

Patience Key to 1991 Wisconsin Turfgrass Association Field Day

By Monroe S. Miller

Despite weather that was too hot and dry, a site that was marginal for turfgrass field day purposes and a lack of turfgrass research plot work to observe, the handicapped 1991 Wisconsin Turfgrass Association Field day turned out a crowd similar to that of previous years.

Tom Harrison and Tom Schwab had a more difficult time putting the field day together because the site was new and because of the difficulties it presented. Everyone involved in the planning, however, is grateful to the University of Wisconsin-Madison Agricultural Ex-

periment station staff for providing the West Madison Farm facilities to us. We had precious few other options; this was easily the best.

Manufacturers and distributors all held forth in this transition year, too. There was no decrease in their numbers and they were all enthusiastic in their presentations.

What this field day did offer was a glimpse of the future. Everyone was encouraged to visit the just completed NOERCENTER. Tom Salaiz, along with Profs. Newman, Kussow and Worf, were

there most of the day to host tours and answer questions about the gem of the WTA fund-raising program. All who visited came away impressed.

There seems little doubt that the 1992 event will be the all time best. Research plots will be established, equipment demonstration areas will have been established and the building itself will be perfect for the meals and the inevitable conversation.

Most of us can hardly wait.



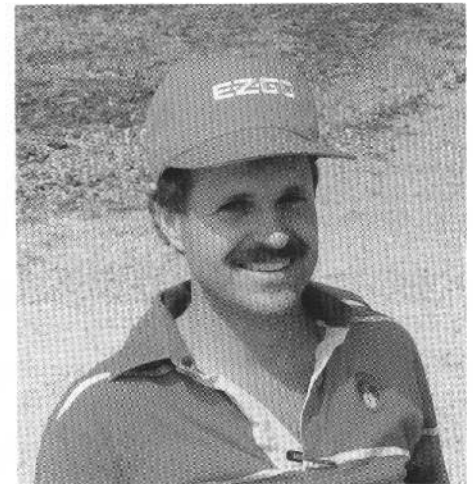
Hanley Implement has displayed equipment at all of the WTA Field Days.



Wayne Kussow, Brian Zimmerman, Randy Smith and Chuck Frazier relax in the shade.



Vince Johnson had a lot of interest in his topdressing equipment.



Co-chairman Tom Schwab had good reason to smile.

**Do you need to contact Tom Salaiz? Here's how: Tom Salaiz, manager
O.J. Noer Turfgrass Research and Education Facility
3101 County Highway M • Verona, Wisconsin 53593**

(Continued from front page)

the play they are now getting. New courses are experiencing wild popularity in some cases; other new facilities are not given sufficient grow-in time.

Players won't repair ballmarks; spike marks are the bane of some golf courses. Golf cars, originally intended for people who couldn't play without one, are now as common in a round of golf as a nine iron. With cars come irresponsible drivers, asphalt cart paths and worn traffic areas.

Practice facilities are worn. Tee expansion plans are common on a lot of golf courses. And we are witnessing more and more golf play at times (spring and fall) when there is no new plant growth for recovery.

The topic, selected by the Symposium Committee, was the best for the times we now work in.



Catherine Suddarth

The Speakers

Catherine Suddarth, a National Golf Foundation staff person, came to Milwaukee to confirm what we all know — golf is in an extremely popular time right now. The number of players and the rounds they play are reasons why 300 new golf courses will be built in America in 1991.



Clark Throssel

Many in the audience were anxious to hear Purdue agronomy professor Clark Throssel talk about strategies for dealings with golf traffic in the design of a fertility program. He dealt with both components of traffic — wear and soil compaction—and emphasized the need to separate these problems in a fertilizer program.

His lecture focused on N and K fertility and featured recommendations on sources, timing, rate and frequency for each element. He criticized low N programs and discredited unbalanced N/K ratios of recent years. He strongly recommended a N/K ratio of 1:1.



Bob Vavrek

The USGA's Bob Vavrek discussed the things a golf course superintendent can do to speed up play on the course he manages. He drew together and summarized the best of many such ideas he has seen on his TAS visits in the Great Lakes Region.

They ranged from 150 yard markers to a clearly defined OB. He discussed the many systems of paint lines to control traffic that he has seen. He emphasized how important communication between the golf course superintendent and golf players is.

Quality green surrounds, proper tree trimming and good sized tee signs all help in moving players around the course in a reasonable amount of time. Even adequate numbers of bunker rakes and a flag system for pin placements help in promoting a faster pace of play.

Golf course superintendents are always popular speakers on an educational program, and Doug Peterson was no exception. He gave a superb lecture on his success with deep tine aerification at Prairie Dunes C.C. and at Baltimore Country Club.

The deep tines on the Verti-Drain machine have relieved compaction on putting greens, tees, fairways and heavy



Doug Peterson

cart traffic areas. He has literally used it everywhere on the golf course, with success. Doug's lecture was complemented by some excellent slides.

Tim Kelly was the perfect person to speak to the subject of traffic control on a golf course. As the golf course superintendent at the Village Golf Links in Glen Ellyn, Illinois, he is continually faced with serious cart traffic problems.

Tim devised a thorough plan of traffic control using orange "wear" lines for green and tee surrounds. The lines are moved once a week.



Tim Kelly

The Village Links is also known around the country for its "Keep Pace" program to combat slow play problems.

The panel discussion part of the Symposium covered all bases: Jeff Parks offered the perspective of a golf course superintendent at a public golf facility; Jerry Kershasky represented the private golf course view; Mike Vogt spoke as a club general manager and a former golf course superintendent and had a unique story; and Tony Coleman, as executive director of the Wisconsin PGA, represented their positions on golfer expectations.

Parks focused his comments on controlling play on an extremely popular new golf facility, and was happy to report that he was successful in limiting play to 200 daily rounds. That was a significant drop from the 290 rounds that were damaging University Ridge in its first months.

He also discussed reconciling demand with the golf course's financial needs.

Kershasky had an interesting story about his program for dealing with golfer expectations at Westmoor C.C. During the golf season, the green committee (three members, all past presidents and 25+ year members) meets weekly for two hours. Minutes are kept and posted in the clubhouse.

Kershasky's club has high expectations. The 76 bunkers are raked eight times a week; greens are double cut four times a week and rolled the same. Green surrounds are mowed five times each week, and the intermediate rough is cut daily.

As Jerry said, they are "grooming the golf course to death." The extra equipment and the extra trips are creating more and more wear areas. More aerification, increased fertility, different turf species and demand for redesigned routing are the result.

Lots of golf course superintendents are proud of Mike Vogt. Promoted to general manager at his club, he is in a unique position to control play at the private club which employs him.

They limit play through their fee structure for outside groups. The club is closed on Mondays. Any outing must be both profitable for the club and nondisruptive to their golf course maintenance.



Mike Saffel

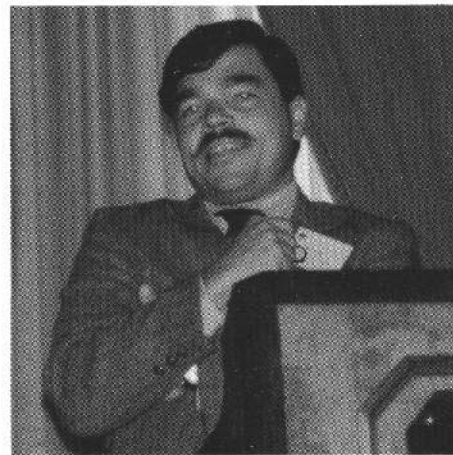
Mike reported on several other techniques they use for play limits. No golf before 7:30 a.m. and 10 minute intervals between tee times have been especially effective.

Coleman reviewed the PGA programs for providing each golfer with a "quality" golf experience, and their hope to introduce golf to all in our society who want to play the game.

A hot topic among golf course superintendents, since the Toro Hydrojet introduction, has been aerification. Mike Saffel, a former golf course superintendent, came to Milwaukee from Michigan State's graduate program in turfgrass science. He reported on various aerifying techniques, the planning involved for the various options, and the timing required.

Once the Hydrojet is established in what it will and will not do for golf course turf areas, it may be adapted to inject materials like wetting agents and insecticides and fertilizers directly into the root zones of turf areas.

The strength of this new technology may be the fact that it can be used more easily in midseason than other equipment will allow. It offers a minimum of surface disruption and may be best used as a supplement to other practices.



Bob Lohman

Although headquartered in Illinois, Bob Lohmann has strong ties to Wisconsin. It is his home state; he is a graduate of the University of Wisconsin-Madison. And he has many golf course clients in the Badger State.

Bob approached the topic of master plans for golf course redesign. Many of the master plans he is doing these days are the result of increased play. These

plans weigh options and alternatives, reveal what is desired by the players, show what is affordable, and determine the proper sequence of events in the construction phase.



Charlie Passios

Charlie Passios appeared on the program to update Wisconsin on GCSAA affairs. His emphasis was on the old saw "the only thing certain in life is change." Another GCSAA director was present, as he has been at so many other Symposiums. Bruce Williams came up from Chicago for the program again this year.

In recent times, it has been tradition to have our USGA Green Section agronomist summarize the meeting. Jim Latham did that again this year. He demonstrated why he is known as one of the most articulate spokesmen on golf turf affairs in the country.

The 1991 Symposium was very well attended. There were 210 pre-registered attendees — an all-time record — and the final count went beyond the 250 mark. The state-by-state numbers went like this:

Wisconsin - 164
 Illinois - 20
 Minnesota - 7
 Michigan - 5
 Nebraska - 4
 Indiana - 2
 Missouri - 1
 New Jersey - 1
 Florida - 1
 Massachusetts - 1

The 1991 Wisconsin Golf Turf Symposium had both a good subject and good attendance. Participation from everybody was great.

All in all, O.J. would have been proud.

NATURAL ORGANIC

Milorganite®

FERTILIZER

***America's
Number One
Natural
Organic
Fertilizer***

- *Many of the finest golf courses in America are fertilized with Milorganite.*
- *Non-burning, cost-effective, turf fertilizer.*
- *90% Water Insoluble Nitrogen (W.I.N.), slow release nitrogen promotes vigorous growth.*
- *Rich in organic iron — 4% minimum guaranteed.*
- *Supplies humus and improves water holding capacity of soils.*

FREE LITERATURE

*Mail in the coupon below for further information
or call 414-225-2222.*

Please send me further information

- Milorganite's Specialty Fertilizer Program*
- Milorganite's Iron — Technical Bulletin*

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE # (_____) _____

Mail to: Milorganite • 735 N. Water St. • Milwaukee, WI 53202

The Wisconsin Golf Course Survey



KEEPING CLEAN

By Rod Johnson

Since I was drafted by the editor as he left town on his annual leafpeepers pilgrimage to New England, I found myself in the inevitable position of conducting and reporting on this issue's SURVEY.

Following what I considered a reasonable time period of two or three weeks procrastination and consternation on a relevant series of questions, the answer was right outside my office window.

The view was of our mower wash pad. The unsightliness and bad odor of a failing system inspired me to find out what a lot of other Wisconsin golf course superintendents are using for wash down facilities.

Below are the questions and the responses.

1. *Do you wash mowing equipment daily?*

Yes - 16. No - 13.

2. *What kind of system do you use and what is the source of the water?*

Eleven golf courses use high pressure water provided by their irrigation systems. Six courses utilize a low pressure water source, namely a well or city water. Two golf courses surveyed use a pressure washer that dispenses soap during the cleaning process.

3. *Where does the rinsate (water, grass clippings, soil, etc.) go?*

Twelve respondents said "on the ground" or into a holding tank where solids settle for removal and liquids flow away on the surface of the surrounding ground. Three respondents, including myself, use a septic or below-ground drainfield system. Four lucky golf courses are hooked to city sanitary or storm sewer systems.

4. *The final question dealt with the seasonal cleaning of equipment that is taking place around Wisconsin right now.* Nine courses steam clean their machinery. Seven use high pressure equipment with soap dispensing capability. Three golf courses reported soap, water and elbow grease.

One thing was clear from this survey—Wisconsin golf course superintendents believe that clean equipment is important. It not only looks better while in use on the course, but it seems to run better, as well.

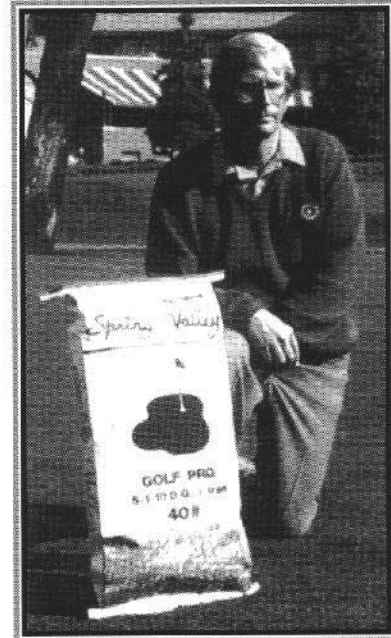
Apparently, the old saw "cleanliness is next to godliness" holds true for golf course equipment as well as for nearly anything else.

Let the 1992 Wisconsin Turfgrass Association

WINTER CONFERENCE January 7th and 8th

at the Olympia Resort in Oconomowoc
Be your *FIRST* educational meeting
of the new year!

THE BEST ... Naturally!



For the 1990 U.S. Open ...

"I used the best, Spring Valley's natural, organic-based Golf Pro fertilizers. Spring Valley's innovative concept of impregnating Hydro-Wet onto the fertilizer works great.*

How were the results? ... the best!"

Dan Quast, Superintendent,
Medinah Country Club

GOLF PRO Benefits

- Organic Based
- Hydro-Wet wetting agent
- Non-Staining Iron
- Non-Burning

The Golf Pro Line

14-1-4 + Hydro-Wet*
5-1-10 + Hydro-Wet*
21-3-12 + Iron
20-2-5 + TEAM**

Another Innovative Idea from ...

Spring Valley
1891 SPRING VALLEY RD., JACKSON, WI 53037

For Your Nearest Distributor Call:
1-800-635-2123

*Hydro-Wet is a registered trademark of Kalo, Inc.
**Team is a registered trademark of Dow Elanco



Information, Please

By Monroe S. Miller

This quiz has no theme. The questions are a collection of bits of information that may (or may not, I guess) be of interest to Wisconsin golf course superintendents. They at least serve as a measure of how much attention you pay and how much importance you place upon trivia. Here goes:

1. What WGCSA member was the first to install a cellular phone in the club pickup? (Hint: he was also the first with a telephone answering machine in his office).

2. Name three (there may be more) former WGCSA members who have hosted one of the four "major" tournaments in professional golf. A major is defined as the U.S. Open, the Masters, the PGA or the British Open.

3. What is the predominant golf turf in Wisconsin (greens/tees/fairways)?

4. True or False. The average total maintenance budget for an 18 hole municipal golf course in Wisconsin is

lower than that for an 18 hole private golf course.

5. Is the above (Question 4) true on a national basis?

Answers

3. A gimmee — *Poa annua*.
 4. False. According to a 1990 report prepared by the Center for Golf Course Management, the municipal golf courses in Wisconsin outspend the private golf courses by a whopping 36 per cent. There's one myth put to rest.
 5. No. Nationally, 18 hole private golf courses outspend municipal golf courses by 22 per cent.

1. Tom Harrison. He is evidence that there is truth in the old saw, "the bigger the boy, the bigger the toy."
 2. Peter Miller, who left the Nakoma Golf Club for the Firststone Golf Club, Roger Larson, who left the Maple Bluff Country Club for Pebble Beach Country Club (and the other Del Monte properties) and Danny Gust, who left the Milwaukee Country Club for Medinah Country Club. Are there others?

YOUR MEMBERS WILL KNOW HOW WELL YOU DID BY HOW WELL YOUR GREENS PERFORM

topdressing blends
 construction blends
 straight topdressing sand
 bunker sand

All shipments guaranteed to meet your specifications.



SOIL BLENDERS

715-258-8566

Where soil blending is a science

To Keep Your Course In Classic Condition, Use These High-Quality Products from NOR-AM

- **NITROFORM® SLOW-RELEASE NITROGEN**
Releases by slow bacterial action to provide consistent 38% nitrogen
- **TURCAM® W.P. INSECTICIDE**
Controls a wide range of turf and ornamental pests, especially white grubs
- **TURCAM® 2 1/2G**
All the benefits of regular TURCAM® in convenient granular formulation
- **BANOL® TURF AND ORNAMENTAL FUNGICIDE**
Controls pythium and phytophthora
- **PROGRASS® HERBICIDE**
For the establishment of perennial ryegrass turf, or on established perennial ryegrass turf, Kentucky bluegrass or creeping bentgrass for control of *Poa annua* and broadleaf weeds
- **PROXOL® 80SP INSECTICIDE**
Controls white grubs, sod webworms, cutworms and armyworms in fine turf



NOR-AM

NORAM CHEMICAL COMPANY
 3509 Siverside Road, P.O. Box 265
 Wilmington, DE 19803

THE FAIRWAY CLASSICS to keep your course in top condition

IMPORTANT: Please remember always to read and follow carefully all label directions when applying any chemical. Copyright © 1988 NOR-AM Chemical Company. All rights reserved.

Severud Takes Tournament Like a Storm

by Tom Schwab

John Gallus, superintendent of Baraboo Country Club, had his course in great shape for the 1991 Wisconsin Golf Course Superintendents Association annual golf tournament September 9. Strong thunderstorms were predicted for the day and it was questionable whether we would get the tournament in. The storm never came, just big clouds and blustery winds. These conditions coupled with a challenging layout, lots of elevation change, tight fairways, many dry creek beds and some tricky greens, saw our scores skyrocket like the winds. All, that is, but our new champion, Todd Severud from Turtleback Golf Club in Rice Lake. Todd turned in a 76, seven strokes better than second place winner in championship flight, Rick Thalacker. Other winners for the day were for A flight 1st & 2nd—Gary Huenerberg and Pat Norton; B flight 1st & 2nd—Ric Lange and James Wunrow;

and affiliate flight 1st & 2nd using a Peoria handicap system, were Lyle Christopherson & Kraig Forciur.

Our evening speaker was Dr. Elliot Roberts of the Better Lawn and Turf Institute. Dr. Roberts received a Distinguished Service Award from the Golf Course Superintendents Association of America in 1991. His Lawn Institute provides for improving lawns and sports turf through research and public education. He has authored many articles educating the public on the benefits of fine turf. He had a strong message for us that we also should be active in educating our communities on these benefits. There are many initiatives under way to discredit the benefits of fine lawns and landscapes. He said it's much easier being proactive, promoting the benefits of healthy turf. Being inactive and reactive to criticism just won't work.

If you are interested in learning more about the latest research on turf care questions or would like to learn more on how plants enhance our environment, you can become a member of the lawn institute. Write to: The Lawn Institute, County Line Road, P.O. Box 108, Pleasant Hill, Tennessee, 38578-0108, or call (615) 277-3722.

It was a great educational session. The golf course was beautifully groomed. The views from some of the holes up in those Baraboo bluffs were spectacular. Thank you, John, for hosting this meeting.

How To Keep Things From Turning Ugly.



From nutsedge to nightshade, fire ants to fungi, nobody works harder to protect your turf and ornamentals than Ciba-Geigy.

For All Your Turf and Ornamentals Needs See...

Don Spier
Marketing Specialist
10 Devine Way
Sycamore, Illinois 60178
(815) 895-7860



CIBA-GEIGY

Letters



Mr. Rodney Johnson, President
Wisconsin Golf Course
Superintendents Association
c/o Pine Hills Country Club
4728 Superior Avenue
Sheboygan, Wisconsin 53081

September 25, 1991

Dear Rodney & WGCSA Members,

My wife Diane and I want to thank the Wisconsin Golf Course Superintendents Association for your very generous gift. We will put the travel voucher to good use. Your kindness will be long remembered.

It has been a real pleasure both knowing and working with WGCSA members and I hope our friendship continues.

I plan to visit the O.J. Noer facility well established and to contribute to Wisconsin turf industry.

Thank you again and may we keep in touch.

Robert and Diane Newman



HEIFERS to DUFFERS: *Why Farmers Golf*

By Justin Isherwood

EDITOR'S NOTE: Justin Isherwood is a farmer from potato country up in Plover, Wisconsin. That suggests the possibility of renaming the feature for this issue "From Up North". Mr. Isherwood writes his witty pieces for the Isthmus, a weekly newspaper in Madison, and The Common Tater, a publication of Wisconsin's potato growers. This piece, most fully appreciated by those with a farm background, appeared in a July issue of the Isthmus.

For reasons of moral purity I do not golf. But I have friends, neighbors and kinsmen who do, many of whom are farmers, so I am curious about why farmers golf.

Golf started in a Scottish pasture, specifically a sheep pasture, where shepherds with not enough to occupy their minds took to whacking at stones with their walking sticks. This was a natural antidote to the awful boredom attendant to watching sheep, where either a shepherd gets involved with religion—as amply documented by history—or else commences to look at sheep in a romantic context. The Scots found neither prospect very commendable, and so we got golf.

As we know, all sports are therapeutic. Sport is the one viable alternative to murder, politics, agriculture, marriage, business, warfare and education. Golf is how civilization attempts to disarm otherwise nasty mental attitudes. Our Scottish predecessors understood this. Being prone to warfare themselves, the only thing between them and total annihilation was emotional displacement—in other words, learning to beat up an innocent white ball.

That golf came to exist at the same time sheep agriculture went into decline is no mere accident. Sheep and golf require the same basic resource—short grass. This is because sheep can't eat except hunched over, and little balls get lost in tall grass.

Open space is also necessary because both sheep and golfers smell. Actually, golfers don't smell so bad, but open space is also the best habitat for swearing. Golf was designed by an-

cestral Scots so as to be a remedy for humanity's stifled verbal expression. Baseball evolved from stealing and chewing tobacco. Football followed the customs of beheading and bell-ringing. Basketball developed from the need to wear colored underwear and jump. Only golf singlemindedly attached itself to literary relief.

But why should farmers golf? Farmers have fields to swear in and tractor noise sufficient to disguise foul language, and thus far the Department of Natural Resources hasn't put limits on such discharge. What is lacking in agriculture is the behavioral violence golf allows and normal tractor operation does not. I did say normal tractor operation. Add to this one more innovation of golf—cheating.

Ordinarily, the arithmetic involved in counting strokes ought not to present any difficulty to educated persons; surprisingly, it does. People who can otherwise tell the difference between one wife and two, 50 miles an hour and 70, two eggs or three, cannot understand the difference between four strokes and five. People who remember the name of the third cousin of their great-grandfather twice removed cannot exactly recall whether it was six strokes at the third hole or three strokes at the sixth. Being frugal, as the Scots intended, they put down three.

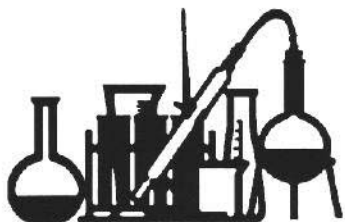
But we're still not to the heart of it. What can those in agriculture gain from

playing golf? A farmer who golfs will not threaten his best chance at a profit by surplus work. In other words, the more farmers golf, the less they are likely to overdo what the field has in mind. Golf is a better modifier of agricultural sin than drought, floods and hailstorms combined. Never mind the unsettling predictions of bovine growth hormone; so long as farmers are inoculated once or twice a week with a need to swing a stick at an innocent ball, prices will maintain themselves just fine.

Were I the Secretary of Agriculture I would not delve into set-asides, soil banks, wetland protection, buy-outs, feed grains, foreign markets or diversified production. Instead I'd provide every farmer and his apprentice with a set of golf clubs and limousine rides to a nearby golf course at least twice a week from April to November. Not only would the man's psychological health improve but so too his economy. To ensure the results, I'd build a golf course in every township for farmers only, and if they didn't show up I'd shoot 'em for uncapitalistic activities and because they're too damn stupid for us to chance their procreating.

Having sworn off golf, I now realize it's more effective than any government program, besides being a genuine inspiration to ritual violence and verbal expression. I intend to mend my ways now that I've seen the light.





Mining Your Soil Test Reports

By Dr. Wayne Kussow
 Department of Soil Science
 University of Wisconsin-Madison

Golf course superintendents' views about soil testing seem to vary widely. Attitudes range from "it's a waste of time and money" to "it's a valuable tool that tells me how I'm doing with my fertilization program". Others turn to soil testing only when they have a problem that they feel may be nutritional in origin.

This article is directed toward those superintendents who do a soil test every few years. If you are one of these and you have kept reasonably accurate records of grades and rates of fertilizer applied, you're sitting on some valuable management information. My purpose here is to show you or your energetic young assistant how to "mine" this information out of your records.

To be more specific, what you need are at least two sets of soil test reports for samples taken at least five years apart and the test results must be from the same soil testing lab or from labs that use the same testing procedures. Different labs often use different procedures and, therefore, get different test results. While two different labs may give quite similar soil test interpretations, the numbers they provide are often quite different. In mining soil test reports we have to be working with all apples or all oranges, not a mix of the two. This, to me, is the strongest argument for not jumping from one soil testing service to another.

The starting point in the mining process is to tabulate your soil test results in a form that gives you a comprehensive picture of where your soil tests are headed and where you stand at the present time. These tabulations are also needed later on in the mining process. Several tabulations are needed. First, the actual soil test results have to be separated out by location (putting green, tee, or fairway) and type of

test. An example of such a tabulation for soil test P in the greens of a Madison area golf course is shown in Table 1.

The same type of tabulations should be assembled for the soil test interpretations (Table 2). Proper "reading" of such a table requires understanding of what the interpretations really mean. "Very low" or "low" interpretations signify that corrective action should be taken as soon as practical. The supply of this nutrient is so low that it is limiting turfgrass growth and development. A "medium" interpretation says that there is about a 50-50 chance that the turfgrass will respond to a heavier application of the nutrient. Categories such as "normal, high, sufficient or adequate" all have the same meaning—increasing the soil supply of the nutrient cannot be expected to have an influence on turfgrass growth or quality. Then there are the "very high" and "excessive" interpretations. These should be viewed as red flags. They signify potential problems with nutrient imbalances within the turfgrass or, in the case of micronutrients, of outright toxicity. These interpretations also serve as warning of possibly high leaching losses and potential damage to the surrounding environment. Your response to these extremely high soil test values could be as radical as suspending application of the nutrient in question until such time that the tests have declined to "normal, high, sufficient or adequate" levels.

Table 1.
Putting green soil test P levels

Green	Soil test P-lb/A		
	1972	1977	1990
1	300	120	-
2	300	300	400
3	90	135	310
4	350	260	400
5	400	400	400
6	250	200	205
7	300	275	400
8	375	400	400
9	160	115	210
10	350	375	380
11	350	120	375
12	400	320	400
13	400	400	350
14	240	185	245
15	250	280	350
16	375	300	360
17	375	325	400
18	48	60	250

Table 2.
Putting green soil test P interpretations

Green	Interpretations*		
	1972	1977	1990
1	M	N	-
2	H	H	E
3	N	N	E
4	E	H	E
5	E	E	E
6	H	H	H
7	H	H	E
8	E	E	E
9	H	N	H
10	E	E	E
11	E	N	E
12	E	E	E
13	E	E	E
14	H	H	H
15	H	H	E
16	E	H	E
17	E	E	E
18	L	L	H

* L = low; N = normal; H = high; E = excessive

It is against the backdrop of what soil test interpretations signify that the information in Table 2 becomes truly meaningful. The indications are that application of P could be

(Continued on page 41)

Certain death for the dinosaurs.

The new Jacobsen Tri-King 1684D makes heavy cumbersome 84" mowers things of the past.

Jacobsen ushers in a new age in heavy-duty 84" triplex mowing with a truly lightweight, highly maneuverable package. So now you can say goodbye for good to those costly, one-ton monsters the competition turns out.

Lightweight and compact, this agile, rear-wheel steering machine maneuvers around trees and other obstacles in a hurry. A foot-controlled hydraulic lift with automatic reel shutoff makes cross-cutting fairways and striping sports fields quick and easy. Plus, the wide 10" overhang simplifies trimming around traps, while optional on-demand 3-wheel drive smoothes out tough hills. And the Jacobsen Tri-King maintains a productive mowing speed in 3-wheel drive, so it trims circles around bulky, sluggish would-be competitors.

Simple, cool-running hydraulics deliver exceptional control of cutting

frequency. This smooth, consistent power and a choice of 5- or 10-blade fixed or floating reels produce a uniform, carpet-like cut — even in dense, wet grass. Unlike heavier competitors, the 1684D's balanced, lightweight design and wide tires minimize turf compaction. And optional easy-on/easy-off grass catchers make clean-up a breeze.

A liquid-cooled 16.5 hp diesel provides plenty of power with longer life, simpler maintenance and better fuel economy.

Or choose the 1671D, a unique, durable 71" triplex with all the same quality features of the 1684D. Yet smaller reels cleanly cut tricky undulating terrain and those really tight spots.

Don't be saddled with a dinosaur of a triplex when you can have the advanced new 1684D. Ask your Jacobsen distributor for a demonstration today. Attractive lease and finance plans available.

Jacobsen Division of Textron Inc.,
Racine, WI 53403.

JACOBSEN
TEXTRON

Jacobsen Division of Textron Inc.

© Jacobsen Division of Textron Inc. 1989

J-2-9



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