

Cover Photo:  
On-site weather stations and  
computer controls help the turf  
manager more precisely determine  
how much water to apply to  
the golf course turf.



Winter protection of annual bluegrass golf greens is often a necessity to ensure that extensive winterkill doesn't occur. See page 11.



The availability and distribution of fresh water will be a widely debated issue in the 21st century. See page 14.

# USGA® GREEN SECTION Record

1

## Does Your Irrigation System Make The Grade?

A guide to help evaluate factors  
influencing irrigation system performance.

By Mike Huck

6

## Aquifer Golf

Imagine a world where a golf course can coexist with a  
municipal water supply and not be the center of constant protest.

By Frank A. Rendulic, CGCS

8

## And The Survey Says . . .

Converting to creeping bentgrass fairways should be based  
on sound economics and environmental consciousness.

By Paul Vermeulen

11

## Winter Protection of Annual Bluegrass Golf Greens

How protective covers can reduce winter damage to putting greens.

By Julie Dionne

14

## Understanding Water Quality and Guidelines to Management

An overview of challenges for water usage  
on golf courses for the 21st century.

By R. R. Duncan, R. N. Carrow, and M. Huck

25

## Back to Basics: Restoring Playability and Native Wildlife Habitats

Is your golf course planning to undertake a renovation  
or restoration project? Now is the time to plan for  
environmental and wildlife enhancements.

By Fred Yarrington

27

## News Notes

28

## Perfection Is Not Attainable!

However, setting reasonable goals can allow  
for an objective evaluation of course conditions.

By Keith Happ

30

## Turf Twisters