

Soil laboratory tests will be standardized nationwide

By PETER BLAIS

The U.S. Golf Association Green Section plans to use the year-long work of Dr. Norm Hummel to standardize laboratory testing procedures on soil samples for golf course construction, hopefully ridding the industry of inconsistent lab results and helping ensure quality construction.

The USGA plans to adopt the testing procedures and seek their approval from the American Society of Testing and Materials this summer, according to Green Sec-

tion National Director Jim Snow.

The Green Section Advisory Committee discussed Hummel's recommendations June 8. Snow declined to discuss the specifics of the new testing procedures until "a couple loose ends" are straightened out in late June or early July.

"I'd rather not say something now when we're not sure exactly how they will read," he said.

Developers have long been frustrated by sending identical soil samples to different labs and getting different results.

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— Jim Snow, USGA Green Section

"No one has overseen testing procedures for soil samples," Snow explained, "so individual laboratories evolved their own techniques. That's why builders can send off the same soil sample to different

labs and get different numbers."

Once the testing procedures have been adopted, the Green Section will begin sending out blind tests once or twice yearly to make certain soil laboratories are using the

standardized tests. If the results are far different than expected, the Green Section will work with the laboratory to correct its procedures.

Snow said about eight labs are doing only golf course soil testing, while another eight would like to either become involved or currently test golf course samples as part of their overall business.

"We'll encourage builders to use experienced labs employing the standardized tests," Snow said.

Snow said the Green Section will also make available soil-testing equipment that can be used to test soil mixes on site, making it unnecessary to send samples to a lab.

"Many builders don't have time to take samples and send them to a lab," Snow explained. "That has caused problems. For instance, some courses have ended up with half as much organic matter in their soil mix as they wanted. Others have had twice as much."

Unlike laboratory equipment, on-site test apparatus measures weight rather than volume, Snow said. It costs less than \$1,000 or can be borrowed from regional Green Section offices as part of their Turf Advisory Service.

USGA green specs about to change

Continued from page 15

least 80 percent organic material and a fiber content of 20 to 50 percent.

"Compost is becoming more readily available throughout the country and is being used in golf course construction," Hummel noted. "Finely ground bark, rice hulls, sewage sludge and other organic waste products can be acceptable if composted to the curing or stabilization state. The use of compost will have a precautionary note because of the variability of different products."

- Returning infiltration rates to the specifications. The USGA would recommend two sets of numbers — a normal range for the favored grass species in that geographic area and an acceptable range in unusual circumstances, i.e. poor water quality or a cool-season grass used in a warm-season climate.

- Moving fertilizer recommendations out of the Green Section's "Tips for Success" and into the USGA specifications.

"Everyone I've worked with has been very cooperative and felt the specifications review and standardization of lab procedures needed to be done," said Hummel, who will return to his Cornell post in July.

Hummel said he was surprised at his historical review of the scientific literature that led to some of the USGA specifications. For example, no research was done to support the use of the choker layer, he said.

"It seemed to be an arbitrary decision that it should be there," Hummel said. "It worked and served a purpose, so it became an accepted part of the specs."

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