

bunker location, and certain players did not feel enough sand was visible from the tee. The bunker caught most well-placed drives, and the ball would be buried. Needless to say, the Superintendent's next project was to investigate possible sands for eliminating this problem. We knew coarse sands would be the solution, and many mixes were tested, including a special 1 mm mix. (This was not an acceptable sand for play.) Finally, a mix was chosen, and in the last 3 years we have utilized it in 6 new fairway bunkers. The mix contains #1 mason sand, spec. between .25mm and .84mm.

Bunker consistency varies with moisture content, and the membership desired the fairway bunkers to be firm. In fact, the feeling was that fairway bunker maintenance should be totally different from that of green bunkers in terms of frequency of raking and depth of raking. We experimented with the mechanical rake using 2 rows of teeth, 1 row of teeth, and no teeth at all. Also, we looked at shallow raking vs. deep raking. This relationship between raking and firmness sparked the idea of smoothing rather than raking with teeth or combs. We have investigated dragging rubber mats, nylon nets, rubber hoses (different sizes and shapes) filled with sand, and replacing the combs on the mechanical rake with smooth steel of different weights and at different angles. All of these attempts turned out to have drawbacks. We have not tried replacing the combs with soft rubber rollers. Hand raking has its positive and negative aspects also, and perhaps a combination of mechanical and hand raking is the answer. Raking, then watering a bunker, leaves a very desirable playing surface for a period of time.

* * *

When one discusses bunker maintenance procedures, it is assumed that the sand is uniform and clean. Consistency cannot be maintained if soil/silt contamination has occurred, and simply adding sand does not solve the problem. Complete removal of old sand, checking and repairing/replacing drain tiles and replenishing the bunker with fresh

sand is the only answer. Unique equipment is at our disposal whether hired or rented. Machines called **Grade-all** or **Cruz-Aire** are 4-wheel drive hoes which can be very productive during the winter months. Frost in the ground prevents turf damage, and snow does not hinder performance. The bucket reach of 30' allows most bunkers to be cleaned from one location outside the bunker. This reach also facilitates loading of trucks, an important part of the operation. This is definitely a winter project, which flows well with hauling fresh sand into the bunker. The key is to grade the sand as soon as possible so it will not freeze. At Blue Mound, this has become the primary method of

bunker reconstruction. We can remain within the original architectural design, while reshaping where necessary and updating sand texture and drainage.

To sum up, quality bunker construction involves many aspects, and requires first hand inspection during all phases of the project. The membership can only be pleased if the bunker is neat, with defined edges and is noticeable. Since this is just one more hazard, praise and thanks cannot be expected. Most golfers will never land in a bunker that they like, so our satisfaction must be in the proper design, construction, and maintenance of a hazard which is always a controversial topic.

SAND BUNKER RENOVATION

By Larry Lennert

Maintaining high quality playing conditions in a hazard seems more than a little bit ironic to me, but it is an irony all of us must face with sand bunker maintenance. The high level of playability we all seek cannot be maintained indefinitely with just the standard maintenance techniques of raking and edging. Sooner or later, sand bunkers need to be renovated.

Sand bunker renovation is a continuous process at North Shore Golf Club at Menasha and we renovate several of our 34 bunkers each year.

The first step in the renovation process is deciding which bunkers, if any, need renovation. Bunkers that hold water after a rain or have low quality playing conditions are good candidates. Once you have decided which bunkers need renovation, work can begin.

First, remove **all** of the old sand from the bunker. This is often the most important step in sand bunker renovation. Just adding new sand to a bunker filled with contaminated sand will not improve drainage and may actually reduce playability by building up excessive sand depths over time. This practice is nothing but a temporary fix and a waste of new sand. In the long run it has the same ef-

fect as throwing a pair of clean socks into a washer full of dirty clothes. The presence of only 5 percent silt and 3 percent clay in a sand can reduce drainage.

To remove the old sand we use a front-end loader and load the sand into one ton, dual wheel dump trucks. Most of the old sand can be removed this way. The rest of the sand is shoveled by hand into Cushman's. We have often found that just removing the old sand and replacing it with new, clean sand eliminates many of our drainage problems.

Next, check the drainage system. Replace or repair it if necessary or install one if none was there before. We use plastic drain tile and cover it with a nylon "sock" to keep sand from filling the tile. After the tile is in place we cover it with ¾ inch gravel to keep the drainage channel open and the drain tile in place. Surface drainage is also examined to make sure large amounts of water are not flowing through the bunker during heavy rains. If this is the case, we use surface contouring, where possible, to divert water away from the bunker.

After the drainage work is completed, the bottom of the bunker is shaped using a box scraper, a power rake and hand labor. The edges of the bunker are hand dug

to a depth of about one foot.

When shaping and edging are finished, the bunker is ready to be filled with new, clean sand. We use sand that meets USGA particle size guidelines (0.25 to 1 millimeter). The playability of sand is determined, to a large extent, by its particle size. Sand that is on average larger or smaller than the USGA guidelines will have a lower quality of playability and is harder to maintain.

We haul the new, clean sand to the bunker using the same one ton, dual wheel dump trucks we hauled the old sand away with. Pieces of plywood are laid on the edge of the bunker so the trucks can back into the bunker and dump the sand without crushing the lip. This minimizes hand labor and saves time. The sand is spread out and leveled in the bunker using a power sand rake with a metal pushing blade attached to the front. Little hand shoveling is needed. Cushman's are used to dump sand on the green side of the bunker, where the trucks cannot go. We wet the sand before we put it in the bunker because wet sand is easier to control. Dry sand tends to pour like sugar, making it hard to handle. We continue to fill the bunker with sand until it reaches a depth of nine inches.

The sand in the newly renovated bunker is soft and loose for about 90 to 120 days. Frequent raking with a power rake can reduce this settling period. I have read that using a gunite machine eliminates this settling period. This machine blows sand under high pressure through a hose up to several hundred feet into the bunker. The sand is compacted by the force of impact as it enters the bunker and eliminates the soft sand problem. This method may be worth trying.

We renovate bunkers one at a time and a six man crew can usually complete renovation of an average sized bunker in one working day.

The March/April 1980 issue of the USGA Green Section Record has an article on installing sand in bunkers using the gunite machine and the November/December 1983 issue contains an excellent article on selecting and handling sand. They would be well worth reviewing if you plan on doing any sand bunker renovation this year.

COOPERATORS REQUESTED FOR GYPSY MOTH TRAPPING

We've heard from Julie Nara and learned that the Wisconsin Department of Agriculture, Trade and Consumer Protection is seeking cooperators to conduct local trapping for gypsy moths again this year. Julie, a Plant Industry Specialist in the Bureau of Plant Industry, Agricultural Resource Management Division of the Department, has appreciated the help and cooperation of Wisconsin's Golf Course Managers in recent years and would like to see similar or even increased participation in this program for 1986.

The gypsy moth, which was introduced and accidentally released in the state of Massachusetts in 1869, has now attained outbreak populations in the northeastern United States. In Wisconsin, isolated infestations in Oconomowoc, Monona, Hubertus and a possible infestation in Sheboygan were treated in 1985. No moths were caught in these treated areas during 1985, and while 13 gypsy moths were captured last year, no new infestations were identified in the state. In neighboring states, moths have been caught near the Wisconsin border in Minnesota, Michigan and Illinois.

While the gypsy moth situation in Wisconsin has been stable during the last few years, there is a possibility of an upswing in the future, and continued vigilance is necessary.

Gypsy moth trapping requires adherence to the following timetable in the southern part of the state.

- July 14 — All traps should be in place.
- July 20 — First moths expect to emerge.
- Last week of July — First check of traps. If possible, check at weekly intervals afterwards.
- End of August — Remove and check traps again.
- September — Send us a map or sketch with trap locations indicated and trapping results.

Gypsy moth trap density is 1 — 4 traps per square mile. Location of traps, placement date, dates and results of checks should be recorded.

If you are a golf course superintendent interested in cooperating, please fill out the following form and send to: Wisconsin Department of Agriculture, Trade and Consumer Protection, Agricultural Resource Management Division, P.O. Box 7883, 4702 University Avenue, Madison, WI 53707.

1986 Gypsy Moth Trapping Cooperator

Name: _____

Address: _____

Telephone number: _____

I would like to cooperate in gypsy moth trapping in:

_____ County _____ Township,

Section _____

The trapping area measures approximately _____ square miles and is: residential, parkland, golf course, nursery, cemetery, other _____

The number of traps I can take care of is: _____



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A STUDENT'S PERSPECTIVE

—or—

(visions from below)

By Kendall L. Marquardt

Today's Golf Course Superintendent is, by my observation, a unique combination of an artist and a scientist, who carefully cultivates the soil to produce a finished portrait of living beauty. The golf course can be like a painting, viewed and admired by many. But more than that, it is dynamic. The golf course is ever changing to respond to the environment and to its most important purpose, play. To keep such a vast amount of rather temperamental and heavily abused plants in top condition, nay, alive in some cases, is a task which requires of the Superintendent long hours, dedication, ulcers, and knowledge of many diverse subjects, all for the sole purpose of growing grass, which, in the end is walked on, driven on, and hacked up with a glorified sodknife. But that is the fun and challenge of it. Those courageous individuals are you, the Superintendents of today. As a future Superintendent, I try to keep an eye open as to what is happening and why. There is no classroom substitute for this type of on-the-job training because when you do it, you tend to understand the "why" of what is going on. There is also no substitute for the Superintendent himself. He is the ultimate authority on what's happening. A politician, a businessman, a scientist, a teacher, and many more labels fall under the "Course Superintendent" category. This is why the boss should be aware that he is being used as a role model by every one of his employees, and even more so by the person who has an interest in this profession.

As a student, there are times I wonder why we are doing some operation, such as applying fertilizer or fungicide or perhaps a cultural practice, and I'll forget to ask about it. Consequently, my question may not get answered at that time. It sure is helpful when someone can take the time (if they

have the spare time) to explain what is happening, and also encourage me to ask questions, or say "What do you think?"; we love to have our ideas listened to. Sometimes, with the questions I do get answered, I can further figure out other answers on my

own. It all comes down to analyzing what the boss is doing, and why, to keep that vast operation up to snuff and running smoothly. We want to do what you are doing someday. And we, as students, want to keep up your good work.

TURFGRASS SCHOLARSHIP WINNERS FROM THE UW—MADISON DEPARTMENT OF SOIL SCIENCE — 1986



Left to right: Mark Van Hierden; Mike Lee; Professor Jim Love, Academic Advisor; Dan Barrett and Randy Slavik.

Four outstanding students enrolled in the University of Wisconsin — Madison turfgrass management program in the Department of Soil Science were winners of scholastic awards from the turf industry. Randy Slavik is a 1985-1986 winner of the Golf Course Superintendents Association Scholarship and travelled to the GCSAA Conference in San Francisco to receive his award. Mike Lee has been awarded the

NOR-AM Scholarship for the year. Dan Barrett received our own WGCSA Scholarship for the academic year and Mark Van Hierden was selected as the Wisconsin Turfgrass Association Scholarship winner. All are students of Dr. Jim Love.

Congratulations to these young men and their accomplishments. They will assume major roles in our profession in the years to come.



LETTERS

Monroe:

Listed below are a few questions which may facilitate "understanding" of the WTA and its process. I'm sure all this information is available (and has been available) but as we talked, it seems necessary to keep "telling people" over and over again. I'm as guilty as anyone of assuming that everyone knows (or remembers) the same things I do but it doesn't seem to work that way.

- 1.) WTA Purpose —
- 2.) Composition of Board of Directors —
 - a.) criteria for selection of Director nominees
 - b.) criteria for selection of Honorary Directors
 - c.) WGCSA representation
- 3.) Scholarship —
 - a.) eligibility for award
 - b.) criteria for selection
 - c.) maximum/minimum award amount
- 4.) Research —
 - a.) eligibility for grants
 - b.) criteria for grant selection
 - c.) process; who submits?, who defines parameters (how long, etc.)?, when submitted?, when awarded?, et cetera
 - d.) reporting; how often?, what form?, where published?, when due?, who presents?
 - e.) research assistant: reports to whom?, who defines project? who controls time?
- 5.) Funding —
 - a.) major existing income sources (on-going)
 - b.) major potential income sources (on-going)
 - c.) GCSAA, O.J. Noer, et cetera?
- 6.) Research Facility —
 - a.) projected cost (capital)
 - b.) projected cost (operational)
 - c.) timetable
 - d.) initial funding
 - e.) on-going funding
 - f.) location & site selection

- g.) effect on field work
- h.) WGCSA contribution

Anyway, these are some thoughts on what the "average interested party" may be curious about. The whole point is to communicate the process and goal, galvanize the effort, gain acceptance and make it happen for everyone's benefit.

Bill

Editor's reply:

Dear Bill,

I may not subscribe to your notion of the need to keep telling people the same thing, over and over again, but I do recognize that there have been substantial increases in the WGCSA membership in the past two years. It is entirely possible, even probable, that they haven't been properly introduced to the Wisconsin Turfgrass Association and its exciting program. Your letter provides a good framework to accomplish what we both feel is important, even if for different reasons. I'll address each point of your letter.

1. The purpose of the Wisconsin Turfgrass Association is to promote the turfgrass industry in Wisconsin, to serve as a communication channel within the industry, and in particular, to encourage the further study and research in turfgrasses at our land grant college, as well as to analyze and disseminate information relating thereto. The objective of the Association is better turf for all; athletic fields, cemeteries, golf courses, lawns, parks, playgrounds, roadsides and any other turfgrass areas.

2. (a.) The criteria for selection of Director nominees is determined by the nominating committee of the WTA. All WTA members are eligible to serve as a Director. The nominating committee (consisting of Terry Kurth, Jim Huggett and Monroe Miller for 1986) selects candidates with the demonstrated ability to serve, the interest to serve, the expressed commitment to serve and the appropriate qualifications for a WTA directorship. Three directors are elected at each annual meeting for a term of three years.

(b.) The Association may from time to time confer Honorary directorships which shall not be deemed part of the Board of Directors for the purpose of a quorum nor for the purpose of appointing or electing officers of the Association. Said honorary directors shall hold office for a term of one year. There shall be honorary memberships in addition and on the same basis as honorary directors.

(c.) The WGCSA is extremely well represented on the WTA Board. WTA President Tom Harrison is a WGCSA member. WTA Secretary is WGCSA Director Monroe Miller. WTA Director Roger Bell is a WGCSA Director. WTA Directors Red Roskopf and Curt Larson are both WGCSA members. A Honorary Director and Assistant to the President is Pat Norton, another WGCSA member. There has even been some concern that the WTA Board of Directors may be over-represented with WGCSA members, the size of our donation notwithstanding.

3. (a.) Students eligible for the WTA Scholarship must be a junior or senior at the University of Wisconsin—Madison majoring in Soil Science, Horticulture, Plant Pathology or Entomology with a specialty in Turf and Grounds Management and a professed interest in pursuing a professional career in the field of turfgrass management.

(b.) The selection of the student recipient of this award is made by the Dean of the College of Agricultural and Life Sciences through the College's Scholarship Committee with prior recommendation from the respective departments and the Research Advisors to the Wisconsin Turfgrass Association. That group currently consists of Professors Love, Worf, Newman, Mahr and Kussow.

(c.) The sum of the scholarship is \$250 and it is made one time per year. Generally, one-half of the award is given during the first semester of the academic school year and the remaining one-half is given during the second semester, contingent upon the recipient's continued eligibility for the award.

4. (a.) Investigators eligible for WTA research grants are those UW—Madison staff in the College

of Agricultural and Life Sciences involved in turfgrass research, education and extension.

(b.) Grant criteria are determined by the Board of Directors of the WTA and involve rather basic and simple considerations. Among those are grant request size, pressing needs of the turfgrass industry in Wisconsin as gauged by the broad experience base of the Directors, and the critical "fairness" principle.

(c.) Each researcher submits his own proposal for project(s) in his area of expertise — plant pathology, soils, horticulture (weed and herbicide studies) and entomology. Because of the limited resources of the WTA, the projects are usually of shorter duration (three years and less). The requests for funding are due to the Board of Directors by April 15 (or before) of the year of the project. Although longer term projects may be approved in principle, continuation depends on industry interest, available funds and preliminary results. Awards are made at the meeting immediately following the due date of the requests to facilitate faculty planning for the upcoming season.

(d.) Annual reports are submitted by investigators to the Board of Directors as soon as data is analyzed at the end of the season. All reports are professionally prepared. They include the title of the project, its length, any cooperators (which are frequently Golf Course Superintendents from around the State of Wisconsin), a narrative describing the objectives of the study, methods and procedures used, along with any other significant information. All raw data is presented along with a statistical analysis which determines its significance. Finally, the reports include a discussion and summary section. The reports submitted to the Board of Directors are then put together in a meaningful order, taken to a printer and published, as a collection for the year, in a bound book form. These results are then made available to the membership of the WTA at no cost and are available for sale to non-members at a cost above that of printing. The book is entitled "WISCONSIN TURF RESEARCH — Results of 1986 Studies." The

1985 results ran 68 pages and the collection of 1984 results was 80 pages in length.

(e.) A Research Assistant is a student who, while working toward a graduate degree, is employed part-time to assist in the conduct of research. The student is typically employed half-time. To qualify for a research assistantship, the individual must be enrolled full-time in a degree program. Full-time status for a graduate student means 9 to 12 credits per semester of coursework and three credits during the summer session. The three summertime credits are generally research credits. Hence, research assistants commonly devote all their time to research during the summer months.

Half-time research assistants are expected to devote an average of at least 20 hours per week to research. This research effort may or may not contribute to or be a part of the research all students must carry out as one of their graduate degree requirements. This is left to the discretion of the Professor in charge (Dr. Wayne Kussow, in the case of the recently approved WTA R.A.). The student participates in the Professor's research program and may select some segment of this program as a topic for his graduate thesis research. In this case, part of the student's research effort serves a dual role. It contributes to the Professor's research program and generates a portion of the student's thesis research.

It is important to note that the time requirement is not limited to twenty hours. More commonly, those students holding a R.A. appointment will commit greater amounts of time than actually required. On-going and successful research programs at other institutions require graduates students — master and Ph.D. — and post-graduate work. There are currently no graduate students involved in turfgrass research at the UW—Madison, and the recognition of their key importance was fundamental in the decision by the WTA Board to initiate funding for such a program. Without research assistants and technicians, the research output of the UW would likely be one-tenth or less its current level.

There is no fixed agenda regarding the types of research the WTA-financed research assistants will conduct. However, Dr. Kussow does intend to follow a few simple guidelines:

1. The research will be problem oriented and will focus on cultural practices;
2. An effort will be made to select problems that concern a broad cross-section of the turfgrass industry; and
3. The research will not consist of product testing or evaluation.

These guidelines will be applied in the context of reality, which imposes some limitations on what kinds of research can be conducted. Until the O.J. Noer Center for Turfgrass Research is constructed, there will be restrictions due to lack of facilities and equipment. Another restriction arises from the fact that the research will be carried out by a candidate for a master's degree. This individual cannot be expected to conduct research that takes more than 24 months to complete. Finally, there is the matter of program support. Dr. Kussow will need to obtain extramural funding to pay for things such as field and laboratory supplies and materials, for student help and for any analytical services needed. Depending on the nature of the research, these costs typically range between \$2500 and \$5000 per year.

Dr. Kusow would be pleased to receive research suggestions from the WTA membership. He can be reached by telephone at (608) 263-3631 or you can write to him at the:

Department of Soil Science
University of Wisconsin
1525 Observatory Drive
Madison, WI, 53706

5. (a.) Major existing sources of revenue for the WTA are:

1. Dues
2. Winter Conference
3. Summer Field Day
4. Golf Outing
5. Advertising

These sources accounted for 70% of the income of the WTA in 1985. Additionally, special contributions were made, including the very generous donation of our WGCSA.

(b.) Wrestling with the problem

of expanding income is never ending for the WTA Board. There is a plan, and it is only a plan at this stage, to figure out a way to "tax" the end user and final benefactor of the kind of research we all know that is needed. The dairy industry has a checkoff plan for each hundredweight of milk sold. The corn growers might tax each bushel of corn taken to market. The same goes for pork producers, cranberry growers, truck farmers, etc. The problem with the turfgrass industry is that our final product isn't always a commodity. We would, however, like to see a one cent charge on each round of golf played in Wisconsin funnelled to the WTA. We would like to make arrangements to receive a similar amount donated for each square yard of sod sold in the state. Similarly, each home lawn treated by the lawn care industry could be taxed an insignificant sum, but the total for the year, statewide, would be substantial. The point is, in each case, the final user supports the research. Keep in mind that these ideas are still in the formative stage, but that is always the first step.

(c.) The two sources of income that you mention here, the GCSAA and the Noer Foundation, are certainly sources of research monies for the UW staff, once they have developed an applied program and have the facilities to carry out longer term and more basic research. They are **not** sources of income for the WTA. We are all, in fact, in existence for the same purposes — horses of a different color, if you will.

6. There are no definite answers to the questions you ask about the research facility. What the WTA Board knows for certain is the obvious — we need one. That need is amplified by the fact that we are among the very few that do not have such a facility, despite the size of the turfgrass industry in Wisconsin (see the WTA "Green-space Report" authored principally by WGCSA member Ed Devinger). We are also aware of the fact that by virtue of being among the last to have a turfgrass research facility we have the opportunity to have the best. We are able to eliminate problems and mistakes encountered by other

land grant colleges and at the same time incorporate the best of what they have. Determination of what kind of facility to plan for was the responsibility given to a WTA subcommittee of Jim Huggett, Monroe Miller and Tom Harrison. The subcommittee worked with their own resources but received the bulk of the planning input from Dr. Kussow, Dr. Worf and Dr. Newman. These men, through their contacts with colleagues at other land grant institutions, laid out some general requirements in terms of a building and of the property need for a turf research farm. Timing seems to be working in our favor since the Chancellor of the UW—Madison has given the green light for construction of a University golf course. Although the subcommittee has some ideas about items you mention — costs, timetable, initial and long-term funding — we feel there is wisdom in waiting on public discussion until we have shared those thoughts

with the Madison campus chancellor. A meeting with Dr. Shain may even have taken place by the time you read this. Rest assured that as soon as there is something to report or to discuss, you will read about it in the GRASSROOTS.

Finally, questions have arisen about the "O.J. Noer Center." The subcommittee felt there could be no better way to honor a man who was a graduate of the University of Wisconsin and quite possibly the premier turf agronomist of all time than to name a turf research station at his alma mater after him. Thus, the name was born.

The WGCSA will be hearing more and more from the WTA. A formal report by one of the WTA Board members will be given at each WGCSA Board meeting in 1986. That same report will be presented to our members.

Monroe

An Open Letter to all WGCSA Members

from Tom Harrison

The Board of Directors of the Wisconsin Turfgrass Association would like to take this opportunity to thank the membership and Board of Directors of the Wisconsin Golf Course Superintendents Association for their financial support over the years and particularly for the grant of \$5,000 for 1986. The WGCSA is in a leadership position in Wisconsin in their commitment to turfgrass research. All the members of the WGCSA should be proud of this role and the WTA is indeed very thankful for this tremendous support. The superintendents of Wisconsin have a great deal to gain from this continued commitment to the WTA.

The WTA is struggling very hard to bring the University of Wisconsin's research efforts up to the level of our neighboring states. All the efforts put forth to date — the yearly grants to Dr. Worf, Dr. Mahr, Dr. Kussow and Dr. Newman, the research truck purchased in 1984,

publishing of research studies, e.g. — are a tiny part of what the WTA is struggling towards. These past efforts, whereas they are meaningful in regards to showing the U.W. administration that we are a dedicated and serious group, merely scratch the surface of what Wisconsin really needs in terms of research.

Wisconsin needs a commitment from the U.W. administration that urban agriculture is a significant and sizeable industry in Wisconsin. The green industry needs to be recognized such that it is not last on the priority list for research support. Once this fact is recognized then the question becomes, how do they as a state land grant college better serve this industry. The answer to that is an urban research facility. The WTA, in its efforts gets the University moving, had to first make basic support efforts such as we have done for the last four years. As these efforts took place we have been busy

behind the scenes putting together a report detailing the size of our industry and what our industry really needs 10, 20 and 30 years down the road. We compiled the "Wisconsin Greenspace Industry Report" to establish the size and scope of our industry in relation to other state research supported crops. We also put together a proposal for an urban research facility, the "O.J. Noer Center," to study turfgrass. The culmination of this three year effort came on Wednesday, April 2, 1986 when we made our proposal to the U.W. chancellors office through Harry Peterson, the chancellor's assistant. The same morning we also visited with the

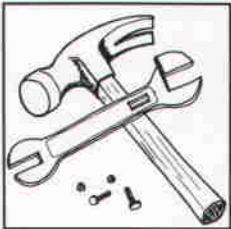
Dean of the College of Agriculture, Leo Walsh. Jim Huggett, Monroe Miller and Tom Harrison made the proposals and were warmly and enthusiastically received. The gracious reception by school officials and the fact that the WTA is determined to put Wisconsin's research efforts on a higher plane will ultimately bring success to this project. My point with all this dialogue is that over the years as interested turf groups such as the WGCSA have supported the WTA people may at times have wondered where is all this heading, or are we really getting the most for our dollar contributed. The answer is positively that the

maximum value is derived from every dollar contributed, but that a great deal of time and some dollars have been put into the long range projects mentioned earlier. Wisconsin will have a great urban research facility someday and we are committed towards this goal with your continued support.

Again on behalf of the WTA Board we thank you for your past support and we look forward to this same cooperative support in years to come. Thank You.

Respectively,
Thomas R. Harrison, President
Wisconsin Turfgrass Association

Shop Talk



REFLECTIONS ON THE WINTER MAINTENANCE SEASON JUST COMPLETED

By Pat Norton

Another (very early) golf season is now upon us. The winter maintenance season is just completed. Everybody's all fired up and ready to go, right? But before the outdoor season gets too hectic, let's reflect back on those endless winter months and ask ourselves a few questions about wintertime in a golf course maintenance shop.

In answering these questions let's take into account the fact that many of these remarks will relate more to the younger superintendent—the guy like myself who is still building up and organizing his operation. More established superintendents can probably identify with these questions and situations by remembering back to their earlier days.

Q) How productive was I over the winter? Was I productive enough?

A) Usually I feel like I'm not productive enough during the winter. Why do I feel this way? I don't really know. Maybe because my day is usually only eight hours (much of that either at the desk or on the phone or both, it seems) instead of ten or twelve hours as

in the summer. I probably feel guilty about working less, although I certainly shouldn't.

Q) How productive were my staff people over the winter? Were they productive enough?

A) Thinking on it objectively and given all the winter responsibilities other than shop work that my staff has—YES, they were pretty darn productive. Especially when I think about all that was accomplished since mid-November.

Q) Did we accomplish everything that we set out to back in November?

A) No, certainly not everything that we had hoped to take care of was finished by April 1. But, almost all of it was. Probably 90-95% of my equipment is set to go. But it always seems like it's the little extras that have to be let go—the traffic signs, the informational signs, the miscellaneous small equipment. It can be really frustrating.

Q) What should I do differently next winter?

A) Quite simply two things come to mind here. One is to

get a good, early jump on the winter maintenance and two is to hire an extra person if you have a real need and budget affords it.

Q) Do I have enough in my budget for winter overhaul and maintenance?

A) If I feel that I don't have enough funds budgeted, the first thing I'll look at is adjusting monthly budget figures to balance things a bit. If the problem is truly insufficient funds, then trace the problem to its source. If you're equipment is older it'll naturally require more dollars to maintain it. Making a green committee understand this is the easy part. Making them support you in your quest for newer, more modern equipment is more difficult.

Q) What, if any, decision making is involved in winter maintenance and repair?

A) The decision-making which follows is pretty simple. Which piece of equipment is it, where and how much will it be used, cost of repair, what could happen if it breaks down are but a few of the things to think about. It's in this decision-making process that a good mechanic will be crucial—one who thinks like the superintendent, one who can give valuable input and suggestions, and one who is just as cost conscious as the superintendent.

Q) What are the priorities on equipment repair?

A) Priorities simply have to be those pieces used most often, those pieces having no backup, those that are to be kept in the fleet. Those pieces slated for retirement or replacement would be those that I'd economize on. Sometimes, though, it's pretty difficult to prioritize on equipment repair—it never fails that the old sand rake that you cut corners on is the same one that continually breaks down on Saturday or Sunday morning.

Q) How do I convince my superiors of my new equipment needs?

A) Convincing one's superiors on new equipment needs can be very difficult. Their viewpoint is usually much less narrow—they have to view the overall club financial picture, not just the golf course. Their knowledge and understanding of this specialized equipment is usually pretty limited also. They are also not the ones experiencing the frustration of dealing with the negative situation of an old, beat up stable of equipment. Educating them and presenting a logical argument of your reasons for new purchases is a good starting point. Also know your club's financial situation and long range plans so that you don't look like a fool.

Q) What are the extenuating cir-

cumstances that may hamper wintertime productivity?

A) In most cases, with most winter golf maintenance operations, there always seems to be too many additional responsibilities (other than shop work) that really hamper winter productivity. The all too common misconception/misunderstanding is that there's not enough to do in a golf maintenance operation in wintertime Wisconsin ("What do you do during the winter? Really??? I didn't realize.....") Therefore, all kinds of extra responsibilities are tacked on to supposedly enhance productivity, which does just the opposite for the wintertime maintenance staff. The end result in April is having way too many "in-completes" on the old maintenance productivity report card!

In summary, let's all realize that there are many other points to reflect back upon. There are but a few. The key I guess is to simply do as a friend of mine once told me. "We should all periodically sit down in the office, close the door, take the phone off the hook, relax and think to ourselves—are we doing a good job and how could I possibly do a better job with this operation?" Think about it and we'll be talking to you next time.



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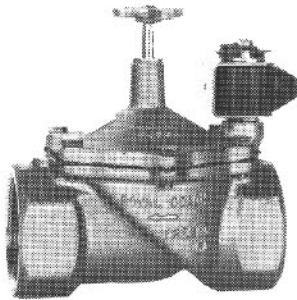
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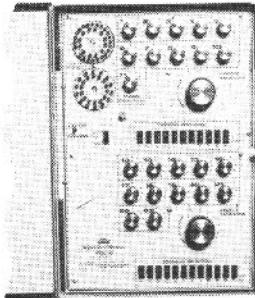
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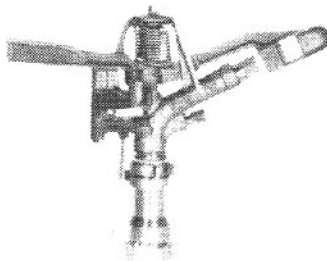
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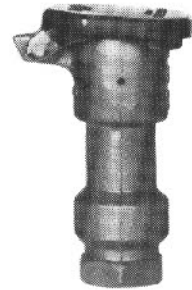
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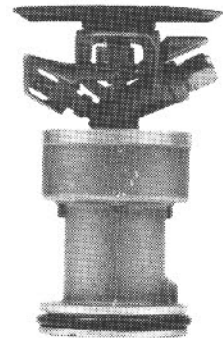
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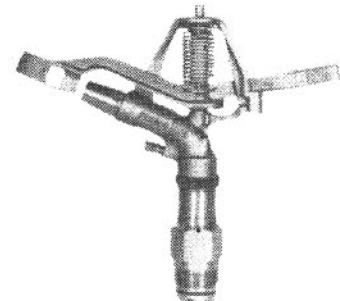
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