Putting-green research priming pump for wisdom

By MIKE KENNA

FAR HILLS, N.J. — Thirty-eight preproposals were submitted to the U.S. Golf Association (USGA) Turfgrass Research Committee in response to its June 1 call for studies dealing with putting-green construction and maintenance. The USGA Green Section's "Specifications for a Method of Putting Green Construction" uses sand as the principal component of the root-zone mix to provide adequate drainage and resistance to compaction, and incorporates a perched water table in the profile to provide a reservoir of moisture for use by turf.

The goal of the new research is to identify the best combinations of construction, grow-in procedures, and post-construction maintenance practices that prevent long-term problems, reduce environmental impacts, and produce high-quality playing surfaces. At the July 20 Research Committee meeting, 18 preproposals were selected for development into full proposals.

Final selection of full proposals will be made the last week of November. Ten to 12 projects will be funded at $20,000 per year for a period of up to five years. The Golf Course Superintendents Association of America has agreed to consider co-sponsoring a number of projects selected by its own Research Committee.

Several interesting questions are raised by the research preproposals which will directly benefit golf. Can the conditions for the removal of the intermediate (choker) layer be less stringent? How does the shape (i.e., angular or round) of the sand affect green performance? Why are some sands more stable than others? Can calcareous sands be used successfully in regions where they are more abundant?

The hydrology of movement of water through putting-green root zones will also be further investigated during the next five years. How does the profile design, root-zone composition, slope of the green, drain spacing, profile depth, and irrigation protocol impact water movement and the extent of water perching in a USGA green? How do these factors change over time? How do alternative putting-green construction methods stack up to the USGA Green Section recommendations?

Beyond these questions dealing with the chemical and physical properties of root-zone mixes, how should they be grown in and made ready for play? Are the extremely high rates of nitrogen used to accelerate growth a short-term solution to meet opening day but a path to long-term failures? How can dark, organic grow-in layers be avoided? What are the criteria for allowing play on new greens?

Several projects propose to thoroughly study the microbiology of high-sand root zones. What species of bacteria are found in new greens? Where do they come from? How do microbial populations change over time? What effect do they have on the development of layers high in organic matter? What effect do micro-organisms have on turfgrass pathogens?

These are just a few of the interesting questions that university scientists will attempt to answer during the next five years. It is important to remember that the answers will be based on thorough, side-by-side comparisons of a wide range of construction, grow-in, and post-grow-in regimes. The research will provide more sound, scientific information upon which the putting green construction and maintenance debate can be based.

Dr. Michael Kenna is director of Green Section research for the United States Golf Association.

Ready for Ryder

Continued from previous page

troversial bylaw proposals involving the board's authority to set dues and establish membership classifications.

"My short term on the board was interesting, but I have no desire to run again," Hahn said. "The reorganization at the headquarters level seems to have the association generally moving in the right direction. We need to keep pushing continuing education and make certification tough enough that it still means something. But we have to diversify our educational programs to offer more for the people working for us. We [GCSAA] concentrate a lot on the superintendent and don't do much to help the mechanics and spray technicians."

As for the future, Hahn said: "I have no aspirations to move, unless the club decides I should. I like it here. We have a quality golf course, an ample budget and occasional major events. The 1998 U.S. Amateur will be held here. I don't plan on retiring until I'm somewhere between 62 and 65."