



AFFILIATE

# Turf Times

The newsletter from the Northern Michigan Turf Managers Association

*James B. Beard*

[1990]

Quarterly

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# Getting it together



President Jeffrey Holmes

As our profession continues to grow and the Northern Michigan Turf Managers Association remains in the spotlight, it is important to advance the Association whenever an opportunity is presented. Currently the Board of Directors is trying to obtain non-profit status and incorporate the Association.

In accomplishing this goal there are several obstacles in front of us. They can all be conquered, but we will need some additional help from a lawyer and a certified accountant.

These people will be able to lead us through the various paperwork while offering the proper information to us. With their help we should be moving through the process fairly rapidly. The important part of this whole process is to do everything necessary and complete it properly. That is the reason for employing our outside agents to help.

The purposes of the non-profit status is to be properly registered as a tax-exempt organization, which would then qualify our group to be exempt from paying income tax and sales tax on any purchases that we make.

The purposes of our Association obtaining an incorporated status are several. A couple of factors are: to create a corporate veil, and to be in compliance with the Internal Revenue Service.

A corporate veil would protect an individual that is sitting on the Board from being open to a lawsuit filed against the Association. We would also want to scrutinize our By-laws to correspond with our Articles of Incorporation.

With the Association being registered as exempt and incorporated it will hold more validity when using it as an association member listing.

It was the Board's intent to have all this in place for the October 2 meeting which is also our annual membership meeting. Since it was impossible for the Board to have all the work completed, we will work on it through the next few months. When all the paperwork is in place, we will call a special membership meeting and make the final step of the incorporation and exempt status official.

## GCSAA education program earns accreditation

The continuing education program offered by the Golf Course Superintendents Association of America (GCSAA) has earned official accreditation from the Accrediting Council for Continuing Education and Training (ACCET). ACCET is recognized by the U.S. Secretary of Education as the official accrediting agency for non-collegiate continuing education.

"Receiving accreditation confirms our belief that GCSAA offers topflight educational benefits to our members," said John M. Schilling, GCSAA executive director. "Few professional associations take this extra step to ensure quality education for their members."

GCSAA's senior director of education and marketing, Colleen Smalter Pederson, added that, "We chose to pursue accreditation to get public verification of the scope and quality of GCSAA's educational programs. It is important to us to have our programs measured against established standards." The ACCET Accrediting Commission voted Aug. 18 to approve GCSAA for full accreditation status, culminating a two year preparation, application and evaluation process. Full accreditation recognizes the association's current curriculum of more than 50 one- and two-day seminars designed to provide information on up-to-date golf course maintenance practices and to sharpen the management skills of golf course superintendents.



# The Customer is King

In a summer '90 issue of *The Grass Roots*, the newsletter of the Wisconsin Golf Course Superintendents Association, Monroe Miller wrote an editorial entitled "A Letter to CEOs". Mr. Miller's editorial was directed to CEO's of turfgrass maintenance equipment companies, asserting that the products and services we purchase from these companies lack quality, integrity and reliability. One consequence of this problem is that customers are not getting what they've paid for and are becoming increasingly dissatisfied. Another consequence of this problem is that a significant share of the U.S. turfgrass equipment market risks being overtaken by overseas companies, much like our beleaguered automobile industry.

Mr. Miller articulated a situation that must be painfully obvious to anyone who purchases turfgrass maintenance equipment. You don't have to be an engineer or an economist to understand this problem.

Have you ever bought a new piece of equipment which failed to perform as expected, and then were charged to purchase and install updated parts? Have you ever received a new piece of equipment, or tried a new demonstrator, which was not set up for use or malfunctioned because of defective parts? Have you ever tried to order a single part or component only to find out that you have to purchase the whole assembly? Unfortunately, most turfgrass managers can answer "yes" to all of these questions and also generate a lengthy list of examples for each situation.

The bad memories of poor equipment performance and service last longer than the satisfaction of having a machine function as it should. Here are some real life experiences that I have heard about just this season: a spraying rig delivered with a faulty pump and components; a \$10,000 mower that could not mow ten hours per week without breaking down; having to purchase an entire clutch and linkage assembly to replace a couple worn components; having a used machine delivered to an owner who had a preapproved check for a new machine ready for the delivery driver. Sound familiar? The greatest misfortune of this shoddy business practice is that it seems to be accepted by turfgrass managers as the norm, or else accepted because there is nothing better to choose.

Another question: How can any business survive with sales and service which fails to satisfy the customer? I know that at least one of the businesses involved with the preceding examples has lost all of its business with at least one golf club in northern Michigan. Suppose I buy a new automobile/triplex mower for \$14,000. At delivery, I have to adjust the carburetor myself. Within the first year of ownership the brakes fail: the company then apologizes, warranties the parts, sends the parts one week later, and I install the parts. After a year or two of disgruntled ownership, my automobile/triplex mower is obsolete, and I want to purchase a new machine that is more reliable and is backed with better service. Do I go back to the same company? Maybe I should discuss this with a Honda or Toyota owner who used to drive GM products.

Turfgrass equipment companies are tied intrinsically with our local and national associations, and they contribute a great deal to our associations through research and development, advertising, and fund raising. But if money is the problem, I would gladly trade their current contributions for better service. Turfgrass managers should not even have to ask for this. When a club purchases a piece of equipment for \$500 to \$35,000, the club deserves more than iron and plastic. The club wants a reliable product that will perform as desired, and that will be backed up by the company: Business Management 101.

In his editorial, Monroe Miller pointed out the fact that there once was a time when American companies were built on quality, integrity, and responsibility – a time when business believed that the "Customer is King". For the prices we pay for equipment today, we deserve more than we are getting. Along with Mr. Miller, I urge our manufacturers and distributors to work with turfgrass managers to set new standards of quality and integrity. As turfgrass managers, it is our responsibility to demand the highest quality service and products for our market, and to refuse anything inferior or mediocre. If either party in this business fails in their respective responsibilities, turfgrass managers are doomed to overpriced and inadequate service; and businesses will face the fate of other companies that do not compete, progress, excel, and care for their customers.

*Michael Morris*

I've trod the links with many a man,  
And played him club for club;  
'Tis scarce a year since I began  
And I am still a dub.  
But this I've noticed as we strayed  
Along the bunkered way,  
No one with me has ever played  
As he did yesterday."

It makes no difference what the drive,  
Together as we walk,  
Till we up to the ball arrive,  
I get the same old talk:  
"To-day there's something wrong with me,  
Just what I cannot say.  
Would you believe I got a three  
For this hole - yesterday?"

I see them top and slice a shot,  
And fail to follow through,  
And with their brassies plough the lot,  
The very way I do.  
To six and seven their figures run,  
And then they sadly say:  
"I neither dubbed nor fozzled one  
When I played - yesterday."

I have no yesterdays to count,  
No good work to recall;  
Each morning sees hope proudly mount,  
Each evening sees it fall.  
And in the locker room at night,  
When men discuss their play,  
I hear them and I wish I might  
Have seen them - yesterday.

Oh, dear old yesterday! What store  
Of joys for men you hold!  
I'm sure there is no day that's more  
Remembered or extolled.  
I'm off my task myself a bit,  
My mind has run astray;  
I think, perhaps, I should have writ  
These verses - yesterday.

- Edgar A. Guest

## We need our own logo!

The GCSAA has denied us the use of their logo. We must design one for ourselves. If anyone has an idea or some artistic ability, please design a logo for the NMTMA and send it to Tom Reed or Michael Morris before December 1, 1990.

### Letters to the Editor

You can communicate directly with the NMTMA and your fellow members by writing to:

*Turf Times*  
c/o Mike Morris  
P.O. Box 1575  
Frankfort, MI 49635

Share your thoughts and feelings about our organization or the industry in general.

## The Civic Minded Turfgrass Manager



Paul Holmes, CGCS

The season's almost over and our irrigation systems should be well rested after this year. My article this month isn't going to be about golf or golf course maintenance. For the past few years we have been talking professionalism and representing ourselves in a more professional manner i.e. dress code for our outings and even dressing a little better for our jobs. What I want to discuss is getting involved in your local community. We all come from small towns or relatively small towns,

so it is very easy and rewarding to become involved. By being involved I'm talking about joining a service club, like Kiwanis, Jaycees or Rotary. Get involved in your local church groups, Boosters club or any other local organization that may interest you; or even become a little league or soccer coach.

The reason I bring this subject up is I have been involved in some of these groups and have been able to meet and work with some of the leaders of our community. These people find out we are not just "Turf heads". They find out we have good ideas and we are managers with organizational skills. This is also a good way to "get away" from your golf course in the summer and wrap yourself up in something else for a few hours.

By being active in your community you come up with a new sense of pride in your "Hometown" you never had before. My only regrets are I didn't do these things sooner. One of the hardest things to do when you move to a new town is to meet people. Being in active organizations is a great place to meet people your own age or with similar interests. I realize we are all very busy during the golf season and sometimes we put all our efforts into our courses and we don't have time for other outside activities, you need to make time mainly for yourselves. Get away from your course for an hour or so. Do something that will benefit others less fortunate. Believe me, it's not bad therapy, maybe you will forget about that hydraulic leak on #3 green for a couple of hours. Some of the people on one of your committees may be members at your club and they can see you as a human being not the guy spraying greens in the morning or aerating on the day he planned to play.

Our profession is very misunderstood. By getting out into the community and working with different people, they will ask questions about our jobs and you can explain technical or simple aspects to them. I hope everyone had a great year and we will see you at the Christmas Party.

## Mechanic's Corner

By Nick Polchuck

Here at Gaylord Country Club, we needed a faster and better way of putting in black plastic pipe. I went to the junk pile and pulled out six feet of 2 inch galvanized pipe, an old bedknife and a three inch piece of 1 inch pipe that I ground down to look like a bullet.

I cut the pipe into two pieces and welded them into an L. Then I welded part of the bedknife to form a T and hooked the 1 inch pipe shaped like a bullet on the end of the bedknife.

I used the rest of the bed knife for a brace. Take a piece of chain and connect to a tractor and clamp your polypipe to a connection of the bullet and pull to your heart's content.

If you have any questions, call me at the Gaylord Country Club (616) 546-3233.

# A tribute to Mr. C.E. "Tuck" Tate

There is probably no individual in our association who has contributed more of his own time, efforts, and money to turfgrass management in northern Michigan, statewide, and nationally than our friend Tuck Tate.

Tuck first became interested in golf when he was a sales representative for Sun Oil Company in the late 1930's. One of his customers was Riley Heckert, the superintendent of Harrisburg Country Club in Pennsylvania. Tuck was impressed and inspired by Mr. Heckert's professionalism and skills as a turfgrass manager. The friendship and mutual respect between these two men continued to grow through Tuck's early years at the Frankfort Golf Club when Mr. Heckert helped Tuck fine tune the golf course design and management practices at Frankfort.

Tuck served our country during World War II in Europe. Even during those trying times Tuck continued to nurture his interest in golf. He somehow acquired three or four golf clubs, and as time allowed he played various courses in France and England.

In 1955 Tuck bought the Frankfort Golf Club and began building upon his love for the game and his interest in turfgrass management. Tuck turned the Frankfort Golf Club into a very successful public course, and operated it as owner, superintendent, and club professional for 29 years. In August of 1984, Tuck sold the Frankfort Golf Club to Bill Bengeyfield, who was then the National Director of the USGA Green Section.

Tuck continues to be involved with local and national golf course associations. This year in Las Vegas will mark Tuck's 32nd year as a member of the GCSAA and his 32nd annual conference. Tuck served on the board of MTF for six years, including two years as president during the time when the Hancock Research Center was initiated. Tuck became a PGA club pro in 1959, and continues to keep his game sharp and PGA status intact.

Tuck is one of the main reasons that the NMTMA exists today. In 1971, Mike Thomas, a county extension agent in Leelanau County, collaborated with Tuck, Ed Karcheski, and Frank Hemminger to establish the NMTMA. Untold time, effort and money went into getting this association up and running. These men's goals in establishing the NMTMA were to provide educational sessions and establish research plots in northern Michigan, and the success of our organization speaks for itself.

Tuck has diligently served the NMTMA as a member from its inception, leading our group as president from 1972-1983. Tuck developed the NMTMA newsletter in 1971 and continues to serve the NMTMA as co-editor with Michael Morris. This newsletter is one of the main reasons our organization stays together and continues to grow.

For the last three years Tuck has presented the "Annual Tuck Tate Scholarship" to students of turfgrass management at Michigan State University. Tuck established a private trust of \$100,000 for this scholarship. When Tuck no longer maintains this trust it will be turned over to the MTF for their jurisdiction.

This brief and sketchy resume of Mr. Tate's accomplishments and contributions to our industry is undoubtedly the envy of almost everyone in our profession who loves golf and turfgrass management. Tuck continues to be a tremendous resource and inspiration to our organization. In talking with Tuck, he urges our association to continue to emphasize the founder's goals of education and research in our meetings and publications. Certainly our association has a rich heritage to uphold, and we owe a great deal of this to Mr. C.E. "Tuck" Tate.



Tuck Tate with his wife, Becky  
at the Frankfort Golf Club, circa 1978

## Tuck Tate/NMTMA Superintendent's Championship winners named

The following winners for the Tuck Tate/NMTMA Superintendents golf championship held October 2 at the Gaylord Country Club were:

### Low Gross

- 1st place - Tom Brogger, 76
- 2nd place - Paul Holmes, 79
- 3rd place - David Little, 82
- 4th place - Darrell Loar, 85
- 5th place - (tie) Don Riddle, 85  
Jim Olli, 85

### Low Net

- 1st place - Kimberly Olson, 65
- 2nd place - Ray LaCombe, 68
- 3rd place - Bob Rieschel, 70
- 4th place - (tie) Maynard Garner, 72  
Dane Gamble
- 6th place - Rick York, 74

### Closest to the Pin winners:

- Bruce Wolfrom, Don Stough, Dan Pillard, and  
Dane Gamble. **Long Drive:** Rick York



# Winter Covers, Let's Look Again

by  
Roger A. Stewart, Jr.  
CGCS

This past winter proved to be an excellent evaluation of winter green covers used on bentgrass greens that were in various stages of establishment. The stages of development at Stonebridge ranged from greens that were about 85% established to greens that were overseeded in mid October with little or no germination prior to December 1.

As a result we were able to see the effects covers on all these situations. The most dramatic effect was on the more established turf. The covers helped increase the stand by 5-10%. That may not seem like much but on new greens it is pretty dramatic. Probably not as dramatic to the eye was the effect on the greens that were seeded later in the year around the end of September or beginning of October. These greens had some germination but were considerably thinner than those previously mentioned. The covers did a good job of protecting these very young plants from desiccating during the winter and enabled us to get those plants going this spring with a little shot of fertilizer. The greens that were seeded last in the second week of October had little or no germination before covers were applied in late November. Those greens showed no improvement with the use of covers. That just tells me that if you haven't got some growth in the fall don't waste your time and money on cov-

ers. We still have little or no germination on those same greens and it is the beginning of May. Obviously "dormant seeding" is also very suspect. I didn't believe it would work before and I don't believe it will work now. All in all I have found that with germination and some growth prior to cover application there are some very good benefits to be had.

One piece of advice I must strongly issue is the meticulous use of fungicide for snowmold protection prior to covering and the daily inspection under the covers in the spring to avoid disease problems. Disease is more prevalent under covers and fungicide application prior to covering is absolutely necessary. I didn't have a sprayer last fall so fungicide was applied with a granular carrier and every area where the overlap was insufficient or coverage was poor snowmold was a problem. Pythium can creep up on you under the covers in the early spring, especially when dealing with new seedlings and daily inspections are a necessity.

I hope some of these experiences can help you avoid some of the same problems and provide you with excellent results from the use of winter green covers.

Credit: Verdure 5/89

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# Campbell to receive 1991 Old Tom Morris award

William C. Campbell, former president of the United States Golf Association (USGA), has been selected to receive the Old Tom Morris Award from the Golf Course Superintendents Association of America (GCSAA).

Campbell will be presented the award during the closing banquet of the 62nd GCSAA International Golf Course Conference and Show on Feb. 12 in Las Vegas, Nev.

GCSAA President Gerald L. Faubel, CGCS, said, "No one has given more to the game of golf than Mr. Campbell. He has dedicated his life to promoting the game and has demonstrated many times his support for the golf course superintendent. GCSAA is honored to present this award to Mr. Campbell."

In addition to being a USGA past president (1981-82), Campbell also served as captain of the Royal and Ancient Golf Club of St. Andrews, Scotland. Campbell is only the third American to be named captain, joining Francis Ouimet and Joseph Dey. He is the only American to have held both the presidency of the USGA and the captaincy of the R & A. During his USGA term, Campbell also presided as Joint Chairman of the World Amateur Golf Council.

In 1985, Campbell was honored by GCSAA with a Distinguished Service Award. In 1990, he was elected to the PGA World Golf Hall of Fame. He was the recipient of the National Golf Foundation's Herb Graffis Award in 1989 for his efforts in preserving the true spirit of the game.

One of America's most distinguished amateur golfers,

Campbell has won more than 30 golf titles, including the 1964 U.S. Amateur Championship. He has been a member of the Walker Cup team eight times, never losing a singles match. In 1965, Campbell was awarded the USGA's highest honor, the Bobby Jones Award, for his sportsmanship in golf. Campbell received the William Richardson Award from the Golf Writers Association of America in 1983 for his outstanding contributions to golf.

In his nomination for the Old Tom award, Campbell was also cited for his efforts to tighten the bonds between the USGA and GCSAA. During his presidency, the USGA launched major fund-raising campaigns to finance the development of Golf House and the establishment of test facilities for clubs and balls, as well as a long-term program for turf-grass research, notably in the area of drought-tolerant grasses.

Campbell joins Arnold Palmer, Bob Hope, Gerald Ford, Patty Berg, Robert Trent Jones Sr., Gene Sarazen, Chi Chi Rodriguez and Sherwood Moore, CGCS, as recipients of the coveted Old Tom Morris honor.

The Old Morris recipient is nominated and selected by the GCSAA board of directors. GCSAA established the Old Tom Morris Award in 1982 to recognize individuals who have made outstanding lifetime contributions to the game. The award is named in memory of Old Tom Morris, greenskeeper and golf professional at the R & A, clubmaker, ballmaker, four-time British Open champion and golf course architect.

## ***The GCSAA/Hall-Kimbrell Compliance Assistance Program: Guidance and Direction in a Complex World of Environmental Regulations***

President George Bush has been emphatic in challenging his newly appointed environmental leaders to "chart a course of environmental activism." Bush indicated recently that he was not only interested in pressing civil suits, but that criminal prosecutions would be part of his drive to clean up the environment.

Every industry must carefully analyze its practices to assure strict adherence to guidelines and demonstrate "moral" responsibility in protecting workers and the environment.

Golf course superintendents, as a group, have long recognized the seriousness of the health and environmental issues associated with modern golf course operations. The Golf Course Superintendents Association of America, however, has recognized the need to take aggressive measures to stay ahead of the wave of environmental concern.

With that in mind, GCSAA recently introduced a member benefit program with Hall-Kimbrell Environmental Services, Inc., one of the nation's leading environmental engineering and analytical firms, to help superintendents respond. The GCSAA/Hall-Kimbrell Environmental Compliance Assistance Program provides golf course superintendents a means to identify areas of operations affected by environmental regulations and identify changes that should be implemented to achieve compliance.

"This is an important program for every golf course in America because no course can afford **not** to assess every area of its operations," said Dennis D. Lyon, CGCS. "Our main goal is for superintendents to develop a high degree of industry involvement - but there's also a very real payoff in dollars that superintendents will realize in improved management efficiency and reduced liability exposure." Lyon added that one fine or incident would vastly overshadow the nominal cost of the self audit.

The self-audit package gives superintendents a unique opportunity to act on their own. If a regulatory agency was to evaluate the same issues, violations would be reported and dealt with through legal channels. The self audit allows superintendents to evaluate their practices on their own and make modifications accordingly. The Hall-Kimbrell/GCSAA Self-Audit Package consists of a 30-minute videotape program that outlines eight common areas of regulation and the regulatory self-audit. The self-audit is a book containing more than 500 questions that allow the superintendent to easily and concisely report his practices in an answer booklet. Completion of the self-audit generally takes about eight hours of a superintendent's time. Most have found it better to split the time over a week or so rather than attempt to move through it from start to finish in one session.

The answer booklet is forwarded to Hall-Kimbrell, where it is scanned by a computer to summarize and sort the data provided by the superintendent.

(Continued on Page 7)

## GCSSA/Hall-Kimbrell compliance assistance program explained

(Continued from Page 6)

Hall-Kimbrell scientists and environmental experts then review the data and compile a detailed report on the course's practices and how well they meet the applicable regulations.

The report also contains concise overviews of regulations, phone numbers and addresses for federal and state agencies that issue and enforce the regulations and information on state programs that vary significantly from federal requirements.

The response report not only tells superintendents if they are in compliance, it also helps them evaluate procedures and management practices. The self-audit is not a fault-finding tool, but rather a fact-finding tool, explains Hall-Kimbrell Project Manager Steve Wharton. "People may have a natural tendency to provide what they expect are the 'desired responses' rather than the honest answers. The value of the package is in the superintendent's review of the resulting reports based on actual situations."

The self-audit and regulatory compliance efforts are not a "one-shot" effort. Existing regulations are often modified and stress periodic review of management practices as new regulations continue to be introduced. One of GCSAA's considerations in selecting Hall-Kimbrell was the firm's commitment to an ongoing effort. The self-audit serves as a prerequisite for follow-up services that include annual up-date procedures. By periodically updating the audit, it becomes a dynamic management tool for continual education of practices, taking into account new products, regulations, and training requirements.

The entire program and its follow-up mechanisms are designed to help superintendents become better managers. For more information or details on ordering the self-audit package, contact the GCSAA Membership Department.

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# First impressions: *They last and last*



David Longfield, CGCS

Having come from an educational background at MSU somewhat removed from Turfgrass Management, it is amazing how I still relate to my previous experiences and teachings in animal husbandry. For example, when preparing for an Intercollegiate Livestock Judging Contest, whereby we were to judge the merits for economic and breed improvement characteristics of four similar animals of the same breed, sex and function, our professor and coach constantly reminded us of one thing – "when in doubt, trust your first impression." That sound advice bailed me out on several occasions and I have been ever mindful of first impressions throughout my career.

Fortunately, we all have the opportunity to create first impressions every day, and it is our responsibility to ourselves, our reputation, family and to workplace, to make this a favorable and lasting one. What a key, those last two words – lasting one!

Our professionalism on the job and at our business meetings, seminars, and social events, most obviously creates impressions on our peers, as does our conversation as an active learned and informed member of our industry. Impressions do last, and we surely want them to be looked upon with favor.

What an opportunity we have in the golf course industry to create a favorable impression to our guests as they enter the drive to the clubhouse, or walk up to the golf shop. Landscaping, even in the simplest form, but well manicured, colorful and cheery, can say, "Welcome to our golf course – we are glad you are here." Another example is at the first tee, where a flower bed or rock garden might brighten a dreary day, or a crowded Saturday. Dressing up key locations reminds the golfers that you want them to enjoy their visit to your golf course.

Each golf course is unique in its own way, and that allows us all as individuals to create our own favorable first impression. It may be true that you only get one chance to make a favorable first impression, but on the other hand, we get the opportunity to do it again and again. And, it lasts and lasts!

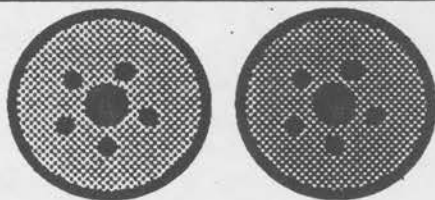
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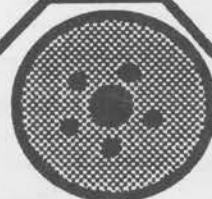
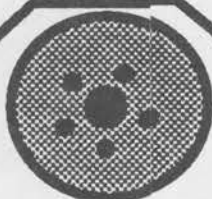
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# Golf Course Tees: An Architect's View

By Brian M. Silva, Golf Course Architect  
Cornish & Silva, Inc., Fiddlers Green, Amherst, Mass.

Many have made note of the fact that golf is one of the few games played on a field with virtually no rigid dimensions. The reasons for this are obvious. First of all, there is the scale of the golf course. An 18-hole layout generally requires well over 100 acres of land, and while it is easy to standardize relatively small spaces such as football fields and tennis courts, such a large area resists strict standardization. Secondly, the game is played in many different locales, on widely diverse terrains.

It's not feasible, much less desirable, to create a standard playing field adaptable to all sites. Finally, the influence of the golf architect and his thoughts on how his craft should be practiced have led to an infinite variety of layouts. The architect's influence on variety imposes an even more substantial effect when one realizes that, as an example, the great Robert Trent Jones has made significant changes in his own style over the course of his career.

In spite of this variety, there are characteristics that all

courses share. In 1834, when King William IV conferred the title Royal and Ancient upon the links of St. Andrews, 18 holes became the standard for any new course because St. Andrews had 18 holes. Interestingly enough, 70 years previous the first four holes had been eliminated because the Society of St. Andrews golfers found the holes not sufficiently challenging. Had this not taken place, in April of each year we could well be asking, "How did Jack do on the front eleven at Augusta today?"

With respect to cultural practices, all clubs mow, fertilize, irrigate, and the like. While not all clubs can aspire to the triplex mowing of fairways practiced at many clubs, many principles of maintenance are shared among the 21,000 or so courses throughout the world.

This brings us to another shared characteristic. While there are exceptions to the rule, most notably courses built in the last 25 years, tee enlargement and renovation is one of the most frequently observed construction projects at established courses. Let's trace the evolution of the tee area throughout the history of the game in order to gain a reference point for this discussion.

The links of the British Isles were responsible for the first authentic golf courses. The earliest courses were one-holers on unimproved land. A hole would be cut in the ground and then a determined distance and direction paced away from the hole. Play then began and continued until the ball was holed out. Then a new distance and direction was chosen and the procedure repeated. Eventually, the idea of creating several holes took shape.

In 1744, the Honorable Company of Edinburgh Golfers devised a code of rules, 13 articles that became the basis for the rules of golf. Article #1 instructed, "You must tee your ball within a club length of the hole." In this manner, the green just played became the teeing ground for the next hole.

It was not until the mid-19th century that the first improvements in teeing areas were seen. A revised rule designated the tee as a special area located 8 to 12 club lengths from the previous hole. At least the tee has now moved from directly adjacent to the cup to somewhere the edge of the green!!!

Part of the definition of the teeing ground, as approved by the United States Golf Association, states that the teeing ground is the starting point for the hole to be played. It is a rectangular area two club lengths in depth. In the early days of the game, the teeing ground as defined was adequate in size. However, as the game became more popular, tee enlargement became a number one priority at many clubs.

With the foregoing as an introduction, we'll begin with, and try to bear in mind throughout our discussion, the major components of quality for good playability on tees. These include a surface that is smooth, firm, and level, and a turf cover that is dense, uniform, and closely cut.

Those of you with tees of the postage stamp variety may find this tough to take but there are clubs that are contour mowing their large tees in order to reduce maintenance costs. The general guidelines for minimum tee size, 150 square feet per thousand rounds on wood shot holes and 200 square feet per thousand rounds on iron shot holes, can serve as a bench mark to be figured in your specific situation.

(Continued on Page 15)

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# Pruning Deciduous Trees

By Nancy Pierce  
Turf researcher,  
University of Guelph

Pruning is a horticultural practice that is as old as the history of civilized man. Ancient Babylonian, Egyptian, Greek, Roman and Chinese civilizations developed their own unique pruning styles – ranging from the Greek and Roman art of trimming plants into unnatural, ornamental shapes (called topiary) to the Japanese art form of bonsai. Their pruning skills and creativity helped to capture and preserve the very essence of each civilization's culture.

Despite its antiquity, or perhaps because of its mysterious and fascinating history, the purpose and proper procedures of pruning are not well understood. Today, pruning is done for more practical and economical reasons. Trees, shrubs and vines are pruned to eliminate dead and diseased tissue, control and direct growth, promote structural strength and to increase the yield of flowers and fruits on crop bearing plants. A woody plant will not require pruning unless it fits into one of these groups. Once you've decided which group a particular plant belongs to the 'whens' and 'hows' of pruning are simple.

## A Little Plant Biology

Understanding the nature of plant parts and how they will respond to different treatments is the key to pruning with confidence. In figure 1 the basic parts of a deciduous tree are shown. The trunk is the main stem of the tree. The leader (or central branch) is a continuation of the trunk. Scaffold (or main) branches are those which are joined to the trunk. Lateral branches arise from scaffold branches. Spurs are short, compact twigs found on fruit trees on which flowers and fruit are produced. These five types of branches form the structure of a deciduous woody tree. The structure of a deciduous tree is much more apparent in its leafless state.

Buds are a critical component of pruning. A terminal bud is always found at the tip of a stem or branch and its direction of growth is upwards or outwards. Lateral buds are found along the length of stems and branches in a distinct pattern. Lateral buds develop into either leaves or branches depending on the size of the plant. Some lateral buds do not break when the others do. These are called latent buds and they're often found on the lower portion of a branch. They are much smaller than other lateral buds and won't break unless the wood above them is damaged or removed. Flower buds appear on spurs and can be either in a lateral or terminal position. Adventitious buds are found in unusual locations on a stem or branch (i.e. they don't follow the regular pattern produced by the lateral buds) and their formation is often the result of some injury. Severe cutting will stimulate adventitious buds to break forming 'suckers' and 'water sprouts'.

## When to Prune

The time of year is important in determining how the plant will respond to pruning. The traditional time for pruning is late winter or early spring when the buds are still dormant and the temperature is not too cold. Pruning done during this time will elicit the most vigorous response in most species. Although most deciduous trees can be safely pruned anytime during the period between leaf-fall and spring growth, pruning should not be attempted if the temperature drops below -7 degrees C (20 degrees F) since dieback may result. Some de-

ciduous trees (like birch and maples) should be pruned in late winter as they tend to 'bleed' profusely in the spring. Evergreens will be set back the least if they are pruned just before spring growth occurs.

Pruning after spring growth has occurred will have a general dwarfing effect on the plant. This type of pruning is required when a plant has outgrown its allotted space – indicating that perhaps a more suitable plant could have been chosen for that area. Summer pruning usually encourages the plant to produce new growth to replace only that which has been removed. Pruning too late in the summer can be dangerous as the new growth seldom has time to harden before frost arrives.

Some trees that bloom on year-old wood must be pruned after spring bloom if a maximum yield of flowers is important. Removing year-old wood bearing flower buds in the spring will naturally result in a very disappointing bloom.

## Response of Plant Parts

Usually, the growth resulting from pruning trees properly is very easy to predict. Removing a segment of stem or branch that bears a terminal bud will stimulate one or more lateral buds on that branch to develop when spring arrives. The end result of removing a terminal bud is a denser, bushier plant.

Removing lateral branches will encourage growth at the terminal end of the mother branch or stem. The end result will be a taller, more open tree.

(Continued on Page 12)

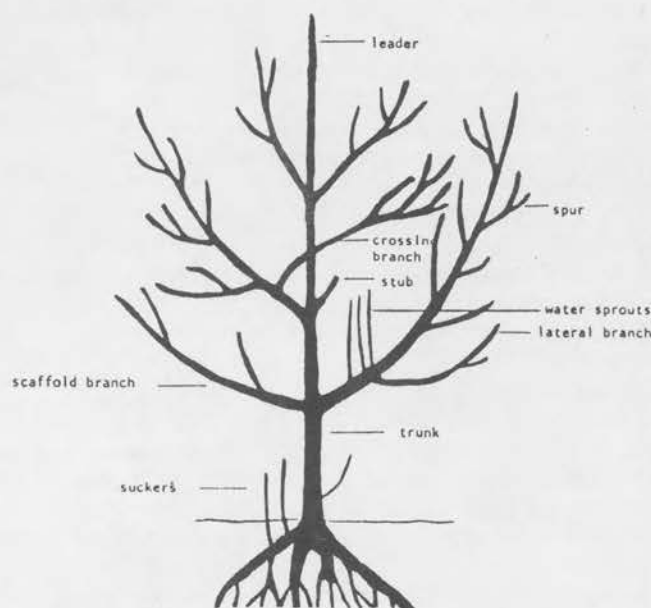


Figure 1: Parts of a deciduous tree

# Pruning deciduous trees . . .

(Continued from Page 11)

## Pruning Young Trees

The earlier you can start to shape and train the growth of a tree, the less attention it will need in later years when large branches increase the difficulty of pruning and large wounds increase the chance of infection. Ideally, a young tree should be pruned the same day it's transplanted (normally done in the spring). During the transplanting operation, root injury is likely to occur leaving less roots to support the same amount of above ground tissue. Resist the temptation to preserve every branch – pruning about 1/3 of the top growth away will result in a tree that will quickly outgrow one that has not been pruned.

If you have a good idea of the future use of the tree, deciding where to trim off the excess third is easy. First, start with weak or broken branches and any branches that will eventually criss-cross. Never remove the leader as this will result in a stunted squatty tree not true to type. Any branches that angle up too closely to the trunk should also be removed. As the tree grows, sharp angled branches will produce a weak crotch which will probably split sometime during the life of the tree. Generally, the wider the angle, the more sound the structure. Cut any branches you want to keep back if they are longer than the leader. This may have to be repeated for the first few years until the natural shape of the tree is established.

Once this 'necessary' cutting is done, you can start pruning to train the tree to meet its intended purpose. Take a good look at it and identify the leader, scaffold and lateral branches. If you want an airy tree with a lot of open space, remove or shorten most of the lateral branches and leave the scaffold branches with their terminal buds intact. You've retained the length of the main branches while directing their growth outward.

To produce a denser, more compact tree, cut all lateral and scaffold branches back to half their length. Removing the terminal bud in this manner will result in the cut branches becoming stronger and the tree will develop into a more compact shape.

For a tree with sufficient clearance to walk or drive a golf cart under, remove all branches that join the trunk at a height of about 7 feet or lower. This cannot be done until the tree is a little older and will still have 3 or 4 scaffold branches remaining after the lower branches are removed.

## Pruning Mature Trees

Pruning mature trees is a difficult, potentially dangerous and time-consuming job. If at all possible, prune trees when they are young to avoid the problems encountered when working on large trees. However, many golf courses have trees on them that are older than the course itself. While most are probably just fine, some may have been lopsided, too dense, diseased or damaged over the years. Before attempting to correct these problems remember that large trees form strong architectural lines and it's well worth the investment in time to stand back and think before cutting branches off in a haphazard manner. Try to retain the natural shape of the tree. The finest comment a person can get after reducing

the size or density of a tree is when others fail to notice it has been pruned.

## Making the Cut

All that has been mentioned up to now is where and when to make cuts. The following deals with how to make the cuts.

### 1) Cutting Back to a Bud

It is usually desirable to cut back to an 'outside' facing bud as this will form new branches that will grow away from the trunk or mother branch rather than growing inwards and crowding existing branches. If the tree has a large vacant space that needs filling, then you may wish to cut to an inward facing bud. Some deciduous trees like maples and ashes, have their buds arranged opposite one another on the branch. In this situation, it's recommended the cut be made just above one of the double buds, with the slant point outward (the desired direction of growth). Then cut or rub off the inside bud. Always use a slanting cut about 1/4 inch above the desired bud. The top of the slant should be pointing in the direction of the desired new growth. If you leave more than 1/4 inch above the bud, the stub above the bud will die creating an entryway for decay organisms and insects.

### 2. Removing Branches

The most important rule when removing entire branches is not to injure the inner bark of the stem or mother branch. This inner bark or cambium forms a scarlike, healing tissue called a callus that gradually grows over the exposed wood. A small wound is often completely healed by the end of the growing season. Controversy arises among experts as to whether or not these larger wounds should be dressed or painted, and if so, what kind of material to use. The most common type of dressings used are asphalt based tree wound paints available under various trade names.

There is also some controversy as to where a branch should be cut off. Some maintain a cut made flush with the mother branch or trunk is desirable. Most people though suggest that a slanting cut should be made close to but beyond the branch collar. If the branch collar is not visible, cut slightly beyond an imaginary line that would join the upper and lower points of the branch attachment. Branches pruned in this manner leave a smaller wound to heal than if the branch were cut flush to the trunk and there is less chance of injury to the cambium. Do not leave a large stub however, as it will rot and be susceptible to diseases which can spread throughout the tree. Pruning large branches may injure the tree if not done properly, since the weight of a branch may cause it to break before the cut is complete, tearing away large pieces of bark with it or even splitting the tree. To prevent this, a 3-cut method is used. The first cut is 6-12 inches away from the trunk or mother branch, beginning at the bottom and cutting upwards about 1/3 of the way through. A second, downward cut is made about 1 inch above the first cut until the limb breaks off. The stub is then removed.

Credit: Greenmaster



**Off-season  
good time to  
"check out"  
video library**



Kimberly Olson

Dear Members,  
It looks like "the season" is going to start winding down, maybe for some of you it already has. Come November and the rest of the winter months you will have time to catch up on your reading, the latest turf research, and those other important items that took backseat to minding the turf. It will also be a good time to check out the NMTMA's new video library. More tapes have been added and our current list of available tapes is as follows:

- Photosynthesis & Respiration
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- Protecting Golf's Environment
- Integrated Pest Management
- Growing Media For Landscape Plants
- Plant Movement and Transport

- Elements of Pruning
- Advanced Pruning
- Herbaceous Plants & Ground Covers
- Planting Techniques Part 1: Trees & Shrubs
- Green Side Up: Professional Sod Laying
- Train the Trainer

1. preparing the trainer
2. conduction of one on one training
3. leading group training

- How to Hire the Best Person for the Job
- How to Prevent Back Injuries
- Landscape Equipment Maintenance Series
  - 21 inch Mower, Edger/Trimmer, String Trimmer
  - Power Blower, Power Shears
- Trouble Shooting Automatic Sprinkler Systems
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# Golf Course Tees: An Architect's View

(Continued from Page 10)

Optimum tee size is double these minimums as is minimum tee size under shaded conditions.

Contemporary tee areas often total six to eight thousand square feet and above in sizes. Multiple tees are common today and permit more efficient use per unit area than many of the long landing strip tees. The no-man's land found between marker settings on long tees is eliminated when multiple tees are designed.

Some settings mandate the use of multiple tees due to severity of topography. More flexibility in setting tees into the surroundings can be gained and this minimizes problems associated with steep banks, eases maintenance, and most importantly on existing courses, reduces fill requirements during construction.

**MULTIPLE TEES PERMIT** various angles of play and degrees of difficulty on the same hole. Problems encountered when the front of a long, single level tee blocks the view of a landing area or par-three green from the back of that same tee can be avoided through the use of multiple tees.

Many clubs are building a minimum of three, and sometimes four tees per hole. Some clubs tie specific tee use to handicaps. For example, the beginning golfer would start at the front set of markers and have to lower his or her handicap to a specific level before being permitted to move back to the next set of markers. These clubs have found this to greatly speed up play and be a tremendous motivating factor for improvement. The golfer is not allowed to bite off more than he or she can chew distance or difficulty-wise and tees are referred to by color, not by championship, men's and ladies'.

The regular tee should comprise 50 to 60 percent of the total tee area. This tee should usually be wide enough to allow splitting the width of the tee with the markers. When markers are set to the full width, the golfer sets up in the preferred part of the tee. Splitting the tee with the markers results in more even distribution of wear.

The specifics of play at your club must be considered. If blue and red play are not excessive, these tees need not be any larger than 1,000 square feet each. Minimum tee size is also important. The gals feel unloved, deprived and basically tread upon when red tee area falls below 750 square feet or so.

Make an effort to keep the red tees out of the direct line of sight and play from the back tees. All too often, the view of a fairway bunker or similar feature can be blocked by the red tee when playing from the middle to back of the main tee on a particular hole.

The game is full of rectangular or otherwise geometrically shaped tees. We've seen so many that we've reconciled ourselves to this totally unnatural form as a standard. The shape of the tees should be limited only by your imagination and the maneuverability of your tee mower.

**IN CHANGING THE LOCATION** and orientation of existing tees, adjacent homes, holes, or private property can pose liability problems. An architect's input can be helpful here. Court action that results in an eight or seventeen-hole layout can significantly dim the lustre of a course.

Much is made of tees that don't face exactly down the middle of the fairway. The late Jimmy Demarest wasn't too far off the mark when he suggested that all tees be round, then they'd all be facing correctly.

Most everyone appreciates the aesthetics and strategy involved in a tee shot that has to thread its way through a tunnel of trees.

With only brief mention of light intensity, air circulation and the like, there is another important reason for going about clearing of trees adjacent to tees in a careful manner. Just picture this situation: You step onto the tree-lined tee of an unbearably long par three. There's somewhere between thirty-five and forty cents riding on the match and you're nine holes down with nine holes left to play. You really wait away at it, catch it on the toe of your three wood, and the ball, at a couple hundred feet per second, heads right for the trunk of one of those beautiful trees immediately adjacent to the tee. Just as you look up, ever optimistic, to see your tee shot land on the green, the ball ricochets back and catches you right in the, ah, right in the leg. As your partners scrape you up off the turf, the first thing you can say, in a high pitched voice, just happens to be the last name of your attorney.

A good deal of thought has to go into clearing immediately adjacent to tees. The aesthetic effect of such tree and tee work can be striking, but safety has to be a concern.

**AS FAR AS SURFACE GRADE** is concerned, some like tees crowned, some pitched from side to side, some sloped from end to end. There is no set rule other than they have to exhibit surface drainage. This rules out flat tees, and interestingly enough, many of the equipment operators feel the toughest tee to grade is the perfectly flat one. We prefer a one percent grade down from the front to the back. The finish grade at the rear of the tee should be raised at least one foot above the surrounding grade.

In addition to size limitations, tee construction is often mandated by original construction techniques using soils high in fines that compact under heavy levels of play. Caution should be exercised with regard to the common response of mixing sand into such a soil in order to improve aeration and drainage. In research work at Illinois, Art Spomer highlighted the threshold principle. When a coarse textured amendment, in this case, sand, is added to a soil in the hopes of improving aeration, drainage and resistance to compaction, aeration and resistance to compaction initially decrease.

As you begin adding sand, you are actually making the situation worse. Drainage characteristics, aeration and resistance to compaction improve only after the threshold proportion is reached, sand particles bridge, or in other words, are in contact with each other. With the sand particles in contact with each other, large pores are formed between the sand particles, enhancing drainage, aeration, and resistance to compaction. The lesson here is that a significant amount of amendment, the threshold proportion, is required before physical improvement of the soil is affected. This amount of amendment is usually quite height, often 75-90% of the total bulk volume. With this in mind, complete reconstruction is often easier and more reliable.

In most of our tee construction today, we're leaning strongly in the direction of the principles behind putting green construction. This type of construction begins with the subgrade being shaped in direct relation to the finish grade.

(Continued on Page 16)

# Golf Course Tees: An Architect's View

(Continued from Page 15)

That is, if the finish grade at the front of the tee is to be one foot above the finish grade at the rear of the tee, then the subgrade at the front of the tee should be one foot above the subgrade at the rear of the tee. A four-inch layer of pea gravel is then spread over the entire subgrade. In addition to agronomic benefits, this stone layer helps greatly in grading a smooth surface, especially where the subgrade material is not uniform. A sand conforming to USGA Green Section specifications is then brought in to an 8-inch settled depth over the stone and four to six standard bales of peat per thousand square feet are disked into the sand with a rotary plow.

Whether the mixing method be on or off-site, the importance of thorough and even mixing can't be overemphasized. Pockets of sand and peat will lend new meaning to the phenomenon of localized dry spots. Care needs to be taken to achieve the proper mix over the entire playing surface. When on-site mixing small amounts of peat into the sand, with proper supervision, the results can be very good.

During this process, we should bear in mind that our goal is the development of surfaces on which the game of golf can be played. This leads to the selection of a grass adapted to the playing characteristics desirable on tees. One of the most important of these characteristics is a closely cut turf. Rather than allowing the grass to determine the resulting playing conditions, as is the case with the bluegrasses, we prefer to permit the playing conditions desired to determine grass selection. A close cut turf is essential and a grass capable of delivering this characteristic is selected. Penncross and Penneagle, creeping bentgrass, are the most common selections.

On bentgrass tees, the bentgrasses should be planted only on the surface of the tee and not on terrace slopes or banks. Grass should be maintained at the tee height only on playing surfaces from which a tee shot can be struck. Surrounding turf should be cut at rough height or higher.

Of the various playing surfaces on a golf course, tees have doubtlessly come the longest way in the shortest time. Even an old timer like myself can remember playing off dirt tees where no attempt was made to maintain a turf cover. These were dirt tees by design.

To make a good tee out of a bad one, I come down squarely on the side of complete reconstruction. We see a good many tees renovated simply by receiving a giftwrapping of new sod. However, this sod fails, often all too soon, due to inherent problems of sizes, soils and the like.

Hopefully the design, construction and maintenance principles outlined in this session will lead to finished products that both you and your club can take pride in.

Credit: The Gateway Green

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- 18 NMTMA Mechanics Meeting, West Branch Country Club

### NOVEMBER

- 8-9 GCSAA Regional Seminar: *Managerial Productivity*, Lansing MI

### DECEMBER

- 10-14 MMTA Annual Christmas Party, Date and Place to be announced  
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### JANUARY

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