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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.

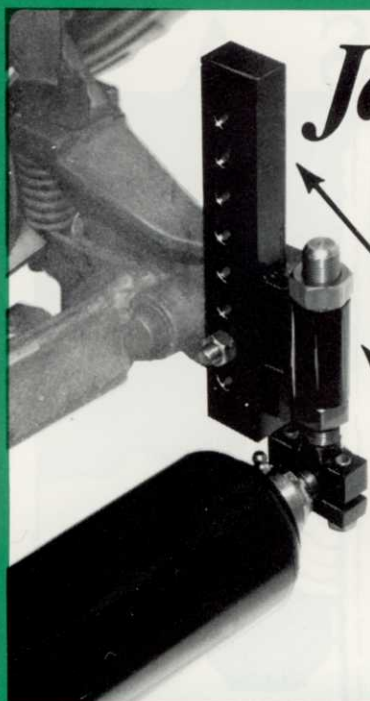
As a final recommendation, keep daily records. Frequently things that happen on a golf course have a tendency to recur about the same time year after year. If you know something is going to happen, you can prepare for it and save money by solving the problem before damage occurs.

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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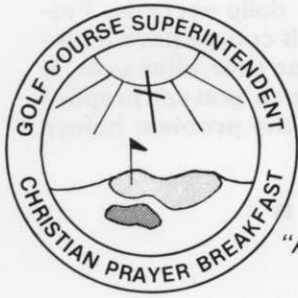
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## GCS Christian Prayer Breakfast

"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. ■

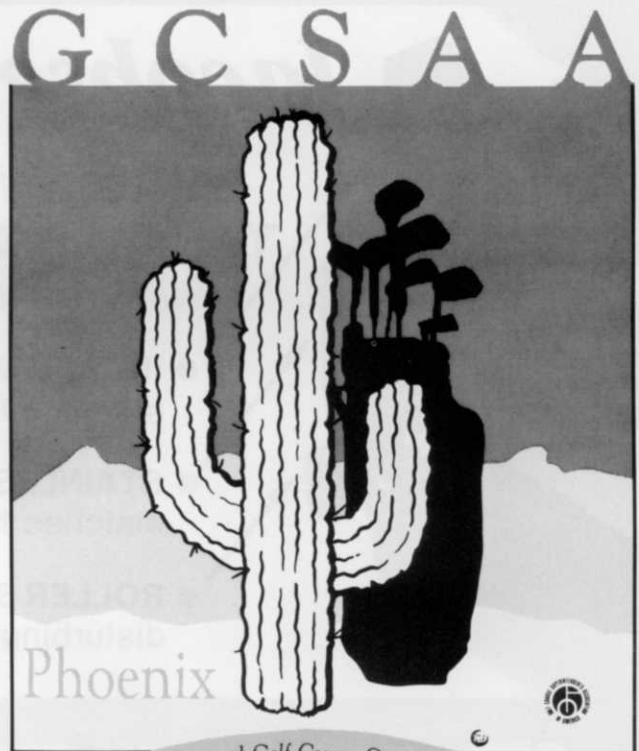
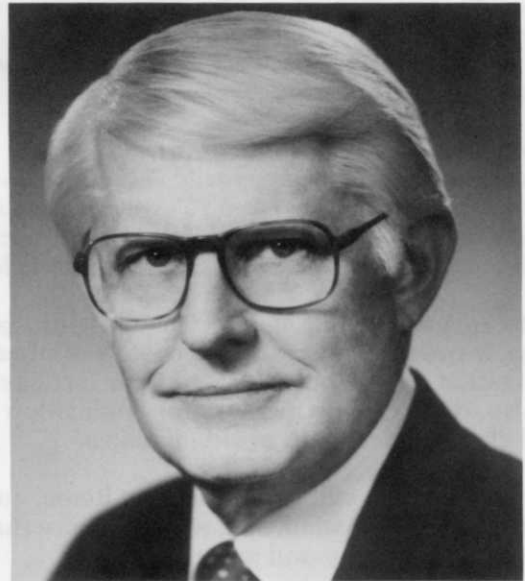
### 8th ANNUAL GOLF COURSE SUPER- INTENDENTS CHRISTIAN PRAYER BREAKFAST

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 on 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  
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*Skip Harrison, Superintendent  
Bloomingdale Country Club  
Brandon, Florida*

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. *Magnesium* 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 Bulletin 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. ■

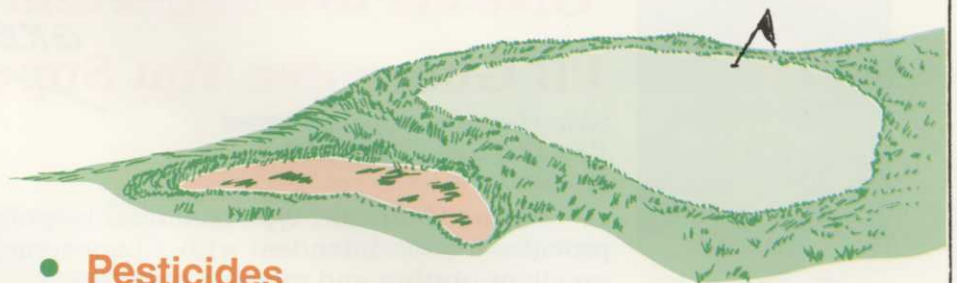
## STALFORD NAMED DIRECTOR OF SEED DEVELOPMENT

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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