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Ontario Golf Superintendents Association

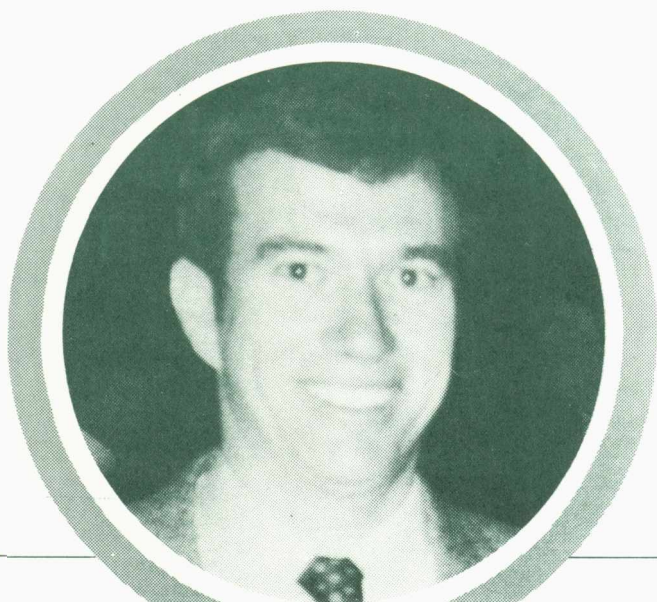
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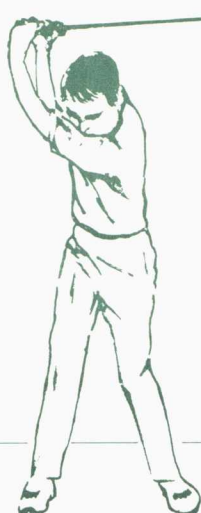
1986 O.G.S.A.

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CINDI CHARTERS

From the Editor

I'm sure some of you will be surprised as you leaf through this issue to find advertising for the first time in our publication. We were approached by some Associate members who wanted the opportunity to advertise their services and products. After much thought and discussion, the OGSA Board of Directors decided to accept advertising on a trial basis for one year. They also limited advertising space to 30% of the publication. The funds generated will go towards offsetting spiralling production costs and postage. Let us know your thoughts on the matter. Drop me a line, talk to your district director or give Cindi a call at the office.

Government legislation, either in place or impending, seems to be making life more complicated daily. Spills Bills, Free Trade, innumerable permits – where does it end! There are countless issues which affect us one way or another and I can't help but think it's only a matter of time until we, as an industry, will have to entertain the thought of engaging professional lobbyists to protect what we take for granted today. Quite a number of Superintendents Associations south of the border presently retain lobbyists or have formed task forces to deal with water restrictions, unduly tough pesticide regulations and even unions at exclusive country clubs. We can breath a collective sigh of relief that water isn't a pressing problem in Ontario presently but how long until it is? Pesticides, on the other hand, are attacked daily by the press and with chemical manufacturers forced to pay exorbitant costs for product registration, I actually foresee the possibility of our chemical arsenal shrinking. Let's hope I'm overstating the facts but don't forget that motto we grew up with – "Be Prepared."

As a footnote to the above article, an unexpected problem of great proportion has recently waved its ugly head. The current liability insurance crisis that is crippling municipalities, school boards and industry in general appears to be taking its toll within the golf community as well. At the time of this writing, liability insurance covering golf cars seems to be next to impossible to obtain. The repercussions of this are obvious. Faced with loss income, courses will boost prices and reduce operating costs. This means golfers may be paying more for an inferior product – an equation that does not bode well for the industry. Hopefully, this problem will be rectified.

President's Message

For most of us, a mid-January thaw took away most of our snow, giving us a chance to see how our turf was wintering. From what I have seen and heard from other Golf Course Superintendents, everything looks good. With only one month of winter left, it looks promising that we should have a good spring.

Some Superintendents have just attended the GCSAA Turfgrass Show in San Francisco and some are now making plans to attend the CGSA Turfgrass Conference in Ottawa in March. Education conferences and symposiums, like the Guelph Symposium that the OGSA holds in early January, are key ingredients to the success of a Golf Course Superintendent. It is important to take the time and effort to prepare in the off-season months before spring and summer problems are at hand.

Winter is an excellent time of year for us to spend more time with our families and friends. We often neglect our private lives a little bit during the golf season because of the demands that golfers and mother nature put on us. I hope that you and your families are enjoying a good winter and I hope that your golf courses winter well. See you in Ottawa.

Barry Endicott

Congratulations

The following OGSA members received their 25 Year membership plaques:

Jim Wyllie CGCS
Bernie MacDonald
Doug Suter
John Grightmire

Special Note

Any memberships whose subscription is not paid in full by March 1st, shall cease to be a member of the association and will lose all membership benefits at that time. Please pay promptly.



Weather In Review

	October	November	December	January
Average Daily Low Temperature	5.4°C	1.0°C	-7.4°C	-9.2°C
Average Daily High Temperature	14.5°C	6.2°C	-2.5°C	-2.4°C
Mean Temperature	10.0°C	3.6°C	-5.0°C	-5.8°C
Normal Temperature	10.3°C	4.2°C	-2.2°C	-4.9°C
Precipitation				
rain	34 mm	131 mm		15 mm
snow		7 cm	24 cm	9 cm

Twenty Years Ago Today

by Barry Endicott

In 1966 the OGSA board of directors were as follows: Keith Nisbet (president), Bob Moote (vice), Dave Gourlay (sec.), Whitey Jones (treas.), George Darou (past pres.), Dave Moote, Larry Smithson, Carl Sellers, Ian Williamson and Gordon Witteveen. The Greensmaster was the official publication of the OGSA and the editors were Gordon Witteveen, Bill Hynd and Norm McKenna.

A monthly meeting was held at the 3 year old Brampton Golf Club. The host superintendent was Roy Cornfield. Roy had been the assistant for seven years to Harry McBride at the old Brampton Country Club. Mr. Leo Cleary from the W.A. Cleary chemical firm was the guest speaker.

Larry Smithson was Superintendent at the Municipal courses in Metro Toronto but was recently promoted to Parks Superintendent.

The Credit Valley Club, near Toronto, had just completed one of the most modern, expensive, foolproof elevators in the area. Now there was talk that the course will be sold for subdividing.

Tom Styles died in mid-October in St. Catharines where he was Superintendent at the St. Catharines Country Club for more than 40 years.

The Alex McClumpha Tournament was held at Glen Eagles Golf Club hosted by Bill Calhoun. Dale Butler from Malton Golf Club won it with a 74. Whitey Jones was low net.

Bill Bowen, Superintendent at the Peterborough C.C., won

the Willie Park Trophy at the Weston Golf Club with a 71.

A meeting and golf day was held on September 13th at Upper Canada Golf Club hosted by Tom Unsworth. At that meeting it was decided that Keith Nisbet would run for director in the coming national elections in Washington. Gord Witteveen was appointed voting delegate.

On May 12, John Arends hosted a meeting at Hawthorn Valley. John received his early training as assistant to Ralph Tucker when Ralph was building the Beverley Golf Club. Whitey Jones was low net and Keith Nisbet was low gross. At this meeting a change in the by-laws to have a separate membership class for assistants was turned down. A motion to accept pro superintendents and manager superintendents, who are not members of the PGA and the Managers Association, was carried.

The Dominion Golf Club was the site for an April meeting hosted by Danny Uzelac and his wife Dorothy.

On March 8th, Joe Roberts at the Oshawa Country Club, hosted over 50 members. The guest speakers were Mr. James Lent and Mr. Art Drysdale. Some of the members at this meeting were: George Darou, Richmond Hill; Joe Peters, Strathroy (both Darou and Peters were at one time superintendents at Oshawa); Tom Unsworth, Upper Canada Golf Club; Ted Charman, Toronto Ladies; Ernie Allen, Toronto Hunt Club; and Norm McKenna, Summit Golf Club.

Standard Committee Report

The Standards Committee was formed to study our Association's existing Code of Ethics, to examine golf course-related educational programs in Ontario, and to evaluate the OGSA's stature in the province's golf community.

With regard to the Code of Ethics, the committee felt that more comprehensive and specific guidelines were required. We also must stress the fact that these standards will receive their due recognition, only if willful violations are reported to and dealt with severely by the Board of Directors.

The education programs that are currently in place in Ontario vary significantly in scope. It was not the intention of the committee to rate these programs, but rather to recognize them and express our interest in their further development. To this end, some valuable dialogue has been initiated that will hopefully continue in the future.

The OGSA's reputation in the Ontario golf community is sound but most certainly can be enhanced. Our most effective public relations vehicle is the conduct and resulting respect that each one of our members nurture at their respective clubs. To this end we recommend that each member evaluate his past performance, in light of the revised ethical standards. Members are also urged by this committee to attend meetings, seminars and conferences, to exchange ideas with fellow superintendents and to present themselves, at all times, as true professionals.

Respectfully submitted,

Thom Charters
Paul Dermott, CGCS
Jim Wyllie, CGCS

Good Luck...

to Michael Van Beek, about to begin a new career with his own turf care company in Halton Hills. Michael, formerly the assistant at Glen Abbey, will be missed by his associates in the OGSA.



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Ethical Standards Of The Ontario Golf Superintendents Association

To ensure that respect is accorded our profession, our Association and our individual members, these ethical standards are to be observed and practised.

Maintain courteous relations with your employer, employees, and fellow superintendents, while practising sound business and turf management principles.

Continue to broaden your knowledge through formal educational channels and by exchanging experiences and ideas with fellow members.

Endorse products or practises, only when completely satisfied, through personal experience.

Refrain from corresponding, either verbally or in writing, with a Director, member, or official of another club, regarding its affairs, without prior consent of that club's Superintendent.

Apply only for a position that is vacant and, if possible, talk to the person who last held the job, or other local Superintendents.

Offer employment to another club's employee only after advising that club's Superintendent.

Contact the Superintendent of a club you are visiting, and, whenever possible, do so in advance.

Misrepresenting this Association and yourself by loaning your membership card will not be condoned.

It is the responsibility of each member to abide by these standards and to report any willful violations to the Board of Directors in writing.

Breach of these standards may result in the following disciplinary action: Posting - Suspension of Privileges - Termination of Membership.

Introducing Some New Directors

No fewer than five directors completed their terms of office this past season. Leaving the Board were Gordon Witteveen, Bill Fach, Al Draper CGCS, Shorty Jenkins and Tom Simpson. They all served the OGSA well and dedicated many hours from already busy schedules. We are all deeply indebted to these individuals but I must wonder what they will do with all their spare time now.

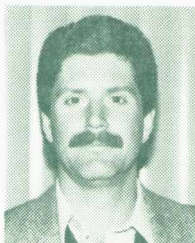
Taking their places on the Board are 5 equally dedicated and talented individuals. Below, you will find a brief description of 3 of these people, with the other 2 being covered in the next issue.



Mark Hagen

Mark spent four seasons at Dundee Golf Club prior to spending some time on the grounds crews of

Foxwood Golf Club and Westmount Golf and Country Club. His first assistant's job was at Greenhills in London where he worked for Al Draper from 1981 to 1983. When John Smith left Wyldewood for Kawartha Golf Club, Mark took over as superintendent at Wyldewood where he remains today. Mark has a Degree in Environmental Studies from Waterloo and has attended the Guelph short course.



Ed Farnsworth

Ed was born in Huntsville and has stayed in the area almost exclusively other than his time spent at the University of Guelph where he received his Associate Diploma in Agriculture. Ed's father and uncle built the Strathcona Golf Course in 1967 and operated it for 14 years prior to selling it to the Deerhurst Inn. Deerhurst has big plans in the works which will surely keep Ed busy. Ed and his wife Laurie have no children (yet).



Ron Heeson

Ron joined the Board of Trades turf care crew in 1975 and was promoted to first assistant in 1978. He spent the next 5 years in this position before accepting the superintendents position in 1983 at Beachgrove Golf Club in Windsor. Ron graduated from the turf program from the University of Guelph in 1978. Ron and wife Adrienne are recent proud parents of a baby daughter.

San Francisco '86

An Assistant's Perspective

by Jerry Richard, Brooklea G. & C.C.

As an assistant superintendent, the chances of being able to attend a GCSAA conference are quite slim, but during this past January, I was given the opportunity to do so at this year's GCSAA Conference and Trade Show in San Francisco.

I have to admit that when I was told that there wouldn't be many assistants there, I was a little worried about being out of place. But at the conference, I didn't feel out of place one bit; in fact, the people that I talked to there were very eager to help and share their know-

ledge with me.

There were three different educational phases that I experienced during this, my first GCSAA conference. The first phase was a structured seminar on the topic of my choice, which happened to be plant nutrition. The 2-day seminar was jam-packed with up-to-date and indepth information about plant nutrient uptake, soil structure and fertilizers. Everything is covered and no time is wasted. The seminar was 100% pure golf course material, hence everything taught was relevant to golf course maintenance. There were 28 different seminar topics to choose from this year.

The second phase consisted of a series of talks given by different professionals in the business. These 20 minute talks, often accompanied by a slide show, allowed individuals to share their ideas and experiences with the rest of us.

The third phase, and the highlight of the conference, was the trade show, a six acre supermarket of golf course equipment. It is here that I found myself learning more about the industry as a whole. By listening to superintendents and salespeople, as well as observing

the hundreds of exhibits, I found this an excellent way to make contacts, and get a better feel for the industry. The enormous size of the trade show was a message telling me that this business is successful. I felt important being there.

What else did this, my first GCSAA Conference and Trade Show do for me? Well, it gave me a chance to see how golf course maintenance differs in different climates south of the border; it impressed in my mind a feeling of strong unity between all facets of the golfing industry; it satisfied a nagging curiosity, the kind you get when you want to see something for the first time, and it also allowed me to see a beautiful city I had never seen before.

All in all, my first GCSAA Conference and Trade Show was a tremendous learning experience in many ways. It touches on the intangibles, things you can only learn by being there. I highly recommend the GCSAA Conference and Trade Show to anyone who has the opportunity to attend.

This was my first, and it won't be my last.

Canadians Very Visible at San Francisco

The fact that the Canadian flag shares the stage with the American flag during opening ceremonies demonstrates how active Canadian superintendents are at the International Turfgrass Conference and Show.

Ken Olsvik from Calgary and OGSA members Al Draper CGCS and Gordon Witteveen were participants in the educational sessions. Gord introduced winter golf to the unsuspecting audience while Al parted with a few of his tried and tested fertilizer practices. Ken's description of mega-dollar course construction out West was very entertaining.

There wasn't a dry eye in the audience at the opening

sessions when John Steel Jr. received the Distinguished Service Award on behalf of his ailing father, John Steel Sr., who is resting in Winnipeg after suffering a severe stroke. John Jr.'s eloquence and presence won't soon be forgotten.

The only disappointing feature of the entire show was the keynote speaker, General Chuck Yeager (retired). He actually began his speech by saying he wouldn't get overly technical because he realized our (superintendents') technical expertise and understanding was limited to sharpening lawn mowers. I sincerely hope those in control at GCSAA select future keynoters with a little more thought and screening.

"Green Is Beautiful" Recognized Once Again

Editors of seven outstanding newsletters were recognized during the Golf Course Superintendents Association of America's (GCSAA's) 57th Annual International Golf Course Conference and Show in San Francisco, January 27-February 4, 1986.

The 1985 winners of the annual GCSAA Chapter Newsletter Contest were selected from newsletters of 49 eligible, affiliated chapters by a panel of five highly qualified judges. To be eligible, newsletters must be published by GCSAA affiliated chapters between October 1 of the previous year and October 1 of the current year.

Within each of three chapter size categories, one newsletter was selected as the best overall. Newsletters were evaluated on overall excellence, appropriate design, editorial judgement and content, scope and quality of writing, and presentation. The size categories: A - fewer than 30 members, B - 30 to 70 members, and C - more than 70 members.

In addition to the three overall awards, judges selected four newsletters for special recognition regardless of chapter size. These special categories: best flag design, best cover, best original editorial content, and best format and readability.

The 1985 winners are:

- Category A: Turf Talk
New Hampshire GCSA Editor: Barrie Robertson
- Category B: The Ballmark
Central Illinois GCSA Editor: Michael Vogt
- Category C: The Grass Roots
Wisconsin GCSA Editor: Monroe S. Miller
- Best Cover: The Florida Green
Florida GCSA Editor: Dan Jones, CGCS
- Best Flag: The Green Breeze
Greater Cincinnati GCSA Editor: Dennis Warner
- Best Editorial: The Green Side
GCSA of New Jersey Editor: Jim Gilligan
- Best Format & Readability: Green Is Beautiful
Ontario GCSA
Editor: Neil Acton, CGCS

Some Ideas About Roots

Dr. W.H. Daniel, Purdue University

Introduction:

1. What is a root?
2. Where are the roots?
3. Roots are plant membranes.
4. What is water-air balance for roots?
5. Roots are strong.
6. How would you insult roots?
7. What could you do in favor of roots?

Roots Turfwise

Our historical roots, as a family and individuals, have recently received special attention. However, the roots of concern in turf are those little white stringy things that supposedly are below the grass you see on the surface.

First, what is a root? Roots are initiated at the nodes occurring along stems. These may be concentrated in a crown or spread along a stolon. Portions of mature roots are mainly conductive tissue plus providing some storage nutrients, especially starches.

The working part of any root is the soft absorbive root tip and the root hairs near it. This is where the payload of water and elements are absorbed for transfer to the crown, stems and leaves known as the turf cover. And, woe is the plant which had lost its root tips! So, a living root is that plant tissue joined to the node and extending to and including a root cap. Although some branching is normal, when individual root tips die, the older root parts seldom initiate new root tips. Physiologically, the plant's response is to initiate a new root at the node and just start again (providing extra energy is available and time is allowed). In other words, the energy path is to start a new root, which has least transfer distance for nutrients. So, keeping root tips alive and active is the first challenge of turf managers.

Bud Esterline at Muncie one time said, "Bill, on Monday I cut the cups and could see roots about five inches deep. It was dry, so Monday evening we made a big effort to water the greens real good. Tuesday morning early it rained and it was so cloudy and wet that we couldn't mow Tuesday. Although still raining, we finally mowed a little Wednesday afternoon, and the rain just set in there. Brown patch began to show. We finally got our greens mowed on Friday, and on Saturday the weather cleared up, and all I had for roots were a few black strings! I had lost my complete root system between Monday night and Saturday morning." Now what? Bud knew he had to lightly water those greens, to watch for wet wilt, to keep the leaves moist enough so they wouldn't wilt until new roots would generate. If he could get by for about seven days, he'd have some new roots growing, and later some good roots working again, and back to normal. Five days of wet weather cost Bud his root system, and then it took him ten days to get partial replacement.

Where are the roots? Would you believe 90 percent of root length is in the upper two inches or five cm. In West Germany, my friend, Dr. Boecker, reported extensive testing.

Inches	cm	%
0-2	0-5	90 Boecker found 81 to 91% for fescue
4	-10	5 86 to 94% for bluegrass
6	-15	3 85 to 93% for bentgrass
below Root distribution in June and December were near equal.		

Don't fret over this distribution; just realize that it is the active root tips doing the work.

Ideally, a diffuse extension root system is desired, but for every use, management, root zone and irrigation, what is normal, adequate and necessary will vary. As turf managers, you will want all the roots possible or practical.

Roots have been found over 100 inches long under Bermuda in California tests. However, roots of three feet for fescue and zoysia, two feet for bluegrass and bentgrass would be considered quite long. When trenches are made across roughs or tall grass areas, the long root extension in the soil profile is usually impressive.

Roots are plant membranes. "Here, you root; do this! Absorb (take in) 5000 pounds of water plus one pound of elements the plants must have. By the way, **keep out the excessive and avoid the unneeded.** Meanwhile, let's hope nematodes make no holes and rhizoctonia doesn't infect. And, while you're constantly expanding, we'll try to keep the leaves healthy, the mower sharp, the wear distributed, the drought averted, and we'll try to avoid scalping or other turf stress." After all, the top must send energy clear down to the root tip. When energy is short, the number of root hairs diminishes, the diameter reduces and the root initiation slows.

Roots are powerful absorbers. Before the plant wilts, roots will take water from soils down to 13.6 atmospheres, a pF of 4.5 or tension equivalent of 14 meters of water. The wise turf manager has every reason to utilize the reservoir of moisture within a root zone between irrigations. In other words, it is foolish to ignore the root zone moisture storage potential when managing fine turf.

What is water-air balance for roots? Incidentally, that root tip must have some oxygen as it works. Waterlogged soils are hard on roots. Being waterlogged for more than 24 hours under stress weather is a cause for concern. Most turf managers have seen roots growing over the surface of the ground in an attempt to be where there is air. Roots may be deep or shallow just in response to air supply. We've seen roots grow in water when air is needed, but remember, oxygen travels through water 1000 times faster than through wet compacted soils.

Roots are strong! When roots are numerous, their combined strength is in athletic fields, tees and traffic areas. New roots in new soils always look good. A measure of success is to have sufficient roots to hold the soil mass for their entire depth of penetration when held by the surface sod.

Research on rooting of sods has been conducted to determine resistance to an upward pull after one month of growth.

How would you insult roots?

1. Reduce their air at root tips.
2. Increase the water to excess.
3. Compact the soil; use equipment and carts.
4. Smear, seal the surface.
5. Raise the temperature.
6. Overcrowd the plants.
7. Lose leaves due to disease.
8. Reduce leaf surface.
9. Shade by trees, buildings, other plants.
10. Overfertilize and stress plants.

What would you do to favor roots?

1. Increase oxygen in root zone.
2. Avoid any overwatering or continued wetness.
3. Vertically core, spike, slit open root zone surface.
4. Topdress to raise cutting height.
5. Topdress to minimize surface compaction and effect of thatch.
6. Increase leaf surface.
7. Avoid or spread wear.
8. Avoid disease or turf weakening.
9. Lower the temperature - cooling when possible.
10. Reduce shade or competition.
11. Fertilize - low to medium nitrogen.
12. Provide ample potassium and minor elements.

Turf managers and their crews can't make a root. You can help; let the plants make them. You can kill the root or slow it down.

"OGSA - GCSAA Seminar

by Alex La Belle

I attended a packed house at the Lambton Golf & Country Club in November to hear Mr. Geoffrey Cornish and Mr. Robert Muir Graves deliver a lecture concerning Golf Course Design Principals. My attention was riveted for two days while we were educated in the fine art of designing golf courses and the proud history of the profession dating back centuries.

How many times have you been confronted with the mistaken perception that all a superintendent needs to do is to throw a little fertilizer down, sprinkle some water and cut the grass when it comes up? One way to overcome this misconception is to educate such persons as to the nature of our work and let them discover for themselves just how much they are unaware of. The same is true of designing a quality golfing facility. It is not simply a matter of drawing a series of lines and circles and squares on a piece of paper. It is engineering, hydrology, geology, biology and landscaping, to name only some of the background needed. It is the application of some time-proven rules which may be broken anywhere along the way to provide a better golf hole. Then there is the ability to recognize a better design when you see it. It was said at the seminar, "On one piece of land there may be a hundred different eighteen hole golf courses. Your job is to pick out the best eighteen in the bunch."

We were given a topographical map, a list of what the owners wanted and our rules of thumb as well as the government restrictions involved. We were asked to design eighteen holes, a practice range and putting green; a club house, a pro shop and a maintenance facility; access roads and parking lots. At the end of the exercise the gentlemen conducting the program provided us with opportunities to display our work offering constructive criticism for errors and praise for our successes. When the program was finished I understood a great deal more about the architect's profession and the immense responsibilities involved. Much was learned about new construction techniques from building bunkers and tees to contouring fairways and designing greens. I came away with an enlightened history of our past and an encouraging glimpse of the great potential that lies ahead when the experience of these competent professionals is enlisted.

The next time you are constructing a bunker or building a green, think of men like Stanley Thompson, Donald Ross and Robert Trent Jones, to name a few. Imagine the knowledge and hard work that went before, to show us what we should and shouldn't do. You'll find that the labour involved in your project is a little more than you had figured.



Left to right:
Robert Muir Graves, Betsy Evans, Geoff Cornish



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Putting Greens: Dealing With Snow And Ice Accumulations

by James T. Snow

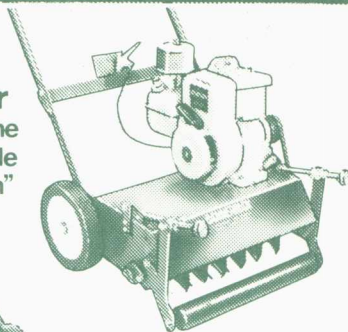
Northeastern Agronomist, USGA Green Station

Credit: The Ballmark

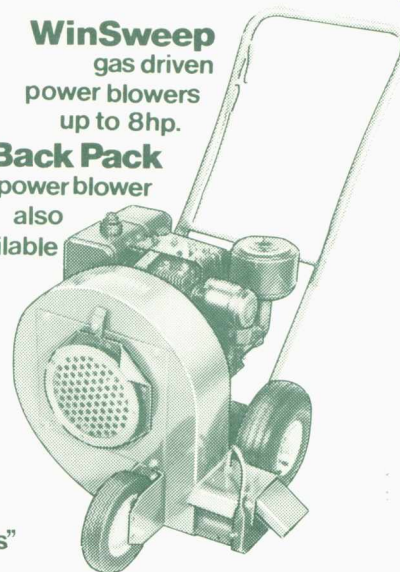
Winter injury is among the more frustrating types of damage a golf course can experience, particularly when it is associated with snow and ice cover not only on greens, but also on other areas. At least other types of turf problems result from controllable or preventable causes to some extent, like diseases, insects, wilting, poor drainage, or compaction and wear from heavy traffic. Even other kinds of weather injury, such as desiccation, winter diseases, and winter traffic effects, usually can be explained, if not always easily prevented.

For the golf course superintendent, injury caused by snow and ice accumulation is a problem in a class by itself. Winter damage is impossible to predict; if turf is lost, the superintendent can be in a precarious situation with club officials because so little is known about the nature of the injury. Even though criticism often is unjustified, it's no wonder that club officials sometimes become suspicious about the superintendent's ability to deal with winter injury. The fact is that there are many questions which remain unanswered.

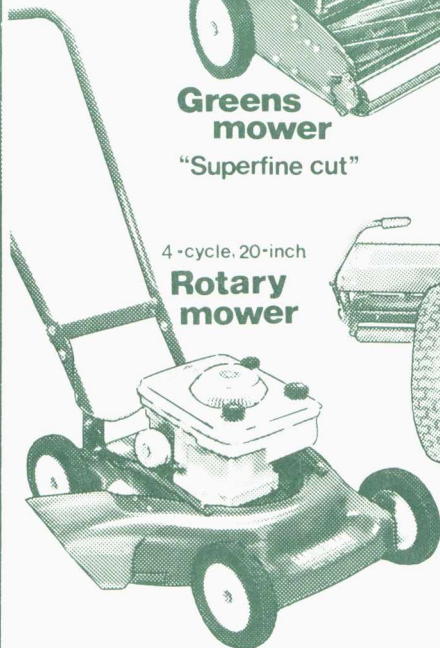
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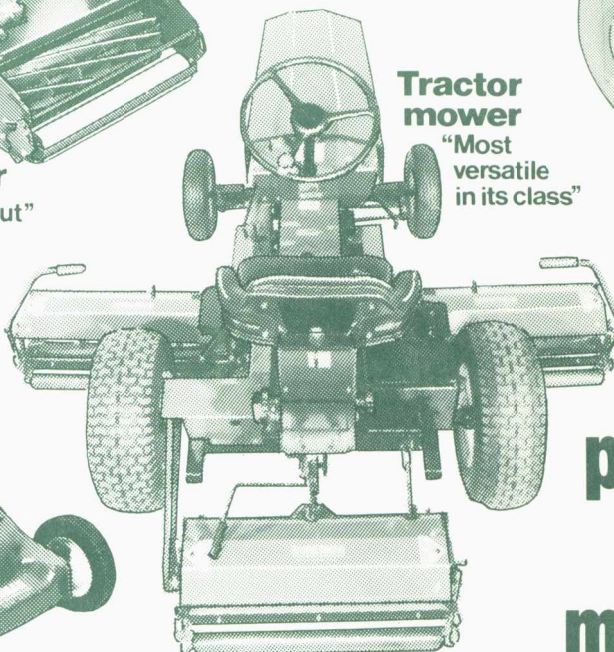


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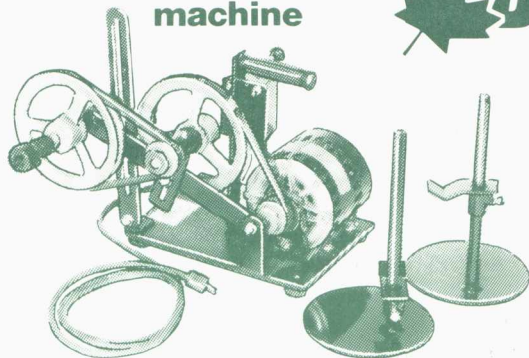
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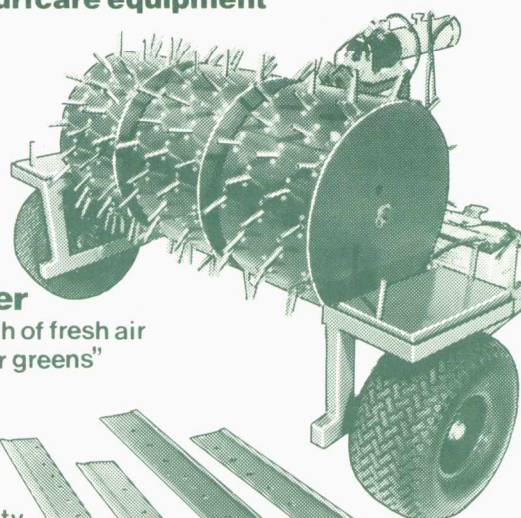
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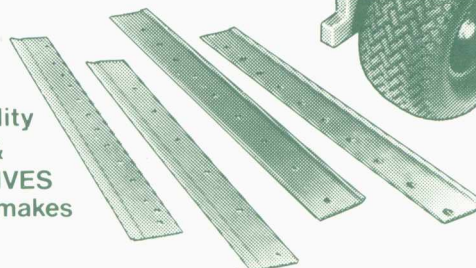
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There remains much confusion concerning the actual mechanism of turfgrass kill associated with snow and ice accumulations. A number of theories have been proposed, and some of them are contradictory. One theory popular in the 1960s suggested that turf died from suffocation caused by the build-up of respiratory carbon dioxide gas under the ice sheets. This idea has been challenged by Dr. James B. Beard, of Texas A&M University. His studies indicate that this type of injury rarely occurs. Some authors proposed that winter scald is part of the problem, caused by a lens effect when sunlight passes through the ice or standing water, thus scalding the leaf. Others have suggested that the solubility of arsenical, mercury, cadmium and other compounds increases under anaerobic conditions and contributes to turf losses. In an article appearing in the November 1972 issue of the USGA *Green Section Record*, Dr. Beard stated that, "The winter injury most commonly associated with extended periods of ice coverage occurs during freezing or thawing periods when standing water increases the crown tissue hydration and subsequent injury of the turfgrass plants when temperatures drop rapidly below 20°F.

Most researchers and observers agree about two things, however:

- 1) Greens with poor surface and internal drainage are more susceptible to this type of winter injury than well-drained greens, and

- 2) *Poa annua* is much more likely to succumb to winter injury than any of the bentgrasses.

Therefore, providing good drainage and developing strong stands of bentgrass should be the goals of every course which suffers regularly from winter injury.

A question that requires a good deal of judgement and experience is when to begin to remove ice and snow accumulations from the greens. Whether or not even to attempt to do this could be argued, but research and field experience have shown that ice removal is worth the effort if the accumulations have persisted for a prolonged period.

Turfgrasses can withstand various periods of continuous ice coverage without significant damage, from 60 days for annual bluegrass to 150 days for Toronto creeping bentgrass. Generally speaking, however, bentgrasses are quite tolerant of ice coverage. Annual bluegrass, on the other hand, is readily susceptible to ice injury, while the Kentucky bluegrasses fall somewhere in the middle. When to begin to remove the ice from greens or tees, therefore, will depend greatly upon the species composition of the underlying turf. Ice removal should begin 50 to 60 days after an ice cover has been established on greens composed primarily of *Poa annua*, whereas removal need not be started for 100 days on predominantly bentgrass greens. Regardless of the number of days it has been since a solid ice cover has been established, however, ice and snow should be removed from any green with characteristically poor surface drainage just prior to an anticipated thaw. Snow melts during a thaw, and water accumulates in the low, poorly drained pockets on the green. A sharp drop in temperature may then kill the turf in these pockets, so the advantages of removing the snow before the thaw are quite obvious. All the ice and snow should be removed except for perhaps half an inch to an inch, which will protect the turf from desiccation and low temperature extremes.

It's easy enough to recommend snow and ice removal after a certain period of time or just before a thaw, but anyone who has tried it knows that it is very difficult. Access

to the far reaches of the golf course with equipment and materials during winter may be impossible, and in winter the size of the maintenance crew is usually small. This often leaves the superintendent with no choice except to clear just a few of the greens, those with the worst problems or easiest access.

As an alternative to complete clearing, trenches can be dug through the snow and ice in the low areas of the remaining greens, thereby providing a drainage pathway for excess water. If ice removal or trenching cannot be done, it could be of some benefit to break up ice sheets with sledge hammers and picks. This should at least cause the ice to melt faster. Where weather conditions make mid-winter clearing work difficult or impossible, a sod strip is sometimes taken in the green during late fall. A neat drainage trench can be easily dug in the green simply by using a sodcutter to remove the sod. The sod can then be entrenched in a sand bunker to preserve it over the winter, and it can be replaced safely the following spring. Unfortunately, this technique produces only variable results and leaves a visible scar which remains for most of the golf season.

It is unlikely that two superintendents will agree completely on the best method of snow and ice removal. Some are very successful in using bulldozers or front-end loaders on their greens. This can be a risky operation, though. Care must be taken not to come too close to the turf surface, especially on greens with prominent undulations and contours. Others use picks and shovels for snow and ice removal, but this is time-consuming, and it obviously limits the number of greens which can be cleared or trenched. The use of machinery on the greens in late winter will depend to some extent upon the depth of frost in the soil.

Another good technique is to apply a dark-colored material to the surface of the snow and let the sun's energy do the work. The dark material absorbs the incoming radiation and causes the snow beneath to melt faster. This method takes longer to work, but is often very effective. Topdressing is often used for this purpose, sometimes mixed with activated charcoal, soot, or fertilizer. A rate of about two cubic yards to 5,000 square feet can be applied. This method has other advantages. Once the topdressing has reached the turf surface, it provides protection from subsequent desiccation weather. Dark-colored organic fertilizers are also popular topdressing materials; they can be quite effective when used at a rate of about 20 pounds of material per 1,000 square feet.

An intriguing idea which may be worth trying is to apply a good wetting agent to the surface of the snow to promote faster melting. A thick film of water tends to develop at the surface and delays the melting process. Applying a wetting agent reduces surface tension and encourages water movement down through the snow, thus promoting faster melting. It is often impossible to apply a sprayable material during the winter, but with the advent of the new granular wetting agent formulations, this idea may be more feasible. Using the granular wetting agent in conjunction with a dark-colored topdressing material, enabling you to pre-mix these materials, is a convenient way to get the best from both of these programs.

On greens where a history of winter injury is apparent, snow and ice should be removed during late winter. A number of techniques can be employed to reduce the potential for winter injury, but none can guarantee complete success. The wrong sequence of weather conditions may produce extensive turf losses on golf courses in local or wide regional areas, despite precautions.

Ontario Turfgrass Symposium

Attendees, approximately 200, appear to be very pleased with both the format and content of the two day Ontario Turfgrass Symposium, recently held at the University of Guelph. Conference Chairman Al Draper, CGCS, worked tirelessly securing top notch speakers from varied professions. This conference dealt with employee motivation and personal image, as well as professional turf maintenance.

A personal favorite was Gale Frielander, who is the President of *Images That Suit*. Her presentation, entitled "Making Dynamic Impressions," proved to be the most interesting and controversial of the symposium. All people talked about for the remainder of the proceedings was whether one was appropriately dressed or if they were emitting correct body language. One can easily see that success in our business is not governed totally by our ability to maintain turfgrass.

Dr. Switzer, who is currently Deputy Minister of Agriculture, provided us with some information of the inner workings at the Ontario Ministry of Agriculture and Food. He summed up his talk by mentioning that the impact of the turfgrass industry in Ontario is being recognized and that the possibilities of a turfgrass extension specialist, co-operatively sponsored by government and industry, may become reality.

The professional educators, including Dr. Burpee, Dr. Egens and Dr. Vargas, provided us with some new

research facts they have been working on and investigating lately. It was made obvious that in light of recent disease development, disease identification and new mowing techniques, professional turf managers must stay current.

Wednesday morning talks were all presented by superintendents and one assistant. Ted Woehrle, CGCS, a speaker himself, summed up the calibre of the presentations best. Ted said the speakers were the best he has seen for many years at any regional conference. Anyone in attendance who listened to Barry Britton, Alex La Belle, Thom Charters, Don McFaul and Ted Woehrle will agree their presentations were both well prepared and accepted. Bruce Clark, sporting his newly purchased yellow tie, finished the morning sessions with a refreshing talk concerning his ambitions to become a top superintendent and how he plans to go about it with the help of the Dale Carnegie course.

The symposium wound up with presentations Wednesday afternoon, covering information concerning tree care, personnel performance, commercial lawn care and Japanese landscaping techniques. Teri Yamada, speaking on the latter subject, actually apprenticed in Japan and her talk and slides were most interesting.

The success of this year's symposium has already encouraged next year's committee to start planning for '87. Make plans to attend now.

Christmas In The Deep South

by Ron Heesen

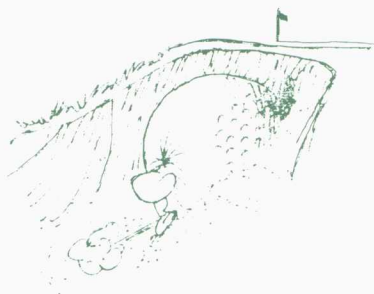
Well, after the wettest fall on record, we finally slipped into winter. The heavy precipitation was replaced by severe cold in December. No better time to slip away to the Michigan Superintendents Christmas party.

This year the party was held at the Henry Ford Museum. The Museum hallways were opened up for cocktails and hors d'oeuvres. Having a few drinks alongside old steam engines and old locomotives seemed to get everyone rolling into a good party atmosphere. After cocktails, we walked next door to Lovett Hall for the dinner and dance. A fine meal of prime rib was served. By this time everyone had forgotten about the wet fall and the party was well underway. Living next to Motor City can be very interesting.

January has been a mixed bag in our area. In the first two weeks we had record cold temperatures, and

currently we are in the middle of a thaw. We hope this keeps up and we quietly head into the spring with the good weather. For Essex and Kent county the big issue this spring will be the potential of flooding due to high lake levels. Both Lake St. Clair and Lake Erie are at their highest levels in history. Anyone living along the shoreline has been busy sandbagging. Further to that, our town council have just had a meeting to determine how to evacuate the area. Not very encouraging!! However, being an optimist, we hope all this passes and, with a little luck, no damage will be sustained. We're keeping our fingers crossed. For you golfers out there, you can accuse anyone from the south of being a sandbagger.

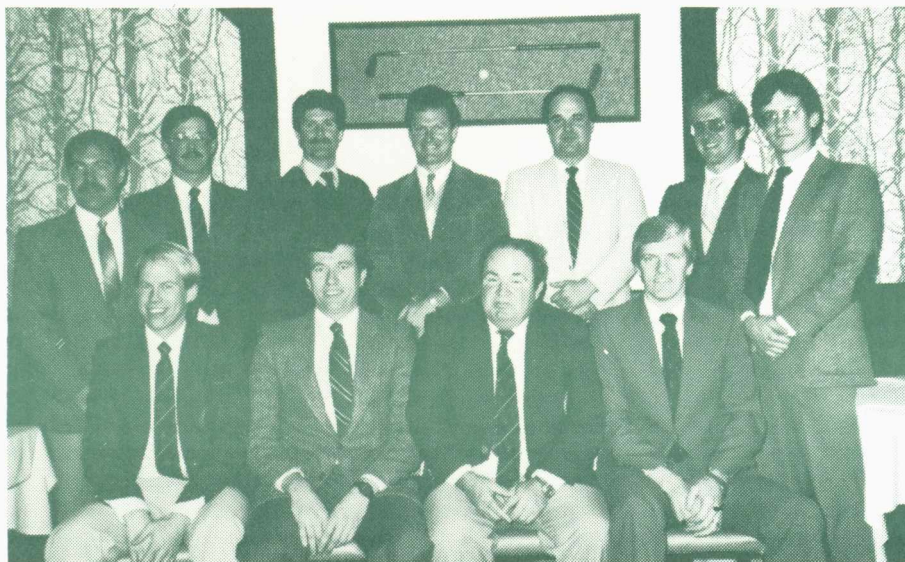
Time to say best of luck this spring and keep your green chairman aware and up to date. Good luck!!



Correction

In December's issue, I inadvertently gave credit to Tom Murphy for the Turfgrass and Weed Management Field Day article. It was brought to my attention that it was actually Paul White who wrote the article. I regret the error and I trust Paul will drop his suit against me. (It won't do any good, Paul, I can't get any liability insurance.)

Neil Acton



Ontario Golf Superintendents Association Board of Directors 1986

Standing, left to right:
Mark Hagen, Neil Acton CGCS,
Ed Farnsworth, Dave W. Gourlay,
Scott Dodson, Ron Heesen,
Rod Trainor

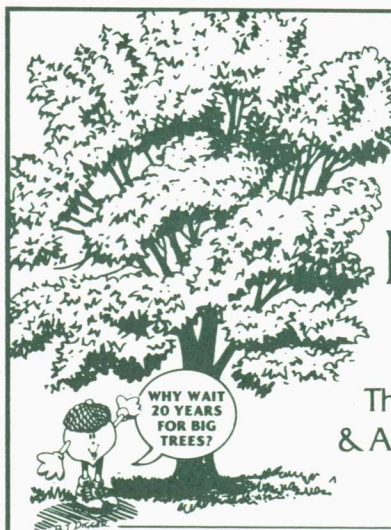
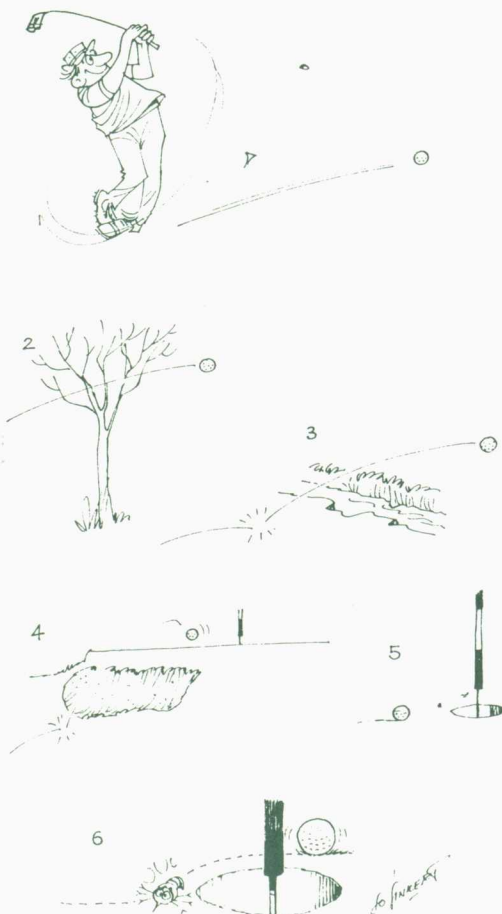
Sitting, left to right:
Thom Charters, Barry Endicott,
Hugh Kirkpatrick, Robert Kennedy

Dave Dick Promoted to Executive Tech Rep For Scotts® Proturf® Division

Marysville, Ohio — The O.M. Scott & Sons Company recently announced the promotion of Dave Dick from Senior Tech Rep to Executive Tech rep for its ProTurf® Division. He will continue to cover his present territory of southwestern Ontario.

Dave graduated from the University of Toronto with a bachelor of science degree. Prior to joining Scotts, he was the golf course superintendent of Sleepy Hollow Country Club in Stouffville, Ontario, Canada.

He and his wife, Cherylyn, and their two children reside in Brampton, Ontario.



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Dealing With Divots

by Patrick M. O'Brien

Agronomist, Mid-Atlantic Region, USGA Green Section



What to do about divots? This is one of those little things that every golf course superintendent must contend with but can never overcome.

Small wonder! The National Golf Foundation reports that the average seasonal daily play today on an 18-hole course is about 150 rounds. That's about 30,000 rounds of golf a year for each of the nation's 18-hole courses. That adds up to a lot of divots and a lot of repair work.

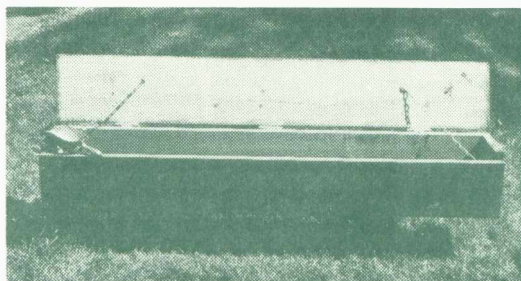
When golf was young, the teeing ground was a small area. Since there was not a great deal of play and the tees were mowed by hand, a good grass cover was possible. But in time, as the number of golfers increased, good grassy tees became more difficult and more costly to maintain. The only answer to the problem lies in larger tees and a constant divot repair program.

Next to providing a level stance for the golfer, size is the most important tee consideration. Without enough ground, grass cannot recover from heavy divoting and traffic. Luckily, it is easy to calculate how much area is needed. For par-4 and par-5 holes, 100 square feet of usable area is required for every 1,000 rounds of golf annually. For par-3 holes, 200 square feet is needed. Tees meeting these general guidelines will have a better chance of keeping a dense cover throughout the playing season. This is an important consideration for anyone planning to rebuild old tees or designing new ones.

The use of fast growing grasses on tees with divot problems is another aid. In northern climates, some favor Penncross bentgrass while others prefer improved perennial ryegrasses. In southern areas, various bermudagrass and zoysiagrass varieties are the choice. Obviously there are growth rate differences, even among grasses of the same species. For example, the faster growing Vamont bermudagrass is preferred over the slower growing Midiron bermudagrass for tees where these varieties are adapted.

Good tees, regardless of the grass species, absolutely require very close attention to fertilization rates, irrigation needs and pesticide protection. These needs are even greater when cutting heights are lowered and grass clippings collected. Many tees have become an intensive management area.

Although there are no set rules for divot repair programs, the greatest hope of all remains with the golfer himself. If every golfer would only repair his own ball marks and replace his own divots, the nation's golf courses would be conspicuously improved and noticeably less expensive to maintain. Proper etiquette calls



for this, but too few hear the call. Surely, if golfers would limit their practice swings to off-tee areas only, a tremendous leap forward could be made.

The practice of placing topdressing containers on par-3 tees has made a small comeback in recent years after being commonplace in the 1920s and 1930s. A few clubs use the topdressing containers as tee markers and some have also included small topdressing containers on every electric golf cart. Each container holds the divot topdressing mixture, seed and a scoop. The scoop is used to place topdressing over the scar left if the divot is destroyed.

The self-repair approach, unfortunately, receives only mixed reviews. Many golfers are apathetic. Agronomically, it doesn't take long for the seed to germinate in the mix and the helpful golfer may find a mass of vegetation in the container. One solution is to place the seed in a dispenser, like a salt shaker, to keep it dry and prevent germination. But each new step in the self-repair process only seems to complicate and discourage its use even more.

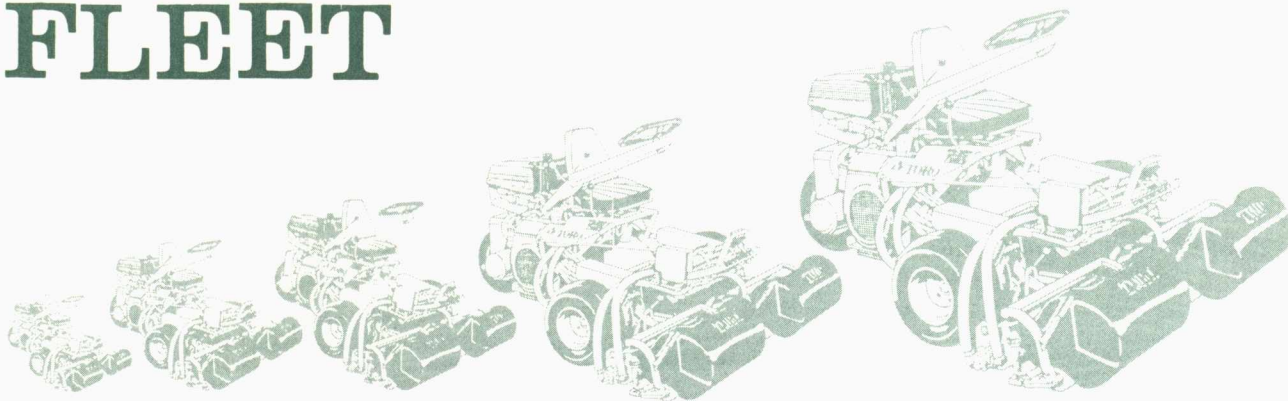
The best approach to divot repair is a regular program by the professional grounds staff. The professional staff is more proficient than most golfers in judging how much topdressing to place over an old divot hole. Usually, doing the work once or twice a week is enough if the tees are sufficiently large. Most often, one or two crew members apply the divot mixture by hand to the injured areas. The next step is to smooth the area with a shovel and then off to the next tee. Devoting time to divot repairs pays dividends. The golfers, too, become more conscientious about repairing injured turf when they see that the professional staff is devoting time to it.

The divot mixture used by the professional staff is usually one of seed, soil, and/or sand. Seed germination of cool season grasses such as bentgrass, is more difficult in sand alone. On the other hand, actively growing warm season grasses will readily spread in pure sand and rapidly cover without the need of additional seed and soil.

Good tees and a dense, uniform turf cover undeniably add to the enjoyment and attractiveness of every golf course. Good tees don't just happen. They must be of adequate size, have the proper grass, and follow a conscientiously planned management and divot repair program. Good tees cost money. The enjoyment they bring and the impression they leave make it all worthwhile.

Credit: USGA Green Section Record.

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