

By Bill Roberts



Wisconsin Golfers and Wisconsin Superintendents: Mutual Responsibilities

A "relationship" is defined by Mr. Webster as an "aspect or quality that connects two or more things or parts as being or belonging or working together or as being of the same kind," and further as "the state of being mutually or reciprocally interested." With a bit of effort, a central thought begins to emerge as one reflects upon those explanations. Words such as "two", "together", "same", "mutually" and "reciprocally" are all examples that either imply or explicate a real sense of shared or joint responsibility.

And...all relationships must be viewed as a responsibility by both parties if the arrangement is to be successful. Each party must bring something "to the table" and be willing to give that "something" up. Each party must be "mutually or reciprocally interested" in the end result.

In my opinion, members of the Wisconsin Golf Course Superintendents Association have done an admirable job of contributing to turfgrass research funding. Through the dedicated efforts of those involved with the Wisconsin Turfgrass Association, great strides have been made in both the quality of the work being done by the University of Wisconsin-Madison and in the dissemination of the resulting information. This whole process is a direct, tangible applicable benefit for those who participate in the "relationship."

In my own case, I've used the services of the pathology diagnostic lab, and I'm not bashful about using the telephone when needed. Educational programs and field days are available. Proceedings are published. Field visits are made. Data is collected, interpolated and interpreted. We've seen and used the end results. We have brought our support "to the table", and

we have benefitted. We contribute around \$10,000 a year to specific Wisconsin research, to the O.J. Noer Foundation and to GCSAA and I, for one, am proud of that effort and you are to be congratulated.

But it is, quite simply, not enough. A certain segment of the golf turf industry is not meeting its responsibility in this relationship. They must be "interested" in the end result but, in my experience, they are not, for the most part, "bringing something to the table." They are enjoying a direct, tangible, applicable benefit with, at best, a minimal effort. And what's even more disturbing is that I'm not sure they are to blame. I'm not sure they are even aware of the degree of shortsightedness involved. I am referring, of course, to those who derive the most appreciable advantage from our support of the researcher's work; that is, the golfing public.

Today's player has become accustomed to conditions that were unheard of 30 years ago or 20 years ago or even 10 years ago. We've all seen and are involved with those conditions because we are, rightfully, charged with providing them. Uniform, smooth and true putting surfaces. Closely clipped, dense, disease-free fairway turf. Clean, firm teeing ground. Appropriate irrigation management. Judicious application of plant nutrients and the safe, effective use of plant protectants. All of these separate parts combined with some superior management skills and the aforementioned credible sources that resolve golf turf dilemmas have produced these outstanding playing conditions that today's player has come to expect.

But in Wisconsin, at least, that same player is not carrying his fair share of

the load. We have no mechanism or process for allowing players the opportunity to contribute. We have not done a very effective job of explaining our needs nor the reasons we should be able to expect support. We intend, with your continued help, to do something about that in the future in the form of a subtle, yet determined, drive to raise funds for the O.J. Noer Research Center in Madison.

We need this "Research Center" as the focal point for valid investigation of the problems which have and will continue to challenge our industry. We need this facility to supplement and enhance the excellent educational opportunities now available to future Golf Course Superintendents, future industry people, future researchers and future teachers. We need this project completed in order that we may have a place to gather to identify those challenges and see what can be done to meet them. But most of all, we need to realize this particular dream in order that we, including Golf Course Superintendents, officials, professionals and players may insure the continuation of "assumed" excellent playing conditions and the enhancement of Wisconsin's growing reputation for such conditions. We're proud of what we've built, but we all need to "go a bit farther."

The bottom line is that when you are asked to contribute, and you will be, at some point, in some form, do not hesitate. But don't wait either. If you haven't been asked yet, take the initiative and offer to contribute. Go to your Board of Directors or your Green Committee or your owner or whoever you need to go to and explain the need and the end result and the fact that it is their responsibility to. It is, in the final analysis, a mutual need and we can get the "ball rolling." But we have to talk to all of those who benefit, not just ourselves.

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WE CANNOT TAKE THIS SITTING DOWN

By Monroe S. Miller

Nothing made his New England blood boil quicker than injustice. "I can take umbrage, I can take the cake, I can take the A train, I can take two and call me in the morning. But I cannot take this sitting down," said Hawkeye Pierce from the swamp. The Army's most famous doctor, stationed at the M.A.S.H. 4077th, indirectly gave us some advice we need to listen to. The time has come for us to stand up to the panic merchants, environmental zealots and toxic terrorists. And we'd better do it soon or we will not be able to do our job of managing fine golf turf. More sad than that will be the fact that our environment won't prosper from their mistaken efforts and our society most definitely will suffer. We cannot take this sitting down.

Reactions need catalysts to quicken them or even to get them started. The spate of incidents in the past five or six months should have the catalytic effect of a ten pound hammer rapped on our collective heads. From the national attention of the Daconil incident to the stupid article in GOLF magazine to the misery of the Milorganite affair and a hundred and more local incidents across the country, the use of agricultural chemicals and pesticides on turfgrass is under attack. There is, of course, the greater issue of the use of these products *at all* in agriculture. But that issue is so enormous and immense that we cannot let it consume us; we surely need to lend support when we can, but dealing with our own crop will take most of the effort we can muster.

So, what to do? Well, here are some essential elements that I feel will have to be addressed by our industry:

1. Primary and fundamental is the continuation of safe use of pesticides. There is no room for even the slightest glitch. Materials must be used by label instructions; applicators must be properly trained. Safety is absolutely paramount. All necessary and appropriate licenses must be held. These are

critical items involved in the well-being of our employees and our players. In addition to all of the overwhelming safety reasons is a trick used by "environmentalists". They like to take a single and isolated incident, blow it out of proportion and extrapolate it across the board to all users, all chemicals and all golf courses. The unfortunate thing is that it works for them. So we just cannot afford to give them any publicity opportunities.

To this end we must be relentless in our educational efforts. You'll see more and more discussion of pesticide issues and use in the GRASS ROOTS. I hope that in a year from now we'll include the subject on our monthly meeting program. Education is the principal reason the WGCSA exists and this topic(s) needs to be addressed with even more frequency and depth.

2. We need to enlist the support, participation and help from that enormous majority of scientists who know that many, if not most, of the "scientific" claims of environmental extremists are false and worthless. A perfect example of this need and how well it works was shown during the recent Milorganite affair. The guilty party turned out not to be Milorganite but rather one Benjamin Brooks. Brooks is a neurologist at the UW-Madison and director of the ALS clinical research center on campus. Whether he likes it or not, or whether or not he'll admit it, he dragged MMSD through the media gutter and had Milorganite killing people, *until* a meeting in Madison on Thursday, February 19. It was at that meeting that he was confronted by individuals with training comparable to his. Brooks was a low flying duck and was shot down by fellow scientists who pointed out his flawed thinking and total lack

of reason and the resulting harm he had done. Some implied negligence and incompetence on Brooks' part. Dr. Alfred A. Rimm, an epidemiologist with the Medical College of Wisconsin, told Brooks at that meeting: "I sort of feel that you have found a product guilty of murder, and it's totally innocent." He also accused Brooks of "shooting from the hip". Henry Anderson, a chronic disease epidemiologist with the State Division of Health, told Brooks: "Associating the disease with Milorganite was premature". Dr. Patricia Murphy, an epidemiologist with the U.S. EPA told Brooks: "There is no evidence to indicate an increased incidence in ALS in Milwaukee County or Wisconsin." She also told him there is no scientific basis for linking Milorganite to the disease. Henry Anderson, again to Brooks: "It's premature to connect ALS and Milorganite." And finally, Dr. Henry M. Golberg, a Milwaukee physician, said, "No scientist here (at the meeting) feels there is any connection between Milorganite and ALS." Dr. Rimm pointed out that Brooks was a neurologist and not an epidemiologist and that epidemiologists had "a lot of trouble" with people like Brooks who wanted to do their own epidemiology.

Although the damage had been done prior to this meeting (my guess is that it will take MMSD years to recapture lost sales; I've an answer to that, later), the entire issue was dropped; it was dead. Why? Because Brooks had been made to look like an idiot by his peers. The media figured out that there was no story. If we can enlist this kind of backing when the need arises, our worries about manifestations of extreme proposals would be greatly reduced.

So, why is it that so few speak up in protest to the charlatans and frauds that present themselves as environmentalists? Although the answers are subject to some speculation, I don't feel they are all that hard to figure out. I've had the good fortune to know quite a few university faculty members over the years - as a student, as neighbors and friends, and as Club members. My observations tell me



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that, as a group, they are somewhat reserved, thoughtful and deliberate people. Their training does not necessarily include public debate. Dealing with fanatic, one-sided, emotional and rabid environmental extremists is an acquired skill many professors and physicians do not have. A good scientist realizes that good research involves a lot of time, effort and reflection. He is generally unwilling to reach quick or premature conclusions. You won't find them looking at data they didn't generate and then giving a media person a conclusion. Unlike the example of Benjamin Brooks, good investigators will not pontificate on subjects out of their specialty.

And my guess is that, since they are human, there is some inherent fear of media people. Scientists have no control of quotes, which are frequently out of context, or over what finally appears on the six o'clock news. Then, there has to be the anxiety of being asked irrelevant questions. "Who funds your research?", is a good example of a question whose answer could be misconstrued.

Those problems notwithstanding, we must convince our friends in research positions to assume a higher visibility in dialogue concerning the environment. The results are predictable, just as in the Brooks incident. We need to appeal to their sense of duty - misinformation disserves them as well as us. The public needs to know the unbiased truth and they can hold the keys to that - their work and their credentials. As far as dealing with media types, I guess we simply need to convince some to try to acquire that skill. Maybe selecting spokesmen could be a part of the answer; whatever route is chosen, we must not try to fight the media but rather to join them.

Dr. Leo Walsh on occasion writes a letter to the editors of the Madison papers, sharing his views on particular issues. This is a great example to follow; we need to do more of that. It really works in the arena of public education.

3. Our cause - the continued safe use of agricultural chemicals on our golf courses - can only benefit if we learn to understand the motivation of some journalists and publications that like to focus on environmental aberrations. Notice I

didn't say environmental issues; I'm talking about those reporters and their journals or papers that like to hype isolated incidents into sensational stories. Again, since it is fresh in our minds, let's look at the Milorganite incident. The false alarm raised by Brooks received fairly even play in Madison. The Capital Times had one small front page story and the State Journal kept it from the first page entirely. That was pretty much true around the state. In Milwaukee, the Journal was reasonable. But the Sentinel - it was disgusting. My judgement is that they were clearly peddling fear based on a local incident. It was pretty obvious to me that impartial reporting took a back seat to selling newspapers. I would love to see their newsstand sales during that period - safe bet they were up significantly. The front page of the February 6 issue was dominated by red ink - the hot color of anger and rage - and across the width of the paper above the headline (which was about Milorganite) were three bar graphs showing the heavy metal content in Milorganite. They were also done in red ink. Really, it was a classic example of selling bad news to the public. Sad that it works, for awhile, anyway.

The risk the Sentinel (and others) runs is crying "wolf" too often. Those of us following the story soon realized their obvious bias and ignored the paper, neither purchasing nor reading it.

What's needed here, for us, is just exactly what I spelled out for scientists. Write letters to newspaper and journal editors. Did any of you write a newspaper during the Milorganite crisis? Neither did I. We should probably select our best people to speak for us to the media. We should offer articles explaining benefits of pesticides and agricultural chemicals. Simply put, we need to participate more. It will not be easy; good news is boring and bad news is big. But never forget the wisdom in the title of Ben Wattenberg's excellent book: "The Good News Is The Bad News Is Wrong". That should be our slogan in these matters.

4. It seems obvious we may have to spend some money. The WGCSA belongs to the Wisconsin Agri-Business Council, as we should and must. But how many clubs

belong? One that I know of (Maple Bluff), currently. But soon there will be two since I am going to follow my own advice and Tom Harrison's example. Will some of the other 300 plus golf courses join, as well? The WABC and the FROWT Coalition are the only full-time people monitoring hearings and legislation that impacts on pesticides. Russ Weisensel does a yeoman's job, but it takes money, big money. We should convince our clubs to each come up with a \$50 donation to help Russ keep on the watch for us.

We may even have to or want to hire expert testimony, on occasion. Qualified people are available, but that will cost money. Let's be prepared to make some *serious* financial commitments, if the need arises.

5. Our professional associations need to be involved. The GCSAA, in our case, absolutely must posture itself better for responding to aggravating assaults like the GOLF magazine incident, as well as the major league activity that goes on at the national bureaucratic level (e.g. EPA and USDA). Right now there is too much concern about lipstick items; we'd better get geared up or we are going to get hammered by surprise. What better reason to exist, as a professional group, than to deal with these large environmental issues?

At the state level, Bill Roberts is doing his work on behalf of the WGCSA. In the past few weeks he has attended lengthy meetings of the STEWARD committee and travelled to represent us at an Agri-Business Council meeting and at a hazardous waste meeting. He's concerned that our agenda, as it relates to environmental concerns, is heard and considered. Miller and Harrison are doing their parts, on the WGCSA's behalf, on the FROWT Coalition Board. These roles must be maintained. Future WGCSA officers need to realize that this is a new aspect of those positions.

6. Industry has a critical role to play. Their product testing must go the extra mile; they need to be able to assure us, with all confidence, that their products are safe to use. And as Gayle Worf pointed out to me in a recent conversation, manufacturers and formulators are going to have to be more willing to share

product data and information if they expect researchers and investigators to defend the use of their agricultural chemicals as being safe.

7. I can recall from the phenoxy herbicide ban hearings in the legislature, almost fifteen years ago, some words from an out-of-state "environmentalist": "Sue the bastards." That may be what we'll have to do, when all else fails. Witness the FROWT Coalition suit against the Town of Casey in

Washburn County - the suit was a last resort. None of us enjoys litigation, but we need to realize that situations may present themselves where it is the best option to pursue.

8. Finally, it is the smart person who seizes on dialogue rather than confrontation. There is a lot of wisdom in the old saw that says you can get farther with sugar than vinegar. It applies through life and we should not forget that. Confrontations can, too often, carry high

risk. It may well be that we need also to face up to the fine art of compromise; the options to middle ground can be completely unacceptable.

We are definitely in the midst of dynamic and changing times in the pesticide issue arena. We cannot afford to be our own worst enemy; we need to work diligently to protect our rights of continued safe use of agricultural chemicals. We cannot afford to take these assaults sitting down.

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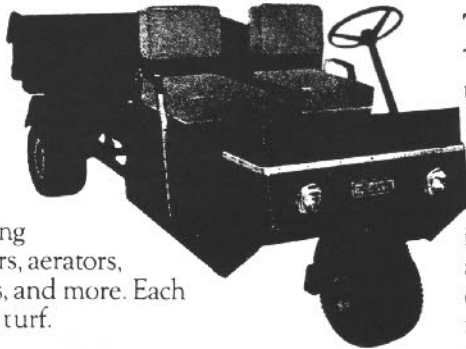
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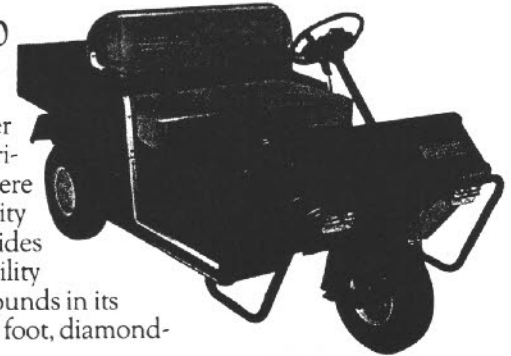
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Design Concepts of the 80's: How Do They Affect Maintenance?

By Pat Norton and Jim Rodgers
Lohmann Golf Designs

Multiple tees, "chocolate drops", cape and bay bunkers, "severe undulations"; contoured fairways, pot bunkers and strategic design - these and others are the popular design features for golf course architecture in the 1980's. What are the different considerations that a golf architect keeps in mind when designing such features? While there are certainly many different design criteria, among the most basic are the three simple objectives of balancing aesthetic appeal, playability and maintainability. Within every golf design there is a trade-off among these three simple objectives. As Geoffrey Cornish stated in the recent GCSAA/WGCSA Design Seminar, "Great architecture must, however, embrace all three; namely, the game of golf, eye appeal, and maintainability, and we think of these three broad considerations as the sides of an equilateral triangle, each with equal importance". The maintenance side of the triangle is certainly uppermost in the mind of the superintendent and will be the focus of this article.

Of the three basic architectural design styles-heroinic, penal and strategic-strategic design is certainly the most popular design style for the 1980's. Simply put, strategic design offers different options to the golfer, requiring thinking and advance planning - i.e., a strategic plan by the golfer is essential. Strategic design is generally associated with shorter courses built on less property. It's also closely associated with multiple tees, the target concept and contoured fairways.

The contoured fairway concept is very popular today, and with good reason. It fits nicely with all sides of the triangle - it's aesthetically appealing, enhances playability, and permits a level of maintainability not heretofore possible. Lightweight mowing programs, increased mowing frequency, intense fairway aerification and overseeding programs are all increasingly popular due to the acreage reductions associated with contour mowing. The

small, lightweight, maneuverable mowers of the 1980's are ideally suited for contoured fairways - virtually gone are the heavy, poorly maneuverable mowers of the 60's and 70's. Any maintenance savings in lessened fertilizer or pesticide costs are easily offset by more intensive management in other areas - increased mowing time, increased aerification and overseeding, and possibly increased mowing frequency. However, contoured fairways and lightweight mowing fit nicely into the triangle because maintenance programs can be tailored for different specific situations.

Another feature of the golf course receiving increased attention is sand bunkers. Sand bunkers, when properly designed and maintained, are very beautiful. They always have required more than their share of hand labor and probably always will. But the "flash bunkers" of the 1960's with all their hand shoveling are gradually being replaced by the cape and bay bunkers of today. Cape and bay bunkers require mowing with hydrostatic drive mowers, such as the Ransomes Motor 180, to maintain their good looks. These mowers eliminate much of the hand mowing which is the inherent problem with this bunker style. Sand bunkers will always be a maintenance headache, no matter the style. But, for maintainability give us the cape and bay bunker anytime over the old flash bunker - a bit of hand mowing is definitely preferable to constant sand shoveling, especially as the rain washouts always seem to happen over the weekend.

Mounds on the golf course, either as greens backdrops or as framing for fairways, are very popular and among the most beautiful features on courses today. Here again though, maintainability must be taken into consideration - the "chocolate drop" mounds with their 1:1 slopes and 6-8' heights show little regard for either maintainability or playability. Mound slopes should be at least 2:1 or 3:1 to permit machine mow-

ability. Properly designed mounds take into consideration all three sides of the triangle - the game of golf, eye appeal and maintainability.

Greens of the 80's have changed dramatically from those of the 60's. They are generally smaller and much more undulating. Their smaller sizes permit easier maintenance, but severe undulations can make both maintenance and playability a nightmare. Then add to the formula bunkers placed at virtually green edge and it's then a very difficult situation. Compromise between eye appeal, playability, and maintainability is the answer. Good green design allows for distinct areas separated by undulations. Within these distinct areas should be plenty of good cupsetting area. Undulations over the entire green without regard for pin placements are a double whammy - a nightmare for the cupsetter and for the average golfer.

From the very beginning of remodeling and reconstruction, it's the responsibility of both the architect and the superintendent to insure that the new design fulfills all three facets of the triangle. In addition to being appealing and playable, it must be maintainable within the potential limits of the course budget. If your operating budget doesn't currently allow for adequate labor, will your next budget be expanded to permit proper maintenance of those new design features? If you are currently ill-equipped to maintain those new bunkers and mounds, will future budgets permit capital purchases to correct the situation? Always recognize that construction of new course features, whether they are relatively simple (mounds, tees, or bunkers) or very involved (new greens, completely contoured fairways, or rerouting of holes) will most likely change the maintenance requirements. Anticipate what changes will be necessary and plan for them. If you understand and plan for the proposed changes, you will be far ahead of the game. Then your new construction will be a joy for all involved - maintenance staff, club membership, golf professional, golf architect, and the golf course superintendent.

Is Your Golf Course A "Small Quantity Generator of Hazardous Waste?"

By Bill Roberts

During the month of March, a series of workshops were held in Wisconsin addressing the issue of "hazardous waste management for small quantity generators." Individual members of the Wisconsin Golf Course Superintendents Association may be, by strict definition, not classified as "small quantity generators" and, thus, may not perceive any real need to investigate the procedures, regulations and potential litigation that may result from generating any quantity of hazardous waste. However, the simple fact is that without the regulations, without proper planning and without a sense of responsibility it will prove difficult, if not impossible to dispose of such materials.

The Wisconsin Department of Natural Resources, in conjunction with the University of Wisconsin-Extension, have developed a "joint program for educating small businesses on the hazardous waste laws." "Program Directors", who have presented a very objective, concise and timely overview of the subject included Mary E. Hamel, Public Information Officer with the Department of Natural Resources and Amy L. Wachs, Hazardous Waste Specialist with the Community Dynamics Institute of the University of Wisconsin-Extension.

Beginning by presenting several "worst-case" examples, Ms. Hamel described three situations which detailed disastrous results as a result of improper disposal, accidental leakage or simple irresponsibility. Love Canal, New York where a suburban housing development was built over a chemical company's land fill is now a deserted neighborhood as is Times Beach, Missouri where a "hauler" applied dioxin contaminated sludge to town roads in an effort to "cheaply" seal those surfaces. Closer to home, Ms. Hamel cited the 1974 Soo Line Railroad derailment in Buelah Station, Wisconsin which allowed liquid phenol to leak into the groundwater and contaminate twenty private home wells. We have all read or heard stories of similar damages done to our environment and, in fact, there are 28 such sites in Wisconsin alone on the federal "Super Fund" cleanup listing. An additional 20 Wisconsin sites are on a state "cleanup"

listing and when one considers that the average price tag for a "Super Fund" site "cleanup" project is \$5,000,000 one can begin to appreciate the need to prevent such action from ever being necessary.

A hazardous waste has been defined as "any substance or material in a quantity or form which poses an unreasonable risk to safety or health or to property." Further, the form of such hazardous materials may vary depending on that quantity, how it is stored and so on. And further consider that "hazardous waste" can be found in almost any location and in virtually any business including dry cleaning, printing, electroplating, vehicle maintenance, painting, agriculture and manufacturing. Consider a golf course management operation with any number of paints, parts cleaners, solvents, fuels and pesticides being utilized on a day in-day out basis and it becomes apparent that consideration must be given to the safe and responsible disposal of such materials. Ms. Hamel explained that the 1976 Resource Conservation and Recovery Act (RCRA) established the principle of "cradle to grave" management for dealing with hazardous waste which in effect specifies that as long as the "user's waste remains a problem, the user is part of the problem." That is; if waste from a golf course or a dry cleaner or a printer creates a problem, and even if that user paid someone else to dispose of that problem, then that golf course or dry cleaner of that printer is still liable. Even if one does not meet the "Small Quantity Generator" requirement of 220 lbs., the party generating the waste remains responsible for any adverse effects of that waste.

Ms. Wachs elaborated that lawsuits can and have been filed and successfully litigated against waste generators on the basis of "joint and several liability," the so-called "deep pockets liability," in which it is presumed that if one person's waste is causing a problem then everyone's is causing a problem if the one cannot be identified. She went on to point out that the only defenses for hazardous waste liability include vandalism, and "Act of God" or an "Act of War." Further, that

most insurance companies will not underwrite pollution liability insurance, so again, the onus is really borne by those who generate such material. This concept of "fault is not an issue" through "joint and several liability" was further endorsed by Congress in the 1980 "Comprehensive Environmental Response, Compensation and Liability Act" (CERCLA or Super Fund) and by "Hazardous and Solid Waste Amendments of 1984" to RCRA. Further, "Super Fund Amendments and Reauthorization Act of 1986," authorized clean up payments only for what could not be recovered from violators. Clearly, the federal government and state government, which must meet minimum federal regulations and in almost all cases exceed such federal regulations, have determined that the "environment is no longer free."

With that very specific background, the presenters went on to provide some insights as to how to avoid, or at least minimize, such exposure in a small business operation. Their prescription for "initiating a hazardous waste management system" includes a number of steps but is really initiated by identifying what materials are waste, and determining whether they are hazardous. Obviously, this entire procedure is beneficial in forms of decreasing potential costs and limiting liability.

An enhancement of the previously stated hazardous waste definition would include any "material that can no longer be used for its original intended purpose" and/or a "material that is still unable for its original intended purpose but you choose to discard it." Listing of specific materials can be found through NR 181.16 of the Wisconsin Administrative Codes and include any and all materials determined to be ignitable, corrosive, reactive and/or EP toxic. This information may also be available through Material Safety Data Sheets which should be obtained at the time of purchase. If such information is unavailable, it may become necessary to test the material for hazardous characteristics which appear likely since such testing is quite expensive.

Having determined that a material is indeed, a hazardous waste and that off-

site disposal is necessary then triggers a process which will require a good deal of investigation and "detail work." First, an EPA Identification Number must be obtained in order to even discuss disposal. Such a number is available by writing to the Wisconsin Department of Natural Resources, Bureau of Solid Waste Management, Box 7921, Madison, WI 53707 and asking for a United States Environmental Protection Agency Notification Form. Processing may take six to eight weeks but once established, this identification number stays with the facility permanently.

It then becomes necessary to select a disposal site. A listing is available through the Wisconsin Department of Natural Resources and when determined, a call should be made to establish needs as to packaging and testing requirements. Also, be sure to secure the disposal site's EPA identification number and its state license number. It may be wise to contact federal or state regulators to determine if the facility tests waste and if so, how often? Also, what kind of security is employed at the site? Is the facility in compliance with all state and federal regulations? Have there been any violations in the

past? What kind of employee training takes place? Does the facility have insurance? Remember that you as the generator are ultimately responsible for that material so it is prudent to research before agreeing to send material to a specific site.

The same premise holds true when selecting a "transporter." Questions to pursue will include: Whether the hauler is licensed to transport hazardous waste and through which states is he licensed? Does the transporter have insurance? Are there special services for small quantity operators? What precautions are taken to minimize spills or leaks? What about employee training? Will the transporter go to your selected disposal site? Once transportation and a site have been arranged, the waste must then be prepared according to federal Department of Transportation requirements. Regulations are in place to cover determining the hazard class, identification numbering, shipping name, packaging, marking, labeling and manifesting of such materials.

Of course, many preventative measures can be undertaken in order to avoid the generation of hazardous waste in the first place. Not only do these measures limit one's potential

liability but they, again, reduce costs. Consider for example, modifying purchasing practices so that only what is needed is kept in inventory. Substitute nonhazardous products and practices and improve handling practices. Be sure to keep waste streams separate because nonhazardous waste becomes hazardous when mixed with such a material and be aware of changing technologies through chemical suppliers, consulting firms, information available through associations and journals. It really is in everyone's best interest to begin applying these principles and to become aware of the regulations that apply because they will not go away and enforcement is mandated. Educational sessions are available so that ignorance is not only no excuse legally, it is also no longer an excuse ethically and we as Golf Course Superintendents can keep our own "houses in order" by working with and through the system. Workshops, such as the one described, point out a sense of cooperation between user and regulator and that is, in the final analysis, the only way to insure a sound environment for the future.

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THE STEWARD CONFERENCE: *Count Us In!*

By Bill Roberts

March 28, 1987 marked the occurrence of the first meeting of a seemingly diverse group of organizations from throughout Wisconsin who, in the longer perspective, actually represent a common theme. As stated in the conference theme, this mutual view concerns the "re-investing in our Land—Based Economy and Natural Resources". Adopting the acronym "STEWARDS Conference", (Silviculture, Tourism, Environment, Wildlife, Agriculture, Recreation and Development) this gathering was sponsored by the Wisconsin Wildlife Federation, the Sierra Club, the Wisconsin Farm Bureau, the Wisconsin Towns Association, the Wisconsin Land Conservation Association and the Wisconsin Tourism Federation.

The Wisconsin Golf Course Superintendents Association was in attendance and will continue to provide input as a legislative agenda is developed. Among the concerns enumerated by the Wisconsin GCSA and referred to by speakers and discussion panel members throughout the day were:

- A) a need for support for agricultural and horticulture extension activities through the university system,
- B) a need for a coherent and consistent land use planning policy including a clear consensus on how to develop and manage "marginal" lands,
- C) a need to define accountability in terms of groundwater protection and in terms of maintaining ground water integrity,
- D) a need to define the same accountabilities in terms of surface waters of the State,
- E) the need to develop an emphasis on Integrated Pest Management,
- F) the need to provide economic incentives which will allow for development of alternate land uses (this could include recreational facilities such as golf courses),
- G) the need to recognize that economic development and the "quality of life" in Wisconsin are in-

evitably linked and that factors such as recreation (again including golf courses) are a part of that "quality of life",

- H) a need to enhance requirements in the area of pesticide use in order that "economic thresholds" are recognized and that the judicious use of pesticides by professionals, such as Golf Course Superintendents, is accepted as an essential management tool.

These items are, of course, only a few of the areas of concern to the long-term development of recreation/alternate land use planning and resource management which can, in fact, impact the growth of golf in Wisconsin.

Several speakers at the STEWARDS Conference, while addressing the overall needs of resource preservation and enhancement, alluded to themes appropriate to Golf Course Superintendents specifically.

Howard Richards, Secretary, Wisconsin Department of Agriculture, Trade and Consumer Protection, addressed the need to resolve the dilemma of public funding versus private funding on issues which are really not mutually exclusive such as ground water protection. Further, Secretary Richards defined the need to develop "skillful managers", who when utilizing capital and resources, can see the long-term effects of decisions including the ramifications regarding the "human resource".

Further that, as is happening in the arena of golf course management, current investments in technology will lead to better and safer techniques. Also, a major thrust in Wisconsin in the future will include "sustainable agriculture". The adaptability of techniques used in golf course management (perennial crop) may be of use in this research. The Golf Course Superintendents Association of America and the United States Golf Association currently sponsor research dealing with breeding techniques, heat, cold and drought stress tolerance mechanisms, disease

and insect resistance that could, in fact, provide a degree of background as we search for plant varieties that require "low input, profitable techniques and protection of the environment". The point is, the knowledge and expertise, may be exchangeable.

Buzz Besadny, Secretary, Wisconsin Department of Natural Resources, in noting that "a healthy environment supports a healthy economy", stressed that the health of both is, in fact, tied to a "partnership" of all interested parties that will be, inevitably, the only way to be effective in protecting our resources.

This remark included a four point perspective that the DNR has viewed as a positive framework for dealing with the future integrity of resource management. These points include:

- A) the need to maintain a long range perspective which can be difficult in an environment that is tied to "annual budgets, short-term politics and elections",
- B) the need to think "preventive" rather than "reactive" and that "education is preventive and cheaper than treatment",
- C) the need to improve inter-agency interaction and cooperation through increased communication and the promotion of the concept of shared responsibility towards resources,
- D) the need to increase cooperation with the private sector to, again, promote shared responsibility. This effort will mean increased efforts in the area of public relations.

As noted, numerous specific issues were noted throughout the day by speakers and participants, and, while all of these items will have to be synthesized into a coherent agenda, it must be emphasized that a major step has been taken in addressing the needs of the future. The Wisconsin Golf Course Superintendents Association will be a part of that future and can look forward to helping to shape that destiny.