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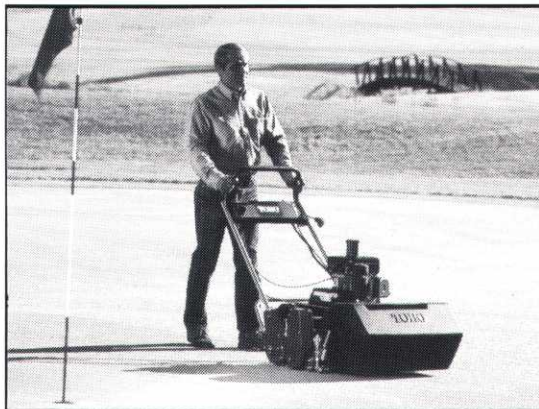
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Scott Turtinen, Executive Director  
Minnesota Golf Course  
Superintendents' Association  
240 Minnetonka Avenue South/P.O. Box 617  
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TEL: 612/473-0557 • FAX: 612/473-0576  
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## FROM THE PRESIDENT'S DESK

### Trick Or Treat



As previously reported, we are closely tracking the progress of the recently proposed pesticide/fertilizer ordinance in Minneapolis. This ordinance includes limits on phosphorus, pesticide application notices and limitations on fertilizer use next to waterways. We are following this because it may become a model ordinance among municipalities in the state and could possibly affect all members.

We have testified in public hearings, letting our views be known in an attempt to more fully educate our public officials on these matters. Final determination is slated for the first part of November. Let me thank both Doug Mahal and Minikahda Club for actively participating in this issue and Kevin Clunis for his help in coordinating our response.

\* \* \* \*

**With our Turf Conference/Annual Meeting approaching**, please be advised that advance copies of both our year-end financial report and annual committee reports are available from our office. They will also, as always, be available at the Annual Meeting. Take some time and review these reports beforehand. We will be prepared for questions and comments at our meetings.

\* \* \* \*

**Be aware that some of our member clubs have suffered robberies** within the past year. Generally, the pro shop staff is distracted in some fashion while an attempt is made to pilfer cash drawers and safes.

\* \* \* \*

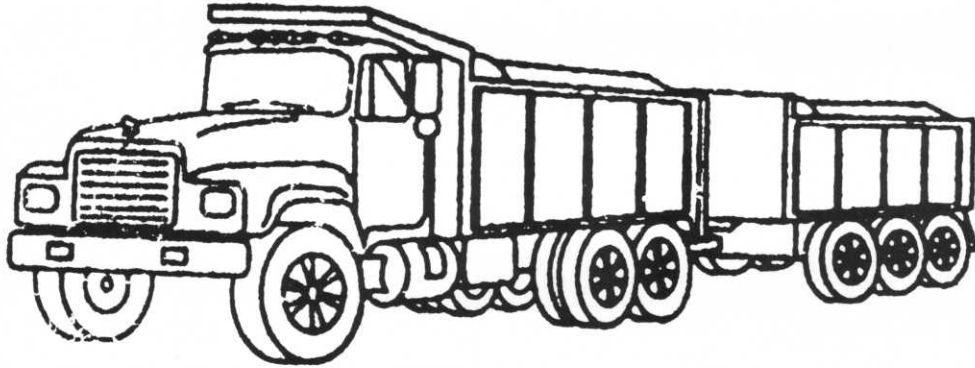
**Finally this column represents my last active participation in *Hole Notes*.** From a short five years ago as this publication's editor to my closing days as president, I hopefully have provided insight and kept the membership informed on the issues of the day. My thanks go to Turtinen Communications for their understanding when I've missed deadlines and submitted crummy copy.

Thanks also to my Board of Directors who have helped keep this association strong and vigorous. And thanks to my mentors, my own golf course staff, and you, the members of MGCSA, who have all made this wonderful experience so memorable.

—Greg Hubbard, CGCS  
President



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## WITH AN AMAZING 22-UNDER-PAR 50 ON FINAL ROUND

# Kientzle, Pines Team Place 4th in Oldsmobile Scramble

When Tom Kientzle placed his wedge shot two feet from the cup on the par 3, 135-yard, 12th hole at Eagle Pines at Disneyworld, you had an inkling that The Pines team from Grand View Lodge in Nisswa was going to play well on the final day of the national Oldsmobile Scramble in Orlando, Fla.

Kientzle, head golf course superintendent at The Pines, was playing with Fred Boos, a part-owner of Grand View Lodge; Fred's daughter, Carolyn; Kevin Cashman, head professional at The Pines, and Steve Stoxsen, a Pequot Lakes school teacher—a fivesome that not only was one of 150 teams nationwide to qualify for the national tournament but also was one of 20 to make the cut for the October 4 finale.

By draw, they were joined by touring pro Jim Hallet, who had won \$15,000 as low pro on the final day last year and later in the day would repeat that performance.

**Kientzle's wedge shot** on a shotgun start ignited The Pines to 13 birdies, three eagles and two pars—a spectacular 22-under-par 50 (with their 3-stroke handicap) to place fourth in the low net division of the

Oldsmobile tournament. One hundred fifty teams also competed in the gross division.

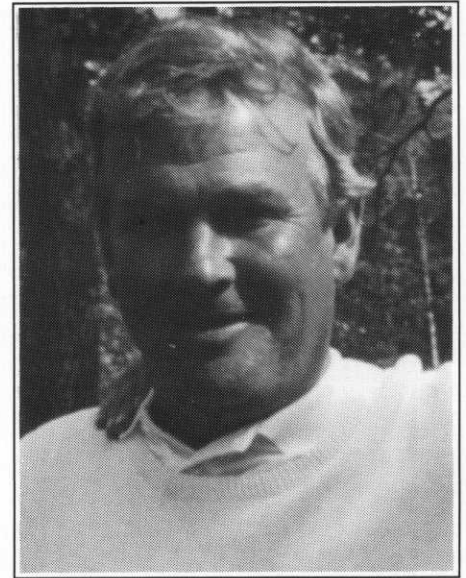
"It was one of the most enjoyable rounds of golf I've ever played," said Kientzle. "Everyone on our team did well. Carolyn Boos sank an 85-foot putt for an eagle. On occasion Steve Stoxsen outdrove Jim Hallet. Both Fred Boos and Kevin Cashman came through at key times, and of course, Jim Hallet was steady all the way."

"Furthermore, the overall atmosphere was something special," he said. "It was first-class all the way. We really were treated well."

**The amazing 50** on the final 18 holes was the low score of the day and catapulted the Pines team from 11th place in the standings to fourth, only four shots from the winning 72-hole score of 214.

But The Pines fivesome also played well in the three qualifying rounds. They shot:

- A nifty 16-under 56 on their first round at Eagle Pines;
- An even better 18-under 54 on Disney World's Lake Buena Vista course on the second day, and
- A 14-under 58 on their third round at Falcon's Fire.



**Tom Kientzle**  
On Winning Pines Team

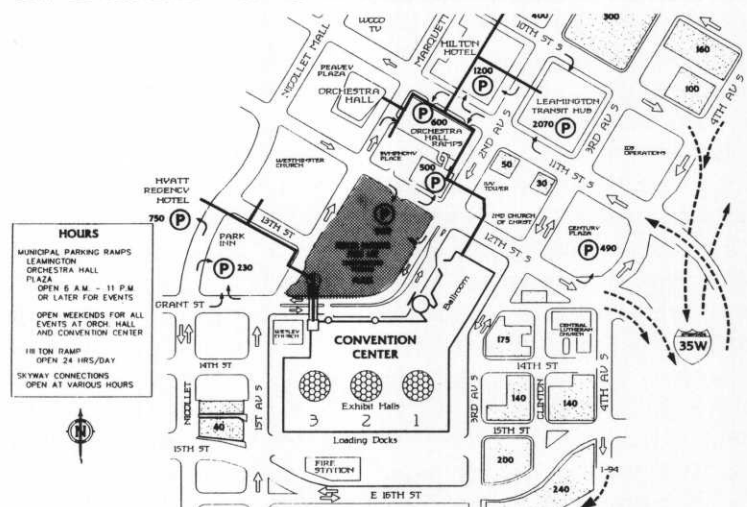
This 168 total beat the cut of 169 by one stroke.

Yes, Hallet won another \$15,000 for the low round of the final day. Cashman pocketed \$2,000, and each of the amateurs on The Pines team received \$360 gift certificates.

It was a day of golf all of them will remember forever.

## FOUR EASY STEPS TO PARKING AT THE 1993 MGCSA CONFERENCE

1. Park in the underground lot across from Convention Center. *This is a "pay-as-you-leave" lot.*
2. Pick up your parking pass at MGCSA Registration Desk.
3. Give pass to the parking attendant at the lot when you leave the area.
4. Drive safely.



# Rolling Greens - Help or Hindrance?

Karl Kanneberger, Edward McCoy and Thomas Parobek

Department of Agronomy The Ohio State University

## Introduction

Rolling putting greens to enhance green speed has been practiced for a number of years. In the past, however, rolling with heavy rollers had lost favor due to soil compaction problems (1). With the introduction of more technology advanced lighter rollers, interest in rolling greens - especially sand based greens - has increased (2).

Pressure to increase green speed is often associated with a golf tournament, or a special club function. Rolling may serve as a means of enhancing speed during these times. The purpose of this study was to evaluate the effect of rolling on green speed, water infiltration and turf quality over a short period of time.

## Methods and Materials

A short term rolling study was initiated on May 28, 1993 and continued through June 15, 1993 at The Ohio State University Turfgrass Research Center, Columbus, Ohio. Two locations with different green construction methods were used in the rolling study. The first site was a 21-year-old USGA-constructed green seeded to "Penncross" creeping bentgrass (*Agrostis palustris* Huds.) (3). The second site was a 10-year-old "Penncross" creeping bentgrass turf established on a Brookston silty-clay loam. Both sites were mowed at 5/32 of an inch with a John Deere Walk Behind mower preceding the rolling treatments. Irrigation was applied between 1400 and 1700 hours when needed. Treatments consisted of a single, daily rolling with a Toro Greensmaster 3000 with rolling units and a non-rolled control. Each plot measured 5 feet by 19 feet and each treatment was replicated three times.

Green speed was determined by using a stimpmeter. Stimpmeter measurements were made immediately after mowing but preceding the rolling treatment and then again immediately following the rolling treatment. A total of four stimpmeter readings (two readings each from opposite directions) were taken from

each plot. The rolling treatment and stimpmeter measurements were conducted between 1100 and 1400 hours. A total of 7 stimpmeter readings were made over a 13-day period (May 25-June 9, 1993).

Two water infiltration measurements per plot were made on June 15, 1993 with an Infiltrometer (TurfTec International, Miami, Florida). In addition, visual quality ratings were made at this time. Treatment effects were statistically analyzed on a one-way ANOVA (MSTAT, Michigan State University, East Lansing, MI).

## Results and Discussion

Stimpmeter readings during the duration of the study varied from 7 feet, 0 inches to 9 feet, 6 inches on both the USGA and native soil greens. As measured by the stimpmeter, rolling increased green speed significantly on both the USGA and native soil greens compared to the non-rolled control. On the USGA sand green, rolling increased green speed between 5 and 11 inches compared to the non-rolled plots. As the duration of the study increased, a general increase in putting green speed was observed.

On the native soil green speed was greater for the rolled treatment than the non-rolled control with green speed increasing between 5 and 13 inches. However, on the native soil green the number of significant ( $P=0.05$ ) stimpmeter readings were less (3 out of 7 for the native soil versus 6 out of 7 for the USGA green). Increasing green speed with successive rollings was not observed on the soil green. Considerable variation in weather might have accounted for some of the variation. During the 13 day period, stimpmeter readings were made when the weather varied from cloudy and cool with rain to hazy hot and humid.

Comparison of stimpmeter readings of the rolled plots versus the control plots immediately preceding the rolling treatment revealed no difference in green speed on both the USGA and native soil greens. From these data it

appears that rolling increased green speed, but the effect is shortlived (less than 24 hours).

Rolling had no effect on water infiltration rate over the duration of this study. Rolling did negatively affect the overall visual quality of the turf. The rolled plots were more off-color and showed some wear.

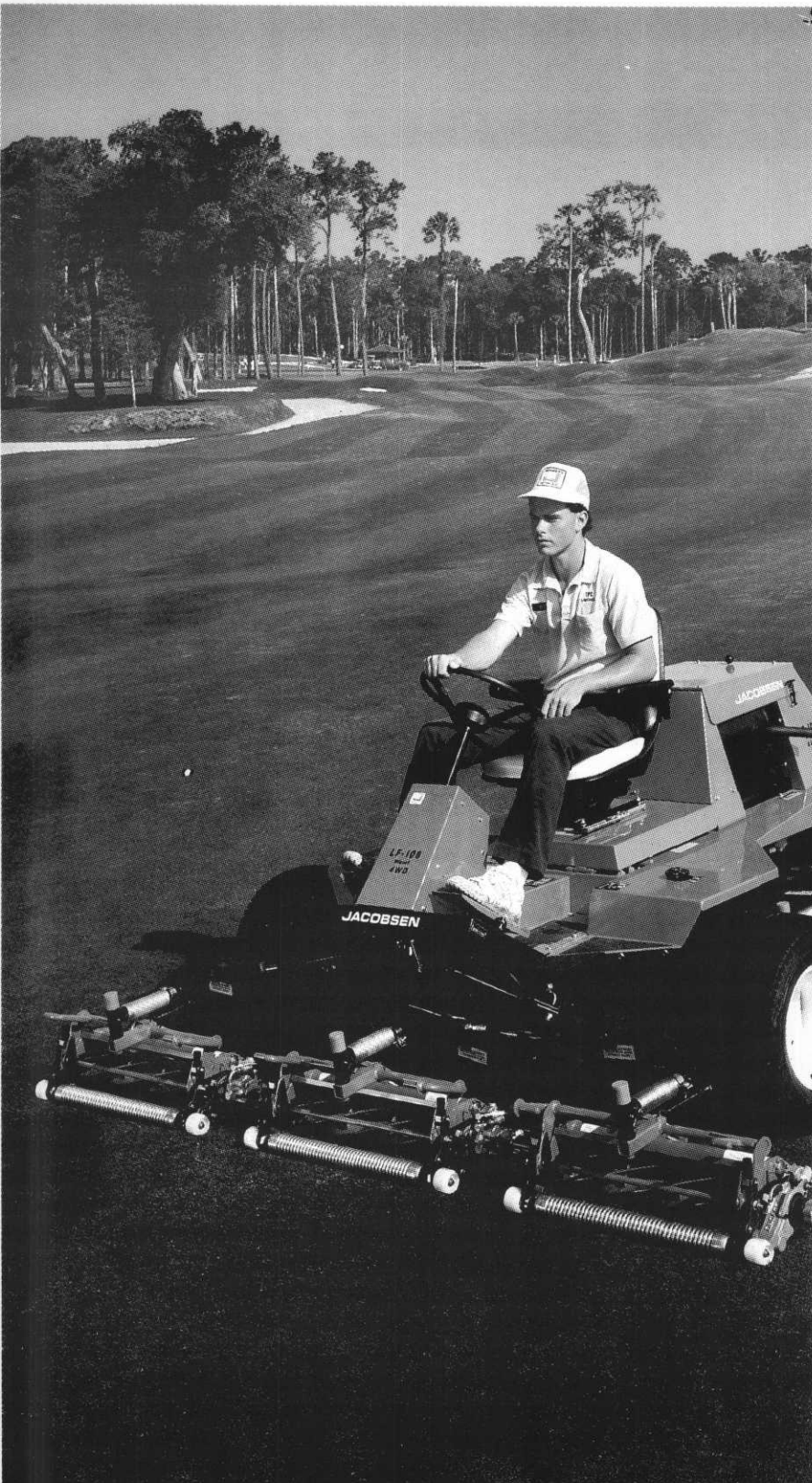
In conclusion, rolling over a short duration increases the green speed as measured by the stimpmeter. However, the longevity of the increased green speed is short. Rolling had no apparent negative impact on water infiltration rates during the duration of this experiment. However, the turf went slightly off-color and wear signs were apparent at the conclusion of the study. Preliminary results appear to show that rolling for a short duration as a means of increasing putting green speed with minimal detrimental agronomic affects. However, long-term use of rolling may be detrimental to the turf.

*\*\*Trade name and company name of equipment used in this study are included for the benefit of the reader and does not imply any endorsement or preferential treatment of the product by The Ohio State University.*

**\*\*\*Partial research support for this study provided by the Ohio Turfgrass Foundation.**

## References Cited

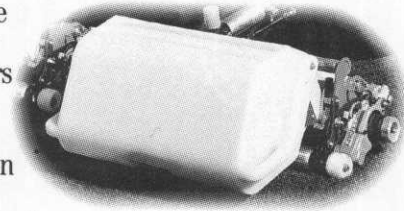
1. Carrow, R.N., and A.M. Petrovic, 1992. Effects of traffic on turfgrasses. p. 285-330, in *Turfgrass Science*, American Society of Agronomy, Madison, WI
2. Nus, J. 1992. Rolling putting greens. *Golf Course Management* 60(11); 16-20.
3. Wilkinson, J.F. and R.H. Miller. 1978. Investigation and treatment of localized dry spots on sand golf greens. *Agronomy Journal* 70:299-304.



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# Surviving A Heart Attack

"I had a feeling of pressure in my chest, but I wasn't nauseated and I didn't sweat, so I didn't think I was having a heart attack."

This active, normally healthy 62-year-old man thought he knew about the symptoms of heart attacks. Heart disease was common in his family, and he had been under the care of a cardiologist for two years.

The man reads a lot about health, is conscientious about taking care of his body, and sat at home for an entire day after having a heart attack because he didn't recognize the symptoms.

He's not unusual.

In fact, denial is such a common reason to delay medical treatment that the American Heart Association's "Heart Saver Manual," a handbook for students of cardiopulmonary resuscitation, advises students to "expect a denial response" from heart attack victims. Be on the alert for the following phrases:

- "It's just indigestion."
- "I'm too healthy for a heart attack."
- "I don't want to bother my doctor."
- "I don't want to worry everybody."
- "I'll feel ridiculous if it isn't a heart attack."

If you're with someone who has experienced symptoms of a heart attack for more than two minutes and he uses these excuses to avoid medical treatment, the American Heart Association advises you to act at once. Seek medical treatment for the victim, "because he may not act in his own best interest."

What are the symptoms of a heart attack? Chest discomfort that feels like pressure, squeezing, fullness, tightness or pain is probably best known. This discomfort may come and go, and may be relieved with rest. It usually lasts for longer than two minutes at a time. The pain may be in the center of the chest, in either shoulder or arm, in the neck or jaw. If a "toothache" is on both sides of the mouth, suspect that the real problem

is a heart attack. Jaw pain is one of the unexpected but common signs of a heart attack.

Other symptoms may include sweating, nausea, shortness of breath, weakness and denial that there is a problem. One or both arms may tingle or ache. The victim may not look sick, the pain may not be disabling, and it may come and go.

It is very important to realize that every heart attack victim feels differ-

ent symptoms. All the symptoms will probably not be present.

"Don't be embarrassed about causing a 'false' alarm." Says James M. Atkins, M.D. at the University of Texas Health Science Center at Dallas. "If the problem is not a heart attack, you'll get over the embarrassment. If it is the real thing and you fail to report it, you may not live."

*(Continued on Page 11)*



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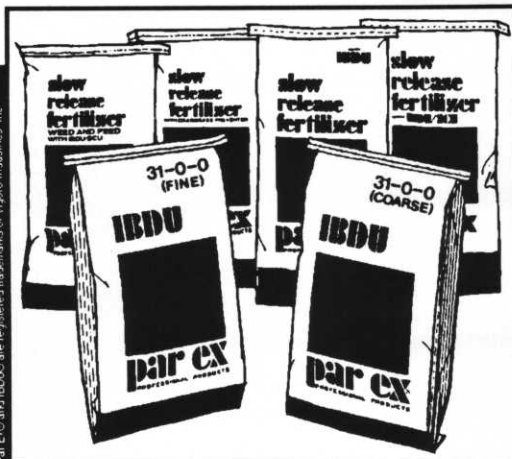
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