. . . And You Thought You Saw It All At Field Day

By Tom Salaiz

A full parking lot, Wayne Kussow and Mike Carlson on their research plots, Frank Rossi and Henry Burg seeding, student workers buzzing around on mowers, and me trying to keep on top of all the activity. These are some of the things you might have seen if you happened to stop by for a visit this fall after field day. On the heels of a very successful field day, many research projects have been initiated since, and many more are being scheduled for yet this fall and next spring. Here's a brief sampling of the activity:

Bentgrass Evaluation

This trial was planted on August 15, just three days prior to field day. Since then the cultivars have germinated quite well (Figure 1). As of this writing, the plots are currently being mowed at 3/8". After the turfgrasses have filled in completely, plans are to bring them down to two mowing heights, 1/4" and 1/2". Notes on snowmold incidence, quality and color will be taken on these cultivars.

National Tall Fescue Evaluation Trial

Ninety two, count them, 92 tall fescue cultivars and experimental lines were planted on September 24. Plans were to plant the study the week of September 14, but Mother Nature had other ideas. The grasses were planted in 5' x 5' plots and will be evaluated for germination rate, winter survival, overall quality and adaptability to Wisconsin's environment.

Crested Wheatgrass Evaluation Trial

Not quite the size of the tall fescue trial, the crested wheatgrass trial includes two experimental lines from the turfgrass breeding program at Colorado State University and three commercially available cultivars. The trial was seeded September 25. Crested wheatgrass is cool-season perennial bunch grass native to the former Soviet Russia. It is adapted to the cold, low rainfall climate of those areas, and is being evaluated for potential turfgrass use under low and medium maintenance regimes.

Crested wheatgrass is maintained at 1" and 2.5" in trials at Colorado State. Higher quality has been obtained at the taller heights. We will evaluate then at 1.5 and 3".

Soil Compaction Effects on Nutrient and Pesticide Losses from Turf

Wayne Kussow and Mike Carlson have been busily working on installing the runoff collection system previewed at field day (Figure 2). Each of the 24 collection units must be perfectly aligned with the ground surface in order to insure collection of runoff at the proper depth; not a fast process by any means.

Hopefully Wayne will have had several opportunities to do some preliminary runs this fall. Questions on the environmental impact of turfgrass management practices will soon be answered.

Spring Valley Turf Products

Clipping weights and more clipping weights. It seems as though every time I turn around, Wayne Kussow is out on his plots collecting grass clippings with his ingenious collection system on his walk behind mower. Clipping yield is a way for him to get a handle on fertilizer performance.

Turfgrass Species Demonstration

This project will serve the purpose of educating students, clientele and turfgrass professionals on the different grass species grown for turf in the upper Midwest. Planted on September 25, these grasses will be maintained at two mowing

(Continued on page 23)

Figure 1. Creeping bentgrass variety plots begin to fill in.

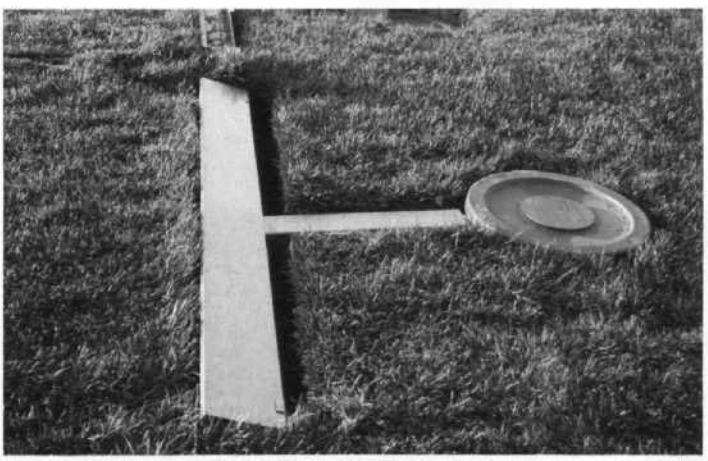


Figure 2. The runoff collection system includes a long rectangular frame which collects the runoff and funnels it into the large trash can on the downside of the slope.

"Blessed are the peacemakers on earth." — William Shakespeare

MEET YOUR TALL FESCUE NEEDS WITH THE BEST

Lofts has three of the best-performing tall fescues available. Each one offers all the good looks and tough performance you need:

- Attractive, dark green color
- Fine-leafed texture
- Resistance to drought, disease, insects and traffic
- No thatch buildup
- Adaptability to sun or shade
- Less maintenance than bluegrasses or ryegrasses

New Rebel Jr.* even offers the added advantage of slower growth.

All of these varieties offer good looks, tough performance and low maintenance. When you need a fescue, choose one of the best!

LOFTS

Lofts Seed Inc.
World's largest marketer of turfgrass seed
Bound Brook, NJ 08805
(201) 356-8700 • (800) 526-3890
(800) 624-1474 (NJ)

CALL TOLL FREE
1-800-627-5495
Milwaukee (414) 276-0373
Chicago (312) 876-1172
Minneapolis (612) 522-7059
Indiana (219) 393-3553

Kellogg Inc.
Seeds and Supplies

(Continued from page 21)
heights within their tolerance range and two fertilization rates for comparison purposes.

Future Projects

As mentioned at field day, Wayne Kussow and Mike Carlson will be evaluating several organic amendments to USGA greens.

Initial steps toward construction have begun, starting with stripping away sod from the site (Figure 3).

A 500 ft² area of Kentucky bluegrass has been brought to fairway height (0.75") for a snowmold control study. Frank Rossi and Julie Meyer will be cooperating on this project.

A 500 ft² area of 'Penncross' creeping bentgrass will be used to evaluate winter covers for bentgrass greens.

Twenty Kentucky bluegrass cultivars/experimental lines will be evaluated at fairway mowing height. Fertilization rates in addition to mowing height treatments will be imposed.

Bob Newman will be evaluating competitiveness of Kentucky bluegrass varieties in different seeding rates of perennial ryegrass. His objective is to obtain some information on optimal bluegrass:perennial ryegrass ratios in seed mixtures.

As Frank Rossi said in the last issue of *The Grass Roots*: "HERE WE GO!"

Figure 3. Sod is stripped away from the future site of organic amendment evaluation green.

Wisconsin Golf Course Quiz

Who Went Where? (Part I)

By Monroe S. Miller

As the years pass by, an ever-increasing percentage of WGCSA members are alums of the UW-Madison Turfgrass Management program. However, a thorough check of the membership roster shows a rich variety of educational background. See how you do on the first part of the *GRASS ROOTS* college quiz.

1. This WGCSA member attended Union College. Name him and tell us where Union College is located.
2. Name a WGCSA member who graduated from Iowa State.
3. Name three WGCSA members who attended Pennsylvania State University.
4. Name three WGCSA members who attended the University of Massachusetts at Amherst.
5. Name a WGCSA member who attended Michigan State University.

You will find the answers to the WISCONSIN GOLF COURSE QUIZ on page 29.

Your Course Offers A Lot Of Challenges. Keeping It Green Shouldn't Be One Of Them.

love your challenging course. But your course shouldn't be a challenge to maintain.

By using OLDS seeds your course will be quickly covered by a rich, dark blanket of  .

With a high tolerance to disease, traffic and frequent  .

At OLDS Seed Company, our variety of custom blend grasses consistently exceed standards, year in and year out, in purity and germination. For all your situations: full  , heavy shade, sandy soil and marshy areas, we can formulate the right mixture of 

for your specific needs.

And with our rapid turnaround time, you can get a custom blend within 48 hours  of your order.

Simply  our toll-free number 1-800-356-7333 (or in Madison call 249-9291) and we'll put over 100 years of quality and service to work for you.

 We know you have better things to do than  grass grow.

OLDS

Seed Company

P.O. Box 7790, Madison, WI 53707-7790

249-9291 • 1-800-356-7333

FUNGICIDE EVALUATIONS FOR SNOW MOLD DISEASE CONTROL, 1991-1992

By Dr. Gayle Worf & Catherine Smejkal

Three locations were utilized for the trials this year. A primary reason for the trials was to assess possible replacement of mercury-containing fungicides. Two of the sites were located in northern Wisconsin where snow mold incidence is especially severe in most years. These were at Bass Lake (Bass Lake C.C., Perry Michael, Superintendent), Langlade County, where plot sizes were 5 x 6 feet, and at Eagle River (Eagle River C.C., Ken Smith, Superintendent), Vilas County, where plot sizes were 5 x 6 feet. Each treatment was replicated twice at these sites. The Daconil applications were made on October 17, 1991, and the other chemicals were applied on October 30, 1991. The third location was at Madison (Maple Bluff C.C., Tom Harrison, Superintendent), Dane County, Where plot sizes were 5 x 6 feet, with four replications. This trial was established on November 4, 1991.

All treatments were applied to turf that was primarily bentgrass, maintained at 0.5 inch height or less. Liquid chemicals were applied with a CO_2 powered sprayer, 50 psi, equipped with two 8006 nozzles. Granular products were applied by hand using a pint plastic container.

Disease incidence in the north was quite severe this year, resulting in an excellent opportunity to evaluate efficacy against *Typhula canadensis*. Sporadic pink snow mold *Microdochium nivale* was observed at Bass Lake. Although we have identified the entries where it was found—and these are likely to be ineffective when used at the rates and/or combinations used—the absence of pink snow mold in other treatments may have been due to chance rather than control.

Note that we used Calo-clor (3 oz) + PCNB 75W (4 oz) + Daconil 2787 (4 fl oz) as our standard. This treatment has given us consistently good control in northern Wisconsin even during the most severe years. However, it contains mercury. While no other treatment measured up to this standard it was encouraging to note that several others significantly reduced the disease. Once again PCNB was useful in combinations, and Daconil appeared to help as well. S-2408 + CGA-173506 are new chemicals to us that appear quite interesting for future testing at higher rates or in combinations.

No disease occurred in the Maple Bluff plots again this year. However, southern test plots should be continued for several reasons, including different Typhula species when gray snow mold occurs, and the greater possibility of pink snow mold.

Assistance and cooperation by golf courses, superintendents, and chemical companies is acknowledged and appreciated.

Table 1. Response to fungicide treatments for the control of gray snow mold (*Typhula canadensis*) at Eagle River and Bass Lake golf courses 1991-92.

Treatment	Rate/1000 ft²	Disease severity[1] April 23	T Grouping[2]
Calo-clor	3 oz+		
PCNB 75W	4 oz+		
Daconil 2787F	4 fl oz	0	H
S-2408 (Scotts)	46.7 g	5.75	HG
CGA-173506 75WG	4.7 g+		
Banner 1.1E	2 fl oz	7.5	HG
GS/SM-07	8 fl oz + 4 oz	8.25	HG
S-3122 (Scotts)[3]	1022 g		
GS/SM-13[3]	4 fl oz + 3 oz + 2 oz	13.00	HGF
CGA-173506 75WG	13.3g	13.00	HGF
Flutolanil 50W*	2 oz+		
PCNB 75W	4 oz		
Flutolanil 50W *[3]	4 oz+		
Daconil 2787F	8 fl oz	22.50	GF
GS/SM-06	8 fl oz + 2 oz	23.00	GF
GS/SM-04	6 oz + 2 oz	23.25	GFE
ASC66825 50W	1.2 oz	28.75	FED
Chipco 27019F	2 oz+		
Daconil 2787F	8 fl oz	29.25	FED
Flutolanil 50W *[3]	2 oz +		
Banner 1.1E	4 fl oz	29.50	FED
Flutolanil 50W *	2 oz +		
Tersan 1991	2 oz	36.25	EDC
ASC66791 75WDG	8 oz	40.50	EDC
ASC66825 50W	0.6 oz	46.25	DC
Flutolanil 50W *[3]	4 oz	53.75	CB
S-2621 (Scotts)	2610 g	68.75	B
SN84364 70WDG *[3]	1.8 oz	71.25	B
No treatment		90.00	A
lsd (P=0.05)		18.34	

Dates of application: October 17, 1991 applied Daconil to all designated areas. First application of S-2408 at this time. October 30 applied remaining chemical treatments. Temperatures 60-65F at treatment. Data recorded on April 23. Plot sizes: 5' x 6'; two replications/site, total of four.

*X-77 added to spray tank mixture.

1 Disease severity ratings were based on a percentage of the total plot area infected with snow mold.
2 Means with the same letter are not significantly different.
3 Pink snow mold detected in one replication.

Table 2. Color response to fungicide treatments for the control of gray snow mold *(Typhula canadensis)* on April 7, 1992 at Maple Bluff Country Club.

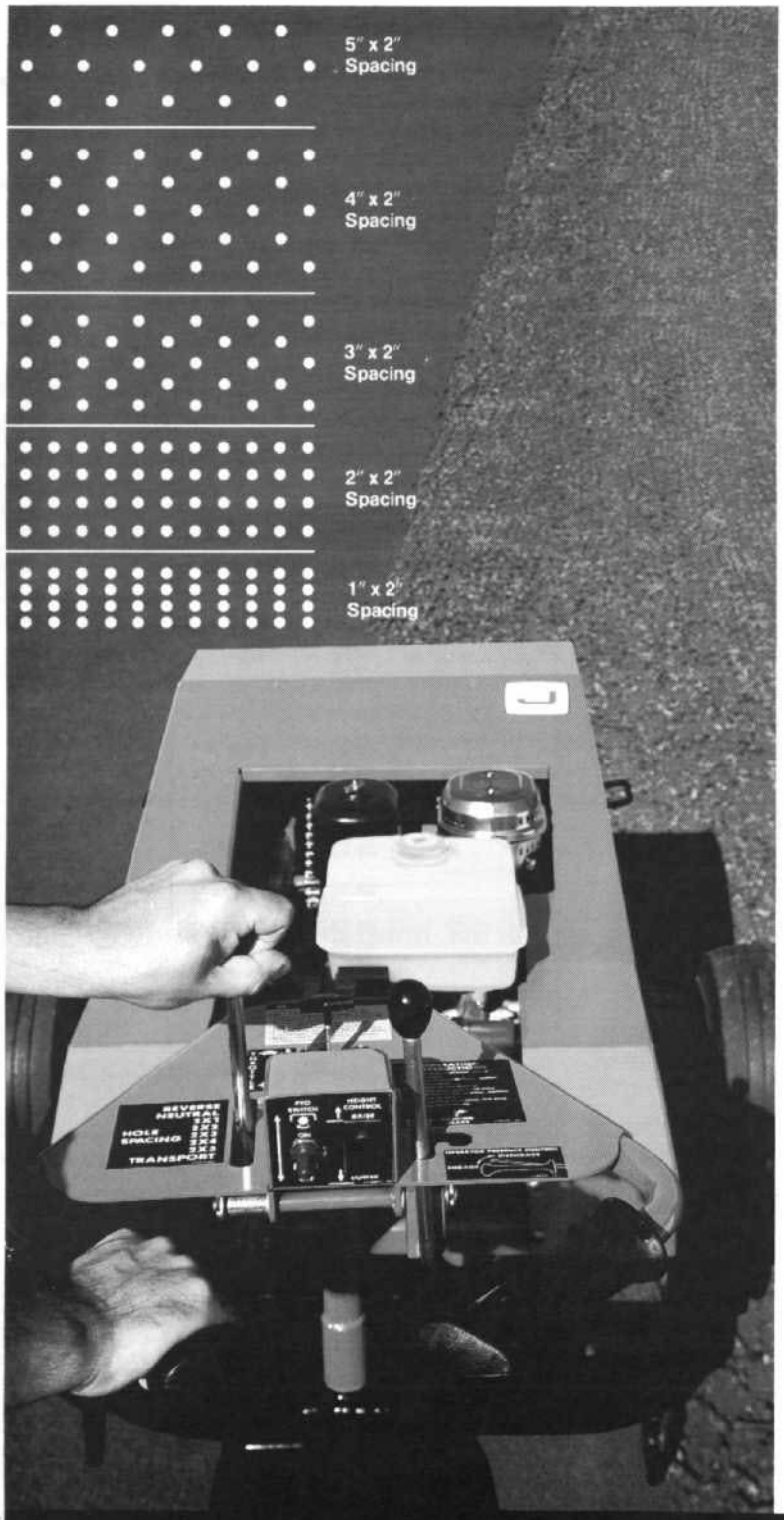
Treatment	Rate/1000 ft²	Color Response[1]
1. Chipco 50WP	2 oz+	
Daconil 2787F	8 fl oz	2.0
2. Calo-clor	3 oz +	
PCNB 75W	4 oz +	
Daconil 2787F	4 fl oz	3.0
3. Flutolanil 50W *	4 oz	2.3
4. Flutolanil 50W *	2 oz +	
Daconil 2787F	8 fl 0z	2.8
5. Flutolanil 50W*	2 oz +	
PCNB 75W	4 oz	1.8
6. Flutolanil 50W *	2 oz +	
Banner 1.1E	4 fl oz	4.0
7. Flutolanil 50W *	2 oz +	
Tersan 1991	2 oz	3.0
8. SN84364 70WG*	1.8	3.3
9. S-3122 (Scotts)	1022 g	2.8
10. S-2621 (Scotts)	2610 g (3X)	2.8
11. S-2408 (Scotts)	46.7 g	2.5
12. No treatment		
13. ASC66825 50W	0.3 oz	2.3
14. ASC66825 50W	0.6 oz	3.3
15. ASC66825 50W	1.2 oz	2.5
16. ASC66791 75WDG	8 oz	3.3
17. GS/SM-04	6 oz + 2 oz	2.8
18. GS/SM-13	4 fl oz + 3 oz + 2 oz	3oz
19. GS/SM-07	8 fl oz + 4 oz	4.0
20. GS/SM-06	8 fl oz + 2 oz	2.8
21. CGA-173506 75WG	9.4 g	2.3
22. CGA-173506 75WG	13.3 g	2.5
23. CGA-173506 75WG	18.8 g	3.5
24. CGA-173506 75WG	4.7 g +	
Banner 1.1E	2 oz	
25. Banner 41.8%GL	41.46 g	4.3

Treatment applications: Deconil and first application of S-2408 applied two weeks prior to full schedule (November 5, 1991). Full schedule applied November 14, 1991. Phytotoxicity readings made April 7, 1992.

*X-77 added to spray tank mixture.

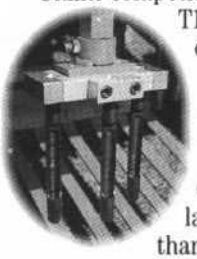
[1] Color response key: 1=distinct darker green, 2=moderately darker green, 3=average, 4=tan to brown response, 5=substantial brown response.

"A Christmas gambol oft could cheer the poor man's heart through half the year." — Sir Walter Scott

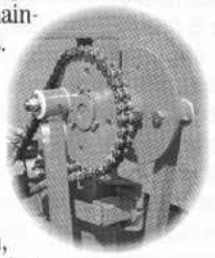


With the two new Jacobsen Aero King aerators, you get the widest selection of hole spacings on the market to handle changing aeration needs quickly and easily. Simply shift gears to select just the right pattern for the job.

Most convenient controls in the industry. Unlike competitive units, the self-propelled T1224 puts all controls at the operator's fingertips for easier operation and increased productivity.

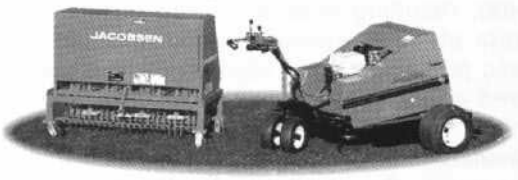


Lower overall maintenance costs. Our virtually unpluggable tines last up to three times longer than competitive tines. So you get more consistent hole depth throughout your course, while spending less time and money changing tines. What's more, the Aero Kings' simple, durable designs are easier and more economical to maintain than gear-driven units. They also cover more ground in an hour than competitors, giving you the best overall aerator value.



The tractor mounted PT2448, with its 48" width, is small enough for greens but big enough for fairways and tees. The PT2448 features a storage frame and castors for fast, easy hook-up to an 18+ hp tractor.

To see just how much a single aerator can do, ask your Jacobsen distributor for a demonstration today.



JACOBSEN
TEXTRON

THE SHARPEST THINKING ON TURF.

NOW, CHANGING HOLE PATTERNS IS AS EASY AS 1, 2, 3, 4, 5.

HORST DISTRIBUTING, INC.

P.O. Box 110, 444 N. Madison St. • Chilton, WI 53014-0110 • Phone 414-849-2341
Turf Maintenance Equipment & Supplies • Serving N.E. Wisconsin & Upper Michigan

SNOW MOLD TREATMENTS

By Rod Johnson

I contend that, other than Wednesdays, one of the most difficult parts of this profession is dealing with the uncertainty of what lies under the winter's snow cover.

We have all experienced the problems that Wisconsin's goofy winters can create for us. The frustration comes from those things we have little control over: crown hydration, desiccation, and direct low temperature kill.

Snow mold is one of those "winter problems" that for the most part we seem to have a reasonable handle on control. These days a heavy dose of snow mold on greens and tees usually means someone screwed up. Misapplication or missed application? Maybe a surprise snow storm during Halloween weekend.

The pressure to provide unblemished turf on opening day has led to more courses expanding their programs to include preventative applications to fairways. Simple economics and label restrictions have many of us exploring for the best combination to achieve an acceptable level of control on 20-plus acres. In my own situation, a 6 oz. application of Terraclor ends up being the single most costly fungicide application of the year.

Eighteen WGCSA members responded to this issue's Survey questions. The answers are for information and certainly not intended as any specific recommendation.

Efforts were made to survey both northern and southern courses. Snow mold pressure can be as varied as Wisconsin snow depths in January. For the purpose of this survey, Highway 10 was used to define north and south. Eight responses came from the north and ten from the south.

It should be noted that several courses were from an area within 20 miles of Highway 10. Two courses are within spitting distance. One course is presently south of Highway 10 but will be north of it when that major thoroughfare is re-routed to bypass Stevens Point.

The results to the questions asked are:

1. What areas do you treat for Snow mold?

Greens	18
Tees	18
Fairways	12
Approaches	2

2. What products are you using and at what rates?

Calo-clor	13	1oz.- 4oz.
Terraclor	10	3oz.- 8oz.
Tersan SP	9	3oz.- 8oz.
FFII	6	6oz.- 8oz.
Calo-Gran	5	6lb.- 10lb.
Thriam	1	8oz.
Daconil	1	6oz.
Fung.IV	1	3oz.

There was a wide scope of rates and keep in mind that in many cases a combination of several products is being used.

Greens, tees, or fairways were not identified or isolated.

All but one of the respondents expressed a concern over the potential loss of products containing mercury. All expressed interest in proven effective alternative products.

"Christmas won't be Christmas without any presents." — Louisa May Alcott

Hanley

Quality Products Since 1928

HARDWARE

TURF — AGRICULTURE — POWER EQUIPMENT

Ford
FORD
NEW HOLLAND

Ford 250C/260C tractors for all reasons

Mowing, grading, loading, landscaping—Ford utility tractors make it easy:

- 52- or 63-SAE net horsepower.
- Rugged cast-iron engine oil pan.
- Industrial box-beam front axle.
- Optional front-wheel-drive assist shifts on the go.
- Choice 8x2 constant mesh transmission, 6x4 manual-reversing transmission, or 8x8 power-reversing transmission with torque converter. All equipped with independent PTO.
- Vertical or horizontal exhaust.
- Optional 2800-lb. loader.
- Three-point hydraulics powered by 10.5-gpm gear pump.

You wanted a versatile and durable utility tractor! Stop by and see them today.

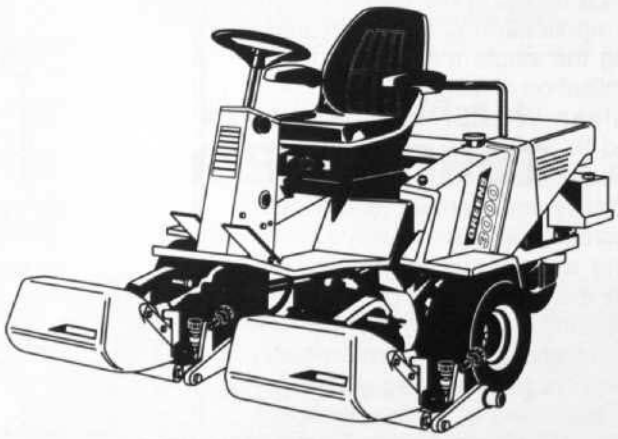
RANSOMES GREENS 3000 BRINGS GREENS CARE INTO THE 21st CENTURY

Versatile reel options are all interchangeable. Choose from 9 blade front mounted Verti-Groom, 9 blade Greens, 7 blade Fairway and Tees, or Verti-cut reels.

Armchair comfort reduces operator fatigue. Adjustable tilt steering wheel and power steering. All controls and gauges are in easy reach and sight. Padded seat with adjustable back rest.

High cutting frequency of 138 cuts per yard at 4 mph with 9 blade reels.

Cutting height adjusts quickly and easily without the use of tools to as low as 1/8".



RANSOMES

GREENS 3000

WHERE GREAT IDEAS START

For a **FREE** demonstration contact:

HANLEY IMPLEMENT COMPANY, INC. • 641 WEST MAIN STREET • SUN PRAIRIE, WISCONSIN 53590 • 608 837-5111 / 257-7815

Roberts Highlights WGCSA August Meeting

By Pat Norton

Kris Pinkerton and Waupaca Country Club played host to 81 WGCSA members and their guests on August 10 at the scenic and "very much in shape" Waupaca Country Club. These "top shelf" linksters enjoyed a beautifully conditioned, very challenging nine-hole layout. My informants tell me confidentially that Pinkerton and staff worked a solid month of 18-20 hour days in preparation for this unique event ... Not!

GCSAA President Bill Roberts gave a very logical, down to earth outline of the reasons behind the proposed by-law changes that will be coming up at the GCSAA Conference and Show in Anaheim, California in late January. I'm sure that it was nice for Bill to return to Wisconsin and renew acquaintances with his many friends here. It was certainly nice having Bill back here in the Badger state!

This year's golf events have been exciting and great fun, which means that Golf Czar Bill Knight is doing a great job in organizing them. It seems that he's learned his lessons well under the tutelage of former Golf Czar Tom Schwab.

The meeting at Waupaca featured a two best-balls out of four format with flag events thrown in "for those who don't know how to compete as a team." The "sandbagging" winners are as follows:

1st Place	Ray Shane, Don Steinmetz, Butch Payne, Erv Graf (Unfortunately, these gentlemen left the premises before dinner. Therefore, the second place teams collected the prize money and spent it wisely for themselves.)
2nd Place	(tie) Glen Gerth, Ralph Fabricius, Ed Devinger, Bill Knight (tie) Bruce Worzella, Jim Belfield, Rod Johnson, Bill Roberts

Flag winners, which could also be called the "One Lucky Shot" contest are as follows;

#1/10	closest to pin in two shots	Don Shaffer
#2/11	long drive	Brad Wagner
#3/12	closest tee shot	Gary Sorenson
#5/14	long putt	Bruce Worzella
#6/15	long drive	Gary Sorenson
#7/16	closest tee shot	Lee Merkel

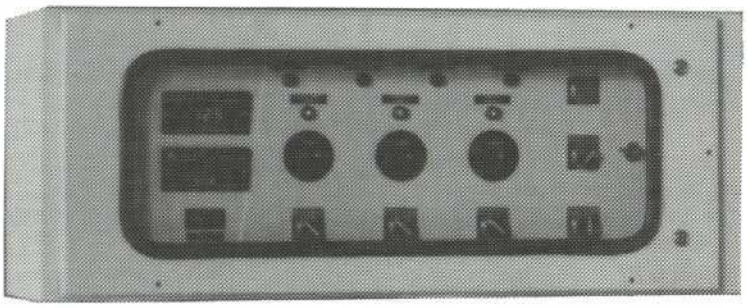
All in all, this meeting was a good one to attend. I just wish that I'd left work earlier so that I could have been there!

Answers to the *WISCONSIN GOLF COURSE QUIZ* from page 23

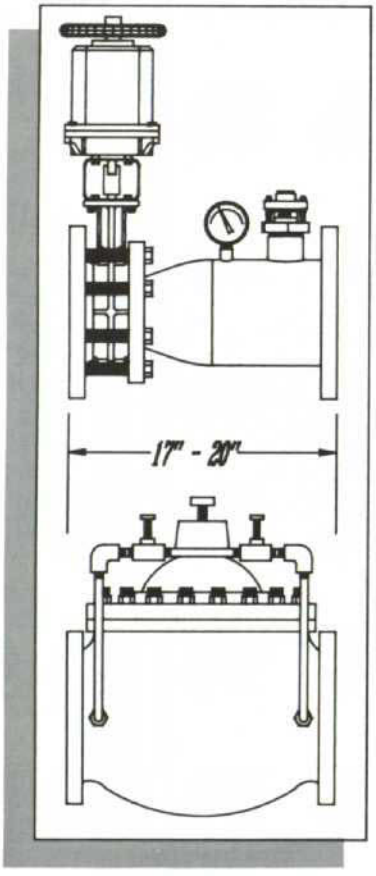
1. Steve Blendell attended Union College in Schenectady, New York.
2. Marc Davison.
3. Ron Greunwald, Jeff Bottensak, Wayne Otto, Bruce Worzella, Scott Schaller.
4. Kris Pinkerton, Dan Quast, Bob Belfield, Steve Schmidt.
5. Chad Ball.

"I am thinking of you today because it is Christmas, and I wish you happiness. And tomorrow, because it will be the day after Christmas, I shall still wish you happiness. I may not be able to tell you about it every day, because I may be far away or we may be very busy. But that makes no difference — my thoughts and wishes will be with you just the same. Whatever joy or success comes to you will make me glad. Clear through the year...I wish you the spirit of Christmas." — Henry Van Dyke

PUMP SMARTER, NOT HARDER.



Panel features include digital pressure and flow readouts, gallons pumped totalizer, individual pump hour meters, and a two year warranty. Customized to meet your exact specifications.



"Drop-in" installation of an Electronic Regulating Valve is easy and quick, eliminating costly downtime, and backed by a five year pro-rated warranty.

Flow and pressure sensors send vital system information to the control panel.

No more valve winterization or rebuilding, like conventional hydraulic regulating valves.

Watertronics retrofit control packages and regulating valves are designed to fit most any pump system on the market today, allowing your present pump station to produce accurate and consistent pressures for economical irrigation at an affordable price.

Technologically smarter: Watertronics retrofit panels feature microprocessor control of all system functions. Reliable electronic controls automatically sequence existing pumps, based upon accurate flow/pressure transducer inputs. Pressure regulation is precise and pump start/stop surges are completely eliminated with Watertronics' electrically actuated regulating valves. Microelectronics enable your pump station to perform more functions with greater simplicity and fewer mechanical parts — to give you reliable performance, smoother operation, plus reduced maintenance and servicing costs.

Efficient electronic valves: By design, hydraulic regulating valves require a pressure drop on the water passing through them for proper regulation. At full system capacity this pressure drop often exceeds 5 psi causing your pump station to work harder . . . costing you more electrical dollars. However, with Watertronics' efficient valve design, the pressure loss is but a fraction of 1 psi at maximum flow, improving your pump station's efficiency. And this precise pressure regulation maintains (± 3%) accuracy, even under low flow conditions.

Dirty water tolerant: Unlike conventional hydraulic regulating valves there is no tubing, filters, pilots, or controls to plug from dirty, algae laden, or effluent water. Watertronics' unique control of the motorized valve assembly eliminates problems associated with dirty water. No inseason valve maintenance or adjustments are needed.

For more information on how we can help your system pump smarter, contact a Watertronics representative, call (414) 782-6688.

WATERTRONICS™

ELECTRONICALLY CONTROLLED PUMPING SYSTEMS

13400A Watertown Plk. Rd., Elm Grove, Wisconsin 53122