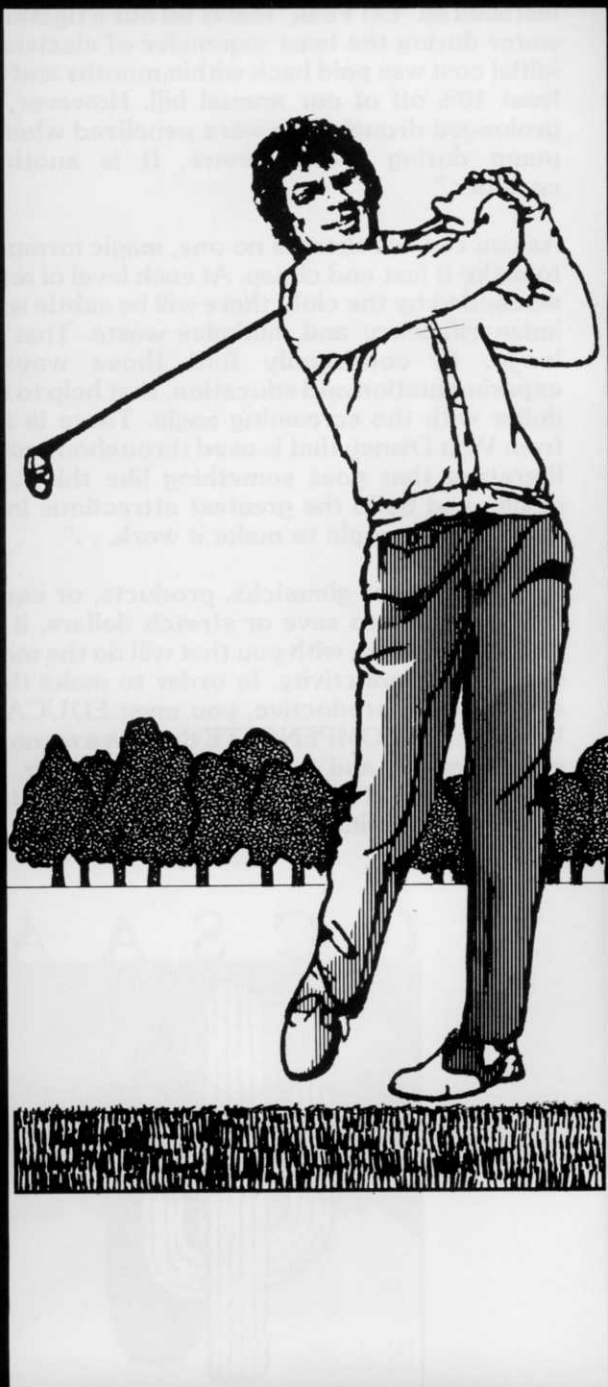
**Joe Ondo, Winter Pines Golf Club** — "I like to purchase versatile pieces of equipment that can perform more than one task by using quick height adjustment. We also share seasonal equipment with neighboring courses during renovation. We are now on an effluent system with the city of Winter Park and this will help on utility costs."

**Dave Wilder, Wedgefield Country Club** — "My job is to use all the chemicals and fertilizers as efficiently as possible. I'm keen on calibration."

**Steve Wright, Suntree Contry Club** — "We are trying  
(cont. on page 34)

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(cont. from page 32)

part-time labor on the weekends to eliminate the overtime, and during the winter we work half days on Fridays to cover half days on Saturdays and Sundays. Like most courses we use a competitive bidding purchasing method for bulk consumable supplies. We also installed an "Off Peak" meter on our irrigation system to water during the least expensive of electrical use. The initial cost was paid back within months and we saved at least 10% off of our annual bill. However, during the prolonged drought, we were penalized when we had to pump during "Peak" hours. It is another tool to consider."

As you can see there is no one, magic formula out there to make it fast and cheap. At each level of maintenance demanded by the club, there will be subtle ways to maximize efficiency and minimize waste. That's our challenge, to continually find those ways, through experimentation and education, that help to stretch that dollar with the screaming eagle. There is a quotation from Walt Disney that is used throughout our corporate literature that goes something like this ". . .you can design and build the greatest attractions in the world, but it takes people to make it work. . ."

No matter what gimmicks, products, or equipment we try to employ to save or stretch dollars, it will be the people who work with you that will do the most to affect costs and productivity. In order to make those people effective and productive, you must EDUCATE, MOTIVATE, AND COMPENSATE them in a manner that generates pride and self esteem in their work and themselves and that is one of the greatest tasks that faces any superintendent. ■

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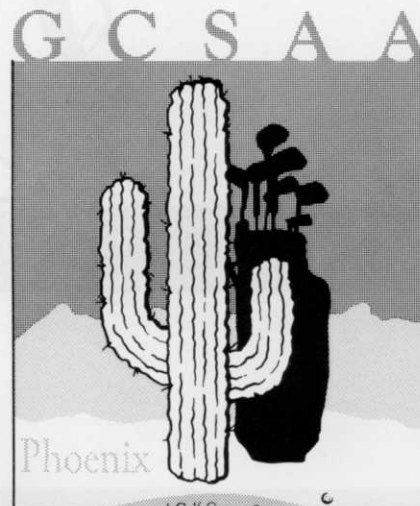
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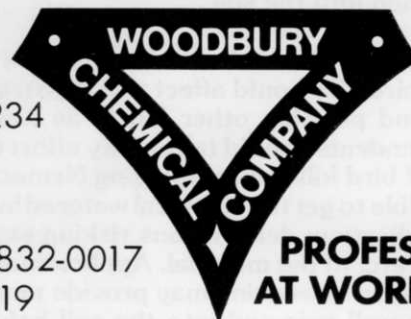
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## BEWARE OF BIRD KILLS ON GOLF COURSES WHEN USING NEMACUR SC

The registration last fall of Nemacur SC (the liquid formulation) for nematode control on golf courses was very welcome, since the new label seems to have several advantages over the granular formulations of Nemacur and Mocap that are also registered for the same purpose:

1. Less active ingredient would be applied per acre, resulting in lower costs to the course, less material to be stored and handled, and presumably less risk to the environment.
2. Spray equipment is inherently easier to calibrate accurately and provides more uniform application than granule applicators. Every course should have one or more appropriate sprayers in excellent condition and with which the application crew is very familiar, thus more likely to be used properly.

However, the great increase in the amount of acreage treated with Nemacur as a result of this new registration may be increasing the risk of an undersirable effect of this material. Fenamiphos, its active ingredient, is highly toxic to birds. There have been rumors and at least one confirmed instance of significant bird kills after spray application of Nemacur SC, in which label instructions seem to have been followed very carefully. Cattle egrets are apparently the bird species most commonly affected.

Egrets often follow any kind of machinery just as they follow cattle, hoping to pick up insects disturbed by its passage. Mole crickets often come to the soil surface after Nemacur application, so the birds can readily feed on mole crickets emerging from treated soil. There may be enough active ingredients in the insects to affect birds that feed on many of them. In addition, physical limitations of irrigation systems generally make it impossible to apply irrigation to the entire course simultaneously, so birds may in some cases be attracted to a treated area before the sprinkler system has reached it. They thus may be directly exposed to the chemical before it is washed into the soil.

The danger of this problem should be apparent: a few well-publicized bird kills could affect this registration of Nemacur SC, and possibly other labels as well. Golf course superintendents should take every effort to minimize the risk of bird kills when applying Nemacur. Do everything possible to get the chemical watered in immediately after application; delay means risking exposure of wildlife, pets, etc. to the material. Applications made late in the afternoon or evening may provide more time to get Nemacur well irrigated into the soil before the early morning period of high activity of egrets and other birds. Courses that are heavily infested with mole crickets may be able to reduce the risk of intoxicated insects attracting birds by scheduling treatments for months when the insects have not yet hatched, or are very small and thus less apparent and attractive to birds.

## EPA PROPOSAL TO CANCEL DIAZINON GOLF COURSE and SOD USES

EPA's proposed decision to cancel the golf course and sod farm uses of diazinon was supported by the FIFRA Scientific Advisory Panel (SAP). The agency's presentation and defense of its proposed decision earned praise from SAP members, other EPA officials, some representatives of environmental organizations and others who agreed with the action. The preliminary report said the SAP found that the weight of evidence supported the purposed cancellation of the two uses and stated that to respond to the concern about the risk of adverse effects to birds from the use of the pesticide on home lawns, parks and other sites, it would be appropriate for EPA to call in data on these other sites. The Panel agreed with EPA that the diazinon risk to birds was unacceptable and that bird kills could not be eliminated by changes in application. SAP recommended that EPA investigate the hazards of diazinon-alternatives. For diazinon, regulatory actions other than cancellation will not work, the SAP preliminary report declared. (P&TCN, 5/28/86, p 20 & 21)

Chemically Speaking  
June 1986

## Lofts Turf Field Day Draws Crowd to NJ Research Center

Lofts Inc. recently hosted its annual Turf Field Day. Each year Lofts opens its research headquarters to members of the turf industry including golf course superintendents, lawn care operators and distributors of turf seed.

The program began with a presentation on seed quality, presented by Dr. Richard Hurley's, Lofts' Research Director, followed by a discussion on summer lawn establishment, led by Rutgers University's Dr. Bruce Clark. Dr. Louis Vasvary, also of Rutgers, spoke on insect problems, diagnosis and control. The final topic of turf-type tall fescues, was covered by Dr. Thomas Turner of the University of Maryland.

Following a picnic lunch, guests toured Loft's research plots. It was an excellent opportunity to see first-hand the comparative performances of several varieties under various conditions. Certain new varieties could be observed such as Repell Perennial Ryegrass. Repell contains a natural fungus, an endophyte, which resists certain turf insects.

Lofts' Field Day is an excellent opportunity for professionals to learn the latest developments in the turf field and discuss common interests with their colleagues. To be notified of next year's Field Day, contact Lofts Inc., Chimney Rock Road, Bound Brook, NJ 08805. Telephone: (201) 356-8700. ■

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The sobering fact is, 60% of all high school students are "doing drugs." Many drink enough alcohol to be considered alcoholics. They do coke. Hash. Ludes. Rush. And a lot of drugs you've probably never heard of. And what's even more frightening—the problem is getting worse.

There *is* a place to get some straight talk about teenagers and drugs. Straight, Inc. A non-profit, drug treatment program that helps kids of all ages with drug and alcohol problems.

The Straight program is based, in part, on the very same concepts of self-help as Alcoholics Anonymous.

Like AA, the program relies heavily on positive peer pressure. It's simple. The kids end up helping each other. And it works.

Straight is more than a drop-off center. Straight believes in total family involvement. Total family commitment. Parents must attend Open Meetings along with their kids. Every week.

There are parent meetings. Sibling meetings. Family and individual counseling. And, most important, there is a sense of caring. Of sharing. Of respect. And a success rate that's hard to ignore.

So if you think your child may have a drug problem, call Straight today.

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**EDITOR'S NOTE: On Friday, January 30, 1987, come to the session (your spouse, your family and you) and hear Dan and Irene Jones speak on alcohol and drug abuse — the whole family suffers.**

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## NEMACUR FORMULATIONS FOR TURF AND ORNAMENTALS

There are three formulations of Nemacur distributed in Florida. Each is registered for specific uses, and it is illegal to use any formulation for a use for which it is not specifically registered. For instance, the liquid product, Nemacur 3, is registered for turf grasses "FOR USE ON GOLF COURSES" only. Its use on a sod farm is thus not permitted by this label.

Nemacur 10% Turf and Ornamental Nematicide is registered for turf grasses in golf courses, cemeteries, sod farms, industrial grounds, parkways and roadways, and for a wide range of ornamental plants in the production nursery. On the other hand, Nemacur 15% Granular nematicide is labeled for any use on turf or ornamentals. Do not use the 10% product for field crops, and do not use the 15% product on turf.

The manufacturer of these products has chosen, for their own good reasons, to limit the registrations of each product to specific markets. It is strictly against the Florida Pesticide Law and FIFRA to use either Nemacur product or any other pesticide for a purpose for which it is not labeled.

There has recently been some discussion of the relative merits of Nemacur 15G and Nemacur 10G for nematode control on golf course greens. "The new 10G is not as effective as the 15G," according to some consultants. Our response?

1. There seems to be no logical basis for a difference—the 10G is formulated on the same carrier with essentially the same process, excepting the quantity of active ingredient.

2. Some of the questions seem to be coming from evaluations made awfully soon after application—often less than 2 weeks. It may be possible to see a response to nematicide application in that period under ideal conditions (strong nematode pressure that is abruptly

stopped by the treatment, soil fertility and other growth factors all favorable for rapid root growth), but it may also take as long as 4 weeks, particularly in slow growth periods such as early— to mid—spring.

3. Regardless of the comparative efficacies of the two formulations, *it is illegal to use the Nemacur 15G for turf*, so golf course personnel must make the best use of Nemacur 10G if they choose to use a granular formulation of that compound. They may, of course, also choose the liquid formulation, Nemacur 3, or Mocap 10G.

4. In view of the questions about the relative merits of the three formulations of Nemacur, we have initiated a simple comparison of Nemacur 3 at 10 lb a.i./acre, Nemacur 10G at 10 and 15 lb a.i./acre, the Nemacur 15G at 10 and 15 lb a.i./acre on heavily - infested 'Tifgreen' bermudagrass at the University of Florida Turf Research Unit. At the time of the annual IFAS Turfgrass Field Day (28 May), 13 days after application, there were no visible differences among the treatments. We will keep you posted. ■

*Nematology, Entomology, Pathology News*  
May, June 1986 ■

## NEW SULFUR COATED UREA FOR GREENS

LESCO, Inc., Rocky River, Ohio has introduced a new line of small-particle sulfur coated urea fertilizers specifically designed for low-cut turf. The Elite product line includes six formulations of small-particle fertilizers which provide more particles per square foot than coarser grade products that can cause speckling.

LESCO Vice President Art Wick explains, "We've developed the Elite line in response to customer needs. Our small-particle fertilizers increase the number of particles applied on low cut turf to assure outstanding response, consistent greening, a more uniform distribution pattern. The sulfur coated urea provides steady growth and long residual. Mower pickup is virtually eliminated because the new small particles readily filter in to the turf." ■

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# DIVERSITY

## *Describes the Valley Restaurants*

Phoenix and Arizona's Valley of the Sun has a brand of cuisine that is as distinctive as it is diversified.

The range of cooking is cosmopolitan and western. So is the variety of decor in the hundreds of restaurants that dot this desert and oasis playground that has grown to become a hospitality and cuisine center of the Southwest.

The restaurant atmosphere swings from Mexican to Mongolian, Polynesian, Chinese and Japanese. Even highly rated French restaurants with world-class style and service have sprouted on the sunswept landscape.

Many of the restaurants have entertainment. Emphasis is on the more intimate, informal, relaxing type of evening fun — a trio or small band for dancing, a pianist-solist, banjo or guitar player and "join the gang" songfests.

Those famous and luxurious resorts are fine bets for dining out, and all of them have evening entertainment. There are a half dozen nationally acclaimed resorts that feature excellent food, outstanding atmosphere and entertainment at a good price value.

Most visitors will want to sample the distinctive western-style dining offered by a host of restaurants with Old West motifs. Many of these places specialize in barbecue ribs, steak and other western cuisine. A heavy helping of porch-fronted buildings, rail hitching posts, corrals, western music and atmosphere goes along with gener-

ous food servings.

The service is good and brisk but informality is mandatory. For example, if a male diner wears a tie in one western restaurant, it may be snipped off by the waiter and hung up with thousands of similar trophies.

The fare often includes platter-size steaks, chili beans, garlic bread, tossed salad and a hearty frontier-brand of coffee. The aroma of the cooking alone is enough to double one's appetite — and the desert air helps to stretch it a bit farther.

Many guest schedule a desert "cookout" for either breakfast or dinner a spart of their entertainment package.

Mean while, back in town, there are high-rise restaurants which offers diners a view of the changing city and desert landscape.

Gourmet cuisine and service are available throughout the Valley at a price tag 20 to 30 percent below large midwestern and eastern cities.

Whatever the price — the quality, atmosphere, color and versatility of the restaurants in the Valley of the Sun make the area shine for diners.

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# MERCURY IN PAINTS CAN KILL SOME INDOOR PLANTS

By: Chuck Woods

**APOPKA** — Of all the reasons why some plants don't thrive indoors, one is right off the wall.

"It's probably the last thing you'd think of, but we're now sure that the mercury in some paints is highly toxic to Ficus and Dieffenbachia, two of the most popular indoor plants used in commercial buildings," said Dr. Charles Conover, director of the Agricultural Research and Education Center in Apopka.

"Ficus trees were 'falling apart' a month after they were installed in newly-painted buildings," Conover explained. "We had reached the point where we had done everything possible to acclimatize plants so they would flourish indoors, yet they would begin losing leaves within a few days. Something was killing the trees.

"After talking with paint manufacturers, we suspected mercury — added to some paints to retard mildew — might be the cause," he said.

Six months of tests at the Apopka research center, which is part of the University of Florida's Institute of Food and Agricultural Sciences (IFAS), have shown that Ficus benjamina and Dieffenbachia are the only two foliage plants of the 16 tested that are sensitive to extremely low levels of mercury vapor given off by some paints. Ficus is very sensitive while Dieffenbachia react to mercury vapors more slowly.

Conover said mercury is not the only material used by paint manufacturers to retard mildew. And, he pointed out, mercury vapors from paints are much lower than federal safety standards and should not pose any danger to human health.

To prove the mercury is the only thing causing the rapid deterioration of Ficus and Dieffenbachia, Conover and Dr. Richard Poole compared the performance of healthy plants placed in painted and unpainted rooms. Paint that contained no mercury was used in one room while other

rooms had paints containing varying amounts of mercury. All other growing conditions such as light, water and fertilizer were the same.

Poole, a plant physiologist at the IFAS research center, said Ficus in the unpainted room and the room with paint containing mercury maintained their leaves and attractive appearance throughout the experiment. But Ficus in rooms with paint containing varying amounts of mercury lost leaves and some plants eventually died.

As the mercury content in paint was increased, plants deteriorated more quickly. Ficus trees placed in rooms that had been painted six months previously also showed moderate leaf drop, indicating mercury vapors from paint can remain active for many months.

"The results of our research explain some of the severe leaf drop problems that commercial interiorscapers are experiencing when they install Ficus trees in new buildings or newly-painted buildings. We are recommending that interiorscapers consider the type of paint utilized in commercial buildings and specify paint without mercury.

"When severe leaf drop on a Ficus tree occurs suddenly after installation or repainting, the paint formulation should be obtained to determine whether mercury is present. Of course, another option would be to use other types of indoor plants instead of Ficus," Poole explained.

Conover said their studies on mercury in paint have opened the door to a whole new area of research on other heretofore unknown environmental factors that may affect the health of ornamental plants.

"It's entirely possible, for example, that we may be able to use plants to detect or signal the presence very low levels of toxic chemicals in the indoor environment," he said. ■



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# GRAND CANYON - A Must Stop

Text and Photography by David Bailey,  
CGCS High Ride Country Club

This years GCSAA annual conference in Phoenix enables you to see one of the worlds great natural wonders. Plan now to take a few extra days to visit the Grand Canyon, only 218 miles away.

Mount Everest. The Sahara. The Amazon. The Grand Canyon. These are standards by which the earths immense wonders are measured. Rising toward an evening sky from the rim, purple shadows scale the canyon walls and monumental buttes with erosion scarred slopes, eclipsing in minutes a layered geological past measured in millions of years.

Because its over 2,000 miles away from southern Florida, many have never seen its splendor. Having visited the area five times in the last fifteen years let me share some tips and ideas.

Drive north from Phoenix on I-17 to Flagstaff. This 137 mile drive will take you thorough several climate changes from dry lowlands to semi-mountain terrain. Note the Arizona Highway Patrol works this road as a radar battle zone, pack your detector.

Flagstaff is an interesting little town. Many, many motels at low winter rates, half the cost of Phoenix. The University of Northern Arizona is there with a unique sports complex. A Big Sky Conference member they have a

25,000 seat domed stadium, and they use it wisely. Designed around the portable football field, in the winter it is transformed for hockey, basketball, volleyball, and other sports all set up at one time. Just sit in a different section for each event. If there is a game in town check. Just north of town on route US 180 will be snowcapped 12,670 foot Humphreys Peak. The snow ski area is called the Snow Bowl. Since you will be in a rental car drive past the clean cars in a parking lot at the mountain base and drive up the dirt road to the ski lodge. We are not talking Aspen or Jackson Hole but for Floridians that snow plow down the slopes it's fine. If you have never been on skis this is the place to start. Wear your golf rain suit pants or plan on a wet seat. You can rent all equipment needed.

Continue north on route US 180 which has merged with state road 64. Form here its a straight shot through the Kaibab National Forest. Look back to see Mt. Humphrey 50 miles away.

Before you enter the park stop at the town of Tusayan, a small collection of stores. Yes, those are the world famous golden arches you see on the right. Go into McDonalds they have an interesting story to tell. Since the community is so isolated they must house all their employees on the property. Because of its overhead a Big Mac is the highest priced in the nation. Next door is a souvenir shop with their typical authentic junk from Tai-

*(cont. on page 42)*



Yaki Trail — Canyon takes on a new look below the rim

Photo by David Bailey

(cont. from page 41)

wan. If this is your first trip to the canyon book a helicopter ride. It will be expensive so decide before you get there, otherwise the price range of \$60 to \$200 per person will scare you off. Prices vary on length of travel. That may not be your only scare but I guarantee you it will be very exciting and well worth the money. Since you will not get an immediate flight, maybe even the next day, kill some time at the movie theater across the street. This is an I-MAX movie. There are few in the east and none in the south. This revolutionary movie concept uses a film ten times the normal negative size of movie film, it has absolutely life like detail. The seats sit high like in a stadium, so pick one in the center at the top for the best view and effect. The movie theme is about the first white man explorers in the canyon so the history lesson is a good introduction. You will feel everything but the water in your face when you raft down the Colorado River.

Enter the park and stop at the first overlook view area. Words can not do the sight justice. Take time to watch other peoples reaction at the view. Next go immediately to the visitors center for all the info you need. Here is an excellent book selection, buy a 25¢ park map from the ranger behind the main desk. Watch the slide show prepared by Kodak.

Check into a hotel in the village area. The best bet is the Bright Angel Lodge. Its location is priceless, a good restaurant at fair prices. The historic El Tovar Hotel will cost twice the price but is no doubt the best. One company runs them all. No matter where you stay visit the El Tovar lobby, gift shop, and eat once in the main dinning room. Wait for a window view in the table line.

When you drive the rim road go as far east as the Desert View. The stone Indian Watchtower gives a good view of the river in the distance. Because of new dams upstream

the color of the river has changed in recent years to blue form muddy brown. This area looks best in the early A.M. light. At this point when you look at your map do not get the idea to drive around to the north rim. Its a 200+ mile trip for nothing in the winter, its closed! The higher elevation has it snowed in four months of the year.

Do not go to the Grand Canyon and miss a sunset. The last two hours of daylight must be viewed from only one place Hopi Point. Pick a spot and do not move, the constantly changing light show varies every few minutes. This is the oldest and best laser light show on earth. Be There!

Winter is the best time of the year for a real feel of the canyon when you take a hike below the rim. Yaki Point is the best of the two trails. At least walk down the trail for one hour to the O'Neil Butte. This puts you 1,200 feet below the rim. Its a two hour return walk. The long hike is seven miles down to the Phantom Ranch on the river. Spend the night and enjoy the beefstew and starlight. To get there you must be in good shape, have quality footwear like hiking boots, a day backpack, canteen, and flashlight. You must carry out all food and drink containers you tote down. Leave early in the morning upon the return hike. The last two miles are harder than the first five, take your time, rest and enjoy the view. Which ever hike you select do not overdress. There can be forty degree temperature difference down in the canyon from the cool rim top in the early morning. Mule rides are available along Bring Angel Trail.

A much easier hike of a different nature is away from the main canyon. Still in the park boundry at the western edge, your destination is the Havasupai Indian Reservation with the most isolated village in the continental  
(cont. on page 44)



Hauasu Falls is located on Indian Reservation in southwest section of park

Photo by David Bailey

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(cont. from page 42)

USA, Suapi. The location is about 200 miles from the village at the canyon headquarters. The only way there is to park at the reservation entrance and hike or horseback ride eight miles down a dry creek bed. Helicopters land for \$200 per person. Suapi is like another world in a different century. The population is about 400. But then you see two homes with TV satellite dishes that were flown in. There is a modern 30 room inn built since the park expanded in 1976 to include the Indians. It was needed because once there, you must spend the night, just like the Phantom Ranch trip. In the winter neither are filled to capacity. Why go there? The series of waterfalls are beautiful. Not powerful like Niagara, or majestic like in Yosemite, but perfect balance and rock formations, clear blue limestone mineral water. If a great photo is your objective this is the single best in all the canyon area. The hike is only a 2,500 foot elevation change so its an easy walk. Time is only three hours down and four hours back up. You can walk down and horseback ride back out for \$30. Do not over do it by walking to the village and then the falls. See them the next day, stay a second night, and out the next morning. The inn cost about \$40 and there is a trail fee of \$8.

The Grand Canyon is a one of a kind experience no matter how you view it. To go from Florida to Phoenix and not visit the Grand Canyon would be like coming here and not going to Disney World or seeing the Atlantic Ocean. ■



The trail to Suapi, a tree can grow anywhere except where you want it to. ■

## MODE-OF-ACTION of Chipco Aliette will be Discussed at GCSAA Meeting

MONMOUTH JUNCTION, N.J. -- Scott Johnson, Rhone-Poulenc Inc.'s Aliette product manager, will make a presentation on the mode-of-action of Chipco® Aliette® at the upcoming GCSAA meeting in Phoenix. The presentation will be based on the results of a long term research project conducted by Dr. David Guest of the University of Melbourne, Australia.

According to Johnson, "the main conclusions from Dr. Guest's work are: Chipco Aliette's activity involves both a direct effect on the fungus and an indirect effect via host metabolism, the degree of direct vs. indirect action varies for each host-pathogen interaction and that the development of resistance to Aliette is unlikely because of the combination mode-of-action."

Chipco Aliette was introduced at the 1986 GCSAA meeting for the prevention of Phythium in Turf. The product is also registered in foliar and drench applications on ornamentals to prevent Pythium and Phytophthora root rot.

For more information on Chipco Aliette, write to Rhone-Poulenc Inc., Agrochemical Division, P.O. Box 125, Monmouth Junction, N.J. 08852.

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## SHOWBOAT & CELEBRITY *New Rye Mixes*

International Seeds, Inc. Halsey, Oregon has been granted trademark registration to Product Manager Harry Stalford.

They are Showboat® overseeding mixture and Celebrity® overseeding mixture.

Showboat® is an economy mixture of Derby turf-type perennial ryegrass and Oregon annual ryegrass.

Derby is a top-rated variety internationally and annual ryegrass is considered the workhorse of the ryegrasses.

Celebrity® is a premium blend of Derby, Regal and Gator, three of the finest turf-type ryegrasses available in the marketplace today.

Generally the ryegrasses in Showboat® and Celebrity® will germinate in matter of 7-10 days or even less under ideal conditions.

Both mixtures are widely used to overseed golf courses in the Southern U.S. as well as home lawns, parks and playgrounds. ■

# DAY TRIPS FROM PHEONIX

Arizona is sometimes called the land of contrast because of the changing scenery and activities that are offered. You can swim and play tennis in the morning in Phoenix, and spend the afternoon fishing, hiking or sightseeing in the cool pines in Flagstaff.

The following driving tours are easily accessible from Phoenix and will add to the enjoyment of your visit.

## GRAND CANYON

The Grand Canyon is one of the great natural wonders of the world. The South Rim is open year-round and features nature walks, mule rides down the canyon and the rim drives. The North Rim is open from mid-May until sometime in October. Lodging is available for visitors who want to spend more time exploring the Canyon, and reservations can be made by calling toll-free (800) 528-0483.

The Canyon is a 5-hour drive from Phoenix. Take Interstate 17 north to State Highway 179 from Phoenix to

Sedona; Highway 89A from Flagstaff to Tusayan. Leaving the Grand Canyon, take State Highway 64 to Cameron and go south on U. S. 89. Turn left off 89 at Wupatiki National Monument and Sunset Center. Rejoin 89 into Flagstaff and from Flagstaff take Interstate 17 back to Phoenix.

## SEDONA/OAK CREEK CANYON

Sedona, a cultural community of 9,000, has become a mecca for art lovers and collectors who are drawn to this little community by more than a dozen commercial galleries featuring paintings, Indian art, sculpture and art objects.

Deep red rock formations and multi-colored buttes make this resort area unique throughout the area. Many of these boutiques are located in Tlaquepaque, a shopping village in Sedona, named after a little town near Guadalajara, Mexico, which was once the leading producer of crafts and glassware. A short distance from Tlaquepaque is the Chapel of the Holy Cross, a beautiful structure located on a higher altitude, providing a breath-taking view of the majestic red rock country.

(cont. on page 46)

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(cont. from page 45)

Sedona is a 2 1/2 hour drive one way from Phoenix. Take Interstate 17 north to Junction 179. Exit for Sedona — Oak Creek Canyon and enjoy the spectacular view of Oak Creek Canyon, rivaled only in its beauty by the Grand Canyon.

### PRESCOTT

The small community of Prescott was founded after the discovery of gold in 1863 and was the first permanent capital of the Arizona territory. The early settlers had to contend with claim jumpers, outlaws and Indians. While in Prescott, stop at the Sharlot Hall Museum complex. You will see the first territorial governor's mansion, the historic 1857 John C. Fremont House and the restored 100 year old Bashford House.

The fastest route to Prescott is north on the Black Canyon Freeway (I-17) to Cordes, then northwest to State Route 69. Less than two hours one-way.

For the more leisurely traveler, a longer, more scenic route is available via Wickenburg, Congress. Yarnall and Kirkland Junction.

### APACHE TRAIL

This world-famous trail winds through spectacular desert mountain scenery to the city of Globe. Highlights

of this trip include the dams and lakes of the Salt River.

As you start up the trail (official beginning is State Highway 88), the Superstition Mountains appear on the right. The legend of the Lost Dutchman's Gold Mine originates from this mountain range. Stories about Jacob Waltzer (or Waltz or Walz), nicknamed the "Dutchman", have been told for many generations. Legend has it that the Dutchman often appeared in public with pockets-full of gold nuggets and anyone who attempted to follow him was never seen alive again. There is some evidence that the man existed and that he was probably a miner from the thriving Vulture Mine near Wickenburg. However, no one has ever found the fabled gold mine.

About a 4 hour drive round trip. Follow U.S. Highway 60 east of Phoenix for 34 miles to Apache Junction. Turn left on State Highway 88 to the Trail. After passing Roosevelt Dam and Tonto National Monument, make the return loop to Phoenix by Highway 60.

### MOGOLLON RIM

This magnificent geological fault, which was named after Jean Ignacio Flores Mogollon, governor of New Mexico (1712-1715), is referred to locally as "The Rim." The dramatic face of the rim consists of a multicolored wall of rock, dotted by pine, manzanita and oak shrub. This giant wall of rock juttied upward a mile above sealevel when the earth's surface shifted a thousand years ago. Several layers of grey shale, creme-colored limestone and deeper colored sandstone accent the rim's edge.

The Rim was made famous by author Zane Grey who spent many hours writing, hunting and fishing in this beautiful area. The Rim inspired many of his novels. Zane Grey's cabin is still standing for visitors to see and relive the past.

About a 1 1/2 hour drive one-way. Take Highway 87 northeast of Phoenix to Payson. Just beyond Payson, turn right on Highway 260. About 17 miles from the turnoff, watch for signs of Zane Grey's Cabin just after passing Kohl's Ranch. While at the cabin, stop at the fish hatchery up the road and see pools of fish raised from eggs by the Game & Fish Department. After returning to the main road, continue 14 miles past Tonto Creek (a great place for a picnic lunch) to the Wood Canyon Lake exit. Turn left at the sign and you'll be on the Old Rim Road. The road becomes an unsurfaced forest highway and frequently winds within a few feet of the fault line, providing a gorgeous panoramic view of the Rim.

### MONTEZUMA CASTLE AND WELL

This impressive ancient Indian cliff dwelling is nestled high above Beaver Creek and is over six centuries old. The Aztec Emperor, Montezuma, for whom the castle is named, never saw the famous structure. The Sinaguas, Pueblo Indians who moved into the Valley during the

(cont. on page 47)

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twelfth century, built the cliff dwelling from limestone and adobe. When the white settlers saw it years later, they concluded only the Aztecs could have designed the castle and they named it accordingly. The structure was built on a steep cliff to protect the Indians' property rights. The Visitors' Center is open from 8:00 a.m. until 5:00 p.m. daily and contains exhibits, artifacts and early historic relics.

About 7 miles northeast of the Castle on the Park Service Road is Montezuma's well, a limestone sink hole with a natural spring. Early Indians used this natural spring for irrigation purposes and the well still provides nearby Beaver Creek with a daily water supply of over a million gallons. The well is 55 feet deep and 470 feet wide. From the parking lot at the well, follow the trail to the surrounding plateaus - the result of volcanic lava flows.

To get to Montezuma's Castle, take Interstate 17 north to the Montezuma Castle turnoff just past the beautiful Verde Valley. About 1 1/2 hours one-way.

## TUCSON

Heading south from Phoenix, a two hour ride will take visitors to Tucson, where a good bet for unforgettable sights is the Saguaro National Monument — Tucson Mountain Park area just west of the city.

Here are found examples of desert botanical species set amidst rolling foothills terrain. The Arizona-Sonora Desert Museum, regarded as one of the finest facilities of its kind anywhere, has its home here, too, featuring an array of desert life - - from insects to reptiles, birds and animals, as well as desert plant species - - all in natural settings that give the feel of being a part of the desert.

A few miles away, the scene shifts to the wild west at Old Tucson, a movie set constructed years ago to resemble Tucson of the 1880's. It's still the scene of many movie and television productions and also offers reenactments of shootouts and street brawls, stagecoach rides and other western-style activities for the enjoyment of visitors.

If time permits, a short ride south from Tucson to San Xavier del Bac Mission, just off Interstate 10, is worthwhile. Known as "The White Dove of the Desert," the mission was built by Franciscan Friars nearly 200 years ago and is regarded as the finest example of Spanish mission architecture in the country. The Franciscans still operate the mission for Papago Indians in the area, but the public is welcome to tour the facility daily.

Take Interstate 10 south about 2 hours to the Congress Street exit in Tucson.

Using Phoenix as a gateway, visitors can see the beauty of the state of Arizona — from the cool pines of the north country to the desert scenery and wild west atmosphere of Southern Arizona. And it's easy to make lodging arrangements prior to arrival in Phoenix by calling toll-free (800) 528-0483 for information on rooms and to make reservations. Reservations can also be made at the Grand Canyon Lodges, South Rim, by calling this toll-free number. ■

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# DIVOTS

By Donald E. Kooyer, C.G.C.S.  
Willow Lakes Golf Club



## Cutting Costs Through Efficiency

The efficient management of personnel, equipment, chemicals, and time will most certainly keep your planned budget on line. When I accept the responsibility of managing someone's business, I have to know what the company wants out of the operation that I am responsible for.

To objectively manage any business you must have an understanding between management and owner on the cost of operations. As the superintendent of a golf facility you have the responsibility of being able to show that you are capable of operating your facility in a cost effective and efficient manner. When preparing your budget you have to know what type of operation you will be running. A course with nine holes of golf will have a lower budget than an eighteen hole course. Then again, a nine hole course in certain geographical areas will have a larger budget than an eighteen hole course in another

part of the country.

Your company may own two or three or more facilities and the budgets will be different at each course. Costs of operations will depend on the different types of clientele and the different types of amenities at the facility. Whether you are just taking over an operation or you have been at the same location for years, the costs of operations change annually, if not daily. To keep up with these changes and stay efficient, you must gain knowledge through continual business education and by being aware of the economic conditions of your area.

As the superintendent you have the responsibility of continuously reviewing your operations budget with the rest of the management team at your club. When you can show the owners or director of your club that you can run a cost effective operation you can then concentrate on turf and personnel management.

Now that you have the operations budget in your hand, the hard work has just begun. You now must make the budget cost effective. One of the budget line items at a course managed by a bank was out of line. The first thing the bank wanted was the equipment repair cost reduced. Before I arrived at the golf course I had the budget analysis report mailed to me. The first line item I looked for was the one in question. At 30% over to date and only seven months into the budget year, there was something wrong.

When I arrived at the course I had my work cut out for me. There were approximately 57 pieces of major equipment in the maintenance area and one was operable. Equipment repair budget at 30% over, no equipment running, and the company wants me to cut costs? Where does a superintendent start with a nightmare like this? I asked myself, was the preventive maintenance program effective — hardly! How can I cut costs and get operating at the same time? I opened the door to the mechanics area and virtually could not see the floor. The first things that came to mind was to get the area in order and use what I could find to get necessary machines running. Now I could inventory what we had on hand and see what needed to be ordered and where the over ordering had taken place.

After the first teleconferences with my home office to let them know that I had the inventory and purchasing areas on the right track, I would start on personnel. It was plain to see that costs surely could be reduced with a good

(cont. on page 49)

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(cont. from page 48)

personnel management program. As I hired and brought people into my operations, training became most essential. A well-trained golf course equipment mechanic can prevent what I found when I first saw the equipment at the course.

After showing a reduction in the areas of the budget that were immediate priorities, I started to work on the other areas. When training personnel in your operations, make them aware of the budget that affects their area of operations. When I hired my irrigation man, I made sure he understood how preventive maintenance and proper operation time can help keep costs down. The irrigation man should know that overusing the water system can lead to destruction of turf and cost overrun in the irrigation budget. By controlling the amount of water usage you can cut costs on maintenance of sprinkler heads, irrigation pumps, valves and controllers. By watching the weather closely (we check the rain gauge daily), you can cut costs on electricity for pump operations drastically. By knowing how much water is being distributed from the sprinkler heads, G.P.M., A.C., and time of operation, your properly trained irrigation man can help in the control of leeching of fertilizers, pesticides, and help check compaction. An irrigation department run efficiently can be very cost effective. Remember to let your employees know that they are directly linked to keeping costs down in their daily work habits.

I was at another course the other day that asked me for some help. We were walking through the equipment storage area and we were discussing new equipment purchases. When we got to the end of the building, the gentleman I was with looked puzzled. He said, "I didn't see our new machines." We walked back and stopped in front on a new triplex. It was so dirty it already looked six months old. In reality, the machine had been delivered two days ago. He asked me what he could do to prevent this. I explained my policy of training personnel. The very first thing I teach my operators is that the three most important steps to preventive equipment maintenance are: 1) check the oil, 2) check lubrication, and 3) cleanliness. These three steps can prolong the life of any machine to twice the life of one not taken care of properly. Take that life span times the amount of equipment you have and then add up the cost savings on your budget.

Cutting money costs is not the only way to improve your course operations. One of the most important factors in your daily operations is time. It is not just an old saying that "time is money"—it is a fact!

Effective manpower scheduling is a daily, weekly, and long-term task. Each day you could have from 3 - 15 employees coming to work. Each employee has a specific area of responsibility and each has to be trained in his duties. If a greens mower operator is an excellent equipment operator and fails in effective mowing time, efficiency is lost.

A mowing route should be established so the operator knows how much time it should take to complete his job. If you have trained all your operators properly they can use time efficiently to cut costs. If you can cut 20 minutes a day off your greens mowing operations the cost sav-

ings will mount with your time savings. One way I have implemented a time saving step is to have my greens men start at the edge of the green and not in the center. When the operator starts mowing he should start at the proper edge of the green so when he ends his clean up ring, he can leave the green he is on and head directly to the next green. By not having to drive the machine around the green to head in the right direction he can save valuable time. By starting the mowing operations at the edge of the green, he will pass through the green only once and will not have to backtrack.

If the operator starts on any other area of the green than the clean up ring area, he will have to go back to finish the other side he has not yet mowed. By having to go back and start over he will waste not only time but gasoline. The life of the machines is also shortened. These are just two of the many small time and cost saving steps that can improve your manpower scheduling by using time wisely. Remember, "time is money". ■

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## NEW WEAPON *against Turfgrass Seed "Pirates"*

Now by "gene mapping" a turfgrass seed sample, researchers can positively identify seed varieties through DNA sequencing.

This new method recording a seed's genetic code is far more reliable and consistent than electrophoresis, the only analytical method available up until now. And since no two seed varieties have the same genetic makeup it makes identification accurate and positive.

This new process has been developed with a specific purpose in mind. On the turfgrass market there has recently been widespread "pirating" of patented seed varieties. Such illegal practices takes the form of seed marketed in plain bags with the "claimed" variety name simply stenciled on the front as opposed to the "designer" bag used to package and market legitimate turfgrass seed.

Since the plain bag purports to contain a named seed variety, one of two scenarios presents itself. First, if the bag *does* contain the claimed name variety which legally belongs only to the patent licensee, it probably represents larceny.

Second, if the bag does *not* contain what is claimed by the stenciled variety name, the way is open to charges of misrepresentation and fraud. Either way the law is flaunted and actually broken by a criminal act.

The new gene mapping technique will tell law enforcement officials "what's in the bag." The analytical method

was developed by Native Plants, Inc. of Salt Lake City, Utah, an organization most respected in agricultural and biological research.

Lofts, Inc., an industry leader in turfgrass marketing, has contracted, at great expense, to have leading varieties recorded for genetic identification.

"We at Lofts, are very concerned about what's happening in our industry. We're embarking on a very intense and costly project with Native Plants. These tests will stand up in the court of law and we intend to prosecute those found guilty of the illegal sale or misrepresentation of patented varieties.

Of course putting an end to these illegal practices will benefit us, but it's also going to benefit the entire turfgrass industry," says Rich Hurley, Vice President of Lofts Inc.

Now, with gene mapping, the weapon is at hand to stop pirates in their tracks. Illegal seed will be traced to the source of harvest and supply, perpetrators identified and prosecuted.

The action Lofts and Native Plants have taken against turfgrass seed pirates will be applauded not only by seed marketers who stand to lose their patent rights, but by research universities who lose their earned royalties, and by the turf professional who loses the integrity of his seed purchase. ■

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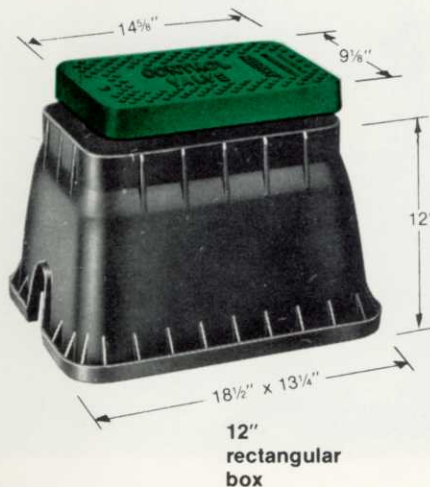
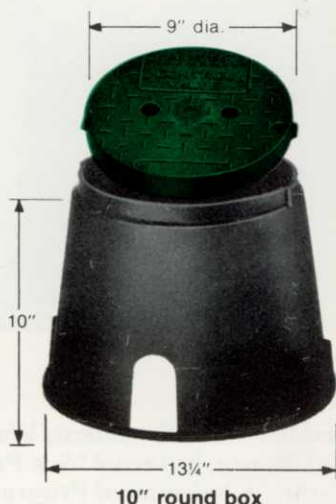
Through a new "gene mapping" process, the true contents of illegitimate bags of seed like this will be positively identified and traced.

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# Everglades Chapter: Looking to the Future

by Sandra P. Carmouche

In years past, the Everglades Golf Course Superintendents Association relied on the same few dependable individuals to take care of business, year after year. These were the superintendents who pulled together an organization that benefitted all its members, even those who didn't have the time or means to help with the burden.

With elections that were held last June, that has changed. A new generation of superintendents is now at the helm of the EVGCSA, evidence of interest in the Association among younger members.

The new President of the Association, Cary Lewis (Vintage Country Club in Fort Myers), has set a list of goals for his administration that will require a great deal of hard work.

Those goals include a new set of Bylaws which will coincide with the new set of National Bylaws. He plans to upgrade the services provided to the members and create an internal certification program to help member superintendents who aren't yet certified.

Lewis also hopes to establish a liaison with the South Florida PGA in order to promote an improved working relationship between pros and superintendents.

Closer to home, Lewis is making an outline of important dates (Poa Annua, monthly meetings, etc.) that can be passed on from one Board of Directors to the next, so that when new officers are elected, they'll know what needs to be done and when.

Another item being discussed is the possibility of a permanent part-time secretary to keep track of mailing addresses, dues, membership lists, etc.

But Lewis' primary goal is for the Association to continue its quality performance for its members. That won't be possible unless younger members take an active role in supporting the Association.

A lack of interest and involvement among younger members would result in the waste of years of diligent hard work that the veteran superintendents put into the Association. ■



Everglades Board of Directors

From left to right: Bob Shevlin, Secretary/Treasurer; Jerry Redden, Vice President; Wayne Lippold, Chairman of Membership and Social Functions; Cary Lewis, President; David Moote, External Vice President; Bob Bittner, Golf Committee Chairman; Roy Briggs, Bylaws Advisor; Dick Naccarato, Chairman of Program Education, Scholarship, and Research; Al Lane, Supplier Advisor.

Not pictured; Mark Black, Sergeant At Arms; Bob Toski, Photographer; Norman Carmouche, Florida Green Reporter and FTGA Liaison.

## Toro Expands Attachments Available for Groundsmaster 117 Riding Rotary Mower

*52 in. Cutting Decks, Grass Collecting Systems  
Snow Thrower and Leaf Blower Added*

The Toro Company announce today the introduction of several new attachments for the company's successful Groundsmaster 117 riding rotary mower. The 117 was introduced last year (with a 44 in. side-discharge floating cutting deck) to offer commercial customers as well as rural/estate owners with larger acreages the productivity advantages of an out-front mower as compared with mid-mount riding tractors.

The new Groundsmaster 117 attachments include two new floating cutting decks (a 52 in. side-discharge model and a 52 in. rear-discharge model), quick-disconnect Grass Collecting Systems and leaf mulchers designed to fit the 44 and 52 in. cutting desks, a 44 in. two-stage snowthrower, and an Olathe leaf blower (the last two will be available in Fall 1986).

Mike Hoffman, Toro Marketing Manager for the 117 line, said, "It's been our intention all along to make the Groundsmaster 117 an even more versatile package. The product was received well its first year, for several reasons: with its front-mounted rotary decks, the 117 has the maneuverability of a walk-behind mower but also provides the operator comfort and high cutting output associated with commercial riding units. Because of the new decks, collection systems, blower, and snowthrower, we can truly say the 117 is a year round, all purpose riding mower for commercial or estate use. Our goal is to help our 117 customers meet more and more of their expectations with this one product."

Both new 52 in. cutting decks are capable of mowing up to 2.8 acres an hour at 5.5 mph and offset 12 in. to the left for close trimming. Each deck features a full flotation design with front and back rollers that minimize scalping. Height-of-cut is easily adjusted from 1 to 4 in. in 1/2 in. increments.

The new leaf blower is being produced by Olathe specifically for use with the Groundsmaster 117, and the new

two-stage snowthrower features an adjustable discharge chute and adjustable skids. Each of the new attachments features a Toro easy-disconnect design that allows fast hook-up and removal.

Hoffman noted that Toro is currently planning additional attachments for the Groundsmaster 117 that will further expand the model's versatility.

For additional information, contact The Toro Company, Marketing Services/Commercial Products Division, 8111 Lyndale Avenue South, Minneapolis, MN 55420. ■

## Hi-Wheel Spreader Added to LESCO Line

LESCO, Inc., Rocky River, Ohio, has added a Hi-Wheel Spreader to its LESCO Spreader product line.

The Hi-Wheel Spreader is equipped with large 13x5.00-6 pneumatic tires for less rolling resistance and increased stability in taller, thicker grasses. The LESCO Hi-Wheel Spreader is available with standard baked-on, chip-resistant epoxy finish or stainless steel frame, both with reinforced handles to provide long-lasting durability and strength.

Like the standard LESCO Spreader, the Hi-Wheel Spreader has an 80-pound capacity polyethylene hopper, corrosion-resistant "Delrin" 100 gears for smooth, trouble-free operation. Pneumatic tires, zerk fittings and ball bearings provide ease of operation and lubrication to prevent corrosion. The third hole on the shut-off plate has an adjustable metering slide for varying product bulk densities. The durable bumper/handle on the front of the spreader protects the impeller and makes carrying easier. The stainless steel axle, impeller shaft and on/off assembly are durable and corrosion resistant.

Options available for the LESCO Hi-Wheel Spreader include: the patented Jet-Action Deflector to allow straight spreading edge along sidewalks, driveways and plantings; a vinyl hopper cover and a gear cover to protect spreader gears from corrosion and damage. A spreader package is available which includes the LESCO Hi-Wheel Spreader, hopper cover and Jet-Action deflector. ■



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# DIAZINON

## Information Update

CIBA-GEIGY has received notification from New York State that it has issued a 60-day stop use order on diazinon for sod farm and golf course use because of alleged unreasonable hazards to birds. Diazinon is the preferred insecticide for controlling grubs and other turf-destroying pests. It has been registered for use for more than 30 years.

The state based its action on alleged incidents of bird kills, principally waterfowl, attracted to turf. Based on the information made available, CIBA-GEIGY contends that the two of 54 nationwide bird kills examined by New York officials did state investigators find sufficient evidence to show that diazinon had been correctly applied according to label directions.

A few bird kills documented to have occurred following proper use of diazinon in 30 years of millions of applications indicates that the product can be used safely -- more than 99 percent of the time. CIBA-GEIGY feels it has been proven that diazinon does not cause unreasonable adverse effects on bird populations when used as proposed by labeling on file with the EPA.

Over the 30-year period, diazinon has been implicated as the potential cause of death of approximately 2,000 birds. The argument made by EPA and others that a large number of bird deaths from diazinon go unreported is purely speculation. The U.S. Fish and Wildlife Service (USFWS) estimates that each year some 57 million birds are killed by automobiles. Several billion more are killed annually by predators or other natural causes, according to the American Ornithologists' Union. Another 120 million are killed by hunters.

The USFWS concludes that these large kills have no bearing on the success of any bird species, with the exception of hunting. Further, at a recent EPA Scientific Advisory Panel meeting, the USFWS testified that no evidence links diazinon to population reductions in any bird species. The total annual U.S. avian population remains constant at approximately ten billion birds.

Recent studies have shown the numbers of Canada geese, a species sensitive to diazinon because of its foraging habits, are actually on the increase. The population of Atlantic Brant geese, a species of which 700 were allegedly killed from diazinon exposure in 1984, showed a healthy increase in 1985.

Diazinon can be used safely when applied at the recommended rate of no more than four pounds of active ingredient per acre for a single application. Two extensive field studies with granular and liquid formulations of diazinon applied at this rate followed by irrigation of one-quarter inch of water provided an adequate margin of safety for dabbling birds, such as mallards, and foraging birds, such as geese.

There is no such thing as zero risk in our society. The minute numbers of birds killed by diazinon exposure represents a tremendously minor risk when compared with the benefit of controlling turf pests. The action taken by New York is not practical, reasonable, or based on sound review of the available data. CIBA-GEIGY will vigorously defend the continued sod and golf course uses of diazinon. ■

## People on the Move

LESCO, INC., Rocky River, OH, has named Phil Gardner Vice President of its lawn care sales division. Barbara Craycraft will become manager of all large volume accounts.

Gardner began his career with LESCO in 1976 as a LESCO golf course salesman. He was named regional sales manager in the southeastern United States in 1979, and in 1983 became manager of LESCO product facilities in Sebring, FL. Gardner was named a LESCO Vice President in 1985.

Gardner had previously worked with Groezinger Golf Enterprises as a superintendent of Blackhawk and Minerva Lakes Golf Courses near Columbus, OH.

Barb Craycraft has been a part of the LESCO organization since 1966. She served as receptionist, secretary, manager of inside sales and manager of the LESCO lawn care division.

Craycraft attended Ohio State University. ■

An illustration featuring a frog on the left and a fish on the right, both looking towards the center. The frog is perched on a branch, and the fish is swimming. The background includes some reeds or grass.

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## Turfgrass Research Update

The game of golf has been played in one form or another for about 500 years, with the first permanent course being established in the early 1400's. Research and development of turfgrasses and its care is still in its infancy. The first turf plots were established in Michigan around 1880. From these early evaluations of species and mixtures, work continued and by the late 1920's there were a dozen sites where turf work was being done by the USDA, state agricultural experiment stations, and the USGA Green Section. Other countries such as England, Canada, New Zealand and South Africa also began turf programs in the late 1920's and early 30's. These early efforts were the ground work for the major advances of the 1950's. Major advances in equipment, turf cultivators, pesticides and fertilizers have brought turfgrass cultural to the point where it is considered a major industry.

During the late 1970's an increased public awareness of agricultural practices and their impact on the environment, and rapidly increasing maintenance budgets resulted in a re-evaluation of where turfgrass culture was headed. In 1982 the United States Golf Association established a Turfgrass Research Advisory Committee. The purpose of this committee was to develop, coordinate, and oversee a ten year research program that will lead to at least a minimum of 50% reduction in water use and a 50% reduction in golf course maintenance costs based on 1980 figures.

The Golf Course Superintendents Association of America was invited to participate on the committee in 1983. The GCSAA has become an active, full partner in this long range research effort. These two organizations now lead the way jointly, to improve turfgrasses for golf, to lower maintenance costs and to conserve water and other essential resources in the management of all turfgrasses. To accomplish the goals and objectives outlined above, the committee realized there was a need for basic, fundamental turfgrass research. From this basic work, the next 50 years of growth and development of the industry will be generated. Since 1982, the Research Committee has funded 22 research proposals at 17 colleges and universities across the country. Over the past four years, the USGA Executive Committee has placed

\$1,279,600.00 in support of this effort. For 1986, \$465,718.00 has been approved for the continuation of this effort.

The goals and objectives of this long range program are centered around five major projects. They are:

- 1) The USGA Turfgrass Information File- to provide a computer data base of all published information on turfgrass research and maintenance. This project is located at Michigan State University Libraries and to date contains over 8,000 references. This storehouse of information is available to anyone with an interest by simply calling, (517) 353-7209.
- 2) Stress Mechanisms
- 3) Cultural Practices
  - a) Soil Compaction
  - b) Management
  - c) Water
  - d) Rooting
  - e) Pathology
- 4) Turfgrass Breeding—I
  - a) Zoysiagrass
  - b) Native Grass
  - c) Poa annua
  - d) Bluegrass/Ryegrass
- 5) Turfgrass Breeding—II
  - a) Bermudagrass
  - b) Bentgrass

If you would like more information on these research programs, please contact Mr. Bill Bengeyfield, National Director, USGA Green Section, P.O. BOX 3375, Tustin, California 92681. ■



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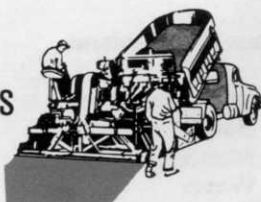
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## The Search for Greener Grasses

By Helen Fosgate  
Georgia Experiment Stations

GRIFFIN, Ga. — More than 400 people gathered recently at the 1986 Turfgrass Field Day at the Georgia Agricultural Experiment Station here. Some people might be surprised to find that there is such interest in growing grass, but not those familiar with this flourishing industry.

Turfgrass is a major agricultural industry in Georgia now. And the Georgia Station is one of the top research facilities in the country for turfgrass research. The tour was to show the public just how the experiments involving turfgrass are progressing.

The effort doesn't just involve scientists from the Georgia Station. Researchers in agronomy, entomology and plant pathology from the College Station in Athens and the Coastal Plain Experiment Station in Tifton are also involved in the effort.

Urban agriculture in fact, has become one of the major thrusts of the Georgia Station in recent years. Situated less than 70 miles south of the Atlanta metropolitan area, the Georgia Station is in an ideal position to look at programs that will benefit those living in urban areas.

Among the four presentations were evaluation of new turfgrass cultivars and cultivation methods, the irrigation needs of turfgrass species, the effectiveness of herbicides, the influence of soil pH on growth and the effectiveness of plant growth regulators on bermudagrass. Also the enhancement of color in centipede grasses with iron and nitrogen was featured, as well as the use of preemergent herbicides for weed control and turfgrass tolerance to traffic, herbicides and plant growth regulators.

The field day was designed for golf course superintendents, parks and recreation directors and employees, athletic coaches and grounds maintenance personnel and interested homeowners. In fact, there are thousands of Georgians whose livelihood is directly involved with the maintenance and control of turfgrasses.

The benefits of the research being carried out in Georgia's Agricultural Experiment Station are many. Thousands of homeowners stand to benefit from the work being done here, as do industries. ■

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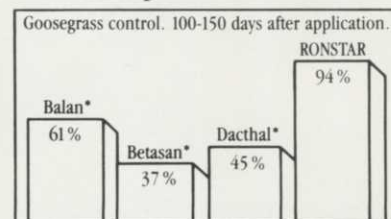


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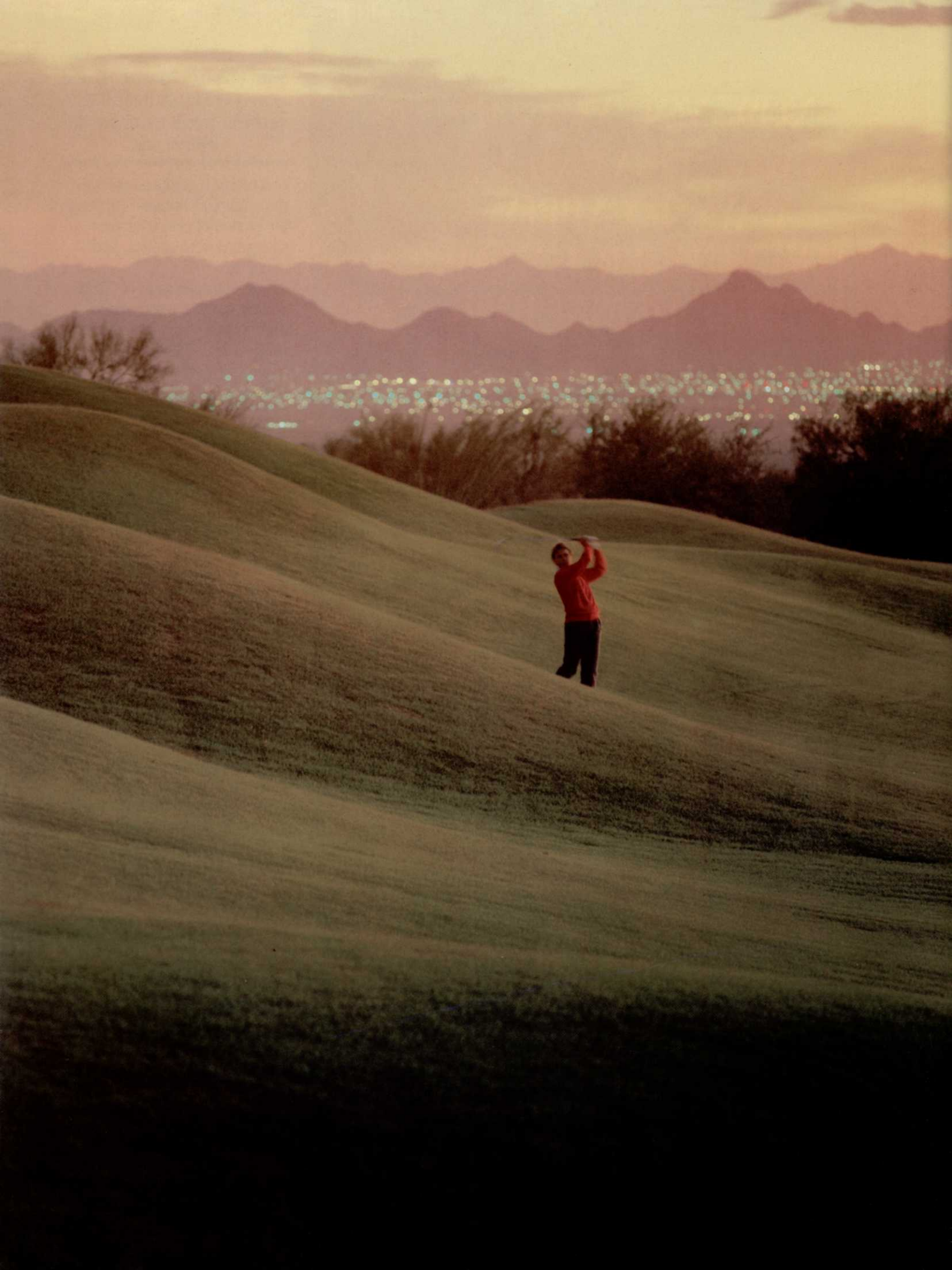
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# "GEARING UP" *for Phoenix*

By: Irene Jones

Biggest and Best are being used by the GCSAA to describe Their 58th International Golf Course Conference and Show, to be held January 26 - February 2, 1987, in Phoenix, Arizona. This international event is the largest trade show in the golf course industry. Preparation is the key to getting the maximum benefit from this conference for first, your golf course operation and second, your own personal enjoyment and enrichment. In order to do this preparation lets take a look at the vast and varied new educational information that we will be exposed to; along with all of the extra special events and happenings.

Getting things started will be The 1987 GCSAA's Golf Championship which will be held on January 26, 27, 1987 in Tucson. Host courses for this event will be Ventana Canyon Golf & Racquet Club, Randolph Park (North and South) Golf Course, Fred Enke Golf Course and Canoa Hills Country Club.

Gary T. Grigg, CGCS is Vice President of Golf Course Construction for Kindred & Company, the developer of Ventana Canyon Golf & Racquet Club. Gary also serves as President of The Southern Arizona GCSA. As Vice President of Golf Course Construction, part of his responsibility includes overseeing the golf course operations of ten existing courses, along with helping to develop three more that are in the works at the present time, for a total of thirteen properties. Ventana Canyon is Gary's home course and the base for his operations. The other properties are in Arizona, Texas, Kansas and Florida. Gary is also a member of The Certification Committee for GCSAA. (In his spare time?) Gary took time out to tell the Florida Green how he feels about being one of the Host Superintendents for the 1987 GCSAA's Championship Tournament. "I'm really looking forward to seeing old friends from previous tournaments, as well as meeting superintendents from the various GCSAA Chapters."

A member of GCSAA for 17 years, Gary has played in 15 GCSAA Championship Tournaments, which is part of the reason why he is really looking forward to having the tournament at Ventana Canyon in 1987. "We requested that the tournament be held at Ventana Canyon". My question in regards to playing conditions were somewhat "basic", because my experience in playing a course mainly consists of the driving range area and the putting green. I did find out this though, "Hit it straight, because desert courses are 'semi-target' or 'tight' somewhat like Florida courses. They are not wide open."

Once on a visit to Jackson Hole Wyoming I got up enough courage to leave the driving range and ventured out on the links. Half way through that round I realized that my thumbs were completely numb. Frozen and fearing frostbite I decided to head back to the warm clubhouse. So, in hopes of saving some other thin blooded

Floridian I asked about the weather conditions on Ventana Canyon Golf Course in late January. Gary reminded me that, "January is still winter so we could get some pretty chilly weather if a cold front decides to move in. The average temperature for this time of the year is in the high 60's or low 70's. Night temperatures will go down into the 30's on the course." So, Southerners be prepared. The golf courses in the Phoenix area have two different types of putting surfaces; Ventana Canyon and Canoa Hills have Bent Greens, while The Randolph Park and Fred Enke Golf courses have Bermuda Greens overseeded with rye.

The field of men competing this year is 400. Men with 0-10 handicaps will be teeing off at Ventana Canyon. The Women's tournament consists of 26 players and will take place on the Randolph Park (South) Course.

An interesting note for our readers, Gary told The Florida Green that he is flying in and out of Tampa on a regular basis now because one of the new properties that is being developed by Kindred & Company is The Tampa Palms Golf Course, located in the Tampa Bay area, over on our Florida West Coast. Tampa Palms is scheduled for opening in the great green golf course state of Florida sometime during the 1988 season.

## TWO SEMINARS ARE OFFERED IN TUCON"

On Saturday, January 24, 8:00 a.m. — 5 p.m. the seminar, "USGA Intermediate Rules of Golf" will be presented by USGA Officials. "Business Communications and Assertiveness Techniques", a thought-provoking seminar designed to enhance communications & management skills will be presented by J. Stephen Hazel, PH.D. on Sunday, January 25, 8:00 a.m. — 5 p.m. These two day seminars will allow golf tournament participants the opportunity to take a seminar on one day and get in some practice on the other day.

## THE 1987 CONFERENCE WILL OFFER TWENTY EIGHT SEMINARS:

Reading through the list of these seminars (See Master Schedule on page ) clearly shows that the educational opportunities being offered to the Golf Course Superintendents today are all planned to produce the highly educated Golf Course Manager who is in demand by our industry today.

All GCSAA seminars offer Continuing Education Units which may be applied toward re-certification of Certified golf Course Superintendent (CGCS) status. In 1989, candidates for certification will be required to have com-

(cont. on page 62)



Unerring accuracy is a must in negotiating the eighth at Ken Venturi's Eagle Creek Country Club, Naples, Florida.

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| ■ Japanese beetles  | ■ mole crickets*     |
| ■ thrips            | ■ armyworms          |
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B618 ORT-112

(cont. from page 59)

pleted one year of a college turfgrass management program 15 CEUs from Division 1 of the GCSAA continuing education curriculum.

MONDAY AND TUESDAY, JANUARY 26 & 27,

8:00 A.M. — 5 P.M.:

Seminars will be conducted by Irrigation Consultants, Product Application Managers, Golf Course Architects, Professors of Ornamental Horticulture, Agronomy, Turfgrass Physiology, Weed Soil Science, Civil Engineering, Entomology and Human Development that will instruct seminar participants in their field of expertise. These seminars will cover: Irrigation Equipment and Technology, Golf Course Design Principles, Landscape Plant Materials, Basic Turfgrass Botany and Physiology, Plant Nutrition and Fertilizers Weed Identification and control, Introduction to Soil Science, Introduction to Surveying, Insects of Turf and Ornamentals 1: Introduction to the Principles of Control, and Business Communication and Assertiveness Techniques.

WEDNESDAY AND THURSDAY, JANUARY 28 & 29,  
8:00 a.m. — 5:00 p.m.:

Seminars will be conducted by an Accountant & Tax Consultant, The GCSAA Associate Executive Director, a GCSAA Historian, a Public Relations Expert, Golf course Irrigation Consultant, Product Application Man-

ager, Professors of Turfgrass Breeding & Genetics, Agronomy, Horticulture and Plant Pathology, Vice President of a Golf Course Construction Company, The American Red Cross and a Golf Course Architect. These seminars will cover: Familiarization With Accounting Procedures, Negotiating, History & Function of GCSAA, Cardiopulmonary Resuscitation, The Newsletter Editors/Public Relations, Irrigation Part II: Systems Design & Management, Turfgrasses: Qualities, Uses & Sources, Golf Course Construction & Product Management, Basic Horticultural Methods and Disease Identification & Control.

Dan and I will attend The newsletters Editors/Public Relations Seminar. Attending this seminar allows us to learn what is new in the publishing field as it relates to newsletters. Of all the publications in the U.S. newsletters are number one in the field, as far as numbers printed and variety. Just a few who use the newsletter are; various types of industry, churches, clubs, schools and civic and health organizations. This is very much in evidence when we look to 1 million plus types of newsletters printed in our country today. We also find out from our 'peers' in the golf course industry how they produce their prize-winning articles. We have found out we learn the most when we share our knowledge and experience with others. So this is a special seminar for us, as it directly relates to our work with *The Florida Green*.

ALSO SCHEDULED FOR THURSDAY, JANUARY 29 ARE:

USGA Golf Course Rating System, Budgeting & Forecasting, Managerial Productivity, Superintendent: Functions & Responsibilities. Conducting these seminars will be; The Director of Handicapping from The United States Golf Association, a Freelance Writer, an Associate Professor of Hospitality Accounting from Michigan State University, a Managerial Productivity Expert, and a Management Consultant.

Bruce R. Williams, CGCS, Superintendent from Bob O'Link Golf club will be presenting the details and practical applications for the seminar, 'Superintendent: Functions & Responsibilities'. New supervisors will benefit from discussions on being creative, planning work, managing time, trouble shooting, making decisions, communicating and motivating as it applies directly to the duties of the assistant superintendent.

THURSDAY, JANUARY 29, 1:00 P.M. — 5 P.M.:

Practical Tree management for Golf Courses will be offered; in this half-day seminar, Dr. Shigo will discuss establishing and maintaining healthy, attractive and safe trees on the golf course while holding maintenance costs to a minimum. His thirty years of research will be able to save your time and money as well as your trees.

(cont. on page 64)



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**WHEELER**



(cont. from page 62)

SUNDAY, FEBRUARY 1, 8:00 A.M. — 11:30 A.M.:

**"Success on Your Terms:  
That's The Name of the Game"**

The Challenges and rewards of change, action plans for personal and professional success and techniques to enhance sensitivity to others will be presented as applicable to management situations. Setting goals in the work environment and in personal life to introduce positive change will be emphasized. Learn the guidelines to measure achievement in professional growth and development and stress reduction Dr. Melton is a nationally-known lecturer, counselor, television personality and author.

**"Who's In Your Driver's Seat?"**

One of the most significant and consistent requirements at all levels of management is the ability to work effectively with others. Jack Kaine, an experienced program leader and president of his own management consulting firm, will discuss the forces that move and control human behavior and how they affect leadership and management. Skills to gain and stay in control will be presented to help participants — as individuals and as members of management — to be more effective and confident leaders.

**"It's Your Time — Manage It!"**

Unique, simple and effective concepts for time management are presented to help managers keep on top of paperwork, handle interruptions, delegate effectively, utilize peak times, prioritize tasks, conduct shorter and more productive meetings, balance personal and professional lives, increase productivity and energy, change bad habits . . . all techniques designed to teach managers to work smarter, not harder. Rita Davenport is an author, hostess, and producer of her own daily television show and a frequent guest on talk shows, including "Good Morning America."

SUNDAY, FEBRUARY 1, 1:00 P.M. — 5 P.M.:

How to use The USGA Turfgrass Information File (TGIF) will be presented; this seminar will be a thorough introduction to the new computer-accessed USGA Turfgrass Information File at Michigan State University. Presented by The Director of Libraries, Michigan State University and The Project Manager USGA Turfgrass Information Center, MSU.

Lunch is included with all one and two day seminars and all GCSAA seminars offer Continuing Education Units. "Gear Up" now and expect to get the most benefit from the seminars of your choice and further your knowledge of the golf course industry.

## CERTIFICATION ACTIVITIES:

The Certification Examination will be given on Saturday, January 31 and Monday, February 2. Any member desiring to test at the Conference must have already submitted an intent to test, in writing, prior to January 1, 1987. The new form of the examination will be administered. Recertification renewal exams and re-tests will also be offered on the dates mentioned; with the same procedure for signing up.

A Certification Examination Preparation Course will be offered on Thursday, January 29. The Prep Course will begin at 9 a.m. and end at 4 p.m. Lunch will be provided and the fee for this course is \$15.

A Certification Luncheon will take place on Friday, January 30 at 11:30 a.m. The luncheon is open only to currently Certified Superintendents. Registration fee for the luncheon is \$18.

## PRAYER BREAKFAST:

The Reverend Mr. Owen C. Carr will be guest speaker at The Golf Course Superintendent Christian Prayer Breakfast held on Saturday, January 31 at 7:00 a.m. at the Phoenix Civic Plaza. Coffee and danish will be served at 7:00 a.m., Rev. Carr will be speaking at 7:30 a.m.

This is another "must" special event for my family. In all of the activities and excitement of this big conference it is possible to put some really important issues on hold, so for us, this breakfast helps to bring our focus back to those issues. I highly recommend this event. See related story about the Prayer Breakfast on page 24.

## Spouse Program:

I attended a women's retreat last month and observed someone wearing a tee-shirt with these words inscribed on it; "SHOP UNTIL YOU DROP". This is something that we should not do on a regular basis, but once a year during "The conference" why not?

A visit to the Phoenix and Scottsdale areas promises us a chance to experience true Southwestern culture. It offers authentic Indian jewelry, pottery, baskets, and rugs. Thoughts turn to Indian artisans and their craftsmanship; Indian dancers and their intricate dance, cactus, desert landscapes, Pueblo, Spanish and Ranch style architecture.

The tours and activities in Phoenix are all designed and planned to allow participants to experience the local culture; the 1987 Spouse program will be based on the — "Southwestern Culture" theme. All activities will either be held in the Phoenix Civic Plaza or will depart from there. The Spouse Lounge will be open for coffee and socializing on Friday, January 29 from 7:30 a.m. — 5:00 p.m. At 8:30 a.m. Friday buses will depart for a special city tour which will be a great way to get acquainted with The Valley of the Sun. Then at 1:00 p.m. wives may want to join their husbands for the very infor-

(cont. on page 66)

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**Sales and  
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mative session "Your Spouse, Your Family, and You". This session will begin at 1:00 p.m. and last until 5:00 p.m., actually it will consist of a series of concurrent educational sessions, all of which will pertain to family issues. Dan and I will be speaking at the session, "Alcohol and Drug Abuse — The Whole Family Suffers" at 3:40 p.m. We personally invite you to attend and learn why this disease affects every member of the family. Learn what family members can do when they find themselves caught up in the progression and confusion of this disease.

ON SATURDAY, JANUARY 31, buses begin departures for one of the following tours;

Tour A — Sedona/Red Rock Country, which includes a drive through the beautiful Sonoran Desert, tour of Montezuma's Castle, view of the Chapel of the Holy Cross, and then on to Sedona for lunch and SHOPPING AT TLAQUEPAQUE, the Spanish village of unique art galleries and boutiques, (count me in on this one!)

Tour B — Carefree/Cave Creek is one of the older areas of the Valley of the Sun. Investigate its shops and hear some of the colorful history of this still unincorporated town. Next, on to Carefree, a delightful community started in the late fifties and early sixties. Spend some time in Spanish Village which recreates the atmosphere of southern Spain.

Tour C — Southwestern Homes/Bontanical Garden/Rosson House — see nature at work in the desert as you tour the Desert Bontanical Garden. Then visit Scottsdale and the McCormick Ranch development. Next its on to Rosson House which was built in 1894, it is an outstanding example of a Victorian architectural style. Notable are the pressed tin ceilings, elaborately carved staircase, and parquet floors inlaid with oak, walnut and mahogany.

Tour D — Wrigley Mansion; Consanti/Mystery Castle; visit the Wrigley's chewing gum mansion which was built in 1929 with "... a penny at a time", from the Wrigley fortune. The Cosanti complex, is earth-formed structures designed and constructed by Paolo Soleri. The

famous Soleri Windbells are made and sold here. A visit to The Mystery Castle will be a scavenger's dream as you see this 18 room mansion which is built of everything from refrigerator covers to a Stutz Bearcat wheel set in a rose window.

\* All of these tours include lunch on your own at unique restaurants in the area of your tour.

MONDAY, FEBRUARY 2, will offer two exciting presentations; at 9:00 a.m. in the morning there will be a program on Indian Culture given by Gloria Mitchell. At 10:30 a.m. Elizabeth Haas, a Phoenix artist of 82 years who has gained international fame for her happy and colorful Mexican paintings will share here knowledge with us. These two speakers are a must.

#### TRADE SHOW OPENS, SATURDAY, JANUARY 31:

At 9:00 a.m. the doors open and you will be able to see all the latest "state of the art" equipment and materials that are available on the market today, as it pertains to The Turfgrass Industry. You will see everything from fish that eat up the weeds in your golf course lakes to huge and powerful five-gang riding lawn mowers. Suppliers from all over the world will be represented in this 58th International Golf Course Show. If you have never been in attendance at one of these trade shows you are in for a real treat and some pretty tired feet as well. (While company representatives explain the workings of new equipment and supplies to our spouse we can enjoy one of the four all day tours which are going on today).

NATIONAL GOLF FOUNDATION OFFERS OPPORTUNITIES IN GOLF COURSE OWNERSHIP, LEASING, AND MANAGEMENT; for the second year The (NGF) will present a workshop at the GCSAA Conference and Show. The program is scheduled for Saturday, January 31, from 1:00 to 5:00 p.m. The workshop explores opportunities for golf course superintendents to operate their own golf facilities. The program is open to all attendees.

SPORTS TURF MANAGERS ASSOCIATION OFFERS all day program of interest to turfgrass managers on Saturday, January 31; this program will be held at the Hyatt Regency Phoenix, which is directly across the street from the Phoenix Civic Plaza. Twenty minute sessions will run from 8:00 a.m. to 4:30 p.m. At the conclusion the STMA will hold its Annual Business Meeting. These sessions are open to all attendees.

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**U.S.G.A. GREEN SECTION PROGRAM:** will be held on Monday, February 2, beginning at 8:00 a.m., guest speaker will be Mr. Howard Keel. The sessions will last from twenty to thirty minutes each and will recognize the theme that the turfgrass is: **ONE BUSINESS IN WHICH SUCCESS IS NOT ALWAYS FOUND AT THE BOTTOM LINE.** One topic which sounds interesting to me is entitled; some Funny Things Found In Golf Bags. When I dusted mine off last week and headed out to the driving range I found this to be true when I could only find one red glove (which was 2 sizes too small), no tees, a few old balls and two unidentified golf clubs. After hitting a bucket of balls reality about my golf game started to once again come into view. Even if a person is not a great player the beauty and evidence of nature at work makes a visit to the golf course enjoyable.

The Conference will conclude on Monday at 1:30 P.M. with the large Annual Meeting for members of The Golf Course Superintendents Association of America. The Annual Banquet, Show and Dance will take place from 7:00 p.m. — midnight at The Phoenix Civic Plaza Ballroom. Highlights for the banquet and show will be the presentation of The Old Tom Morris Award to famed golf course architect Robert Trent Jones, (See related story on page ), comments by out going President of GCSAA, Riley L. Stottern, CGCS and introduction of Donald E. Hearn, CGCS as President of GCSAA for 1987. Outstanding musical entertainment will be feature for your listening and dancing . . . and maybe some thoughts and conversation will start turning towards Houston, Texas and The George R. Brown Convention Center which will be the site of our 1988 Conference. Dan and I hope to see many of you in Phoenix at The 58th International Golf Course Conference and Show. ■



The winning team of The 1986 Future of Golf Tournament held at Quail Ridge Country club, Boynton Beach, Florida — left to right: David Court, Mark Henderson, Pete Brook and Bill Lloyd.

## Wesco-Zaun Announces New Toro Distribution Facility

West Florida Toro lawn care products distributor, Wesco-Zaun, Inc., has announced construction of a new \$1.5 million state-of-the-art Toro distribution facility. The 43,000 sq. ft. two-level building is located at Live Oak Business Park, a pristine, partially forested pastureland, running adjacent for nearly a mile with I-75 in east Sarasota. The new facility, uniquely designed with environmentally compatible materials, includes the very latest computerized and conveyored inventory and parts control systems. Warehouse space usage is maximized by incorporating a narrow aisle format to utilize cubic feet as opposed to square feet. Ground breaking and construction has moved quickly and the roof "topping-off" phase has already been completed. Most of Wesco's 71 employees will work out of this new complex, which includes PARS exercise course and jogging track. Wesco will keep their Ft. Myers location and a new Clearwater location will be added.

Live Oak Business Park development, and construction of the new Toro facility, is by Fred M. Starling, Inc. The Park is adapted to fit into the natural Florida environment. Oak trees and pasture grasses remain. In the words of Wesco's late President, Jack Cantu, "Wesco and Toro mutual goals are to enhance and compliment the beauty of the land. To keep the property unspoiled and usable."

Starling has formulated strict Park rules to keep other construction similar to Wesco's upscale, environmentally attuned facility. Live Oak's expressway exposure makes it Sarasota's premiere industrial park, adding to the community's positive image. Starling is developing several interchanges along the I-75 corridor in addition to Live Oak Business Park. ■



Wesco-Zaun's new distribution facility.



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