President's Message

A RHAPSODY IN GREEN

Each season has its color(s), and there is no arguing that the color of summer is green — infinitely varied shadings of green. It reminds me of an old Bohemian legend I once read about. This legend tells of twelve silent men — the twelve months of the year — sitting round a fire that never goes out. The fire is the sun, and three of the silent men wear cloaks of green. Those three are the months of summer. I have no doubt that the deepest green cloaks are worn by the months of May and June.

These are the grass months. That realization couldn't have been brought to my attention more embarrassingly than it was about an hour ago. I was, in fact, admiring how nice the golf course was looking — everything that should be mowed, has been. The members tell me that the greens are putting beautifully. The fairways have responded really well to two years of lightweight mowing, and it brought to mind the old ten-bladed gang mowers. Panic! I hadn't seen them for a couple of days, and as I looked across and back over the out-of-the-way area where they are parked, I didn't see them. Vandalism has always been a serious problem, but how in the world would anyone steal a seven gang set of mowers? And what would they possibly do with them? Then my face got red — my gang mowers were parked in the middle of some foot high bluegrass! At least they had been very neatly trimmed around — small consolation. Yes, these are indeed the months of the greenest grass. And I did send a man out to move the mowers and cut that long bluegrass!

I think that May and June are probably the months that should find Wisconsin Golf Course Superintendents the proudest. Recovery of any winter damage is usually complete, our enthusiasm and exuberance are still very high, most of us now have a full staff, the golf course is in beautiful condition, and the grass is healthy and growing. I have long thought that a Golf Course Superintendent in June is a little like the man in the Grimm Brothers' fairy tale who could hear the grass grow! There are June days that I think I can hear the grass grow, too, and I could swear it starts to grow up your pants leg if you stand in the same place for longer than five minutes. We would be lucky to have our golf courses looking so refreshed and alive in August.

And it is not just the various turfgrasses that give our golf courses such a vibrant verdure. As with other seasons and in other months, the trees add immeasurably to the color of the golf course landscape. For example, an apple tree might have 100,000 leaves and an elm tree (one of the few that each of us has left) can have more than a million leaves. And more surprisingly that either of these numbers is the fact that a single sugar maple may be covered with half an acre of leaves! Someone should someday take the time and estimate the area of the summer leaves on his golf course — it would be a staggering number.

When thinking about the greenness of these days, I have to stop and reflect on the miracle of plant life, the miracle that is made possible by photosynthesis and chlorophyll, the green ink of plants. This great chlorophyll producing time of the year, the time of such green grass and such green leaves, makes one wonder about the volume of chlorophyll that there is within the boundaries of his golf course. Is there enough to fill a small pond? A philosopher from centuries before Christ, not knowing any of the details of chlorophyll and sugar production, recognized its importance by writing, "The plant captures air, water and salts, and, with the sun's aid, builds them up by vital alchemy into the bread of life. All flesh is grass." That last line may be a slight overstatement, but for us, grass is at least a living and a good way of life.

Others are thinking of green grass, too. One of my favorite members asked a rather interesting and perceptive question a few days ago. He basically was curious as to why grass is able to continue to grow and remain healthy and vigorous with repeated mowings, when you are obviously unable to do that with other plants, like corn, oak trees or zinnias. I know full well others have wondered about this, but just haven't asked. The answer was an easy one — for a plantsman — grass plants have the growing point at the crown or base of the plant. As a result the stem is continually being pushed up during growth from the bottom. Mowing just cuts off the tops of the leaves and stems and the growing point is untouched. Frequently, growth is even stimulated by the removal of grass blades because mowing will allow more sunlight to reach the growing point and the result is an increase in the rate of growth. He asked a good question, one that was different than most I get.

These days of early summer in Wisconsin, when everything is go green and beautiful, were noted in a responsive reading in a church service Cheryl and I attended fifteen years ago. I clipped it from the church bulletin and retrieve it each year at about this time to read and enjoy. It is worth sharing:

Let us now praise the Lord through the Psalms and through the experience of Wisconsin in June. Let the heavens be glad.

Thank you, Father, for the skies on a summer evening.

And let the earth rejoice

Our earth sings with the greenest of grass, and the golfers are happy.

Let the sea roar, and all that fills it

Our lakes are blue, and the fishermen are happy.

Let the field exult, and everything in it

It's haying time, and the dairy cattle rejoice.

Then shall all the trees of the wood sing for joy

Thank you, Father, for tree-shaded streets.

Before the Lord, for he comes, for he comes

We praise You, O God, for a day in June!

(The leader's passages are Psalm 96:11-13a)

Maybe one reason the grass is so green and growing so well in June is that it is the month of long summer days. It is the month of the Summer Solstice, the longest day of the year. It usually falls on June 21st. I guess that I am always amazed that what seems to be such an early date in the season marks the time, an exact tick on the clock, when the nights grow longer and the days grow shorter. The Summer Solstice is when the sun rises and sets farthest north, and much to my surprise it pours down one-fifth more heat on the North Pole than on the Equator! From the 21st of June on through the summer months the sun is moving southward, away from us. It seems reasonable to wonder why our warmest days occur when the sun is moving away, but the key lies in the fact that the earth is slow to warm up after the long and cold winter. There is a lag time here for the same reason that the warmest part of the day is not at noon, when the sun is the highest, but rather in mid-afternoon. At any rate, I suppose that I will always find it hard to believe that the move toward fall seems to start so soon. Needless to say, it is a subtle start!

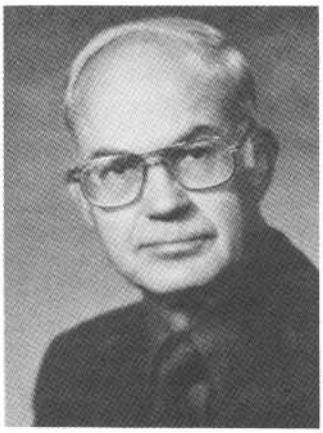
My wish for all Wisconsin Golf Course Superintendents, including myself, is that this July and August would be as pleasant and comfortable and green as are this May and June. Let's keep our fingers crossed.

Monroe S. Miller

Wisconsin Pathology Report

Help For Trees With Interveinal Chlorosis

By Dr. Gayle L. Worf



One of the common—and treatable—problems affecting trees in Wisconsin's landscape are oaks and maples that appear quite yellow. Seriously affected trees will continue to decline and die. Soil and tree injection treatments with iron, manganese, sulfur and similar materials have helped to correct interveinal chlorosis on many trees in Wisconsin. However, more of them have responded poorly or not at all. Recent research reports of Dr. A. Steven Messenger, Northern Illinois University, offer some insight into the reason for the failures often encountered, as well as providing remedial treatments that expand upon those we've used in the past.

If you're having trouble getting a good response with treatments you've administered to date, I urge you to read this article and consider giving this new method a chance before you get out the saw.

Messenger's work indicates that the **high soil pH** associated with chlorosis **can cause both excesses and deficiencies** of nutrients in trees! For instance, chlorotic oaks may be especially high in phosphorus, and also potassium and nitrogen, while low in one or more of iron, manganese, copper, and possibly zinc. Chlorotic red maples may be low in manganese, but high in potassium and iron! Consequently, treatments with specific nutrients such as iron or manganese have frequently failed in the midwest.

Dr. Messenger has developed a series of recommendations for treating trees showing interveinal chlorosis that involve the **avoidance** of certain treatments and the **application** of certain soil surface and soil injection treatments. These have been tested with some success in Wisconsin, and are given below. We have added the footnotes and parentheses for clarification.

Recommended interveinal chlorosis treatment procedures

Avoid the use of:

1. Alkaline hard water (use rain or similar water)
2. Limestone or lime-containing materials
3. Phosphorus and potassium fertilizers
4. Nitrate-containing fertilizers

Apply to soil surface in fall to late winter:

1. Enough sulfuric acid to lower topsoil pH to approximately 6.0: 25-40 liters (6-9 gallons) of 10% sulfuric acid* per 100 square feet beneath the crown. (This reportedly has not injured turf when applied in dormant condition, but be aware of the possibility.)

Apply to soil surface in early spring:

1. 3 pounds of ammonium sulfate per 100 square feet beneath crown and 12 pounds per 100 square feet beyond the drip line.

Apply in auger holes, 2 inches in diameter and 18 inches deep, spaced 18 inches apart in at least two circles around the tree, one circle at a distance from the tree equal to three times the tree's diameter just above its basal flare, the second circle at twice that distance: enough 10% sulfuric acid to fill the hole to within 4 inches of the surface; and immediately add about one teaspoon of manganese sulfate and one teaspoon of ammonium sulfate.

*One source of sulfuric acid is battery acid, which reportedly contains 33% sulfuric acid.

(CAUTION: Use eye shield, rubber gloves and apron, and other necessary precautions to avoid personal injury when handling sulfuric acid! Also, when preparing a dilution, add acid to the water, rather than the reverse.)

I've seen dramatic turnaround of trees in Wisconsin that have refused to respond to Mauget or Medicap injections, or sulfur and iron soil treatments. Let's hope it will work for you!

A Player's Perspective

GOLF IN WISCONSIN COMPARED WITH ELSEWHERE

By Dr. David Cookson

Editor's Note: Dr. Cookson's observations on the "state of golf" in Wisconsin are reprinted from the WISCONSIN AMATEUR GOLFER'S NEWSLETTER, Vol. 8, No. 1, with kind permission from WSGA Executive Director Gene Haas.

Dr. David Cookson
Maple Bluff CC

I have been fortunate to spend a lot of time the past few years traveling about the country either watching golf or indulging my love of playing different courses, and perhaps some reflections on how our golf in Wisconsin relates to other places might be interesting to consider.

Wisconsin is blessed with very good golf course terrain, and throughout the state we have made good use of it. We don't seem to have become enchanted with the overly long golf courses seen in too many places; in fact, many of our most heavily played private courses could perhaps be criticized for too many short golf holes. Still, our courses are generally fun and strategic - and I think measure up well compared with others around the nation. Wisconsin has three courses ranked in Golf Digest's top 25 public courses, (Brown Deer, Lawsonia, and Sentry World) and another in the top 50 (The Springs GC), which by their prominence raises the standards for our other public courses to attain, and they succeed very well. Our private courses, although not recently having been considered for hosting national championships, except the Walker Cup Matches at Milwaukee CC in 1973, are in my judgement, equal to and often superior to comparable clubs elsewhere.

Much of what determines a good golf course is its conditioning, and that is where most courses in Wisconsin are way ahead of the rest. Fortunately, we have many excellent green superintendents in Wisconsin who engage in healthy competition with each other, and if one club in an area seems to be in better condition than the others, there is irresistable pressure for all clubs to get to that standard. This has definitely happened, most particularly in Madison, Milwaukee, Racine/Kenosha, and the Fox River Valley where course conditions are outstanding, and substantially improved over conditions existing years ago. This has not generally, occurred elsewhere in the country. Our greens are much more consistently fast and true, our fairways tighter, and the recent, admirable trend toward less use of irrigational water is further ahead in Wisconsin.

Obviously, we have developed many, fine players in our state. Andy North, as a US Open winner, is a prime example, but on the whole we are outdistanced elsewhere in this regard. The most evident reason for this is because of a very short golf season, and consequent lack of opportunity for our players to develop a consistent game. Clearly, the states producing the best players are most often in the sunbelt. Still, I think another one of our problems is that promising players in Wisconsin often choose not to compete in the major competitions outside the state; rarely are there more than a handful of Wisconsin players attempting to play in the Western Amateur, or trying to qualify locally for the US Amateur or indeed, any of the national events for which local qualifying is available. I see this trend reversing somewhat of late though, with our good junior players starting to roam farther afield, thereby gaining more experience in tough competition, which will ultimately lead to a higher standard of play statewide.

Lastly, nobody in the nation can top Wisconsin in golf administration. California, Minnesota, and Chicago may be equal to us, but we are unsurpassed in service to golfers, both on a day to day routine, and in tournament management. I refer of course to the WSGA, and I am certainly biased; but I assure you, we are held in esteem nationwide, and this is primarily due to the interest and support given to the game by all Wisconsin golfers.

All told, Wisconsin golf is healthy, and compares very favorably with any part of the United States. We have gained tremendously these past two decades, and have developed a solid base to continue this progress into the next several years.

David Cookson

Editorial

Editorial

WHAT'S GOIN' ON HERE?

By Monroe S. Miller

To quote Slim Pickens as he came galloping up on horseback in the movie "Blazing Saddles" (definitely **not** a celluloid classic!), 'What in the wide, wide world of sports is goin' on here?' Maybe I should amend this to read, "What in the wide, wide, world of GOLF is goin' on here?" I'm asking the question in the context of putting green speed and the continually lowered heights of cut. My answer, simply stated, is "enough is enough."

Pressing forward (or downward) has been a game in our business for too long, and I cannot help but feel that we should call it a "draw" before it's too late; we are rapidly approaching the point where no one — not the golf players and not the Superintendents — can be declared a winner. It is true that the game of "who has the fastest greens in town" has given players quicker putting surfaces than they had five or seven or ten years ago. But it is also true that this increased putting speed has a heavy cost — more money for fungicides, frequent topdressing, hand watering, double cutting, etc. Ridiculously fast greens can also be credited (or blamed) for adding to the slow play problem of golf. Some estimates say that they have added fifteen minutes per 18 hole round. And, as one player pointed out to me, it costs additional strokes and even more time in worrying about putting slick greens. How do these factors add to the enjoyment of a round of golf? Are the players really benefitting, in essence "winning," this game of fast grass? I submit that we have reached the point where careful evaluation by all concerned is needed.

An incident happened to me two years ago that precipitated more deliberate thought on this issue. One of my favorite members and his wife, who are both very good players, flagged me down one summer afternoon as they were waiting to play away on the 17th tee. The previous day they had been guests at one of the finer golf clubs in the state and had come away disgusted and frustrated (as were the host members). "The greens were as fast as this bench," he said, as he rapped his driver on the bench seat. "It was ridiculous and absolutely no fun," and he added, "I hope you don't get anymore involved in this foolishness of seeing how fast you can make our greens." My colleague definitely had faster greens, but not better greens. And these kinds of comments are not uncommon.

Golf Course Managers are crowding their luck to the point of losing this game, too. Lowered heights of cut on green surfaces directly correlate with a reduced root mass, and this in turn reflects back to thinned, unhealthy and sometimes dead grass. Lowered heights of cut reduce leaf tissue and lead to a concomitant reduction in photosynthetic potential — less CHO in the plant systems. These two factors of stress narrow the fine line we walk in managing putting greens. And increased plant stress can be manifest in major problems in just keeping putting greens alive during the weather extremes of Wisconsin's hot and humid summers. Is the golf course with the fastest greens really winning this silly game?

Dr. David Roberts foretold of a bad moon on the rise when he addressed us at our Quit-Oui-Oc meeting last year. He basically said that continued mowing at such low heights of cut on putting greens greatly increases the chances of bacterial wilt infection. His message was clear and no one should have to be hit over the head with a 2" x 4" to realize how devastating this problem could be. The winner of the speed battle could end up losing the war of maintaining a quality golf course. Dr. Joe Duich has publicly expressed similar opinions about low heights of cut.

And if time is money, then a lot of money is being spent, maybe even wasted, in adapting equipment to accomplish the task of cutting at 1/8" — 1/10". Shaving bed knives, adjusting units on a triplex to cut at the same height when the margin of difference is so small yet noticeable, and multiple mowings on the same day all require an inordinate amount of staff time. I question whether these reflect time and money well spent, and I have to believe we've reached the point of diminishing returns.

I probably shouldn't say this, but the "game" has led to a new pet peeve — false bravado. Somehow or other, green speed, in the minds of some, translates into quality. Ergo faster grass means better golf course. The logic then follows foolishly to "better golf course means better management." And how aggravating it is to see someone — whether it is a club member or club golf professional or green committee chairman or the Superintendent — strut around like a banty rooster bragging that "our greens are faster than yours." It gets so bad sometimes that individuals involved in this frivolous and irresponsible braggadocio seem to correlate their manhood with how fast their greens are. Ego overwhelms common sense! Some of those involved believe, wrongly, that it takes a towering mental giant to shave the foliage from putting greens to provide slickness. It definitely takes courage, but not genius. It could, however, take even more than brains to successfully overcome the damage that could result. Help! I cannot take anymore!

The problem as I perceive it really gets out of whack when tournament time rolls around. Frequently, when a player participates in a tournament held at his own course, he barely recognizes what he thought was a familiar track. The fast greens of everyday play are pushed to the limit of extreme. Greens are allowed to dry out to the end point of stress. They are double and triple cut preceding and during the tournament.

Weighted rollers and compacters are brought on. Grassed putting surfaces become more like paved parking lots. Shots don't hold, the ball rolls forever and frequently off the surface, and carefully designed contours are meaningless. And all of this is for more challenging golf? Nonsense. If other sports followed our practices, then football fields would be lengthened 50 yards and goal posts raised five feet for any championship game. Host ball parks for the World Series would have to extend outfield fences goodly distances and then raise them ten feet. Wimbledon tennis championships would have to raise the net 12 inches and shorten the court. The mile run would be at a mile and a sixteenth. So on and so on, ad nauseam. But other sports don't change the field of play and I am not sure that we should be either. Tournament preparation has gone beserk; absurd increases in green speed for tournaments should be outlawed!

Defining a problem is easy. Offering solution(s) is more difficult, but here are some possibilities:

(1) Let's start with an idea that has the least merit. To satiate those with the lust for claiming the "fastest grass in the West" I propose a one day event. We'll select and train a group of impartial judges (non-golfers) on the proper use of the stimpmeter. They'll follow all USGA guidelines. On the given day, all greens on courses that desire participation will be read for speed. The results will be tabulated. A winner will be declared and we will present an engraved loving cup. Egos will be assuaged. Then we can all get back to the more important task of providing true and smooth and consistent putting greens. No one will have to be concerned with whose greens are the fastest — the winner for the year will have been declared.

Any takers for this plan?

(2) A giant step to modifying the competition for the fastest greens in town would be to require all participants in the game to be honest. When greens are **too** fast, golfers should say so. Of course, golf is a gentleman's game and no one wants to risk offending a host or the Superintendent or the green committee. We should change that. Frustrated or embarrassed players should not have to come up with phrases like "severe but fair" or "we all played the same greens" or any other lies — bad lies, usually, There is something amiss when all of the thrills on fast greens are par putts, and truly skilled players are reduced to duffers.

(3) Let's insist on letting common sense prevail; agronomic principles should be considered in determining speed. The proper perspective of the game needs recapturing — we must not forget the game. Let us keep in mind the intent of the architect when subtle contours were designed into putting greens. And let's all work to put forth the best playing conditions, not the fastest greens.

I'm changing my attitude. Fast isn't best. Isn't it about time to slow this trend of fast grass down a little bit?

The **GRASSROOTS** is a bimonthly publication of the Wisconsin Golf Course Superintendents Association. Editor and Publisher — Monroe S. Miller, Blackhawk Country Club. Business Manager — Danny H. Quast, Milwaukee Country Club. Printed in Madison, Wisconsin by Kramer Printing. No part or parts of the **GRASSROOTS** may be reprinted without expressed written permission of the Editor.

Royal treatment

Give your greens a regal look with Jacobsen

Want greens fit for tournament play? Jacobsen Greens Kings and Greens Mowers give them the royal treatment.

Greens King IV (foreground) follows the greens' contours. Fully articulated, individually controlled reels let you maneuver around the edges. Reels steer in the direction turned—so there's no drag, scuffing or streaking. Power backlapping, without disassembly, saves sharpening time and insures a quality cut. Convenient foot pedal delivers smooth, variable speed control.

The Jacobsen Greens Mower (background)—first on the green for over 60 years! It offers you a rugged frame for durability and precision. Yet the Greens Mower is lightweight, perfectly balanced and easy to handle. It delivers the smooth tournament quality cut demanded by pro golfers.

So get the Jacobsen Greens King or Greens Mower. And give your greens the royal treatment.

Lease and finance plans available.

Jacobsen Division of Textron Inc.
1721 Packard Avenue
Racine, WI 53403 J-10-4

JACOBSEN
TEXTRON
Jacobsen Division of Textron Inc

Engineered from the ground up.

HORST DISTRIBUTING, INC.

444 N. Madison Street, Chilton, Wisconsin 53014 Phone 414-849-2341

DISTRIBUTORS: TURF MAINTENANCE EQUIPMENT & SUPPLIES
SERVING N. E. WISCONSIN & UPPER MICHIGAN

An Architect's Opinion

THE PRACTICE AREA: A LEARNING AND TEACHING EXPERIENCE

By Bob Lohmann

The practice and lesson tee has become common throughout the golfing world since its introduction in the early 1900's by noted golf course architect, Donald Ross. But according to certain USGA surveys, less than 50% of today's golf courses have adequate practice areas. In spite of its potential, the practice area seems to be an afterthought of most golf course designs and golf club budgets. Either it is completely left out of the original design or it is improperly coordinated with other design elements. When a site is small and forces tight situations, the practice area is reduced in size or eliminated to allow adequate space for the golf course, clubhouse, and parking lot and planned improvements seem to be either the last item on the budget or not included at all.

Before the invention of the practice area, golf players and teachers used the golf course for their practices and lessons. Because the golf course was rarely crowded, playing lessons were possible. Today, because there are more golfers and more demand for the four-hour or less golf round, the teaching and learning process is forced off the golf course except during off-peak times. Some type of practice area needs to be developed and properly maintained on every golf course.

Most golf organizations and golf clubs are promoting golf as a game that anyone can play. The course itself is the best place to learn the game of golf. But because they are often crowded, the novice golfer is forced to go elsewhere to perfect his game to the level where he can participate without annoying other golfers. A practice area is developed for this reason. Here, experienced teachers can teach the golfer how to play the game properly and how to act on the course. These teaching opportunities provide income and support for the club professionals. They have an opportunity to promote the game and at the same time to develop a profitable business.

Many daily fee and public golf courses provide practice areas for economics alone. The income generated from the use of the range can provide funds for maintenance, repair, and remodeling of the golf course.

The practice area can also be an asset to the experienced golfer. Prior to starting a golf round, hitting a bucket of balls will help loosen up the muscles and relieve the stiffness before approaching

the first tee. And following a round of golf, it is helpful to stop at the practice area and work on a particular shot that was troublesome during the day's round.

Many golfers who enjoy the game, but don't have a lot of time, can spend an hour or so on the range when a four-hour round is not possible. Here, they have an opportunity to use all of their clubs, rather than only those commonly used during a single round.

The practice area should have the design features of the golf course, but simply be on a smaller scale. The golfer wants to practice or learn the different golf shots that will be performed on the course and he needs more than just an open field for practice. The practice area should be constructed to provide direction for the golfer. Like a fairway, it is more than just an open area for hitting your golf shot. Through the use of multiple target greens, mounds, sand bunkers and trees, the vast open area can become a series of defined target areas for the golfer. Even a fairway can be developed within the area leading to one of the target greens.

Multiple tees should be constructed large enough so that the wear over them is even and severe damage is prevented. A separate area, buffered with mounds and plantings, should be included where the professional can provide lessons. This secluded and possibly sheltered area will provide the privacy a golfer needs to concentrate on his game.

In addition to the practice tee and fairway, a putting green, a chipping green, sand and grass bunkers, mounds, and a rough turf area should be included in the practice area. Then the area becomes a golf learning and practice facility that will be enjoyed by all classes of golfers.

The vast fairway area also can provide additional benefits. For example, it has a potential use as a turf nursery and testing area, and following severe rainstorms or winter thaws, it can be used as a retention basin or flood overflow. The course can be opened earlier in the spring if the water is directed off the golf course and onto the practice area to allow the course to dry.

When developing a new golf course, the range should be overdesigned to provide a future expansion area for the clubhouse, parking lot, and maintenance areas without reducing the efficiency of the practice area.

The practice area, regardless of its size, is an important part of the golf course. But it cannot survive without proper design and maintenance. A practice area needs to be both attractive and useful to benefit the club, the professional, and most of all, the golfer.