## Fairway Grasses--

(Continued from Page 9)

The latest trend in Poa annua research is the development of new, improved types that are more tolerant of stress and provide a better playing surface than wild types. Although this research has been aimed primarily at developing cultivars for greens, it may also result in new grasses for fairways, at least in climates where P. annua is particularly well adapted.

#### Wheatgrasses

In dry parts of the Midwest, in places too cool for warm-season grasses, Fairway crested wheatgrass (*Agropyron cristatum*) and western wheatgrass (*Pascopyrum smithii*) are suitable on fairways, if irrigation is unavailable. Irrigated Kentucky bluegrass is still a better choice in this region, but these grasses provide a possible nonirrigated alternative.

Fairway crested wheatgrass is a bunch grass, whereas western wheatgrass has short rhizomes. Both species are relatively coarse-textured and develop a turf with a lower density than Kentucky bluegrass and perennial ryegrass. Although wheatgrasses were common on low-maintenance fairways in the '60s and '70s, their use has decreased in recent years, and most new courses in drier regions now use fairway irrigation. The species still provide low-cost alternatives where water is limited.

#### Weeping Alkaligrass

Weeping alkaligrass (*Puccinellia distans*) is a gray-green, tufted bunch grass that can provide reasonably good-quality fairway turf. This cool-season grass has relatively good heat and cold tolerance. Its use is limited to situations where sodium levels are so high that other grasses will not survive. Sodium can come from sewage effluent water, deep wells or natural soil concentrations, particularly in the West.

Weeping alkaligrass is much more tolerant of sodium than Kentucky bluegrass and creeping bentgrass and can be a substitute where necessary. Sodium is rarely found uniformly over an entire golf course and is often found in low pockets where it can kill less-tolerant grasses. Weeping alkaligrass is often successful in these areas. It is a bunch grass, and overseeding is important to maintain a uniform, dense turf.

#### Warm-season Grasses

Although the Midwest is generally a cool-season region, some warm-season species are used on fairways in the southern and western sections. In southern Illinois, Missouri and Kansas, bermudagrasses (Cynodon species and hybrids) can be used, although their sensitivity to cold temperatures may result in significant turf loss some years.

Zoysiagrass (Zoysia japonica) is better adapted because of its greater cold tolerance. Properly managed zoysiagrass can produce outstanding fairways that are the envy of golfers from the central and northern region of the Midwest, who, after visiting Kansas or Missouri, often ask their local superintendents why they cannot have zoysiagrass on their tees and fairways.

Even though zoysia can tolerate very cold winters and will survive as far north as the Canadian border, it goes dormant as soon as temperatures cool in the fall and does not green up until well into the spring. This greatly limits its appeal outside the southern Midwest.

Buffalograss (*Buchlöe dactyloides*) is for drier parts of the Midwest. It does not provide the turf quality of zoysiagrass or bermudagrass, so these species are preferred where sufficient moisture is available. The advantage of buffalograss is its tolerance of hot, dry conditions. It is sometimes used on nonirrigated fairways in western Kansas and Nebraska.

Although the blades of buffalograss are relatively finetextured, its thick stolons and swollen nodes give it a coarse-rough texture. It also lacks the density of bermudagrass and zoysiagrass at lower mowing heights. Recent breeding and selection have produced several improved cultivars, and in the future it may be more widely used on courses in the drier regions of the Midwest.

#### The Future

The past two decades have brought many new grasses and cultivars, and this trend is likely to continue. The choices available to the superintendent should increase. The rapidly expanding field of biotechnology, which is already yielding developments such as grasses that are tolerant of nonselective herbicides, should bring many advances in the next few years.

It will be an exciting time to be involved in turfgrass management. These rapid changes will also mean that continuing education will play an even greater role in the superintendent's career.

#### References

Christians, N.E. 1989. Kentucky bluegrass for low-maintenance areas. Grounds Maintenance 24(8):49, 50, 96.

Christians, N.E. 1990. Fairway conversion: The annual bluegrass to rye to bent approach. Golf Course Management 58(8):36-38.

Christians, N.E. 1996. Body punch: Desiccation hit the nation's midsection hard this spring. Golf Course Management 64(7):36-41.

Christians, N.E. 1998. Fundamentals of turfgrass management. Ann Arbor Press, Chelsea, Mich.

Couch, H.B. 1995. Diseases of turfgrass. 3rd edition. Krieger Publishing Co., Malabar, Fla.

Smiley, R.W., P.H. Dernoeden and B.B. Clarke. 1993. Compendium of turfgrass diseases. 2nd edition. The American Phytopathological Society, APS Press, St. Paul, Minn.

(Editor's Note: Nick Christians, Ph.D., specializes in turfgrass science in the horticulture department at Iowa State University.)

# Introducing the LF-128 with FlashAttach.

You won't find it in the shop. Thanks to the exclusive FlashAttach<sup>™</sup> reel-mount system, the new Jacobsen LF-128

fairway mower spends more time where it belongs–on your fairways. The patented FlashAttach system makes changing any reel as easy as pulling a pin. No tools. No headaches. No more than 30 seconds of your time. After all, we know you have

The new LF-128. Pull a pin.

Change a

better things to do than change reels on fairway mowers. Call 800-727-JAKE for your nearest Jacobsen distributor or visit us on the World Wide Web at www.jacobsen.textron.com.

THE PROFESSIONAL'S CHOICE ON TURF



3080 Centerville Road St. Paul, Minnesota 55117 651.484.8411 • Fax: 651.484.8257 800.592.9513

# MTGF Names New Communications Director

The Minnesota Turf and Grounds Foundation has hired its first Communications Director: Greg Crawford of Crawford Marketing, Portland, Ore.

Greg will be responsible for broadening the foundation's public relations efforts to a wide variety of sources and creating ideas on how MTGF can enhance its image as a foundation and its respective allied associations.

"Greg has an extensive list of clients in the turfgrass industry and is recognized internationally for his work in the communication field and his ability to enhance and promote the client's image," said Bob Mugaas, MTGF executive director. The MTGF Public Relations Committee carefully evaluated people who we felt should be in charge of an expanded public relations effort. We feel extremely fortunate to have Greg working with us, as we hear from many positive things about Greg's abilities in this field.

Following is information provided by Greg to the MTGF Public Relations

"Crawford Marketing specializes in helping clients increase their exposure, enhance their image and start a first time media program if desired."

Committee earlier this year:

"Crawford Marketing, Inc. is a Portland, Oregon based company that specializes in helping clients increase their exposure, enhance their image and start a first time media program if desired."

"The company was formed in 1992 and its first client was the Oregon Golf Course Superintendents Association. Over the course of the last seven years there have been more than 150 print stories, 30 television and radio interviews and numerous other media activities generated by Crawford Marketing, Inc. about the OGCSA. The two recently agreed on a new five-year contract.

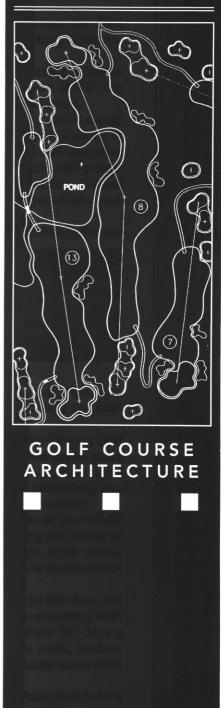
Another highlight of Crawford Marketing was its promotion of Tom Wolff and his staff during the 1998 PGA at Sahalee Golf Club. During the course of the two-year media campaign Wolff had over 400 contacts from media throughout the world and it is safe to say no superintendent has received that type of media coverage ever.

"The philosophy of Crawford Marketing is to let the clients be the stars and to stay in the background and just get the job done. Anyone contracting with Crawford Marketing also will have the services available to them 365 days a year if needed. We make ourselves available at all times of the week, because we know the public and the media demand information and many times need information immediately."

"While we are all confident about the job he will do, there does need to be a word of caution in that the MTGF is a very young organization," Mugaas said, "Our public relations efforts are even younger. In fact, we have really never pursued an organized public relations campaign previouslyiousy and, as such, it will take time to build relationships with the media and other sources Greg will be contacting. We all need to be patient in the initial stages.

Finally, on behalf of the MTGF Board, I would like to sincerely thank the Public Relations Committee for moving forward on this initiative and doing the work needed to have Greg become involved with our Foundation," Mugaas said.





(612) 942-0266 (612) 944-5888

# **BIOLOGICAL TREATMENT PROGRAMS**





**Recharge** depleted turf. Turf ravaged with disease, temperature stress, insect damage, and high traffic becomes weak. It needs a helping hand to regain its vigor! **Recharge** is the quickest way for your turf to replenish its energy.

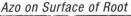


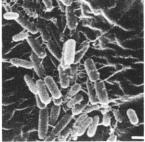
#### **RECHARGE** combines:

Azospirillum brasilense, a beneficial root growth promoting bacteria, and FreshPack Microbial Stimulant, an energy source to help bring abundant life back to your soil.

ENERGY RESERV

The product combination will stimulate root regrowth due to the production of plant growth promoters, specifically IAA (indole acetic acid). In turn, the plant will be able to draw greater quantities of water and nutrients, generating a more vigorous, healthy turf plant. A healthier turf plant can store away moreenergy, increasing its ability to withstand negative environmental pressures. Consequently, the turf will green up earlier and be better prepared to take on the stresses of the next growing season.





from American S logists Newsletter, 1997 Wheat Ro



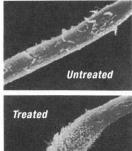


Untreated Azo Treated

#### What you can expect:

- · Rejuvenate the plant from the stresses of the growing season
- · Establish a healthy extensive root system
- Get earlier spring green-up
- Realize greater efficiency from your fertility program
- Establish healthy seedlings during overseeding

#### Root Hair Formation



## **FRESHPACK CONVENIENCE**

- Each FreshPack program provides enough treatments for one month of applications
- Components are tank-mix compatible
- · Complete treatment application is shipped by air
- Treatments are packaged in individual one-acre packets so you can apply by the acre

rress+ Mowing=

ROOT DEVELOPMENT= 1 WATER / NUTRIENT ACCES

### Load the sprayer and GO!



# **USGA Turf Advisory Service**

The focal point of the USGA Green Section is the Turf Advisory Service (TAS). First started in 1953, this service permits individual facilities to reap the benefits of on-site visits by highly skilled USGA agronomists located in Green Section offices throughout the country.

Each agronomist visits more than 130 courses annually. Their experience helps golf course staff and officials produce the best possible golf turf for the dollars that can be spent.

The TAS's purpose is not to tell anyone how to run a golf course or what products to buy.

Rather, it seeks to bring a wealth of information and an impartial yet concerned perspective regarding turfgrass growth requirements, how these requirements might best be managed for golf and ideas that other golf courses have found to be beneficial.

Each course visit results in a complete written report to the course. This document provides a permanent record of observations and recommendations. It typically reviews subjects such as current maintenance programs, course condition; environmental subjects, safety issues; and long-range planning. This document also monitors progress made between visits and can help courses better target budget dollars for maximum benefit.

The lines of communication don't end with the written report. USGA agronomists remain available for ongoing consultation by telephone and correspondence, and, with advance scheduling, may be available to address meetings, conferences, and seminars.

Is the TAS a worthwhile expenditure for a golf course to make? Since more than 95% of approximately 1,600 annual TAS subscribers continue regular visits, the tangible benefits derived from regular visits appear obvious. The 1999-2000 list of America's Greatest 100 Golf Courses compiled by *Golf Digest* featured 83 TAS subscribers, including 45 of the top 50. TAS will help any course -- whether public or private, large or small, urban or rural -- save money, improve efficiency, maintain high standards and produce a quality golf course.

Why should anyone pay the Green Section for advice? Advice is only as

good as its source, and the background, experience, and expertise of the USGA Green Section is unparalleled. The USGA Green Section is the only agency in the country devoted solely to golf course turf, its playing conditions and its management. It sells nothing. Instead, it lends its expertise that cannot be matched by any other agency anywhere.

Inquiries about the TAS are always welcome. Contact either the USGA's national headquarters or the appropriate regional Green Section office.

#### New Compass<sup>®</sup>. A fairway fungicide so advanced it combines the best of contacts and systemics at the lowest rates ever.





astered by Novarti

- Unsurpassed control of Brown Patch, Anthracnose, Gray Leaf Spot, and 10 other diseases.
- Tank mix with Banner<sup>®</sup> MAXX<sup>™</sup> for Dollar Spot control and Subdue<sup>®</sup> MAXX<sup>™</sup> for Pythium control.
- Affordable on fairways, yet effective on greens.
- Mesostemic power delivers locked-in, rainfast control up to 21 days.
- · Lowest rates ever reduce chemical load up to 95%.

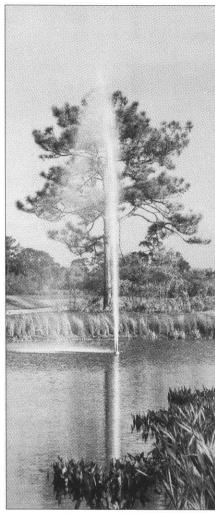
#### Todd Loecke Novartis Turf & Ornamental 515-225-8715

www.cp.us.novartis.com

Important: Always read and follow label instructions before buying or using these products. ©1999 Novartis Crop Protection, Inc., Turf & Ornamental Products, Greensboro, NC 27419. Compass<sup>™</sup>, MAXX<sup>™</sup>, the Mesostemic device logo, and the Novartis logo are trademarks, Banner® and Subdue® are registered trademarks of Novartis

**U** NOVARTIS

# Why choose AQUA CONTROL?



Geyser Fountains 1/2 to 5 HP — max. heights from 20 to 60 ft.

# **AQUA CONTROL**<sup>®</sup>

Only AQUA CONTROL Aerator Fountain Systems combine:

- unique water-intake tube design [standard] that extends several feet below the surface and can be equipped with extensions to reach virtually any depth in your lake or pond.
- stainless steel propellers with specially contoured, high efficiency blade forms.
- precision machined ducted shrouds that surround the propellers to boost pressure generation and increase discharge pattern height for optimal aeration and circulation.
- rugged UL-Registered drive motors that are water cooled and water lubricated [no oil to leak].
- an exclusive pump design that uses low-cost, interchangeable components to let you switch from an aerator fountain ... to a decorative fountain ... and back to an aerator fountain *any time you wish.*

Aerator Fountains 1/2 to 5 HP — capacities from 360,000 to 1,500,000 gal/day



- \* Your new AQUA CONTROL Aerator Fountain System is a 'ready-to-run package.'
- ✤ You get everything you need to install it yourself.
- **\*** Typical installation time is just a few hours.

Ask your Precision Turf Representative for more information!



Turf & Chemical Inc.

Your Precision Turf Sales Rep is just a phone call away. 1-800-925-8873 or 763-477-5885

# GCSAA Explores Internet Opportunities, Strategy

GCSAA recently kicked off a new initiative focused on using the power of the Internet to enhance its existing member services and deliver new products and services to the industry. The initiative is also designed to streamline the way the association currently conducts many of its business processes.

To assist with this effort, GCSAA hired META Group Consulting in late March to help GCSAA develop a comprehensive Internet strategy for the organization. Phases of the project will include examining and prioritizing member needs, exploring new Web-only services such as e-commerce and online education, evaluating the association's current use of technology, and looking at options for providing more technology education to increase member utilization of GCSAA Online.

To assist in the initiative, META and staff will rely heavily on the input of two member groups established for this project:

(1) The Web strategy committee, which consists of superintendent members who will provide ideas and input on needed online products and services for the profession.

(2) The Web industry advisory group, which consists of industry representatives who will serve as a sounding board for new ways of bringing the information and resources of the industry together to provide enhanced services for members.

The umbrella group is chaired by GCSAA President R. Scott Woodhead, CGCS, with GCSAA's Secretary/ Treasurer Mike Wallace, CGCS, serving as vice chairman.

Although members involved with the project have signed non-disclosure agreements because of the sensitive nature of strategic discussions, GCSAA will be providing regular updates on the group's progress through the web site and its discussion forums, as well as through several publications including Newsline, GCSAA's *NewsWeekly*, and the *GCSAA Online Report*.

In initial steps of the project, all members involved with the project are undergoing extensive private interviews directly with META to offer their ideas and provide a baseline assessment of GCSAA's offerings. To gain greater member perspective, META will also survey members of the membership standards resource group and the career development, education, membership and certification committees, which will meet concurrently in mid-April. A broader survey available to all web users is also being planned.

Although a timeline for implementation cannot be determined until specific services have been defined, plans currently call for the strategy development phase to be completed by early summer. The META Consulting Group specializes in helping organizations leverage technology to help them better meet their business needs. The group was chosen from a field of 12 highly-rated information technology consulting firms. Staff reviewed all proposals and narrowed the field to three candidates who were then asked to formally present their methodologies to the committee chairmen and staff. Other clients of the META Consulting Group include IBM, EDS, 3Com, Georgia-Pacific and Ciba Specialty Chemicals.

If there are particular online services you would like to see addressed by this initiative, contact Sharmion Linseisen-Kerley, senior manager of Internet services, at (800) 472-7878, ext. 620, or e-mail slinseisen@gcsaa.org.

# Blue Tag Reminder

Turf-Seed/Tee-2-Green is continuing to contribute 50 cents for every Turf-Seed variety or mixture blue tag and \$1 for every Tee-2-Green Penn Pals variety or mixture blue tag turned into The GCSAA Foundation as part of The Foundation's five-year endowment campaign.

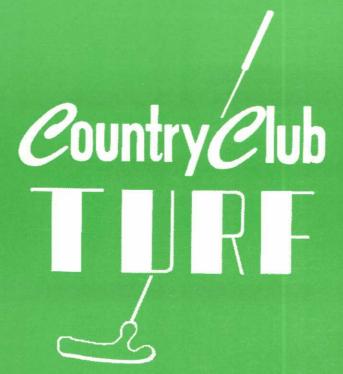
Half of the money donated goes toward the campaign, "Investing in the Beauty of Golf," and half goes to each participating GCSAA member's affiliated chapter.

Superintendents can clip the blue tags from the appropriate turf seed varieties and mixtures and send them to The GCSAA Foundation, 1421 Research Park Drive, Lawrence, KS 66049, along with their membership number and affiliated chapter.

# PENNCROSS SOD from Country Club Turf

Grown by Golf Course Professionals for Golf Course Professionals

Supplying over 200 Golf Courses Since 1987



24317 Durant St. N.E., East Bethel, MN 55005 (612) 444-6753

"A Quality Grown Reputation"

# **MGCSA Research Committee Goes on Tour**

Stops Included Rolling Green, The University of Minnesota and Indian Hills

Rick Fredericksen, CGCS, Research Chairman, and eight other members of the MGCSA Research Committee visited Rolling Green Country Club, the University of Minnesota and Indian Hills Golf Club on April 5.

Pat Walton, CGCS, and Rolling Green Country Club

let the MGCSA conduct a

cover study on their par 3 course the past few years. Jon Powell and Pat led the committee around the course to view what effect the different covers had on the greens.

The tour then went to the University Turf Plots where Troy Carson explained some of the differ-

ent grass studies being researched.

Dick Grundstrom met the group at Indian Hills Golf Club. Don Taylor showed some of the findings of different top dressing practices.



**DON TAYLOR** University of Wisconsin, River Falls



UNIVERSITY OF MINNESOTA REPRESENTATIVES, from left are Don White, Jon Powell and Troy Carson.



The MGCSA Research Committee, from left: Tom McCann, Keith Scott, CGCS, Rick Fredericksen, CGCS, Rob Panuska, Paul Eckholm, CGCS, Pat Walton, CGCS, Jon Powell, Bob Simondet, and Tom Proshek.

# New Solutio



# REELMASTER® 5500-D

## **Key Features**

### TRACTOR

- 35 hp Kubota® turbo-diesel for abundant power and long engine life
- High floatation front and rear tires for a low PSI on the turf and minimal tire marketing
- 2WD or 4WD models available to meet your needs
- Ergonomic operators platform for comfort and productivity
- Manually adjustable hydraulic reel speed control

### CUTTING SYSTEM

- 7" diameter reels in either a 5, 7 or 11 blade configuration to meet a wide range of applications
- A productive 100" width of cut
- Single point bedknife-to-reel adjustment for ease of maintenance

## **SUMMER HOURS**

**APRIL 17 - SEPTEMBER 22** 

### IRRIGATION AND COMMERCIAL PARTS

Plymouth, Fridley, and Burnsville 7:00 am – 5:00 pm Monday – Friday

> Fargo Location 7:30 am – 5:30 pm Monday – Friday

## PRODUCT Demonstrations Available

EQUIPMENT FINANCE PROGRAMS