



HELPING YOURSELF

By Monroe S. Miller

Casey Suit Review

As reported in the last issue of *THE GRASS ROOTS*, the U.S. Supreme Court granted a "writ of certiorari" on January 14, 1991. This means the highest court in the country will rule on the Wisconsin Supreme Court decision in the Town of Casey suit.

This case—now officially known as "Wisconsin Public Invernor vs. Mortier 89-1905" has taken on national significance. Those in our business view the possibility of local regulation of pesticides as absolutely disastrous; some even say doing business won't be possible if the Wisconsin Supreme Court decision isn't allowed to stand.

We have nearly 2,000 local units of government in Wisconsin. Can you imagine the chaos if each is permitted to pass its own laws and rules in these matters? What if your golf course was located in two different units of government, like a city and a township?

So far, common sense has prevailed. The Washburn County Court and the Wisconsin Supreme Court have agreed with us. The Wisconsin Department of Agriculture, Trade and Consumer Protection has taken a position against local control and communicated to federal justice department officials.

A whole lot of work has been done in the last 10 years for you, me and the rest of us managing golf courses in Wisconsin. That work has been successful.

But as Russ Weisensel says, "This is the BIG one." Your help is needed. The F/Row/T Coalition, with Russ at the helm, handled the funding for the three victories (Washburn County Court, the Wisconsin Appeals Court by-pass and the Wisconsin Supreme Court) with a modest amount of money, 82% of it from in-state sources.

The U.S. Supreme Court decision to review the case raised costs in a major way. Our attorneys have been able to use a very time efficient computerized search system to review court decisions. Now they need to study both the pro and con briefs for the final court decision.

Weisensel and our legal counsel have contacted a top constitutional law professor from the University of Wisconsin—Madison as a consultant on all issues related to this case.

Add in all the other factors of staff time, travel and office expenses, and you will see it is no minor financial undertaking.

So it seems fair that those who will benefit ought to pay. My hope is that all who read these lines will dig deep and send a contribution to help out with the expenses. Mail your contribution to:

Forestry/Rights-of-Way/Turf Coalition
2317 International Lane
Suite 109
Madison, Wisconsin 53704-3129

Green Section Turf Advisory Service

It's always a sure sign of spring—my favorite invoice arrives in the mail. It is easy to initial approval to a bill that pays for the best bargain available to each and every Wisconsin golf course.

I am speaking, of course, about the USGA's Turf Advisory Service. Now is the time the staff at the Great Lakes Region office begins to put together the visit schedule for the 1991 golf season. I never want to be left out.

Why do I view a visit from Jim Latham or Bob Vavrek so favorably? Let me count the reasons.

The first is their vast experience. Latham has, literally, been on thousands of golf courses in his thirty-some year career in turfgrass management. And although Vavrek cannot claim numbers like that, he's undoubtedly visited more than most of us. That experience makes it likely they have seen problems like yours somewhere else before and can offer advice and solutions that will save you and your golf course both grief and money.

The experience of Latham and Vavrek comes from courses all over the country, literally. Not only have they seen Wisconsin problems, they've encountered them in distant regions where answers may not have reached us through our very active peer network.

The second is their education. Latham earned a B.S. degree and a M.S. degree—both in turfgrass management—from Texas A & M. Vavrek comes to the USGA agronomist position with a degree in botany, an Ohio State M.S. in turfgrass entomology and soon will complete his Cornell Ph.D. (Professor Wayne Kussow is lending a hand to Bob with final thesis details, by the way; don't you love that Wisconsin connection!).

The third feature of the service that gives me comfort is the excellent communication among all the regional Green Section offices and the agronomists. These guys talk a lot and write even more! When they confront a troublesome problem that merits counsel from another agronomist, that counsel is there. They do not stand on ceremony; if they need help, they get it.

Try though I may, I am unable to keep on top of all the research being done in the turfgrass sciences at our nation's research universities. Not to worry! The USGA staff has access to all of this work and they incorporate it into their recommendations wherever possible. The fact is that the USGA is a major contributor to work being done to answer fundamental questions about turfgrasses and the environment.

The visit is summarized in a written report, which is used in any way you wish. Some clubs post it in the locker rooms; we usually distribute copies to all members of the board of directors.

Finally, the price is right. A half day visit is \$700—less than the cost of a single case of some fungicides we have to use. That cost is less than the actual cost; the USGA subsidizes the TAS at about \$500 per day.

For me, the best money I'll spend in all of 1991 will be that spent on the Turf Advisory Service. If you haven't tried it, please do. If you have, re-up for 1991, won't you?

JACOBSEN. UP FRONT IN LIGHTWEIGHT FAIRWAY MOWING.

Introducing the all-new Jacobsen LF-100, the 5-gang designed to increase your lightweight mowing productivity.

The wing mowers are up front for better visibility. So the operator can hold a closer line—even at mowing speeds over 5 mph—to take full advantage of the 100' cutting width. This unique, up-front configuration also gives better access to all mowing units to quickly empty catchers and make mower adjustments easy.

Heavy-duty reels deliver a greens-like cut. New heavy-duty reel construction provides extra strength for long life in demanding fairway conditions. The fully floating, 22-inch steerable 7-blade reels are heavier to follow ground contours closely, for that smooth, consistent Jacobsen cut that's the envy of the industry.

True lightweight mowing. Newly designed low-profile turf tires produce the lightest ground pressure, and the rear wheels roll on a different track than the front,

so your tender turf thrives with less compaction. And the wide 4-wheel stance offers excellent traction, increased stability and a tight turning radius.

Built to last. The LF-100 has a proven, rugged chassis, a durable and simple hydraulic system and liquid-cooled diesel engine for a longer, trouble-free life on your fairways.

What's more, the entire machine is backed by your Jacobsen distributor, so you're never far from dependable parts and service support.

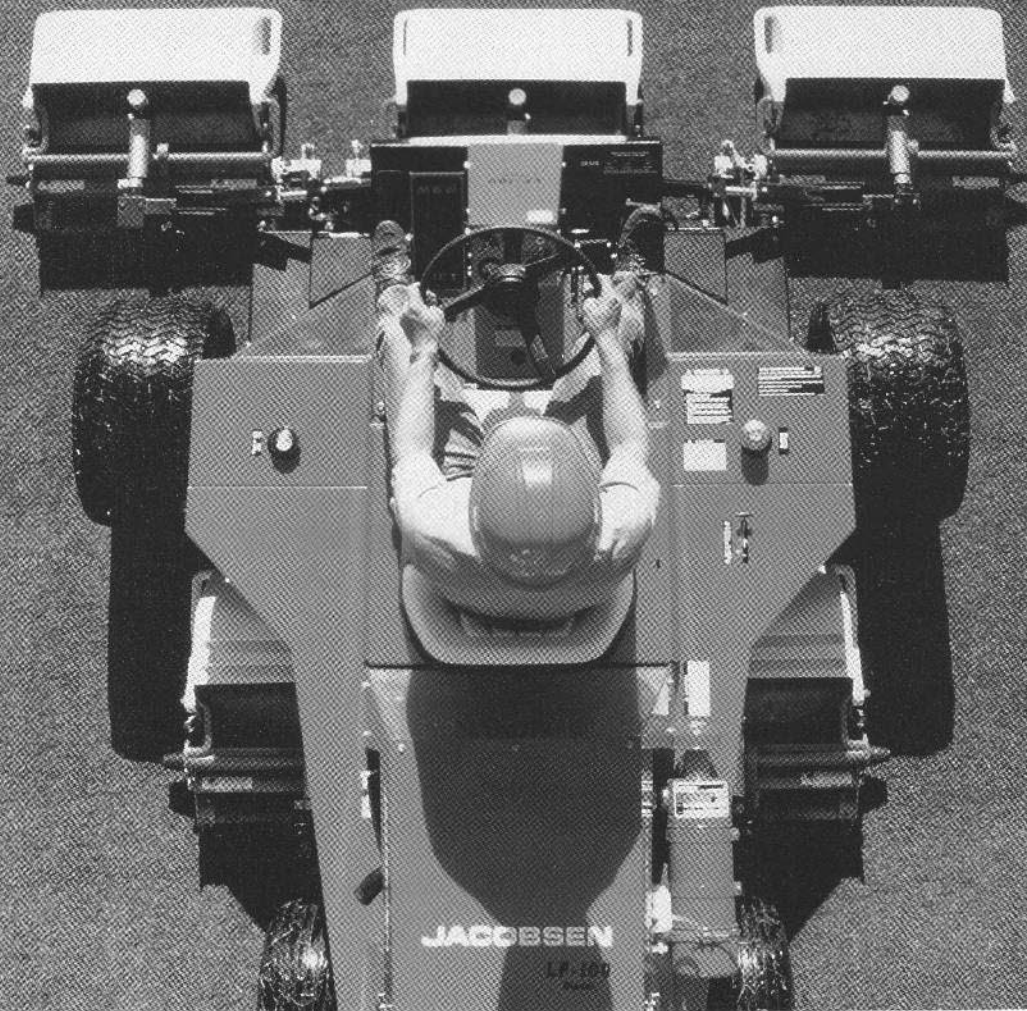
See all the LF-100 differences. Ask your Jacobsen distributor for a free demonstration. Attractive lease and finance plans available.

Or contact:
Jacobsen
1721 Packard
Ave., Racine,
WI 53403.

JACOBSEN
TEXTRON

Jacobsen Division of Textron, Inc.

© Jacobsen Division of Textron Inc. 1989



WISCONSIN TURF EQUIPMENT CORP.

★ ★ TWO LOCATIONS ★ ★

1917 W. Court
JANESVILLE, WI 53545
608-752-8766

21520 W. Greenfield Ave.
NEW BERLIN, WI 53151
414-544-6421

“Getting Smart” Should Be Easy in 1991!

By Tom Schwab

The schedule of WGCSA and related educational offerings is far enough along to be shared with everyone. By the time the next issue of *THE GRASS ROOTS* hits the newstand, any “tentative” items will be finalized.

The location of meetings and events covers broad areas

of Wisconsin, making it possible for most to participate in at least a few dates.

So mark your 1991 calendar right now and promise yourself that the year will be your most active meeting year ever.

WGCSA Monthly Programs for 1991

DATE	LOCATION	SPEAKER/TOPIC
Monday, March 18	Spring Business/Educational Meeting Sheraton Hotel, Fond du Lac “Compliance With The Laws”	David Kammel - <i>Pesticide Storage Buildings</i> Deborah Epps - <i>Material Safety Data Sheets</i> Sheldon Schall - <i>Underground & Above-ground Storage Tanks</i>
Tuesday, April 23	Abbey Springs G.C. - Fontana, WI David Smith, G.C. Superintendent	Bill Roberts - <i>Life as a GCSAA Director</i>
Monday, May 20	Castle Mound G.C. - Holmen, WI Mike Drugan, G.C. Superintendent	Dr. Don Taylor - <i>Green Construction as Related to Soil Moisture</i>
Monday, June 24	Mascoutin C.C. - Berlin, WI Glen Gerth, G.C. Superintendent	NO SPEAKER FOR SUMMER MONTHS
Monday, July 8	Lake Wisconsin C.C. - Prairie du Sac, WI Kendall Marquardt, G.C. Superintendent	
Monday, Aug. 19	Lake Ripley C.C. - Cambridge, WI Randy Staubi, G.C. Superintendent	
Monday, Sept. 9	Baraboo C.C. - Baraboo, WI John Gallus, G.C. Superintendent	
Monday, Oct. 7	Blue Mound C.C. - Wauwatosa, WI Carl Grassl, G.C. Superintendent	
Monday, Nov. 4	Fall Business/Election - Site to be determined Possible Education Meeting	Tentative Speaker Program

Other Educational Opportunities

March 13 & 14, Wednesday/Thursday	Reinders Turf Conference
March 21, Thursday	WGCSA/GCSAA Regional Seminar - “Pesticide Basics & Safety”
May 13, Monday	Superintendent, Pro, Manager, President Outing - Ridgeway Country Club
May 17, Friday	NEWGA Clinic - Pine Hills C.C.
July 1, Monday	John Deere Scramble - Old Hickory C.C.
August 27, Tuesday (<i>tentative</i>)	WTA Summer Field Day - O.J. Noer Center
September 30, Monday	WTA Golf Fund Raiser - Blackwolf Run C.C.
October 4 & 5, Friday/Saturday	WGCSA Dinner Dance - Timber Ridge C.C.
October 29 & 30, Tuesday/Wednesday	Wisconsin Golf Turf Symposium
January 7 & 8, 1992, Tuesday/Wednesday	WTA Winter Turf Conference & Table Top Trade Show

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-leaved 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 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

POSITION ANNOUNCEMENT for NOER CENTER

Official Title: *Assistant Researcher* (An Academic Staff Position in the UW-Madison, College of Agricultural & Life Sciences).

Working Title: *Manager*, O.J. Noer Turfgrass Research and Education Center, University of Wisconsin-Madison.

Location: O.J. Noer Turfgrass Research and Education Center, Madison, Wisconsin.

Responsibilities: Incumbent will be responsible for the conduct of research and demonstration projects with turfgrass and for outreach activities at the O. J. Noer Turfgrass Research and Education Center. Based at the Center the incumbent will:

1. Coordinate and carry out a variety of turfgrass research and demonstration projects in consultation with principal investigators at the UW-Madison.
2. Assist with the dissemination of turfgrass related information for state professional turf organizations and others through tours, field days, meetings and other means.
3. Maintain accurate records of research, demonstration and building activities.
4. Coordinate the maintenance of Center facilities and equipment.

Qualifications: Candidates must have an M.S. degree in one of the plant sciences (or a B.S. degree and be admissible to the Graduate School) and a minimum of three years of professional turf management experience.

Proficiency in the operation, maintenance and repair of all types of turf equipment is essential. Ability to function with minimum daily supervision but in cooperation with faculty, graduate students and academic staff is vital. Excellent communication skills are required and familiarity with personal computers is highly desirable. Be a certified pesticide applicator in categories appropriate to job responsibilities. Have a valid drivers license.

Salary: This is a full-time, twelve month academic staff position. Salary to be commensurate with training and experience.

How To Apply: Applicants should provide a letter which requests consideration for this position, a resume detailing educational and professional experience, the names, addresses and telephone numbers of 5 professional references who may be contacted for letters of recommendation, and any other materials which document past research/outreach activities. In order to be considered for this position these materials must be received by March 22, 1991. **Mail all materials to:**

Marshall F. Finner, Director
Agricultural Research Stations
620 Babcock Drive
Madison, Wisconsin 53706

University of Wisconsin-Madison provides equal opportunities for admission and employment.

J.W. TURF, INC.
14N 937 Rte. 20 & 47
Hampshire, IL 60140
(708) 683-GOLF

LEADERSHIP
YOU CAN
COUNT ON!



- Offset cutting units reduces tracking
- Adjustable steering wheel and power steering
- State-of-the-art single hydraulic pump powers all three cutting units
- Powered by 18 HP, Liquid-cooled Kawasaki V-twin, OHV 4 cycle engine
- Greens Tender Conditioner, lightly verticuts ahead of the reels

All the quality you have come to expect from John Deere, and then some.



P.O. BOX 14
MERRILL, WISCONSIN 54452
FRED LATZIG, JR.
(715) 536-3800
FAX (715) 536-2611
TOLL FREE: 800-755-3801

GROWERS OF

- Colorado Spruce
- Black Hills Spruce
- Austrian Pine
- White Pine
- Douglas Fir
- Fraser Fir
- Balsam Fir
- Scotch Pine
- Norway Pine
- River Birch
- White Spire Birch

B&B PRICES STARTING AT *

- 3' \$19.00
- 4' \$29.00
- 5' \$39.00
- 6' \$49.00
- 7' \$59.00
- 8'+ \$79.00



Call or Write For Our

Nursery Stock Price List

USUAL SHIPPING POINTS — MERRILL, WI OR ALLEGAN, MI

*Prices quoted are delivered prices for Park Grade Quality.

Delivered within 200 miles of shipping point. Add 25% for orders under \$1000.00.

WTA Winter Conference Prospers at Olympia Site

By Monroe S. Miller

As the Wisconsin Turfgrass Association Winter Conference has grown, it has needed to move to larger facilities. Each move is somewhat nerve wracking and filled with anticipation.

So it was this year when the meeting moved to new quarters. The WTA conference committee worked a full year covering details for the 1991 meeting.

Their work paid off handsomely on January 8th and 9th when a record number of turfgrass managers from all over the state landed at the Olympia Resort in Oconomowoc.

The program was excellent and loaded with great speakers addressing subjects timely for everybody. Personally, I loved Prof. Kussow's analysis of *Poa annua*/bentgrass populations and what the literature tells about controlling those populations. Don't miss his **Wisconsin Soils Report** elsewhere in this issue of *THE GRASS ROOTS*.

Dr. Hank Wilkinson was a busy man both days, at the lectern and in the hallways, answering lots of questions one on one.

Chuck Koval is recognized as one of the best speakers you'd want to hear, and despite an illness, he was there. So were Dr. Gayle Worf (nowadays Dean Worf) and Dick Schneider.

The USGA's Bob Vavrek, the GCSAA's Don Bretthauer and Landscape Management magazine's Terry McIver brought good information as a result of the national scope of their organizations.

Dr. Tom Perkins and Dr. Virginia Lehman came with strong academic credentials and broad practical experience to share.

Toro's Mike Hoffman, Lesco's Neal Howell and Pursell's John Detrick all



Celebrity speaker Hank Stoddard

gave an industry twist to their presentations.

The session chairmen—Bob Erdahl, Ed Devinger, Dave Payne and Bill Vogel—added a lot to the program with commentary and detail troubleshooting.

The tabletop trade show was greatly improved this year simply because there was generous room in the display area. We had room to move and to view products. More exhibitors than ever before participated in the 1991 conference.

WTMJ-TV sportscaster Hank Stoddard took center stage at Wednesday's noon luncheon and offered up some of the fun experiences he's had during his career in television in Milwaukee. He then answered any and all questions from the audience. Great entertainment!

The annual meeting and election were brief. Red Roskopf, Dave Payne

and this reporter were re-elected to the WTA board for three year terms.

A board meeting was held after the annual meeting, and 1991 officers were elected. Gary Zwirlein will serve as president, Wayne Otto was chosen vice president, Roger Bell was re-elected treasurer and Monroe S. Miller will be the secretary for another year.

There was unanimous praise for the work of Red Roskopf during his time as president. It was a tough time for him personally, but he dispatched his duties like the class guy he is.

The 1992 Wisconsin Turfgrass Association Winter Conference will return to the Olympia Resort. The dates of January 7th and 8th have been reserved.

WTA TABLETOP TRADE SHOW LIST OF EXHIBITORS

American Excelsior Co.
The Andersons
Bliffert Lumber Company
Ciba-Geigy Turf & Ornamental
Clifford Sales & Marketing
DowElanco
Hanley
Horst Distributing, Inc.
Kellogg, Inc. Seed & Supplies
Knox Fertilizer
Lebanon Total Turf
Lesco, Inc.
Milorganite Div of MMSD
Mobay Corporation
Nor-Am Chemical
Northrup King Co.
Pendleton Turf Supply
Reinders Irrigation
Reinders Turf
Rhone Poulenc
O.M. Scott & Sons
Seaboard Seed Company
Spring Valley Turf Products
Standard Golf Company
Tractor Loader Sales
Tyler Enterprises
Vigoro Industries, Inc.
W.A. Cleary Chemical Corp.
Waupaca Materials/Greenmix
Wilbur Ellis Co/Brayton Chemicals Div
Wisconsin Sod Producers
Wisconsin Turf Equipment Corporation



The head table was a veritable "Who's Who" in the Wisconsin turf-grass industry



The tabletop exhibits get better every year.

CONTRIBUTIONS TO NOER CENTER PRESENTED AT WTA WINTER CONFERENCE

On January 9, 1990, Reinders was able to make a donation to the Wisconsin Turfgrass Association in the amount of \$6,310.00. This brings the three year total to more than \$15,000.00

The group below purchased Daconil 2787 from Reinders, who in turn gave a percentage from each case to the NOER CENTER. Applause to Ed Devinger and his staff for this generous program.

Bill Vogel also made a donation at the noon luncheon. A promotion of Spring Valley's "golf pro" products yielded \$833.10 for the NOER CENTER. Thanks to Bill, Ray Knapp and their crew.

PARTICIPANTS

Abbey Springs	H & H Fairway Enterprises	Nakoma Golf Club	South Hills Club
The Alpine, Inc.	Hickory Hills Golf Course	Nature's Aid Tree Care	City of Sparta
Alpine Valley Resort	Hillview Golf Club	Neillsville Country Club	Spring Valley Golf Course
American Baptist Assembly	Hon-E-Kor Golf Club	New London Country Club	The Springs Golf Course
Americana Lake Geneva	Kenosha Country Club	Nine Springs Golf Course	Stevens Point Country Club
City of Appleton Park & Rec	Koshkonong Mounds Resort	North Hills Country Club	Tee Hi Golf Club
Baraboo Country Club	LaCrosse Country Club	North Shore Country Club-Mequon	Timber Ridge Country Club
Bluemound Golf & Country Club	Lac La Belle Golf Club	North Shore Golf Club-Menasha	Trout Lake Golf Course
Brynwood Country Club	Lake Arrowhead East Briar	North Shore Golf Club-Menominee	Tuckaway Country Club
Butte Des Morts Golf Club	Lake Breeze Golf Club	Oak Hills Golf Club	Tuscumbia Golf & Tennis Club
Camelot Country Club	Lake Geneva Country Club	Old Hickory Golf Club	U.W. Madison Golf Course
Cedar Springs Golf Course	Lake Ripley Country Club	Olympia Resort	Utica Golf Course
Bob Chase Golf Co.	Lake Wisconsin Country Club	Oneida Golf & Riding Club	Ville Du Parc Country Club
Chaska Golf Course	Lakeshore Municipal Golf Course	Orwentsia Club	Viroqua Country Club
Chenequa Country Club	Lauderdale Lakes Country Club	Oshkosh Country Club	Walsh Golf Center
Cherokee Country Club	Maple Bluff Country Club	Ozaukee Country Club	Watertown Country Club
Cherry Hills Golf Course	Maple Grove Country Club	Pine Acres Golf Course	Waukesha County Parks
Chris's Lawn Service	Maple Grove Country Club- Washington Island	Pine Grove Country Club	Waupaca Country Club
Coldwater Canyon Golf Course	Maple Valley Golf Club	Pinewood Country Club	Wausau Golf Club
Coulee Golf Course	Maplecrest Country Club	Platteville Golf & Country Club	Wawonowin Country Club
Crystal Springs Golf Course	Maplewood Golf Course	Plum Lake Golf Club	West Bend Country Club
Deer Run Golf Course	Marquette Golf & Country Club	Public Golf Assoc	Western Lakes Country Club
Dodge Point Golf Club	Maxwelton Braes Resort	Racine Country Club	Westhaven Golf Club
EMR Lawn Service	McCauslin Brook Golf & Country Club	Ridgeway Country Club	Westmoor Country Club
Eagle River Golf Course Comm.	Merrill Hills Country Club	Riveredge Country Club	White Lake Country Club
Edgewood Golf Course	Mid-Vallee Golf Course	Riverview Country Club	Winchester Hills Golf Club
Escanaba Country Club	Mill Creek Farms Inc.	Rock River Country Club	Wisconsin River Country Club
Evergreen Country Club	Milwaukee Country Club	Royal Scot Country Club	Woodland Golf
Fox Hills Inn & Country Club	Milwaukee County Parks	St. John's Military Academy	Woodside Inc.
George Williams College	Mound View Country Club	Sandalwood Country Club	Yahara Hill Maintenance
Galdstone Golf Club	Muskego Lakes Corp	Scenic View Country Club	
Golden Sands Golf Community		Sheboygan Pine Hills Country Club	
Grand View Golf Course		Silver Spring Country Club	

The Wisconsin Golf Course Quiz



CONFERENCE QUIZ

By Monroe S. Miller

Since a highlight of the off season for many Wisconsin golf course superintendents is the annual GCSAA Conference and Show, this edition of the QUIZ will focus on that event.

The recently completed 1991 Conference saw a record number of total registrants. Included in that was a record number from Wisconsin.

With that background, relax and deliberate on the national scope of this issue's QUIZ.

1. How many years has this conference been held?
2. When was the first one?
3. Has it been held continuously since its first year? (After all, it is referred to as an "annual" conference).

4. What city has been the most frequent host?

5. What state has seen the most GCSAA conferences and shows?

EXTRA CREDIT

6. When was the switch from a hotel to a civic convention center made?

7. Where and when was the last true northern site?

ANSWERS

1. Sixty-two.
2. 1927.
3. No. There were no conferences for the years of 1943, 1944 and 1945.
4. Chicago—five times. It was held in that city in 1927, 1933, 1942, 1951 and 1959. Every Chicago meeting was held at the Hotel Sherman.
5. California—eight times. It has variously been held in San Francisco, San Diego, Los Angeles, Anaheim and Long Beach.
6. In 1972 when the conference and show was held at the Cincinnati Convention-Exposition Center.
7. Minneapolis hosted the national Mid-Vallee Golf Course in 1980 and 1985 respectively, but the instructor considers these cities mid-south, not north.

1. Sixty-two.
2. 1927.
3. No. There were no conferences for the years of 1943, 1944 and 1945.
4. Chicago—five times. It was held in that city in 1927, 1933, 1942, 1951 and 1959. Every Chicago meeting was held at the Hotel Sherman.
5. California—eight times. It has variously been held in San Francisco, San Diego, Los Angeles, Anaheim and Long Beach.
6. In 1972 when the conference and show was held at the Cincinnati Convention-Exposition Center.
7. Minneapolis hosted the national Mid-Vallee Golf Course in 1980 and 1985 respectively, but the instructor considers these cities mid-south, not north.

(Continued from front page)

A good place to start is with the number and age of heated and unheated buildings that make up the 30 surveyed maintenance facilities. These values are listed in Table 1.

Table 1. Heated and Unheated Buildings in the Wisconsin Survey

TYPE OF BUILDING	NO. ¹	RANGE IN AGE	AVERAGE AGE ²
Heated	37	New-80 Years	20 Years
Unheated	52	New-100 Years	22 Years

¹ A single structure can be counted as both a heated and an unheated building.

² The average age calculation was performed using a value of 0 for the two new heated buildings and the two new unheated buildings.

Please note that a single structure can be counted as both a heated and unheated building.

The 37 heated buildings include all of the areas for equipment maintenance and employee activities. Each golf course had at least one, main heated building with several golf courses using smaller, heated buildings as specialty areas for grinding, carpentry work or pesticide storage. The range in age for heating buildings is new to 80 years. The two new heated buildings are counted as 0 years old which yields an average age of 20 years for heated buildings.

Now if you stop to think of all the changes in golf course management that have occurred in the last 20 years, it seems incredible that the average heated building in this survey is functioning based on design and performance standards that average 20 years old. Oh sure, a few superintendents indicated that some minor remodeling had taken place, but for many superintendents in this survey an outdated heated building is the rule. I wonder how many clubhouses, pro shops or swimming pools are functioning with the same physical plant they had 20 years ago?

The 52 unheated buildings in this survey are used mainly for equipment storage, general storage, fertilizer storage and pesticide storage. (fertilizer and pesticide storage will be covered in detail later in this article.) Each golf course has at least one unheated building and many golf courses have added additional unheated buildings to meet the increased demand for equipment and general storage. The range in age for unheated buildings is new to 100 years. Once again, the 2 new buildings are counted as 0 years old which yields an average age for unheated buildings of 22 years.

The closeness in the average age of heated buildings (20 years) and unheated building (22 years) indicates to me that many golf courses have been just as interested in protecting their equipment as they have of providing pleasant and safe working conditions for their employees. I guess the answer lies in the fact that an unheated pole barn for protecting equipment is much easier to get approved than an expensive heated building containing adequate work facilities and locker rooms.

Since the heart of my maintenance facility is an 80-year old dairy barn, it was interesting for me to find out that six other golf courses are in a similar situation. In this survey, the range in age for the seven dairy barns in use as maintenance facilities is 50-100 years, with an average age

of 80. I'll cover how I use my dairy barn in Part 2 of this article. For now, I'll just say that they are very usable buildings if you stay within their structural limitations.

The breakdown of individual components of the heated and unheated buildings is displayed in Table 2. As you look at this table, notice that not all 30 surveyed golf courses have each of the listed components in their maintenance facility. Also notice the wide range in sizes for each of the individual components. I'll take a look at the present size of the components first and then turn to improvements planned for the next 1-3 years.

Table 2. Maintenance Facility Components in the Wisconsin Survey

MAINTENANCE FACILITY COMPONENT	# OF GOLF COURSES	RANGE IN SQUARE FOOTAGE	AVERAGE SQUARE FOOTAGE
HEATED AREAS			
Office	28	70-240	150
Lunch Room	24	100-560	250
Men's Locker Rm	12	60-325	150
Women's Locker Rm	8	30-160	80
Work Shop	30	500-4,400	1,600
Grinding Room	11	64-560	200
Parts Room	15	80-560	250
Storage Room	10	100-1,500	+600
TOTAL			3,280
UNHEATED AREAS			
General Storage	16	250-2,400	940
Equipment Storage	30	1,000-8,000	+4,000
TOTAL			4,940

Twenty-eight of the maintenance facilities had separate offices for the superintendent. The remaining two maintenance facilities had an office contained within the heated work shop area. Sizes ranged from a cramped 70 sq. ft. to a comfortable 240 sq. ft. The average size of 150 sq. ft. should be acceptable to most superintendents. Two of the larger maintenance facilities also contained a nice extra; an office for the assistant superintendent.

Lunch rooms are provided in 24 of the maintenance facilities. Dining style ran from a compact 100 sq. ft. to a banquet hall size of 560 sq. ft. The average of 250 sq. ft. should be large enough for the maintenance crews of most 18 hole golf courses. Some of the dining space is used up, however, in the 12 maintenance facilities that have lockers in the lunch room.

The bathroom and locker room issue is not favorable for the majority of the surveyed golf courses. Many maintenance facilities are below State of Wisconsin Health Codes in their bathroom and locker room facilities, while others are just squeaking by. I'll cover this issue in detail in the second part of this article. For now, I'll just review the results of the survey.

Starting with the worst situations; three of the maintenance facilities do not have a toilet. Obviously this should be changed as soon as possible and 2 of the 3 have improvements planned in the near future.

The remaining 27 maintenance facilities all have toilets, but most of the locker room areas could stand some improvement. There are 12 men's locker rooms; 8 containing showers. For the women, there are 8 locker rooms; 3

containing showers. In addition, the women only have 6 private toilets. While the average size of both men's and women's locker rooms seems adequate (150 sq. ft. and 90 sq. ft., respectively), 5 out of the 12 men's locker rooms are less than 80 sq. ft. and 4 of the 8 women's locker rooms are less than 50 sq. ft.

Most superintendents will acknowledge that the heart of any maintenance facility is the work shop. In this survey, all 30 golf courses have a heated work shop. Sizes ranged from 500-4,400 sq. ft. with an average of 1,600 sq. ft. While 1,600 is a reasonably sized area, it can quickly become too small once winter equipment maintenance begins.

Several superintendents indicated that they had an indoor wash area with a floor drain in their work shops. I must admit that I forgot to ask that question in my survey. My best guestimate is that close to one half of the golf courses have such a facility.

Grinding rooms and parts rooms have become common components of many maintenance facilities. The ability to isolate the noise and dust of the grinding operation has a positive effect on the work shop environment. It is also very beneficial to be able to store parts in a closed area where they can stay dust-free and well organized. Those golf courses that do not have grinding and/or parts rooms have incorporated those functions into the work shop area.

The average size of the 11 grinding rooms was 200 sq. ft.; this comes from a range of 64-540 sq. ft. The 15 parts rooms have a size range of 80-560 sq. ft. with an average of 250 sq. ft.

There are 10 maintenance facilities that have an additional heated storage room. No doubt these rooms may also be used for parts storage, but in the survey I did not ask for the specific usage of these rooms. There are 10 such rooms that average 600 sq. ft.

The maintenance facility component designated as heated equipment storage is not included in Table 2 because only 4 golf courses have such an area. The sizes are 300, 750, 1,600 and 3,500 sq. ft. Note that the 3,500 sq. ft. area is heated to only 50°F.

The heated area of several maintenance facilities contained the following specialized rooms:

- Carpenter Shop (2) 300, 600 sq. ft.
- Flammable Liquids Room (1) 200 sq. ft.
- Irrigation Parts Room (1) 120 sq. ft.
- Painting Room (3) 240, 400, 560 sq. ft.
- Sand Blasting Room (1) 64 sq. ft.

The unheated areas of the maintenance facilities are divided into two components; general storage and equipment storage. Sixteen golf courses list general storage areas that range from 250-2,400 sq. ft. with an average of 940 sq. ft. Not surprisingly, all 30 golf courses reported the largest area of their maintenance facility to be unheated equipment storage. The sizes range from 1,000-8,000 sq. ft. with an average of 4,000 sq. ft. Remember that many golf courses have unheated general storage and unheated equipment storage in more than one building.

To sum up Table 2, let's take a look at the average sizes of each component. If we add up all the averages for the heated areas, the sum is 3,280 sq. ft. The sum of the averages for the two unheated areas is 4,940 sq. ft. Adding these two values yields 8,220 sq. ft.; the average size of a maintenance facility in this survey.

Before leaving the discussion of Table 2, I need to point out how the results are dominated by the 9 maintenance facilities that have been built in the last 0-5 years. Without

these 9 newer maintenance facilities, the results in Table 2 paint a far less appealing view of golf course maintenance facilities in Wisconsin.

After all this analysis, I'm sure you might be curious as to which golf courses have the best maintenance facilities. Without revealing any names, I can reach my decision if you allow me to set two conditions:

- 1) the best maintenance facilities must have approximately 8,000 sq. ft. and be divided into the areas and average sizes listed in Table 2.
- 2) the best maintenance facilities must have adequately sized men's and women's locker rooms that contain both toilets and showers.

If you accept my conditions, there are 5 maintenance facilities in this survey that stand out as the best.

If five stand out as the best, that means 25 maintenance facilities (definitely including mine) need improvement. Table 3 lists the maintenance facility improvements projected for the next 1-3 years on the surveyed golf courses. Group A contains 3 golf courses that are planning on complete new maintenance facilities (If all goes according to plan, one of them will be mine) that will qualify them for my "Best Group". Group B has 4 golf courses that are going to remodel or add to existing maintenance facilities. When completed, these 4 will also join my "Best Group". Finally, the 2 golf courses in Group C are planning additions to their maintenance facilities that will improve certain conditions, but not enough to qualify them for the "Best Group".

Table 3. Maintenance Facility Improvements Planned for 1991-1993 in the WI Survey

GROUP	NUMBER OF GOLF COURSES	DESCRIPTION OF IMPROVEMENTS	SQUARE FOOTAGE OF IMPROVEMENTS
A	3	New Maintenance Facility	7,500 8,000 8,000
B	4	Lunch Room Locker Rooms Work Shop	500, 1,200 1,500, 2,000
C	2	Unheated Equipment Storage	1,500 7,200

Let's turn to a discussion of how the 30 survey respondents store topdressing, fertilizer, fuel and pesticides. I think I'll follow this order because it starts with the easiest topic and works up to the hardest. The discussion will include the storage methods used in 1990 as well as what is planned for 1991-93.

Storing of topdressing is a fairly low-tech operation as shown in Table 4. The majority of golf courses store their topdressing either outside in a pile or bins; or under a roof in a shed or building. Two innovative superintendents employ a silo and a vertical tank in their storage operations. Changes projected in the near future include 3 more storage systems, 2 more buildings with roofs and another vertical tank operation. From comments made on the surveys, it appears that the majority of superintendents who store their topdressing under a roof use some type of sand/soil/peat mixture; while the superintendents using a straight sand topdressing use outside storage or the silo-vertical tank system. This makes sense, since a wet sand topdressing is much easier to handle than a wet mixture of sand/soil/peat.

(Continued on page 21)



**the
bruce
company** OF WISCONSIN, INC.

(608) 836-7041

LEE BRUCE
GOLF COURSE CONSTRUCTION

2830 W. Beltline Hwy. • P.O. Box 330
Middleton, Wisconsin 53562

AMETEK
**TURF
BOXES**

Manufactured In
Sheboygan, Wisconsin

**Specify AMETEK —
A Wisconsin Product**

**WELL-
TEAMED.
WELL-
NAMED.**

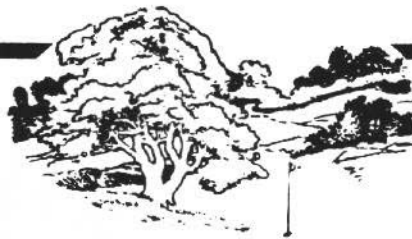
It takes years of testing at many locations for any grass seed variety to make the NK Medalist® team. That's why Medalist is the most-trusted name in turf mixtures and blends.

Contact your NK Medalist distributor today.
Or call 1-800-545-6093.



Wilbur-Ellis

*Ideas to grow with**



BRAYTON
Chemicals Division

The Wilbur Ellis Co. is proud to share our IDEAS TO GROW WITH!

- Fast FREE Delivery within 24 hours of your call
- Computer generated price information & product information
- Contracted distributor for all MAJOR Turf Products
- Professional Turf Sales Representatives committed to **SERVICING YOUR NEEDS**
- EPA regulatory assistance - MSDS, EMERGENCY RESPONSE PLANS
- Electronic Partnership - computer software linking us to our customers
- Soil & Water Testing Harris Labs
- Member of local and national Golf Course Superintendents Association

Combining experience and modern techniques in equipment & facilities we have built our business by giving our customers IDEAS TO GROW WITH and the service to meet their needs.

For more information, contact . . .

Joe Wollner • Wisconsin & Northern Illinois • 800-747-7400

John C. Meyer • Central Illinois • 800-892-4033

Larry Thornton • Minnesota • 800-642-2736