



# TURF TIMES

Volume 17 No. 5

TUESDAY, JULY 12th, 1988  
WEST BRANCH COUNTRY CLUB

The July meeting of this Association and the Mid-Michigan Association will be a joint effort, bringing together two of Michigan's superintendent groups. For those of you that have never been to this fine golf course, we would like to fill you in on directions:

From the south, take I-75 to exit 212, business loop to West Branch. Turn right on Fairview, Country Club is 2 blocks on Right. Coming from the north, take I-75 to exit 215, business loop into West Branch and turn left at Fairview. Coming on M-55 either from the east or west to Houghton Ave. and turn on Fairview.



Host Superintendent: Bob Steinhurst, Jr. CGCS Phone: 517/345-1424

Golf Professionals: Brian and Ina Davis Phone: 517/345-2501

Starting times will be from 10:00 A.M. until 1:00 P.M. and are necessary.

For reservations, please phone 517/345-2501

Price of golf carts will be \$8.00 per person

Price of dinner \$16.00 TOTAL PACKAGE: \$26.00

Golf Tournament \$2.00

LUNCH IS AVAILABLE AT THE COUNTRY CLUB AND THE FOOD COMES VERY HIGHLY RECOMMENDED. Please use the enclosed postcard so we may tell the club of the number that will be there for dinner. Thanks.

DINNER WILL BE SERVED AT 5:45 P.M.

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August 10th, Cheboygan Country Club will be our next meeting. Please mark your calendar.



# NORTHERN MICHIGAN TURF MANAGERS ASSOCIATION

3733 APOLLO DRIVE • TRAVERSE CITY, MICHIGAN 49684 • 616-943-8343

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## BEHIND THE GREENS

### A Monthly Message From The Board by Tom Brogger, President

Howdy Pardners! Gee, where you been? You look like you been out on the long dusty trail. What's that you say? You just came in off the golf course? Oh, My!!! Excuse me for lightening the mood a little, but I know everyone is going crazy over this dry spell and you know, if we don't get some rain pretty soon, those dusty trails are going to get even longer before it's all over. The toughest part in all of this is that the majority of our time is spent with our water systems while a lot of other projects and routines have to take a back seat. We are also very limited in what we can and can't do during times like this and, hopefully, everyone understands the situation. It's probably a good time to be communicating some of these situations to our club officials.

At this time, I would like to thank all of those who took part in this year's Turfgrass Benefit Day at Garland. Mother Nature provided us with sun-baked skies and everyone seemed to be enjoying themselves. Congratulations to the winners! Their efforts were rewarded with our largest prize list ever. A tournament of this size and magnitude would never have run so smoothly if it weren't for the hard work and preparation by Chairman Charlie Menefee and Host Superintendent, Dave Longfield, as well as the entire Garland staff. Dave, your golf course is in absolutely fantastic shape! You're in a beautiful location and you have a lot to be proud of. Thank you everyone for your participation in what will again provide substantial funds for future turfgrass research.

Our next gathering will be a joint meeting with the Mid-Michigan Association at West Branch Country Club. We met with our neighbors to the south last year at the Grayling Right To Know seminar, and because we got along so well, we thought we'd do it again. If you know someone from Mid-Michigan, this might be a great time to give them a call and make plans to get together for our meeting that day.

See you at West Branch!

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*"Whoever is careless  
with the truth in small matters  
cannot be trusted  
with important matters."*

— ALBERT EINSTEIN

*"The trouble  
with being punctual is  
that there's nobody there  
to appreciate it."*

— HAROLD ROME

## Bunkers and Sandtraps

Ninety percent of all sand traps are "status symbols". Top players can get "up and down" out of sand traps around greens 65 percent to 75 percent of the time. The golfer who can't ever get out of the traps 50 percent of the time doesn't need sand traps to penalize him in the first place — most greens are over-trapped and under-trapped throughout. The countless 400-yard par 4-holes with 4 or 5 traps around the green, some extending back toward the tee for 35 to 40 yards, look great in the magazines but not on the average golfer's scorecard! The toughest shot is the long trap shot. The low handicapper doesn't miss a green by 20 to 30 yards; so these long traps don't catch him. Such long traps catch only the weekend golfers, defeating the purpose of pleasure and faster play.

Fairway traps are somewhat similar, depending on location and degree of penalty. In a carefully designed course, the fairway traps rarely can be reached by the average player, but they should welcome the long hitter who "strays." A trap doesn't bother the good golfers unless he has an unfortunate lie. A penal trap designed to make him recover with an eight-iron, when a five-iron is needed from that distance to the green, is another story and such traps used sparingly and judiciously on the course have their place in golf.

Courses with two or three fairway traps per hole, some of them 80 to 100 yards long, are on their way out. Most courses overdo the fairway traps because trees are under utilized. Well-placed "tree traps", either natural or planted, can stop the very long hitter far more effectively and with far less maintenance expense than sand traps. Yet the average golfer lands so far back of well-placed trees that he can better negotiate such obstacles with his shot.

Sand traps today might cost from \$750.00 to \$2,500.00 each, depending on rough grading required, cost of sand, etc., but the maintenance cost of raking, edging, occasional new sand, etc., usually averages \$100.00 to \$150.00 per trap per year, and probably the only persons getting in such useless traps are the maintenance crew. Compare this with three good trees planted at \$100.00 to \$300.00 each and maintained at \$5.00 to \$15.00 per tree per year. Cutting out 50 traps can save \$50,000.00 plus \$7,500.00 per year in maintenance. A different treatment of trap edges can save another \$2,000.00 to \$4,000.00 per year in maintenance and result in "cleaner" sand traps.

A study of the old master golf course architects, like Russ, Mackenzie, and Tilling Hast, show that some of their greatest courses had few traps. The original 8th green at Augusta National, which made the hole a magnificent test of golf, didn't have a single sand trap! As I study the latest Augusta Course map I find a 14th hole without traps at all. This is a superb example of subtle design which rewards a bold, well-placed shot while making a very tough approach shot to the pin — the penalty for a sloppy second shot on the great holes.

Most of today's courses are excessively over-trapped from the viewpoint of speed of play, first cost, maintenance, and poorly designed from a reward punishment standpoint. While it is true that well-designed traps are

## YOU

"For living at your office, for living in your home, or for living anywhere in the world:

If you open it — you close it.  
If you turn it on — you turn it off.  
If you unlock it — you lock it.  
If you break it — you repair it.  
If you can't fix it — you get somebody who can.  
If you borrow it — you return it.  
If you use it — you take care of it.  
If you make a mess — you clean it up.  
If you move it — you put it back.  
If you make a promise — you keep it.  
If you don't know how it works — don't touch it.  
If it doesn't concern you — don't mess with it.  
If it's your turn — then take it.  
If you love her — tell her.  
The bottom line is this — today is your day, so go for it.  
This kind of basic training will fit any age, in any field, in any dimension — it applies to kids or to codgers — and those on their way in any direction.  
It speaks for itself so eloquently that it needs no explanation."

From: Jasper Dorsey (editorial),  
Athens Daily News, February 10, 1986.  
Credit: GGCSCA

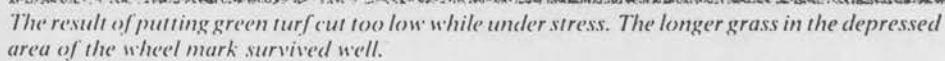
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beautiful and provide a measure of targeting and sometimes protection, we have had too much of a good thing. Grass bunkers and mounds can be more effective and much less costly. Grass can be mowed low for most of the growing season for average play and allowed to grow higher for 3 weeks before an important tournament. Golf courses of the future most likely will have only 8 to 20 sand traps, with many more strategically placed grass mounds, grass bunkers, and tree traps. Credit: N.M.G.C.S.A.

# Managing Greens Under Stress

by STANLEY J. ZONTEK

Director, Mid-Atlantic Region,  
USGA Green Section



The result of putting green turf cut too low while under stress. The longer grass in the depressed area of the wheel mark survived well.

**A**MONG THE responsibilities of today's golf course superintendent, the need to maintain a good stand of grass on putting greens is perhaps the most basic of all. Greens are the bread and butter of a golf course, and the reputation of a course and the superintendent who maintains it is often determined by the consistency of those greens. As long as the greens look good and putt well, golfers are inclined to overlook other weaknesses on the course. If this consistency fails for even a short time, though, the superintendent will be criticized—and golfers can be merciless in their criticism of even the least significant flaw.

Maintaining good putting green turf for most of the season is not as difficult as it once was. Science has given us a better understanding of how to maintain closely cut, heavily trafficked turf, and well-timed practices such as aeration, topdressing, fertilization, overseeding, and other renovation work can prepare the turf and the soil for the next period of stress. With the coming of the summer stress season, however, putting green management often takes on a meaning all its own: doing what is necessary to keep the grass alive under stress conditions.

Turfgrass stress can be defined in a number of different ways. By the book, stress is the "strain or pressure causing

a departure from the normal equilibrium." For the turf manager in the field, stress is what causes the grass to wilt and die right before his eyes, just like it did during the summer of 1987, the East's summer of despair. The turf on greens is exposed to many elements that can cause stress. The turf manager has little or no control over some of these factors, such as the amount of play a course receives, under what weather conditions this play occurs, and whether the players wear spiked or spikeless shoes. Other stress factors are imposed by the superintendent himself. These include extremely close mowing, the abrasion caused by turning heavy triplex mowers on the green perimeters and collars, deep vertical mowing, too much or too little irrigation, and misapplying certain chemicals. These stresses can be broadly grouped under mechanical stress.

The other category of stress the turf manager must deal with is given the name environmental stress. Temperature or humidity that is either too high or too low, rainfall that is too much or too little, and the presence of frost, are examples of environmental stress.

Generally speaking, any of these environmental or mechanical stress factors will not cause the loss of grass by themselves, but when a combination of stresses occurs at the same time (e.g.,

close mowing when it is too hot), the turf can be severely weakened, and may wilt and die. When this occurs on greens, it means an immediate public relations problem between the golf course superintendent and those who play the course.

Following is a listing of some of the management factors the golf course superintendent can control to some degree as he manages his turf under conditions of stress. Some may seem obvious, while others are less obvious, but all of them are worth considering in preparing for another period of heavy summer play and the accompanying stresses. After all, loss of turf on greens is something that every golf course superintendent and golfer wants to avoid.

## Managing Mechanical Stress

- Raise the mowing height. Mowing the grass too close when temperatures and humidity are too great is a common cause of summer turfgrass failure. In many cases, the golf course superintendent feels pressured into sustaining low cutting heights for the sake of fast greens, resulting in thin, weak, or dead turf, and a mob of angry golfers.

What *should* be done? When the grass is under severe stress and is being cut less than 3/16ths of an inch, and where thinning and scalping damage is seen, raise the mowing height as quickly as

possible. Even a slight 1/64th- to 1/32nd-inch increase in cutting height can have a very beneficial effect. In contrast, lowering the cutting height by this small increment to increase green speed can have a disastrous effect. The old saying slow grass is better than no grass is so very true.

- Skip mowing. The physical act of cutting grass with a heavy machine is itself a significant stress. Common sense would suggest when the grass is under extreme heat stress (its rate of growth slows anyway) to skip a few days of mowing each week. The greens may lose a little speed, but again, slow grass is better than no grass.

- Avoid double-cutting greens. While double-cutting is one of the most useful techniques at the disposal of the golf course superintendent to achieve and maintain fast greens, it is, nevertheless, another form of mechanical stress. Therefore, when the grass is suffering from heat stress, defer double-cutting until conditions moderate.

- Use walk-behind mowers. Walk-behind units place less mechanical stress on the turf than triplex mowers. While it is true that triplex mowers are marvelously efficient machines, they do cause extra stress on the turf, especially on the clean-up cut around the greens. This mechanical wear is one of the most compelling reasons why more and more golf courses are going back to walk-

behind mowers during the summer stress season. The pleasing, traditional striping effect it causes is an added advantage of hand mowing. Finally, many superintendents feel that walk-behind units do a consistently better job of cutting, while minimizing wear stress at the same time.

- Watch out for grooved rollers. The Wiehle roller is an excellent grooming device for creating better putting green texture and quality, compared to mowers with other types of rollers. When the grass is tender and under stress, however, the extra abrasion these rollers cause, especially on the perimeter cut, can be a major source of stress. Thus, use grooved rollers religiously when mowing the grass during non-stress times, but consider replacing them with solid section or swedge rollers when the turf is under stress.

- Defer routine maintenance operations like topdressing and vertical mowing of greens. While bermudagrass tolerates and may even thrive with an occasional summer topdressing and vertical mowing, cool-season grasses can be injured by such programs if poorly timed. This illustrates a significant difference which exists between the management of cool-season and warm-season grasses during the summer. Warm-season grasses flourish when temperatures are hot, while cool-season grasses can suffer heat stress when temperatures reach the high 80s.

In summary, do whatever is necessary to minimize mechanical stress to cool-season grasses when they are under prolonged heat stress. Putting green speed and quality may be sacrificed slightly during this time, but it is a small price to pay for avoiding the loss of turf and the turmoil which would accompany such a loss.

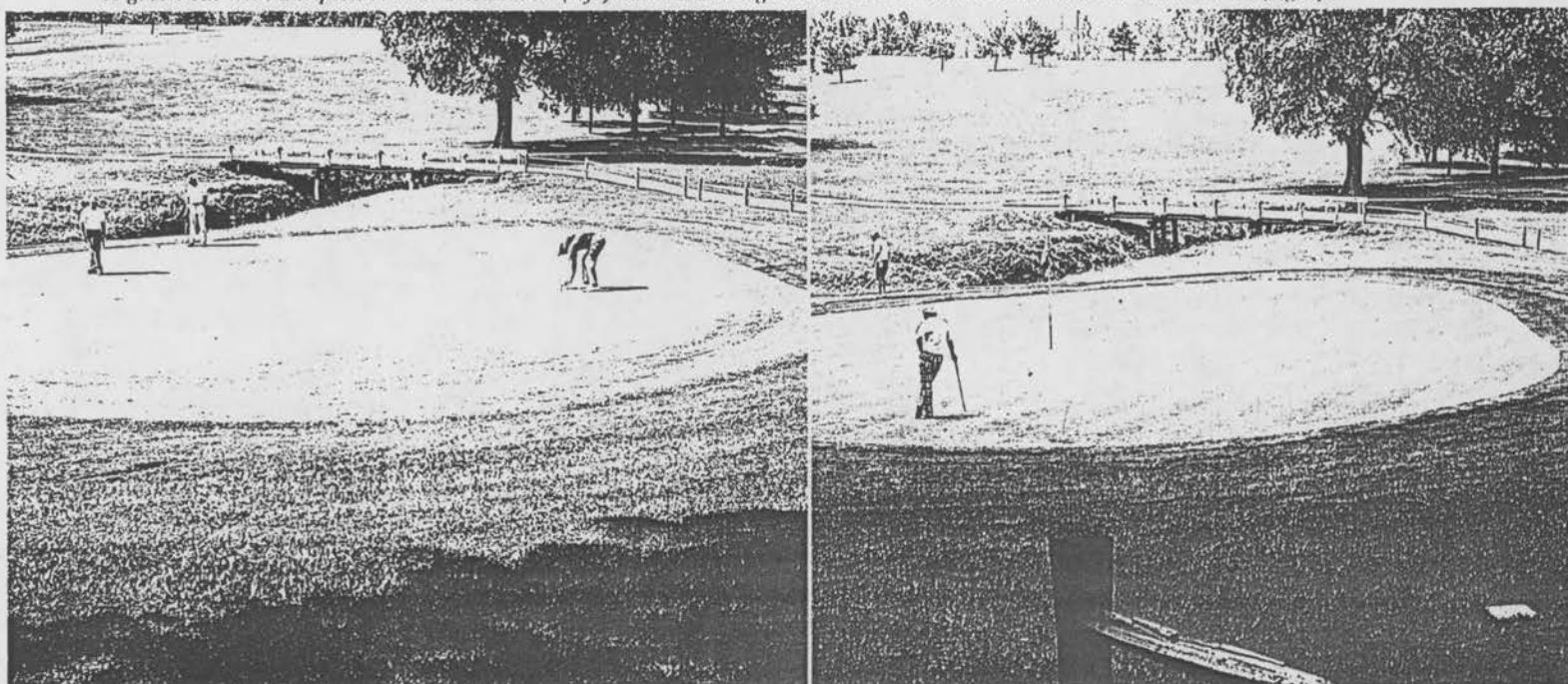
#### Managing Environmental Stress

Heat, moisture, disease, and nutrient stresses are key problems in maintaining healthy turf during the summer. Good management techniques can minimize these stresses, though sometimes the chemicals and materials used to prevent injury cause stresses of their own. Following is a checklist of management factors to consider for handling various environmental stresses.

- Syringe the turf occasionally to reduce heat and moisture stress. Applying the correct amount of water is the key to this program. Syringing is often overdone, causing wet wilt and disease. Syringing is best done by hand, using trained workers with some good judgement, and applying water only to those sections of the greens that require it. Hand syringing is time consuming during the summer, but it is necessary, given the demands of golfers today.

- Open up pocketed greens. Summer heat stress problems are always more severe on pocketed greens, those partly

A green cut with a triplex mower one season (left) and the same green cut with a walk-behind unit the next season (right).



enclosed by a dense stand of trees and underbrush. It is always hotter and more humid in these pocketed areas, and the grass is always weaker because of it. Air circulation can be improved by thinning out the extraneous trees and underbrush near the green and pruning up the lower branches of the remaining specimens. Without a doubt, good air circulation is critical in allowing the turf to transpire and cool itself by releasing moisture through its stomata. Providing good air circulation is also helpful in drying the green to minimize disease and algae problems. Therefore, anything that can be done to improve air drainage in the vicinity of golf greens should receive high priority by the green committee.

• Control diseases. Many turf diseases become active when the weather is hot and humid and the turf is under stress. A good example is Summer Patch (*Magnaporthe poae*), a disease of *Poa annua* and one where disease severity is directly related to the degree of stress experienced by the *Poa annua*. Controlling this and other diseases during the summer is particularly important, as turf lost from disease activity at this time of year will be slow to recover. To prevent this from occurring, compress your preventive fungicide spray schedule if necessary, be sure to make an accurate diagnosis of the disease if symptoms are observed, and use curative rates of the most effective yet least phytotoxic fungi-

cide labeled to control that disease. Also, be sure to alternate materials or tankmix contact and systemic fungicides when appropriate for broad spectrum disease control and to reduce the potential for fungal resistance problems.

- Do not apply pesticides, fertilizers, or combinations of products that have the potential to burn the turf. Cool-season grasses under heavy stress often react negatively to what are usually considered mild herbicides or moderate rates of certain types of fertilizers. If in doubt, spray during the cooler evening hours or defer treatments until temperatures moderate, when the turf can tolerate the applications better. If crabgrass or other weeds must be treated during the summer, consider hand picking rather than using herbicides. Though time consuming, it may be better than dealing with burned grass.

Misapplications can be especially devastating during stressful weather. Applying the wrong rates or allowing overlapping (which essentially doubles the intended rate) is a common cause of turf injury during hot weather. If you're not confident about important applications, consider using foam markers or application dyes for spray applications, or switch to granular formulations and drop spreaders if necessary.

- If fertilization is deemed necessary, keep rates in the light to ultra-light spoon-feeding range. Soluble fertilizer sources containing N-P-K plus micro-

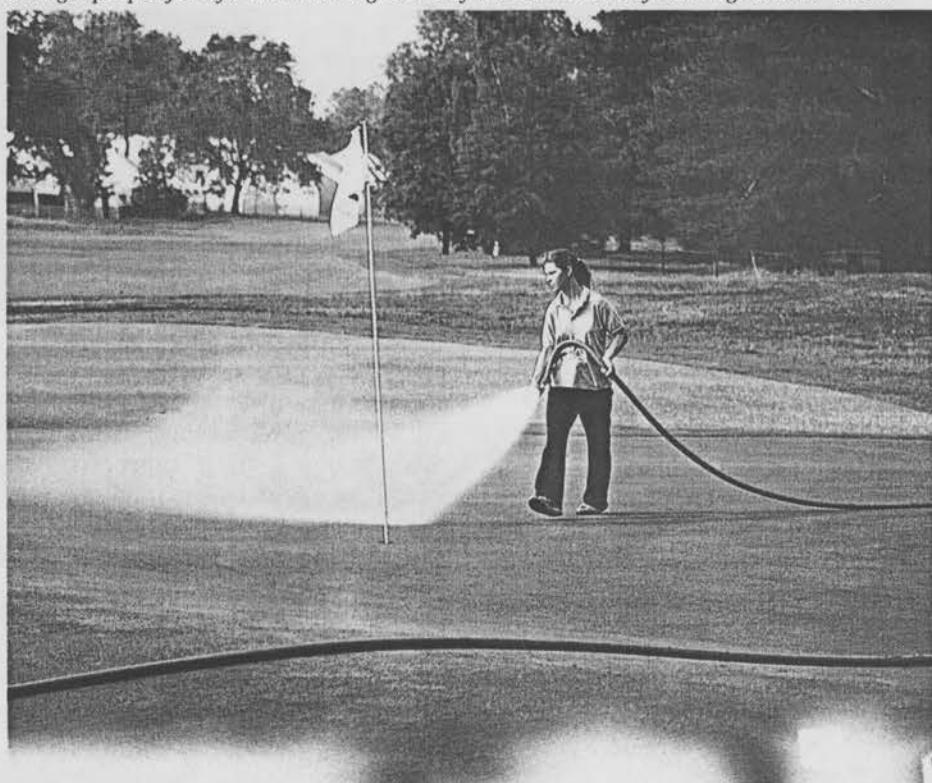
nutrients seem to work well at rates as low as 1/16th or as high as one-quarter pound of actual nitrogen per 1,000 square feet per application. Non-burning, low-nitrogen-content natural organic fertilizers can also be used to good advantage, but keep the rates low, in the range of one-quarter pound of nitrogen per 1,000 square feet. Keep in mind that more fertilizer can always be added if it is needed. If excess fertilizer has been applied, though, nothing can be done but live with the consequences.

- If the greens begin to thin and you feel they are in trouble, consider aerating the turf. That's right, aerate. Though it may seem inconsistent to aerify while at the same time trying to avoid turf stress, there is usually more to gain than to lose. Aeration helps a soft, wet soil dry out, and allows oxygen back into the root zone where it is so badly needed. It also improves water infiltration into tight, compacted soils, and relieves the effects of isolated dry spots. Very often, the turf begins to improve within a few days after aerification. As a precaution, use small tines, and do not let the green dry out too much. Solid-tine aerification or deep spiking may also be of help in this situation.

- Consider applying hydrated lime when conditions warrant. For example, when algae becomes established on the surface of the greens and cannot be controlled with fungicides containing maneb, a light application of hydrated lime sometimes does the trick. Consider hydrated lime also when a green takes on an acidic, musty odor (ominously referred to as the smell of death), usually during periods of hot, humid weather. As with aerating greens under severe stress, something may be gained by sweetening the surface of the soil with a light application of not more than one pound of hydrated lime per 1,000 square feet. This is an old remedy that can still be used to good advantage. Be careful. While light rates of hydrated lime have little effect on the grass, heavier rates can burn.

- Finally, communicate with the people at your course. Discuss the situation with the green committee chairman, president, golf professional, course administrator, general manager, or anyone else who has a need to know. Begin the conversation by saying something like, "Gentlemen, we will have a problem if things continue as they are . . ." That should get their attention. No one likes a surprise, especially finding dead greens that only a few days before were fully turfed and in beautiful condition.

Doing a proper job of hand watering is one of the best means of limiting summer stress.



Continued from page 6

Tell them the story in clear, concise terms. People tend to be understanding if they know the facts. After all, no matter how good a job a golf course superintendent does, he cannot control the weather. Without a doubt, weather extremes remain the number one stress factor on golf courses today.

#### When the Weather Breaks . . .

When the period of stress is over, assess the condition of your golf course. Count your losses and analyze what you think caused the problems your course experienced. After all, there is nothing like a prolonged period of stress to bring out whatever strengths and weaknesses exist on the course. You may determine the greens need more and deeper aeration, that a better irrigation system needs to be installed, or that trees need to be removed from around pocketed greens.

Also, use the experience in a positive way to determine which practices need to be altered and which programs should be implemented to better manage turf when it is under stress. Rest assured, summer heat, with its associated stress-related problems, will occur again.

#### BY LAW CHANGES

At a recent meeting, it was voted to give all Class G members, the right to vote and hold office in this Association.

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#### WINNER OF NAMING OUR NEWSLETTER

In our last or rather first edition of "TURF TIMES", we stated that someone was a winner of naming our newsletter. It is my pleasure to report that Jim Olli CGCS is the winner. I do not know what the prize is however rumor has it that it is a trip to Hawaii or someplace. Maybe Gaylord? Anyone know the prize?

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#### NEW G. C. S. A. MEMBER

We have learned that Paul Holmes has recently become a member of our national association of which we are affiliated, the GCSAA. We congratulate you Paul as this being another fine step in professionalism of your career.

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#### NEW MOWER FOR SALE

Boyne Highland has a brand new HF5 Jacobsen/Textron 5 gang Hydraulic Mower for sale @ \$20,000. Suggest you contact Jim Milbrandt 616/526-2171.



##### DON'T STAY IN YOUR GOLF CAR

In 1959 two Chicago golfers were killed as they raced toward the clubhouse in their car during an electrical storm.

##### DON'T GET IN A SMALL SHELTER

#### LIGHTNING



##### DON'T RAISE CLUB OR METAL UMBRELLA

Several golfers have been "electrocuted" when their raised club or umbrella acted as a lightning rod, attracting the bolt.

##### DON'T GET UNDER A LONE TREE

More golfers are killed in rain storms in this manner than any other. Single trees are especially attractive to lightning.

MICHIGAN TURFGRASS BENEFIT DAY, JUNE 11th, GARLAND GOLF CLUB

It was a grand success in every respect with about 240 golfers that participated in two shot gun starts. Cooperation on the part of the Pro Shop, Club House, Cart Personnel and Green Crew is something which Ron Otto can be very proud of. Dave Longfield had the course in fine condition and everyone raved about, when can we come back. We want to thank all the participants and especially to our members that made up many of the groups that came. To those staff members of our Association who gave so freely of their time and effort in putting this event together, we are very proud of you and thanks.

Of course there are winners and we are sorry if we do not have all the names of those who were successfull, but please bear with us:

WINNING FOURSOME: A.M.	P.M.
Chuck Schaudt, Thunder Bay	Bob Aube, Alpina Golf
Mike Libby, Roger City	Bill Peterson, Alpena
Juan Mathias	Ken Senchuck
Paul Krueger	LeRoy Schenk

WINNER OF CLOSEST TO PIN TELEVISION SET: Kail Holmes, 4 Feet 9 Inches

OTHER WINNERS IN CLOSEST TO PIN:  
Jeff Blackett  
Bill Clink  
Pat Whitman

Brian Holmes  
Jay Reeb

LONGEST DRIVE: A.M. P.M.  
Gene Maybank Jim Tubbs

STRAIGHTEST DRIVE: A.M. P.M.  
Tom Ryan

There are many companies that have donated their time and sponsored many of the prizes, that deserve special "THANKS" making this occasion the great success that it was. We can also show our gratitude to them by remembering this special effort on their part, when it comes to our purchases. These companies are:

Bandit Industries	Boylan Sales
Century Rain Aid	D & C Distributors
Ellis Sales	Ideal Mower Sales
Lawn Equipment	Lebanon Chemical Corp.
Miller West	Monsanto
Orv Tripp Signs	Par Golf
Pifer, Inc.	Rhone-Poulenc Ag Co.
Scotts Pro Turf	Spartan Distributors
Turfgrass, Inc.	Tri Turf, Inc.
U A P Special Products	

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"Remember, a plant is a living thing, and should be treated accordingly. Unlike most living things, it has no way to make its needs known other than its appearance, which will reflect the kind of treatment it receives from its guardian—!"

—Author Unknown