National Mower Celebrates 75th Anniversary With Contest To Find Oldest Mower

The year was 1919. The 19th Amendment to the U.S. Constitution was ratified to usher in the era of Prohibition. World War I was formally ended with the signing of the Treaty of Versailles in France. Stanard Kinkead was back from the Great War and in a small shop in St. Paul, Minn., he opened for business as the National Mower Company.

To commemorate its 75th Anniversary, the company is offering a $100 Anniversary Reward for the oldest National Mower still in active service. $100 will be presented to the person who locates the machine and $100 to the person who owns it. All entries must include a photograph and must be submitted to National Mower by July 1, 1994.

The company's photo archives revealed a very early, horse-drawn 84″ gang-type triplex from 1921. Three generations of the Kinkead family and their more than 90 dealers have produced National mowers for trimming traps, handling crowns and overhangs and climbing steep hills.

Early, horse-drawn 84″ triplex mower

NOTICE:
June Meeting at Tianna Country Club

Tianna Country Club is approximately 200 miles north of Minneapolis/St. Paul. If you plan on coming up early and need information on hotels, restaurants, etc. call the Leech Lake Chamber of Commerce at 1-800-833-1118 ext. 93, or give Bill Cox a call at Tianna Country Club, 218-547-2141.

FTC, EPA Crack Down on Misleading Product Claims

Cooperative efforts between the Federal Trade Commission (FTC) and the Environmental Protection Agency (EPA) are resulting in a crackdown on false or misleading advertising claims for turfgrass products.

The two agencies joined forces recently to develop advertising guidelines that take into consideration everything from product performance claims to alleged environmental benefits imparted by the products. EPA is defining the guidelines and the FTC is enforcing them.

Already, the cooperative is producing results.

Orkin Exterminating Co. recently agreed in a government order to stop advertising that its pesticides were as safe as shaving cream and suntan lotion.

The settlement will halt brochures that advertised certain Orkin lawn-care products as "neither harmful to you or your soil," and "practically non-toxic."

No fines or penalties were assessed, and Orkin does not admit to violating the law, according to the agreement.

For more information about the advertising claims guidelines, contact GCSAA's government relations program.

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Take-All Patch

By Dr. Julie Meyer
Department of Plant Pathology
University of Wisconsin-Madison

Look in any reference book on take-all patch, and you will find that this disease occurs mainly on bentgrass, when temperatures are cool, soil is moist and where soil pH is high. Unfortunately, these conditions are very typical for golf turf in Wisconsin. And we are indeed recognizing take-all patch as a problem on bentgrass fairways, tees and greens.

Take-all patch is a root disease caused by a common soil fungus. By the time it was recognized as a pathogen on turfgrass in the early 1930s, it was a well-known pathogen on cereal grasses. Because cereals are one of our most important food crops, you can imagine that *Gaeumannomyces graminis,* the take-all pathogen, is one of the best-studied root pathogens. This is fortunate for turfgrass pathologists, who can use this information as a basis for investigations of the disease on turf.

Take-all patch can persist from year to year, with varying intensity depending on weather and host stress. The fungus requires rather high soil moisture to grow and establish itself. It is most active during cool, wet weather. However, symptoms are often more apparent in late summer and early fall. This is because vigorously growing plants often do not succumb to the fungus until the stress of heat, drought or other factors finally tip the balance in favor of the pathogen.

At the edge of a diseased patch of turf, the plants have few roots, and detach easily from the soil if you gently tug them. If you look at the remaining roots under the microscope, you'll see dark-brown hyphae, resembling thick, dark thread, running over the surface of the roots. In mixed strands, the bentgrass will often be killed, leaving other grasses intact. As a band-aid measure, diseased bentgrass patches may be repaired with a piece of fescue or Kentucky blue grass sod. These species are generally not susceptible to take-all.

One of the main soil properties affecting take-all disease is soil pH. J.D. Smith, working at the time in Great Britain, was the first to show definitively that the pH in the top one-half to one inch of soil is critical to the development of take-all patch. This top layer of soil is where the pathogen is most active and where most microbiological activity takes place. He showed how liming with fine grade lime could lead to outbreaks of take-all patch, and how acidification with ammonium sulfate helped to control the disease.

This sensitivity to soil pH offers an opportunity to control this disease within a fertility program. Indiscriminate use of lime or alkaline fertilizers should be avoided, especially if you know the pathogen is present. Even if your soil is generally more acidic, low dosages of lime or alkaline materials can raise the pH of the top one-half inch of soil very quickly. It is these quick changes in pH which can be most conducive to take-all development. Maintaining the turf so that the top inch or so of soil is around 6.0 or slightly less is the best way to reduce the risk of take-all. Fertilization with ammonium sulfate has been reported by several turf pathologists to be quite effective in clearing up take-all patch over two or three seasons.

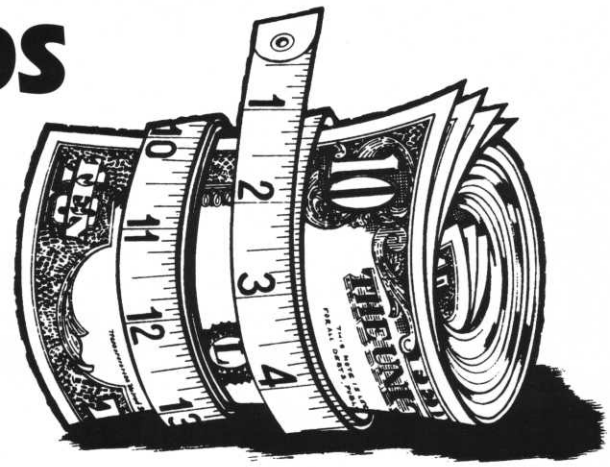
New bentgrass plantings are especially prone to take-all patch, especially if claimed from recently forested areas or if the soil was fumigated before planting. These are situations in which the microbial activity is very low. Take-all patch is an example of a disease that is easily suppressed by the activity of other microorganisms. *G. graminis* grows extensively outside of the root before it actually enters and infects the root, so it is open to competition and attack from other microorganisms that grow on roots. In the early 1980s, dramatic photographs were published showing how bacteria colonize and parasitize *G. graminis* on wheat. We don't know for sure, but it is likely this biological control happens on turf roots, too.

If left alone, take-all of cereals will decline over a period of about 5 years following a severe outbreak, and eventually disappear. This is thought to be due to changes in soil chemical properties, such as pH, and an increase in biological control that eventually suppress the activity of *G. graminis.* There are a few reports of this occurring in turf also.

G. graminis spreads slowly by growing from infected roots to new plants. Spores are not produced very often. The fungus is spread over longer distances by the movement of infected plant tissue during cultivation, such as core aeration, dethatching and perhaps even on golf shoes. Thus it may be practical to work areas known to have severe take-all separately.

Gaeumannomyces graminis, like most turf pathogens, is common in turf. Our goal in take-all control is not complete eradication, but to keep this fungus from causing visible symptoms. I believe our increasing knowledge of turf soils and management practices that suppress the pathogen are leading to stable and effective ways to keep this disease in check.

HELP SOME DESERVING KIDS INCH THEIR WAY THROUGH SCHOOL.



Like everything else, continued education isn't cheap. Have you checked the price of tuition lately? Or how about your basic textbook?

Today's turf students have their work cut out for them, in more ways than one. National Mower and North Star Turf have come up with an idea to help lessen the financial burden felt by many students. It's a fool-proof plan, but we desperately need your help. Here's how it works . . .

For exactly one year, beginning July 1, 1993, National Mower and North Star Turf will donate $1.00 to the MGCSA Scholarship Fund for every inch of cut when an MGCSA member purchases a National mower. This means when you purchase a 68-inch National, we will contribute $68.00 to the scholarship fund. The purchase of an 84-inch National would result in, you guessed it, an $84.00 contribution.

Those of you who own a National are very familiar with its reputation as a reliable, durable triplex delivering a quality cut. For those of you who have never owned a National, there's no better time to buy one and, at the same time, help some needy turf students work their way through school.

Show some school spirit. Buy a National!

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GCSAA Responds to Wall Street Journal Article on Environmental Criticism

(Ed. Note: Following is a copy of the GCSAA's response to an article that appeared in the May 2, 1994 edition of The Wall Street Journal. *We hope that the response helps you and your local colleagues answer questions from your members and media about the story.*

We also encourage you to respond appropriately to this or any other articles that tends to misinform the public about our practices. Please keep in mind that we are professionals and that it's important that these responses be well-documented, reasonable and calm.)

* * * *

May 5, 1994

Mr. Ned Crabb
Letters to the Editor — Wall Street Journal
200 Liberty Street, New York, NY 10281

Dear Mr. Crabb:

Your publication has always led the way in debunking eco-myths (e.g., the Alar scare), so I was surprised at Timothy Noah's article on the environmental criticism that has been leveled at golf courses of late.

Instead of highlighting the remarkable efforts being made to ensure that golf courses are environmental assets for communities, the article failed to identify the underlying motivation behind the criticism, revived a questionable New York "study" and suggested that those in my profession were irresponsible using pesticides merely to make courses green and pretty. That's unfair and here's why:

1. The great majority of the criticism directed at golf courses has been generated by local interest groups who wish to stop a particular development. We agree that communities should have the right to control their own destinies, but it often seems to be at the expense of our industry's reputation. In short, golf courses everywhere have been victimized by feverish anti-growth rhetoric in a few communities.

2. Golf course superintendents are widely recognized by the regulatory community as being among the best-educated, most judicious users of pesticides. These professionals are leading the way in the use of integrated pest management practices, high tech application systems and new generation chemicals and biological controls. As the United States Golf Association's forthcoming research report and numerous previous independent studies show, the products we use on our existing golf courses do not tend to migrate into ground or surface water—despite some dire and often undocumented claims to the contrary.

3. The report on golf course pesticide usage on Long Island issued by former New York attorney general Robert Abrams contained a great deal of alarmist language with little or no scientific documentation. It can not be considered to be a valid representation of real-life golf course management practices.

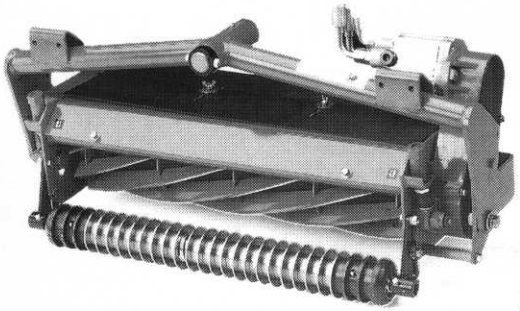
4. The quote suggesting that golf courses are "nuked" with chemicals "to get the grass looking real nice" goes to the heart of the biggest fallacy about golf course management practices—that these products are used for purely aesthetic reasons. This is simply not true. The primary reason to prevent pest damage is to ensure the playability of the course and the value of the property and the enjoyment of the game of golf. Golf courses are extremely valuable assets, both as real property and as community greenspace. They employ hundreds of thousands of people, dramatically increase the value (and therefore the tax base) of the adjacent property and provide recreational and physical fitness opportunities for more than 25 million Americans each year. In short, they are far more than just pretty playing fields.

5. As the author correctly noted, the study our association commissioned to gather information on causes of death among GCSAA members over the past 25 years cannot and should not be used to imply that a cause-and-effect relationship exists between occupational chemical exposure and human health. We asked the University of Iowa to conduct the study simply to establish a baseline for a long-term, in-depth study of all health and safety questions facing our current members. We are piloting that study this year. As far as the lead investigator's statement that it's a "prudent strategy" to reduce opportunities for pesticide exposure among golf course workers, we agree wholeheartedly. That's just common sense.

6. Finally, I felt that the illustration that accompanied the article (a cartoon which depicted golfers in "moonsuits" was not reflective of the content. Return to the Alar scare for a minute. The most unfortunate part of the whole unsavory story was that people stopped a very healthy activity (eating apples) because of an extremely remote health risk. Your illustration flippantly creates a perception that golfers have something to fear. Nothing in our study or any other credible scientific research indicates that golfers are at risk.

In closing, I urge any golfer who has a question related to this article to contact his or her local golf course superintendent to find out the real story. Ask your superintendent about wildlife on the course, about the realities of chemical management practices, about the course's environmental philosophies. I think golfers will find the real story much more positive than the one presented recently in these pages. I also urge the *Journal* to revisit this subject in the future and to take a much more comprehensive approach.

Sincerely,
Joseph G. Baidy, CGCS, President, GCSAA



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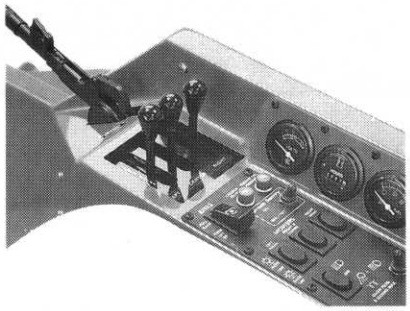

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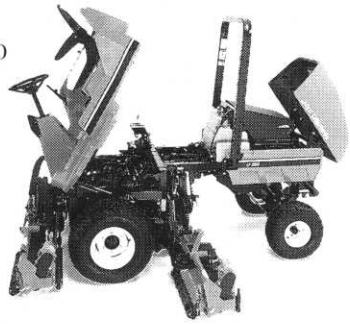

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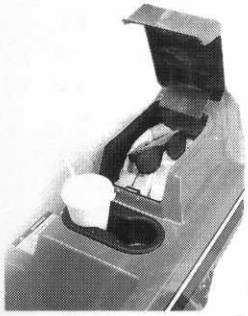

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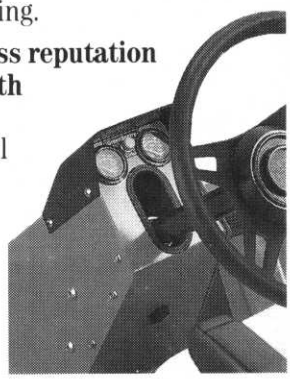

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The Tao of Turf

By Dr. Frank S. Rossi
UW-Madison; Horticulture

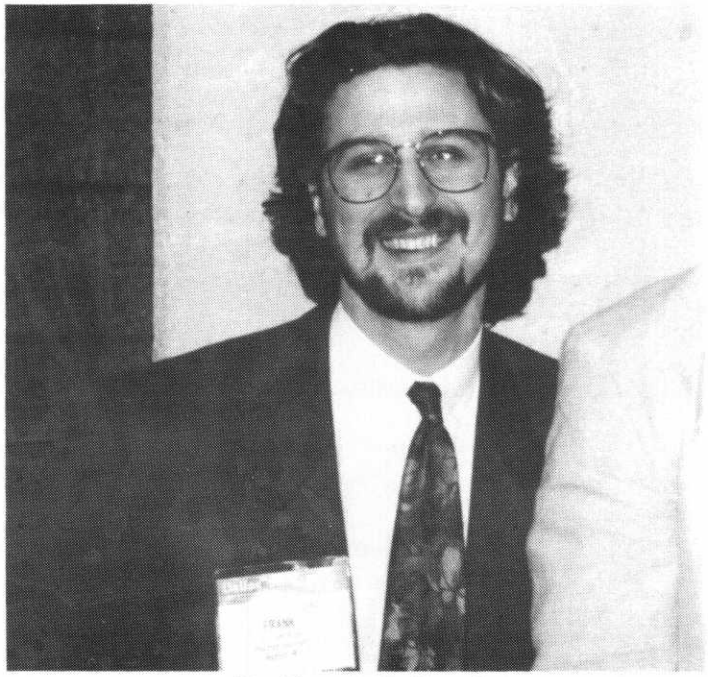
The Tao. I will be writing a semi-regular column for *Hole Notes* and like to have a by-line that encompasses the theme of my articles. For example, my by-line for *Grass Roots* (Wisconsin's publication) is *Gazing in the Grass.* It came to me as I was writing my first article for Monroe and after having read his work over the years, I wonder about many things in our profession and remember finding many answers to my questions on the golf course by paying attention (or gazing) at the grass. I thought I might provide some background this month on how I came to deciding on my theme for *Hole Notes.*

Tao (pronounced dow - rhymes with how) simply stated means "the way of things." The beauty and elegance of this philosophy is its simplicity. Each of us has a way of being who we are: golf course superintendents, scientists, extension educators, parents, spouses, volunteers, fishermen, hunters, etc. For each aspect of our life there is a way of being that is most pleasurable when we follow the path of least resistance.

The Tao of Turf. Many of us have watched the incredible growth in the turfgrass industry over the last 20 years and wonder if we really have improved things that much. Expectations are higher, demands on our time are greater and more new technologies are available. I thought that new technology was supposed to make our lives easier? For example, sophisticated mowing equipment has enabled us to lower cutting heights to where we are mowing fairways in some areas as low as we used to mow greens. A golf commentator in speaking of the greens at Augusta suggested that "the greens were mowed with hair remover wax."

I wonder, is this the way (or the Tao) of turf? Is this a path of least resistance that leads to a well-balanced environment? Sometimes I am amazed as the level of complexity that many people speak of regarding golf course management. Please don't misunderstand, I am not against new technologies. On the contrary, I firmly believe that acceptance and **integration** of new technologies could simplify our management programs. However, successful integration is very different from diversification, in other words just having more tools rather than better tools. Also, integrating new technologies demands a thorough understanding of the advantages and limitations of each technology. My hope for these articles is to provide information that you can use when deciding whether certain technology is right for you.

Perspective. I started my turf management career at the ripe age of 11, pushing a lawnmower around the neighborhood, then working on a landscape crew at age 13 and ending up on the local golf course pushing a rotary and dragging hoses at age 15. As a kid from a working class



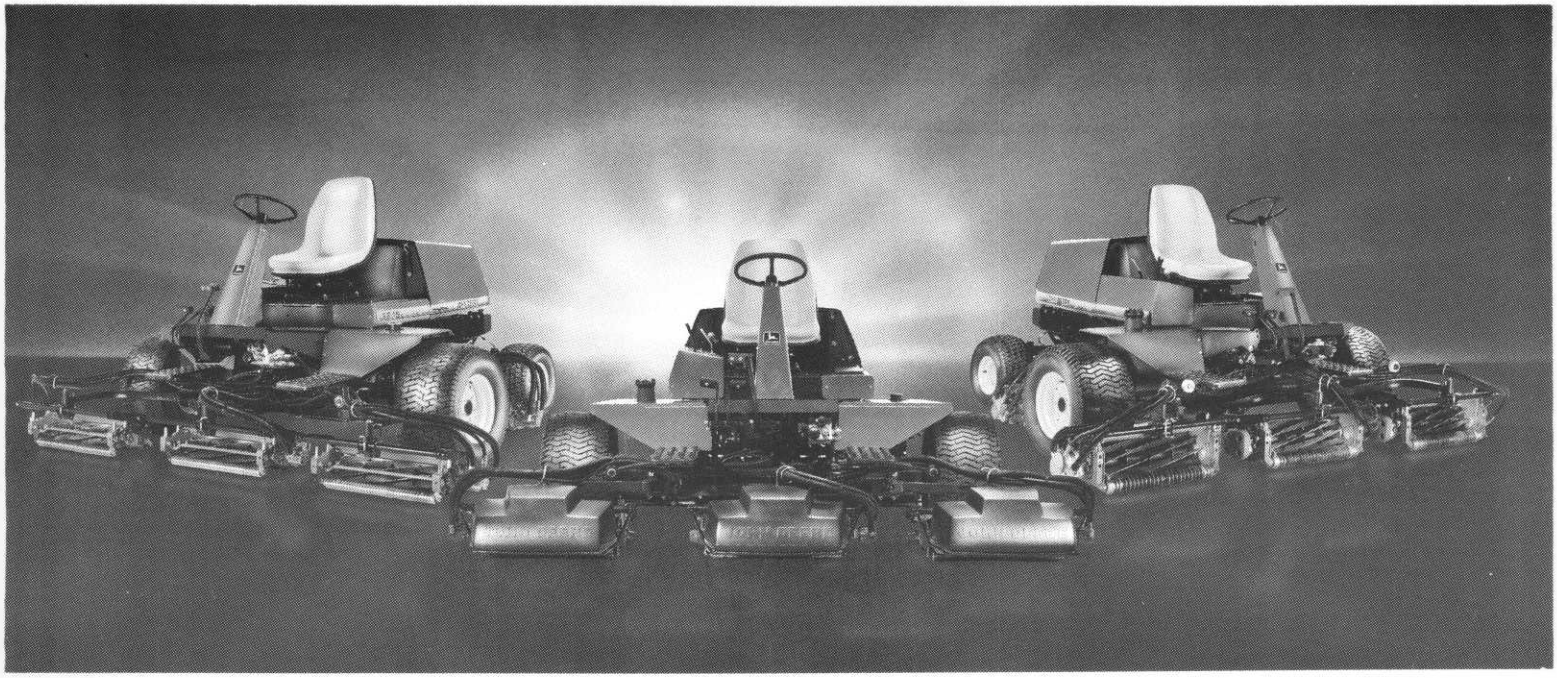
Dr. Frank S. Rossi

home, I always wondered where people found all the time to play golf? My dad had to work, my mom worked part-time and raised the kids; even I had to work!

One of my most vivid memories of my first golf course job was being yelled at for syringing fairways while people were playing. We had a quick coupler manual system and my job on hot summer days was to syringe the fairways. I would carry eight sprinkler heads and run down the fairway inserting them. After I hooked up the last head, I ran back and unhooked the first one until the entire fairway was watered. We had annual bluegrass with no root system and the fairways would turn blue if they weren't cooled off. The superintendent understood this, he helped me understand it, but I could not help the golfers understand it. I was called names that, up to that point in my life, I had never heard.

Why would the members of the country club be mad at me for doing something to help their golf course? Why was I being yelled at for trying to keep the grass alive? For a 15-year-old these are very confusing issues. I asked our foreman, a former boxer for the Haitian Olympic Team, came to the states in the late '60s with an eighth grade education. He told me two things: 1) not to let it bother me because no matter what we do we cannot please everyone and 2) to the members, what is best for the grass is less important than what is best for the golfer. Ah ha! The way of things!

(Continued on Page 24)



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Attempting the Master Plan

By Ted Baker, President
Ted Baker & Associates

(Editor's Note: This interesting and well written piece by Ted Baker is accompanied by some equally interesting side-notes by Bill Newton. This feature for this issue should be named FROM ACROSS NORTH AMERICA this time. It is an original piece that appeared in the Winter 1993 issue of Ontario GREENS. Doug Suter, golf course superintendent at the Credit Valley Golf Club, is the Ontario editor and distributed issues to those of us attending the Chapter Editors' seminar in Dallas. Both Baker and Newton are Canadians; Bill operates a firm called Golf Images. Thanks to Bill for permission to reprint; Doug was on "holiday" when I was at presstime. The advice and observations of these Canadian friends will please all who read them.)

* * * *

The construction of a golf course is like building a house—neither is ever finished. Always, there are changes and improvements to be made.

For example, the critical list for a course includes areas of poor drainage, places where grass will not grow, trees to be planted or cut down, greens that settle—the job never ends.

Nonetheless, because a golf course evolves over many years, the business of being involved in design refinements can be exciting.

It is the job of management and/or the green committee to keep up with various problems and to use capital wisely to correct the offending areas. Golf course deficiencies, such as those mentioned, are often only symptoms of underlying design or structural problems. And, at most clubs, there are dozens of expert opinions of what the problem is and how to rectify it.

The ultimate answer is for management and the green committee to work with a golf course architect to develop a master plan. This is usually a phased program of five to ten years during which improvements will be made to the course in a logical, sequential manner to avoid duplication of construction. More importantly, a good plan can avoid replacing one problem with another.

The evaluation process usually started by the green committee, which eventually leads to the preparation of a master plan, starts by defining all the things that are wrong with the golf course. Although this information is critical, I believe it is the wrong place to start.

A golf course has a very special place in the lives of members. It is a property they usually cherish and regard as theirs. The club they have chosen to join, and often at great expense, becomes an extension of their home. The course they love has features which make it unique to them, challenging and ultimately worth their investment of time and money.

Thus, if the deficiencies of the course are the factors that lead to the exploration of a master plan, it is the amenities of the course that should become the foundation of that plan.

I believe very strongly that prior to tackling the problems of the course, or even identifying those issues, the golf course architect—in consultation with the membership—should record those holes or features found on the property that make it special to the membership.

The identification of these features will also start to define the original style of the design. This is important given that each property lends itself to a particular architectural approach. Assuming the first attempt correctly captured the spirit, a good master plan should identify the particular signature of the original designers and reflect those characteristics in any changes made to the course.

Typically, the style of berming, contouring and shaping must be consistent. It is only through discovering the merits of the golf course that the plan can ultimately be judged.

On completion, the master plan should ensure that those features that were found to be exemplary in the beginning remain, and, perhaps, are reinforced. As well, the design recommendations must be in keeping with the heritage of the property.

Every golf course generates many positive thoughts. Think about yours. Here is a check list I often use in the pre-design process. Certainly, it is a kind of mental gymnastic I go through to describe my own course during conversation.

Thinking about your own course

- *Think about the holes* that make you comfortable.
- *Think about the greens* you wait with anticipation to hit into.
- *Think about the places* where you will find yourself turning in a slow circle to take in the full panoramic view.
- *Think about those warm,* protective places in early spring or late fall and the cool-shaded areas that are a welcome relief during hot summer days.
- *Think about the hole* which, every year, is the turning point in the club championship.

(Continued on Page 36)

Training Makes the Difference In Use of Pesticides

In the 1990s we have heard a lot about pesticide exposure and how to minimize the risk to employees and others who may come in contact with the pesticides. A recent study at the University of Guelph in Ontario, Canada, looked at the entire spectrum of exposure to pesticides and reported some very interesting results. In a nutshell, everything we have always believed as true was verified, but let's look a little closer at some of the information we now have.

The study looked at 2, 4-D exposure by professional applicators. The total exposure was measured, that is, how much 2, 4-D these people handled and then how much 2,4-D was excreted from their bodies over a period of time. Since 2, 4-D and other pheonoxy herbicides are such a hot topic with so many people today, this presents some good information with which you should become familiar.

The results found no correlation between how much 2, 4-D was handled and how much was excreted. In fact, the person who was the loader/mixer at the firm actually had a lower excrement level than some of the applicators. The applicators themselves had all different levels of excrements when they were exposed to virtually the same amount of 2, 4-D.

So what makes the difference? Very simply, it came down to the care taken by the person handling the pesticide. The mixer/loader understood, apparently, that he was handling a more concentrated material and therefore was more cautious. The applicators had varying levels of exposure. Rolling up hoses with bare hands, not using boots or long pants, all increased the amount of 2, 4-D excreted by the applicator. This information backs up a study done at Michigan State University several years ago that showed proper uniforms decrease overall exposure dramatically.

Another aspect of this study looked at exposure to persons who walked on the sprayed turf or who were bystanders to the application. Certainly, these are concerns for everyone who applies pesticides on golf courses. The bystanders had no measurable exposure for 96 hours after the application, and the persons who walked on the turf, the only ones who had a measurable response were those in bare feet and shorts who sat on the turf within an hour of the application. Even so, the excrement was below any World Health Association acceptable daily intake levels. The good news here is that if people are wearing shoes (and most of our players do!), then their potential exposure is exceedingly low, if not nil.

The bottom line from this study is that proper training does make a difference. Any time spent teaching our applicators and other employees about the proper use of pesticides and waiting until the applications dry before coming in contact with the turfgrass will pay big dividends in employee health and safety. One word of warning. Don't assume that your long-term employees don't need the reminders! The MSU study indicated that it was the more experienced applicators who were a bit more careless and had higher levels of exposure. All employees need constant encouragement to work safely and to use the proper safety equipment. As the Superintendent, it is your job to be sure they follow directions. *—Tim Doppel (A Patch of Green)*