**MAINTENANCE**

**Root-zone mix, thatch affect ball-roll in PSU’s golf shoe tests**

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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 plots, without turning on the experimental area.

Traffic 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 applications.

Wear was rated on a scale of 0 to 5, with "5" being full cover and "0" being bare. A cover rating of 0 or above was considered acceptable as a putting surface. Wear was rated at eight and 12 weeks.

A second study evaluated the effects of tread type on ball-roll deflection. An area similar and adjacent to the modified root-zone area was used for one plot area and a 2-year old practice putting green at Centre Hills Country Club in State College. The practice putting green was Penncross creeping bentgrass and no thatch layer was present.

On the modified soil plot, the metal and soft-plastic spikes (at the low-traffic intensity) were the only treatments to cause ball-roll distance to be significantly less than the control. On the all-sand plot, all treatments but the soft-plastic spikes (at the low-traffic intensity) were the only treatments to cause ball-roll deviation from the control. Although there was a wide range between means at some intensities, the means and the tread type by intensity interaction was not statistically different. Also, the amount of ball-roll deviation from the control should be noted for some treatments.

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