



# WESTERN VIEWS

November-December, 1995

Official Publication of the West Michigan Golf Course Superintendents Association

## Michigan Turfgrass Conference Coming Up

It's time again for the annual Michigan Turfgrass Conference to be held in Lansing in January.

Conference Co-Chairmen Tom Gray and Doug Johanningsmeir, along with Dr. Paul Rieke have once again put together a great program. Along with professors from Michigan State and local professionals they have also

brought in some out-of-state speakers. David Stone from The Honors Course in Tennessee, Tom Walker from the Inverness Club in Ohio, Gary Grigg the President of the GCSAA, just to name a few that will be here. Sign up now and come pick up some great information!

## Yard Waste Law

A new Michigan Law effective March 28, 1995 prohibits "Yard Clippings" from being deposited in Michigan landfills. "Yard Clippings" are defined as leaves, grass clippings, shrubbery, brush or tree trimmings. Any of these waste products deposited in waste containers serviced by waste contractors, will result in the contractor being unable to service your facility. This will have an impact on the turf industry which generates many of these waste products. We need to start planning now for alternate means of disposal.

*Editor's Note: Please write me if you have any corrections or if you are interested in doing an article for us at:*

## Water Quality Forum Held at M.S.U.

At Michigan State University on December 13th a meeting was held by Greg Lyman to discuss test results of water samples that were taken by Golf Course Superintendents around the state during 1995.

Along with Greg Lyman, other people from M.S.U. staff were on hand to give their opinions and help educate the various Superintendents that had done sampling at their courses. Ruth Cline-Robach discussed the hydrogeologic cycle, Dr. Lois Wolfson talked about how lakes work, and Dr. Tom Coon spoke on stream environment and water quality parameters.

It was an interesting day and I would encourage anyone interested in water sampling at their golf course to contact Greg on costs and other information.

## New Committee Appointments for 1996 Made!

With the first Western Board Meeting came new committee assignments handed down from the new President Paul Schippers. If you have an interest in helping on a committee, or just a suggestion, please contact a board member! Remember, it's your organization and can only be as good as your involvement.

The committees are listed below.

Notification	Paterson
Finance	Paterson
Membership	Paterson
Membership Search	McGuinness, Antaya, Herbst
G.A.M.	Thuemmel, Boyle, Schippers, Antaya
Education	Herbst, Thuemmel, Hopkins
G.C.S.A.A.	Schippers, Boyle
Nomination	Schuemann
M.T.F.	Schuemann
Scholarship	Antaya, Herbst, Thuemmel
Newsletter	Bathum, Hopkins, McGuinness
Fall Party	Bathum, Hopkins, Paterson
Golf Day	Boyle, Schuemann, Antaya
Monthly Meetings	Schippers, McGuinness, Hopkins
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**1996 ROSTER BOOK** will be going to print in late January.  
 If you have any corrections or comments *Please Contact Us!*

# Two Individuals Honored For Distinguished Service

The board of directors of the Golf Course Superintendents Association of America (GCSAA) has selected Randy Nichols, CGCS, and Paul E. Rieke, Ph.D., to receive the association's 1996 Distinguished Service Awards.

The two will receive the awards in recognition of their outstanding contributions to the advancement of the superintendent's profession and as an expression of gratitude by GCSAA for the recipients' many efforts and achievements.

The awards will be presented Wed., Feb. 7, during the Opening Session of GCSAA's 67th International Golf Course Conference and Show. The conference and show will be held Feb. 5-11 at the Orange County Convention Center in Orlando, Fla.

GCSAA President Gary T. Grigg, CGCS, said, "On behalf of our members, the GCSAA board of directors is very proud to honor these two gentlemen with our Distinguished Service Award. Their dedication and outstanding contributions have had a tremendous impact on the industry and our profession."

**Randy Nichols, CGCS**, golf course superintendent of Cherokee Town & Country Club in Dunwoody, Ga., has served the profession on the local, state and national levels.

Nichols has been a member of GCSAA for 22 years and served on the board of directors from 1987 until 1994. As president of GCSAA in 1993-94, Nichols focused on improving the association's responsiveness to members and enhancing the value of the members' dues investment. He revived the member-led committee system, initiated the now-annual Chapter Relations Meeting to discuss chapter, GCSAA and member issues. He also called for an organizational analysis by Arthur Andersen & Co. SC, which led to improvements in systems, technologies and member services.

"GCSAA is deeply indebted to Randy Nichols," Grigg said. "His term as president will be remembered for his unwavering focus on what this association is all about — service to members."

As a GCSAA board member,

Nichols volunteered on several committees, acting as chairman of the conference and show, tournament, membership and government relations committees. Since his term as GCSAA president, Nichols served on the chapter relations committee and is currently chairman of the nominating committee. He holds a bachelor's degree in turf management from Mississippi State University.

Nichols also is a member of the Georgia Golf Course Superintendents Association, the Georgia Turfgrass Association, the Georgia State Golf Association, the Georgia Golf Hall of Fame and the United States Golf Association (USGA) Green Section. From 1985 to 1986, he was president of the Georgia GCSA, and was vice president of the Georgia Turfgrass Association from 1986 to 1987. He also served on the Advisory Committee of the Georgia State Golf Association and the Nominating Committee of the Georgia Golf Hall of Fame.

Nichols was named 1993 Georgia Superintendent of the Year by the Georgia GCSA, an honor that recognizes an outstanding superintendent who has devoted his or her life to the profession.

**Paul Rieke, Ph.D.**, professional educator and researcher with Michigan State University (MSU) in East Lansing, Mich., has taught the basics of turfgrass management for 32 years. He has been a leader in the development of high-quality, audio-tutorial laboratory exercises for MSU's basic soils course, and his influence on students has been fundamental to their successes.

Rieke and his team of scientists conducted research that resulted in a change in the cultivation equipment and programs used by the turf industry today. In addition, Rieke served a key role in the development of natural grass for use in the Pontiac Silverdome for the World Cup Soccer Games in 1994.

Besides his research and teaching at MSU, Rieke is a turf specialist for the Cooperative Extension in Michigan and has the distinction of being the first university researcher to serve on the USGA Green Section Research Committee. Rieke also has served as a member of both

the GCSAA publications/technical resource advisory committee and the educational advisory committee, has taught GCSAA seminars, has been a speaker at GCSAA's International Conference and Show and has been a contributing author to *Golf Course Management* magazine.

Among his many honors, Rieke received the Award of Merit, MSU Cooperative Extension Service, for developing the "Turf Tip" videotape series in 1986; the Outstanding Teacher Award, Institute of Agricultural Technology, Michigan State University in 1989; the Meritorious Service Award from both the Michigan Turfgrass Foundation and the Sod Growers Association of Michigan in 1994; and the Meritorious Service Award from the Michigan Border Cities Golf Course Superintendents Association in 1995.

He is a member of the American Society of Agronomy, the Crop Science Society of America, the Soil Science Society of America and the International Turfgrass Society. Rieke holds bachelor's and master's degrees in agronomy from the University of Illinois and received his Ph.D. in soil science in 1963 from MSU.

"Professor Rieke is an outstanding turfgrass soil scientist with a broad range of contributions in teaching, research and extension service," Grigg said. "He has distinguished himself as an expert in the care of lawns, athletic fields and golf courses."

GCSAA members, affiliated chapters and allied associates submit nominations for the GCSAA Distinguished Service Award. GCSAA's board of directors selects the recipients each year at their fall board meeting.

Since 1926, GCSAA has been the leading professional association for the men and women who manage and maintain golf facilities in the United States and worldwide. From its headquarters in Lawrence, Kan., the association provides education, information and representation to nearly 15,000 members from more than 50 countries. GCSAA's mission is to serve its members, advance their profession, and enrich the quality of golf and its environment.



# Don't Miss the Tournament Fun and Excitement!

Are you looking for some friendly competition? Then pull out your golf clubs and start practicing! Your chapter can be a part of the challenge and excitement at the 1996 GCSAA Golf Championship in Orlando, Fla., Feb. 5-6, preceding the 67th International Golf Course Conference and Show. Only eight chapters will receive awards in the team competition, but every player will be a winner. Participants will have the opportunity to share ideas and their expertise, discover creative solutions and establish professional contacts.

The Golf Championship will take place on five beautiful courses in the Orlando area. Each course features its own challenges, including dish-shaped fairways, rolling terrain, sweeping elevation changes and plenty of lakes. The chapter teams with the best scores in the gross and net divisions will receive special awards at the Victory Banquet, Tuesday evening, Feb. 6.

According to Roger Stewart, CGCS, the chapter team competition is an event he looks forward to every year. Stewart is a member of the Midwest Association of Golf Course Superintendents and was a member of the winning team in the net division of last year's chapter team competition.

"It's a great opportunity to meet other superintendents from across the country in a casual golf type format. You can develop a lot of friendships," Stewart says.

"It (the GCSAA Golf Championship) gives the participants an opportunity to play a number of golf courses that most wouldn't have an opportunity to play," he adds. "It's also a way to see how different superintendents do different things on their courses. I've picked up a lot of ideas from that."

Andy Campbell, a member of the Carolinas GCSA, says he enjoys the camaraderie between all the teams, as well as the competition. Campbell was a member of the winning team in the gross division of last year's chapter

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# Winter Injury Update

My past two winters spent exploring the causes of crown hydration have uncovered some interesting results. Here are a few of the key findings.

**1. TRANSITION PERIOD IS THE MOST CRITICAL:** During the 2 to 3 week snowmelt period in early spring, standing water and saturated crown tissues often exist on semi-frozen soil surfaces. Wide and rapidly changing freezing and thawing temperatures also occur during this period. In addition, the turf is physiologically in a weak condition and the young new tissues being produced are extremely more vulnerable than tissues found in dormant turf during the midwinter. This is not to imply that turf cannot be killed during the months of December through February. It can. However, the environmental conditions (temperature fluctuations) to damage turf need to be more severe.

**2. POA IS THE MOST SENSITIVE SPECIES:** This should come as little surprise to many that have witnessed just the loss of Poa in greens equally mixed with bents. Between the various bentgrasses, the velvet and creeping types were the most tolerant. The colonial bent was intermediate (yet considerably more resistant than the Poa).

**3. FALL POTASSIUM IMPROVED TOLERANCE:** During the hardening period of late fall, samples fertilized with a high potassium diet (having a 1:2 nitrogen to potassium ratio) had 30% less damage than samples not receiving potassium. The least tolerant samples were those fertilized with nitrogen only (urea at 0.75 lbs.) during this critical hardening period (30 to 40 days before dormancy. Avoiding practices that promote active growth during the hardening period help prepare turf for the demanding winter months ahead.

**4. RAPID TEMPERATURE CHANGES ARE MORE DAMAGING:** Warm days and quickly freezing temperature changes at night result in greater damage than gradual fluctuating temperatures. When subjected to rapid reductions in temperatures under

controlled freezer conditions 40 percent more injury occurred than to samples under field conditions. A snow cover during the transition period serves as an insulator and helps preserve the turf.

The critical days follow the melt period (with or without early snow clearing) when the exposed and saturated soil surfaces are at the mercy of Mother Nature.

**5. PREDICTING LETHAL TEMPERATURES DIFFICULT:** Due to its diversity and overall complexity, forecasting the environmental conditions that result in damage will likely never be an exact science. However, guidelines can be established and improved as testing continue. In the trials at UNH, for example, the lethal soil temperatures to kill 50% or more of the Poa population in the transition period was 20 degrees F. and 10 degrees for the bents. To obtain this degree of damage the turf was subjected to 3 repeated freeze-thaw cycles with rapidly changing temperatures.

## PREVENTION POSSIBLE?

A better understanding, innovative ideas, new technology, genetic improvements and even small miracles might be necessary to help eliminate this problem. This project has moved us closer. However, the ultimate fate of the turf still appears largely dependent on Mother Nature. Today's best management practices help provide protection during most winters. These practices should include:

1. Maximizing the bentgrass populations. This is especially critical in the low wet portions of the greens which are most likely to be damaged by crown hydration damage.

2. Maintaining high potassium levels entering the winter.

3. Avoiding cultural practices which stimulate growth during the hardening period of late fall.

4. Designing new greens which allow for rapid surface runoff.

5. Constructing greens with permeable soils and installing drain lines for rapid subsurface drainage.

*Dr. John Roberts*

*Credit: New Hampshire Turf Talk*

## Tournament Fun, continued

team competition.

The friendly rivalry between the Carolinas GCSA team and other chapters has continued. The Carolinas GCSA team recently competed against a Georgia team while attending the Ryder Cup. "We've expanded it to a neighborly thing," Campbell explains.

Although chapter participants are paired with representatives from other chapters during the tournament, their scores are tallied for the chapter awards. Stewart says the chapter competition is not really competitive golf, but there is a certain amount of pride and bragging rights for being a member of the winning chapter.

"There was a blurb in our chapter's newsletter that recognized all the people in the chapter who played,

whether they won or placed or not," he says.

Campbell says his team will probably receive recognition at the chapter's annual meeting in November. "We'll be back to defend our title (at this year's Golf Championship)," he adds.

If this sounds like an event you can't pass up, now is the time to register. There's no limit to the number of chapter teams. Complete a chapter team registration form and present it, along with the entry fee of \$20 per team, at the GCSAA tournament registration site. The following qualifying guidelines also must be met:

- All chapter team members also must be registered in the individual competition of the Golf Championship. (Individuals must register by 5 p.m.,

Dec. 1, 1995.)

- Only one team member may be a superintendent/golf professional.

- A player may not participate on more than one chapter team.

- Team must be registered no later than noon, Sunday, Feb. 4, 1996.

- Chapter team members must consist of four GCSAA members, either Class A, B, C, A-Retired, B-Retired, C-Retired, or AA Life.

If an individual player for a chapter team withdraws, is disqualified, does not show or fails to turn in a score card, the entire team is eliminated from the chapter team competition.

If you have any questions or need further details, please contact the GCSAA tournament staff at 800/472-7878.

## Some Tips For Success With Oil Seals

Oil seals — which are often referred to as grease seals — appear deceptively simple. There are, however, many oil seals that are very sophisticated in design and complexity. Because oil seals are essential for the efficient operation of all golf, turf and industrial vehicles, the seals should be replaced whenever they are removed to service or replace other components.

**Design and Function** — The typical oil seal is made up of four basic design components:

- A metal outer case.
- A flexible sealing lip.
- A garter spring.
- An inner case.

These design components will vary and some may not be necessary, depending upon the application. The inner case is used with large-diameter seals to make them more rigid. The outside diameter of the outer case is slightly larger than the housing bore and sometimes has a coating to help provide a tight, leakproof fit.

The sealing lip at the inside of the oil seal contacts the shaft surface. Contact pressure must be sufficient to prevent the lubricant from escaping, but not great enough to damage the lip or shaft. A single-lip seal is used when dirt is not a problem. When dirt is a problem, dual-

or triple-lipped seals — like those in an electric motor or mower reel — are used to keep out contaminants.

The garter spring holds the lip edge in constant, even contact with the surface to be sealed. The spring is used on many oil seals that must retain a free-flowing lubricant.

**Installation** — Installation of properly selected oil seals requires care and consideration. The four factors that affect oil seal installation and later performance are:

- Handling and storage.
- Bore and shaft.
- Preparation of the seal.
- Installation of the oil seal using tools designed for that purpose.

Given those factors, the following procedures are recommended to ensure proper installation:

- **Store seals properly.** Many oil seal failures are caused by improper storage and handling of the seal prior to use. Never store seals unprotected in open bins or hang them on a hook or nail. Such methods of storage can ruin the delicate sealing lip. Also, keep seals away from all sources of ozone. Nitrile, the basic synthetic rubber material found in most seals, oxidizes with exposure to heat and has poor resistance to ozone. Sources of

ozone that should be avoided include electric motors, fluorescent lights, welding equipment and direct sunlight.

- **Handle seals carefully.** Always keep seals clean and never handle them with dirty hands or lay them on a dirty surface. Avoid dropping seals, since this can cause internal distortion which may not be apparent to the eye but may be sufficient to impair the seal's efficiency. When seals are dropped, the external diameter can flatten out, thus causing outside-diameter leakage.

- **Check the seal closely.** Look for damage that may have occurred prior to installation. A sealing lip that is turned back, cut or otherwise damaged should be replaced.

- **Check the bore.** When inspecting the bore into which the seal press-fits, look for any irregularity that could cause a leak. Check for nicks, gouges and scratches that could provide a path for outside-diameter leaks. Lathe tool or grind leads could allow light fluids to seep around the "screw" spirals and the seal outside diameter. See that the leading edge of the bore is deburred. A rounded corner or chamfer should be provided. Sharp corners at the bore entrance could

*Continued on page 5*

## Success With Oil Seals, continued

score the seal outside diameter when press-fitted, and then create a leak path. Rust, scale or roughness should be removed and deep grooves filled with gasket cement. Make sure the bore is clean and dry before the seal is installed.

- *Check the shaft.* Remove any surface nicks, burrs and grooves and look for spiral machine marks that can damage the seal lip. As a general rule, if you can catch a thumbnail in a wear track or irregularity, the shaft requires a wear sleeve.

- *Check the shaft end.* Remove burrs or sharp edges. Where the installation requires that the shaft enter the seal against the sealing lip, the shaft end should be chamfered.

- *Check splines and keyways.* Watch for sharp edges and protect the seal lip with an assembly sleeve or shim stock. If those are not available, round the edges of the spline or keyway as much as possible and lubricate with a hard, fibrous grease.

- *Check the seal direction.* Be sure that the new seal faces in the same direction as the original. Generally, the lip

faces the lubricant or fluid to be sealed.

- *Prelubricate the sealing element.* Before installing the oil seal, lightly lubricate the sealing member to prevent dry starts, which could damage the sealing lip. The lubricant should be the same type that the seal must contain. Oil or grease should not be applied to the outside diameter of the seal or to the housing bore, since contact at this point must be dry and tight for a leakproof fit.

- *Use correct installation tools.* Press-fitting tools should have an outside diameter .010 in. smaller than the bore size. If possible, the center of the tool should be relieved so that pressure is applied only at the outside diameter. If approved seal installation tools are not available, an acceptable alternative is to use a bearing race as an adaptor placed against the seal case and then use a hide or plastic mallet to drive the seal squarely into the bore. Since it is nearly impossible to remove a seal without damaging the outer case, new seals should be installed when the old seals are removed.

- *Use proper driving force.* When possible, use an arbor press. Never ham-

mer directly on the surface of the seal. This can easily bend or distort the case and cause a leak.

- *Bottom-out the tool or seal.* This bottoming-out allows you to avoid cocking of the seal in the bore. This also positions the seal correctly on the shaft.

- *Watch out for parts interference.* Look for other machine parts that might rub against the seal, thus potentially causing friction and damaging heat.

**Follow-Up Tips** — If you're painting equipment where an oil seal has been installed, be sure to mask the seal to avoid getting paint on the lip or the shaft where the lip rides. Also, mask vents so they will not become clogged. Note, too, that if the paint is to be baked or the mechanism otherwise subjected to heat, seals should not be heated to temperatures higher than the sealing members can tolerate.

Finally, be sure that in any cleaning or testing of the equipment you do not contact seals with fluids that will be injurious to them.

*Credit: Golf Course Management  
October 1983*

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For a more detailed description of seminars, with dates and registration forms, please refer to your GCSAA Professional Development Catalog 1995-96. You may also reference your monthly issue of *Golf Course Management*.

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