

Problems with “Green”?



Drew Rogers

When we think of the bare necessities of a golf course, we think of things like area. You need ample space for a golf course so that the holes can have variety in character and length, and so they are situated safely away from one another. We also think about soils. Loamy, well-drained soils are perfect for growing and maintaining good, healthy turf. Water, obviously,

is another necessity. Without it, the very surface from which we desire to play the game will cease to survive.

Like most living organisms, turfgrass requires water and light along with essential nutrients in order to thrive. In today's golfing environment, the paying golfer and club member have become increasingly more demanding of the appearance and playing conditions on their courses and the demands for water have never been greater.

As more and more development has taken place over the past two decades, we have seen our water resources dwindle to very low levels. In some locales, especially in the western United States, water has actually become a scarce resource at best. During extended drought periods, water restrictions put limits on our consumption of water and golf courses tend to feel the greatest brunt. Developers and communities will go to drastic means in order to acquire water, even buying the water if it can't be achieved by any other means. Such measures are obviously very expensive. The ethical need to go to such lengths so that a golf course can be green and lush is also questioned by some.

Is all this water really necessary for golf to thrive? Hopefully not. There are always exceptions, such as meeting the demands of growing-in a new golf course and managing extended drought conditions, but the majority of the problems lie in how we perceive golf courses to appear today.

When we see golf tournaments on television, we see golf courses that, for all practical purposes, have been groomed specifically for a two-week period each year for a tournament. The turf is lush and green. The rough is thick. The greens are perfect and rolling at 11-plus on the Stimpmeter. The bunkers are perfectly raked. Although very attractive to the eye, these perfect tournament conditions have set an unrealistic precedent for most any other golf course to live up to. The time and money required to keep golf courses in perfect condition for extended periods of time is simply a luxury that only a small percentage of private clubs can afford.

I have seen this and maybe you have too, and here is the scene: The member guest tournament is in one week; the weather has been in the low 90s with high humidity and periodic thunderstorms for the past two weeks. The forecast is for continued hot weather and high humidity, but no rain. The green chairman, tournament chairman or some other club official notices the presence of stress on the turf and thus orders the superintendent to douse the course heavily with water until things turn green again for the tournament. And, he wants the greens shaved down so they are as fast as they can be. Does this sound familiar? If the superintendent is not strong in resistance, the turf could actually be ruined...all for the demand of “green” tournament conditions.

We have completed renovations on numerous “classic” golf courses or older clubs of historical significance. Most of these courses were designed on small acreages having above average soils and the ability to irrigate on a limited basis. Having an obvious understanding of the site physics, construction and operating budgets, golf course architects of the “golden age” realized their design limitations.

The design of most courses from the 1920's was predicated more on the ground game, i.e. a lower trajectory, running shot that could be executed in approaching the greens. The firmness of the turf combined with the natural contour of the ground was of major consideration for golfers trying to execute shots. This

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was because of not only the equipment available to golfers, but also the way the golf course had to be maintained: dry, fast and firm. Irrigation was simple (fairways, tees and greens... sometimes even less) and water was limited. The architects acknowledged how shots had to be executed and what limitations were put on the conditioning of the course.

When I see these courses today, they are maintained as lush, green turf. The roughs are now irrigated and the fairways and approaches nearly reach the point of saturation. Many of these golf courses were not designed to be maintained in such a manner.

Most hazards were placed well out in front of greens so that they would have impact on where the ball bounced before releasing to the green. These hazards are no longer in play because a ball landing short of the green will hold up in the lush turf, if it does not splat or plug completely. Inevitably, part of the charge of the consulting architect is to solve all of their persistent drainage problems so that the members can enjoy a drier surface. Is this the correct approach?

Like many of you, I grew up watching the Masters on television. It is a glorious time of year, the month of April, with azaleas and dogwoods in bloom. The weather is warming and the birds are singing.

In Augusta, the ryegrass-overseeded fairways take on a deep emerald green color. No doubt, for golfers, this is one of the most attractive scenes in golf. The truth be known, the tele-

vision exposure devoted to the Masters Tournament has been a thorn to many of us in the golf industry for years. People are really drawn to those perfect conditions in Augusta. Most of them don't realize that the golf course shuts down for the summer only weeks after the tournament and the ryegrass fairways give way to the heat and humidity and the duller green bermudagrass beneath takes over for the next six months.

But enough about Augusta, what about the real world? Green is perceived as good everywhere else too, but at what cost? Should we irrigate our courses to the point of saturation so we can all enjoy the lush, green conditions? Should we spend the extra dollars on drainage and chemicals to keep the grass alive and combat the wetness issues? Should we redesign all those classic courses where the running shot has been taken away by wet approaches? Can we really justify using massive amounts of water during drought conditions while some are under restricted use? Is green perfection really attainable or even advisable?

Several years ago we finished a project in the Northeast where our water supply was very limited and water restrictions were regularly enforced. This is very tough situation when you are trying to grow in a golf course and as much as 1 million gallons per day is required just to keep the maturing turf alive. Our marching orders were to design a course

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Hole of the Month

Country Club of North Carolina — 3rd Hole, Par 3



COUNTRY CLUB NORTH CAROLINA

Cardinal Course - 3rd Hole, Par 3
Pinehurst, North Carolina



CHAMPIONSHIP: 196 Yards
BACK: 171 Yards
MIDDLE: 143 Yards
FRONT: 118 Yards

that would not be restricted by these limitations. Though the grow-in requirements were predictably high, the superintendent has since been able to wean the golf course off even normal, modern day water needs.

To date, the results on that course have been very successful, due in large part to obsessing about water usage. We actually directed the superintendent to begin "starving" the turf after the grow-in was completed to allow the turf only the amount of water and nutrients needed for it to remain healthy. By simply limiting the water applications, there was less need for nutrient applications and fungicides and less frequent mowing operations.

When the course was nearing completion, we asked the superintendent to keep the turf alive, but at a level where some browning would occur. This allowed for the true design elements to be acknowledged; a ground game that requires thought and precision to negotiate the firm, fast playing areas...just like the conditions the Scots enjoy at St. Andrews and the other seaside links layouts.

Surprisingly, the members at the club have been accepting of these practices because the superintendent has worked very hard to educate them. The members now cherish the fact that their course is off-color at times, the way it should be. They also enjoy the fact that the course is less costly to

maintain and free from the pressures of other nearby clubs during drought conditions. Not to mention that they are the only course open after heavy rains. As long as the playability factors remain intact and the turf is alive, there really is no questioning. I really found this to be refreshing!

In a recent conversation with the superintendent, he reflected on the last 12 months. He explained that he used half the water he used in the prior year, yet the rainfall totals were the same. He reduced his fertility formula, which allowed him to keep things firm. He was also able to dedicate that money toward other improvements on the property. The greens were perfect: firm, fast and true. The fairways were fantastic and drained perfectly because of less irrigation. The rough actually had improved density. The members were ecstatic with the course, citing consistent playability factors as the most appealing to them. You might ask, "What was the color of the turf?" Well, we call it "off-green"! G&G

Drew Rogers, ASGCA, has been with Arthur Hills/Steve Forrest and Associates since 1992. As a senior design associate, Drew is responsible for all aspects of design development, construction drawings, bidding, construction management and client communication. He has extensive experience in master planning for improvement/restorations to existing facilities, land planning for large scale golf communities, as well as broad based ecological planning.