

The United States Golf Association Green Section is the leader in low water use, minimal maintenance turfgrass research funding.

This year alone, it has made a \$332,000 commitment for research and a \$3 to \$4 million commitment within the next eight to 10 years.

National Director William Bengeyfield says research has become one of the Association's main goals.

"We have formed a Turfgrass Research Advisory Committee to direct a long-range program to develop minimal maintenance turf for golf," explained Bengeyfield. "Lower water

use, use of effluent for irrigation and breeding are all included." All of the projects are long-range, especially the breeding program which is a 10 to 20 year project.

The nine member Advisory Committee, made up of researchers, association personnel and others involved in golf, meets four or five times a year to discuss progress, problems and other related matters.

Besides funding individuals at various universities across the country, the USGA has brought together a computer data base research library at Michigan State. Under the direction

of Dr. Richard Chapen, director of libraries at MSU, the library is attempting to bring together all available information on turf research ever printed.

"Eventually the library will be developed so that extension personnel and superintendents can tap into the library for all the latest information," says Bengeyfield.

Bengeyfield credits former National Director Al Radko with conceiving and implementing the original project.

"It was really Al's vision from the beginning."

Associations add money, support to research

American Society of Golf Course Architects

Dr. Michael J. Hurdzan, president of the American Society of Golf Course Architects and a partner in Kidwell & Hurdzan, Inc., Columbus, OH, is very aware that people are looking to his profession to find many golf course-related water saving answers.

"Although golf courses appear to use a lot of water, they don't really because of the area they cover," explains Hurdzan. "Because of the evapotranspiration rate, courses can lose up to 1/4 inch of water a day."

Hurdzan estimates an average 18-hole course can use up to a million and a half to two million gallons per week to irrigate tees, greens and fairways, depending on the weather of the area.

"There are ways to conserve on greens which are the highest water-use areas," he says. "How the substructure of the green is created makes a difference." The three substructures Hurdzan referred to are the Purr-Wick (P.A.T.) system, the USGA method and the Modified Greens Construction method.

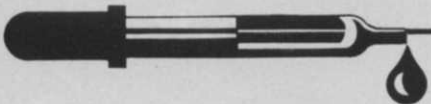
Selection of cultivars can be another area of water savings.

At Dennis Highlands, a course in Cape Cod, MA, that Hurdzan's firm is working on, he was confronted with high, sandy soil, water from an underground aquifer and a community very aware and concerned about ground-water pollution.

Hurdzan used a seed mix of low nitrogen hard fescue and chewings fescue for the rough, since after the first year, almost no nitrogen would be needed and that would lessen nitro-

A brush burial site is planted with wild flowers near Hole No. 16 at Dennis Highlands golf course on Cape Cod. Golf course architect Michael Hurdzan used flowers to reduce maintenance, lower water consumption reduced mowing and minimum fertilization requirements.





gen escaping into the groundwater supply. Also, very little irrigation would be needed as well as little mowing.

"It also affords a different color and texture than the fairways."

For the fairways, Hurdzan used a bluegrass blend of about 15 percent Mystic, 15 percent Bensun, 15 percent Touchdown, 25 percent Ram I, 15 percent Jamestown chewings fescue and 15 percent Prelude ryegrass. This blend, too, is high in nitrogen and con-



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serves water. The far rough areas are planted with wildflowers and sheep fescue.

Other water conserving areas were driveways being drained into a central pond and ornamental grass windbreaks such as Chinese silver grass, fountain grass and love grass.

"The time a golf course uses the most water is when it's being established," says Hurdzan. "New plants need a lot of water to grow. It's not uncommon to irrigate eight to 10 times a day. To conserve in this area, we use a straw mulch. It's expensive, as much as \$500 an acre, but again, the benefits can be felt down the road—less erosion and water conservation benefits.

"Water conserving elements add initially more cost to a project, but the money is recouped later," concludes Hurdzan. "It's important to find clients who feel a certain stewardship to the earth."

Golf Course Superintendents Association of America

The 5,000-member Golf Course Superintendents Association of America has been "aware of an impending crisis" for quite some time, according to President Jim Timmerman of Orchard Lake Country Club, Orchard Lake, MI.

"With the rate of new courses being built in the South and Sunbelt states, the water situation can only get worse," says Timmerman.

That crisis could come as quickly

as within the next 10 to 15 years.

"When a water crisis does occur, one of the first industries to go will be recreational," predicts Timmerman. "We (golf courses) don't want a bad guy image. Golf courses are beneficial to the environment even in as much as they provide oxygen in the air."

The GCSAA has always supported turf research, ranging from \$25,000 to \$35,000 a year to various programs and researchers. They finally decided

"We (irrigation industry) will probably be targeted first for any type of restrictions."

—Baron

to put their resources into one, three year program under Dr. William Torrello of the University of Massachusetts. He is doing tissue culture and genetic work leading to genetic manipulation of turfgrass cultures.

Regional golf course superintendents' associations are also lending a hand.

The membership of Baltusrol Golf Club in Springfield, NJ, felt so strongly about the need for research that each member will donate \$2 annually to the USGA Turfgrass Research Program.

"Hopefully, other clubs will see the same need," said Timmerman.

Irrigation Association

The Irrigation Association, headquartered in Washington, D.C. represents more than 1,000 irrigation equipment manufacturers, distributors, contractors and technical personnel involved in specialized irrigation.

They have put their effort into lobbying before Congress for tax incentives for those who convert to more efficient-type irrigation systems, thus conserving water.

Tom Schiltz of the Irrigation Association doesn't hold out much hope, though, at least with the Reagan administration.

"Basically this isn't going to happen with the current administration's stance on tax reform. It would never even entertain the idea of the kind of incentives we're talking about," Schiltz said. "There is a big problem ahead and if we (this industry) don't take care of it ourselves, the government will." **WT&T**



Members of the USGA Research Committee are from left, Dr. Paul Rieke, of Michigan State University; James G. Prusa, GCSAA associate executive director; George M. Bard, USGA Executive Committee; Alexander M. Radko, USGA (retired); Monty Moncrief, Athens, GA; Dr. James R. Watson, vice president, Toro; Charles W. Smith, Club Managers Association; Dr. Marvin Ferguson, Texas A&M University; and William Bengeyfield, national director, USGA Green Section and chairman of the Research Committee.