



COLUMNS

- 18 Outside the ropes**
Tim Moraghan: Have You Hugged Your Golf Pro Today?
- 26 Irrigation issues**
Brian Vinchesi: Irrigation The Hard Way
- 36 Design Concepts**
Jeffrey D. Brauer: Allowances and Contingencies
- 48 Game plan**
Henry DeLozier: Building With The Housing Market
- 60 Parting shots**
Pat Jones: Tim The Tweetman

DEPARTMENTS

- 4 Teeing off**
Catfished
- 6 The Whiteboard**
- 57 Travels with Terry**
Equipment ideas
- 59 Classifieds**
- 59 Ad index**



FEATURES

- 8 Cover Story SHARPEN YOUR APP-TITUDE**
13 mobile apps you can't live without. GCI's Bill Brown breaks 'em down so you can load 'em up to your mobile device.
- 20 Mowing ROUGHING IT**
Keeping rough looking healthy and uniform can be challenging, especially with limited resources.
- 28 Plant Health SEPARATED AT BIRTH**
Sometimes it's hard to tell one weed from another. 5 commonly misidentified weeds and the telltale signs to ID them right the first time.
- 38 Water Management TINY BUBBLES**
Aeration can help you find a clear solution to your pond problems.
- 44 Research GRINDING THE DATA**
GCI takes a deeper look at its reel and blade maintenance research.
- 50 Management MAKING A PRIVATE CLUB SUCCESSFUL**
Nine key factors that push clubs forward and enable them to weather hardships.
- 53 Real Science A WITCH'S BREW OF TROUBLES WITH THE BERMUDAGRASS MITE**
Bermudagrass stunt mites are an increasing turfgrass problem at golf facilities with Bermudagrass fairways and roughs.

