BRIEFS

TALKING TURF IN AUGUST
CHANDLER, Ariz. — Turf Talk '96, the annual turf research seminar book, by Garden West Distributors, Inc., will be held Aug. 14 at San Marcos Hotel and Conference Center here.

More information on the full-day event is available from Garden West at 602-232-2066.

GRANDVIEW, Mo. — The Heart of America Golf Course Superintendents Association (HAGCSA) turned its annual Past Presidents the annual turfgrass seminar hosted by Garden West Distributors, Inc., will be held Aug. 14 at San Marcos Hotel and Conference Center here.

More information on the full-day event is available from Garden West at 602-232-2066.

PRINCIPAL HONORED

Dr. Keith Karnock of the University of Georgia Department of Crop and Soil Sciences has been named a Fellow of the American Society of Agronomy and the Crop Science Society of America. The award is the highest honor of both societies, exemplifying professional achievement and meritorious service.

Karnock is the author of Principles of Turfgrass Management, a correspondence course of the Professional Lawn & Garden Association of America.

KARNOCK TWICE-HONORED

Dr. Keith Karnock of the University of Georgia Department of Crop and Soil Sciences has been named a Fellow of the American Society of Agronomy and the Crop Science Society of America. The award is the highest honor of both societies, exemplifying professional achievement and meritorious service.

Karnock is the author of Principles of Turfgrass Management, a correspondence course of the Professional Lawn & Garden Association of America.

KARNOCK TWICE-HONORED

Dr. Keith Karnock of the University of Georgia Department of Crop and Soil Sciences has been named a Fellow of the American Society of Agronomy and the Crop Science Society of America. The award is the highest honor of both societies, exemplifying professional achievement and meritorious service.

Karnock is the author of Principles of Turfgrass Management, a correspondence course of the Professional Lawn & Garden Association of America.

KARNOCK TWICE-HONORED

Dr. Keith Karnock of the University of Georgia Department of Crop and Soil Sciences has been named a Fellow of the American Society of Agronomy and the Crop Science Society of America. The award is the highest honor of both societies, exemplifying professional achievement and meritorious service.

Karnock is the author of Principles of Turfgrass Management, a correspondence course of the Professional Lawn & Garden Association of America.

KARNOCK TWICE-HONORED

Dr. Keith Karnock of the University of Georgia Department of Crop and Soil Sciences has been named a Fellow of the American Society of Agronomy and the Crop Science Society of America. The award is the highest honor of both societies, exemplifying professional achievement and meritorious service.

Karnock is the author of Principles of Turfgrass Management, a correspondence course of the Professional Lawn & Garden Association of America.

KARNock TWICE-HONORED

Dr. Keith Karnock of the University of Georgia Department of Crop and Soil Sciences has been named a Fellow of the American Society of Agronomy and the Crop Science Society of America. The award is the highest honor of both societies, exemplifying professional achievement and meritorious service.

Karnock is the author of Principles of Turfgrass Management, a correspondence course of the Professional Lawn & Garden Association of America.

KvANKOCK TWICE-HONORED

Dr. Keith Karnock of the University of Georgia Department of Crop and Soil Sciences has been named a Fellow of the American Society of Agronomy and the Crop Science Society of America. The award is the highest honor of both societies, exemplifying professional achievement and meritorious service.

Karnock is the author of Principles of Turfgrass Management, a correspondence course of the Professional Lawn & Garden Association of America.

KARNOCK TWICE-HONORED

Dr. Keith Karnock of the University of Georgia Department of Crop and Soil Sciences has been named a Fellow of the American Society of Agronomy and the Crop Science Society of America. The award is the highest honor of both societies, exemplifying professional achievement and meritorious service.

Karnock is the author of Principles of Turfgrass Management, a correspondence course of the Professional Lawn & Garden Association of America.

KARNock TWICE-HONORED

Dr. Keith Karnock of the University of Georgia Department of Crop and Soil Sciences has been named a Fellow of the American Society of Agronomy and the Crop Science Society of America. The award is the highest honor of both societies, exemplifying professional achievement and meritorious service.

Karnock is the author of Principles of Turfgrass Management, a correspondence course of the Professional Lawn & Garden Association of America.

KARNOCK TWICE-HONORED

Dr. Keith Karnock of the University of Georgia Department of Crop and Soil Sciences has been named a Fellow of the American Society of Agronomy and the Crop Science Society of America. The award is the highest honor of both societies, exemplifying professional achievement and meritorious service.

Karnock is the author of Principles of Turfgrass Management, a correspondence course of the Professional Lawn & Garden Association of America.

KARNock TWICE-HONORED

Dr. Keith Karnock of the University of Georgia Department of Crop and Soil Sciences has been named a Fellow of the American Society of Agronomy and the Crop Science Society of America. The award is the highest honor of both societies, exemplifying professional achievement and meritorious service.

Karnock is the author of Principles of Turfgrass Management, a correspondence course of the Professional Lawn & Garden Association of America.

KARNock TWICE-HONORED

Dr. Keith Karnock of the University of Georgia Department of Crop and Soil Sciences has been named a Fellow of the American Society of Agronomy and the Crop Science Society of America. The award is the highest honor of both societies, exemplifying professional achievement and meritorious service.

Karnock is the author of Principles of Turfgrass Management, a correspondence course of the Professional Lawn & Garden Association of America.

KARNock TWICE-HONORED

Dr. Keith Karnock of the University of Georgia Department of Crop and Soil Sciences has been named a Fellow of the American Society of Agronomy and the Crop Science Society of America. The award is the highest honor of both societies, exemplifying professional achievement and meritorious service.

Karnock is the author of Principles of Turfgrass Management, a correspondence course of the Professional Lawn & Garden Association of America.

KARNock TWICE-HONORED

Dr. Keith Karnock of the University of Georgia Department of Crop and Soil Sciences has been named a Fellow of the American Society of Agronomy and the Crop Science Society of America. The award is the highest honor of both societies, exemplifying professional achievement and meritorious service.

Karnock is the author of Principles of Turfgrass Management, a correspondence course of the Professional Lawn & Garden Association of America.
Root-zone mix, thatch affect ball-roll in PSU's golf shoe tests

Continued from page 15

Penncross creeping bentgrass greens maintained at 5/32 inches were used — one featuring an all-sand root-zone mix and the other a slightly modified root-zone mix.

Individual plots were arranged in a random, complete block design with three replications. Treatments consisted of three tread types: conventional metal spikes; soft-plastic spikes; and spikeless. Traffic was applied at two intensities (100 and 200 traverses per week) by people wearing the various shoes and walking directly back and forth across the plot, without turning on the experimental area.

Traffic was started on June 12, and finished on Sept. 5 (12 weeks). Ball-roll distances for all plots were measured with a Stimpmeter on Fridays following traffic.

In the test for ball-roll deflection, an average of the 10 balls rolled per traffic intensity was determined and the average of the 10 traverses was compared to the average of the 0 traffic intensity. This distance was considered deviation from the control.

The only effect of tread type on ball-roll deflection was the spikeless tread. Conventional metal spikes caused unacceptable wear on the all-sand root zone at the low-traffic intensity (1,200 traverses), all tread types caused unacceptable wear on the all-sand root zone at the high-traffic intensity (2,400 traverses). Again, the spikeless tread caused the least amount of wear.

Wear ratings for both soil textures after 800 and 1,600 traverses. All means are significantly different, except for the modified soil at 800 traverses.

<table>
<thead>
<tr>
<th>Tread Type</th>
<th>Traverses</th>
<th>Modified Soil</th>
<th>All Sand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal</td>
<td>800</td>
<td>3.2</td>
<td>2.5</td>
</tr>
<tr>
<td>Soft-plastic</td>
<td>800</td>
<td>4.2</td>
<td>3.5</td>
</tr>
<tr>
<td>Spikeless</td>
<td>800</td>
<td>3.8</td>
<td>3.7</td>
</tr>
<tr>
<td>Metal</td>
<td>1,600</td>
<td>1.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Soft-plastic</td>
<td>1,600</td>
<td>2.2</td>
<td>1.8</td>
</tr>
<tr>
<td>Spikeless</td>
<td>1,600</td>
<td>2.7</td>
<td>2.3</td>
</tr>
<tr>
<td>Control</td>
<td>0</td>
<td>5.0</td>
<td>4.5</td>
</tr>
<tr>
<td>LSD</td>
<td>0.4</td>
<td></td>
<td>0.5</td>
</tr>
</tbody>
</table>

*0 = bare, 5 = full cover. 3 = acceptable.

Whether your challenge is a deadline, a tee, a green, a fairway, a rough, or a bunker surround, we have a blend that fits your needs.

We understand the variety of problems you face because we have spent a great deal of time listening to golf course superintendents. As a result, Tee & Green Sod offers the most complete product line available to the golf course industry — even a four-foot wide washed roll!

Give us a call for information about our selection of products, and our unique harvesting and washing techniques.

• Bentgrass
• Bluegrass
• Washed sod
• Bluegrass-Rye grass
• Bluegrass-Fine Fescue

Studies have tested various effects of golf shoes

Many types of golf shoe treads have been developed to help alleviate the damage caused by conventional metal spikes. Some types of treads may lessen the damage to the putting surface, but at the expense of stable footing.

Only a few studies have been conducted to evaluate the effects of shoe types on turf quality and ball roll.

In 1958, reporting on a study conducted by Gipson and Potts at Texas A&M College, Ferguson reported that ripple sole and rubber cleated shoes caused significantly less damage to a Seaside bentgrass turf when compared to a shoe with conventional metal spikes.

Gibeault et al (1983) evaluated metal spikes, two different types of multi-stud soles, and suction-type cleats.

This study also concluded that metal spikes caused the most damage and the suction-type cleats caused the least.

Morrow and Dannenberger (1995) evaluated the effects of metal spikes and soft plastic spikes (SoftSpikes) on ball roll. They concluded that both soft plastic spikes and metal spikes caused ball-roll distance to increase.

They also said metal spikes appeared to cause more turf damage than the soft plastic spikes, although this was not quantified.