

sufficient to support continuous development and growth of shoots. The plant itself must avoid prolonged dormancy during the growing season, and it must maintain density at levels needed to preclude weed invasion. Certainly, on a temporary basis, a green color is not essential for play; brown, under certain conditions, may even be preferred. For the long term, however, grass must be green to live. There is latitude for manipulation of cultural practices to compensate for an adverse effect produced by less than optimum application of one factor — either lowering the height of cut or withholding water. That tolerance, however, is substantially reduced when one of the practices (mowing or watering) is lowered to the minimum sustainable level. When two or more practices (watering *and* mowing) are reduced to minimum sustainable levels, few, if any, options are available for corrective action. Loss of color with its attendant problems will soon lead to death of the grass plant.

Finally, from an aesthetic standpoint, Alister MacKenzie, in his book *Golf Architecture*, published in 1920, states:

Another common erroneous idea is that beauty does not matter on a golf course. One often hears players say that they don't care a tinker's cuss about their surroundings: what they want is good golf.

I haven't the smallest hesitation in saying that beauty means a great deal on a golf course; even the man who emphatically states he does not care a hang for beauty is subconsciously influenced by his surroundings. A beautiful hole not only appeals to the short handicap player but also to the long, and there are few first-rate holes which are not at the same time beautiful holes.

In other words, while always keeping uppermost the provision of a splendid test of golf, I have striven to achieve beauty.

These words are as true today as they were 63 years ago and as they will be 63 or more years hence. And, while there is great opportunity to minimize the amounts of water and fertilizers and, perhaps, to lower heights of cut and to increase speed by manipulating these and other cultural practices, we must not lose sight of the fact that if golf is to be played on grass, it must be green. And, green is beauty! Research may, and will, give us new grasses and provide us with the knowledge to reduce current maintenance costs, but only chlorophyll will provide green color and grass upon which to play.

How Green is Green? How Brown is Brown?

A MIDDLE APPROACH

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Nature needs only our assistance — not our dictations.

WHERE DOES ONE begin to develop a philosophy or declare a statement regarding just how green good turf should be, or even more basic, how green is green?

There is no doubt that universal opinions exist on one fact in this controversy — golf is played on grass, not on color!

Many have stated that golf in America has deteriorated because of the lush green condition of our golf courses caused by overfertilization. It is said that too much nitrogen is being applied at the wrong times in the growing season. It is said that even more significant negative impact on golf in America is the overapplication of water to greens, tees, and fairways. I don't disagree with these statements, but I question how

such statements can be made when no standards exist to determine just how much water or fertilizer is actually required by the grass plant. Indeed, nearly all fertilizer requirements are based on research done on foodstuffs. Water requirements are even less researched. At best, the amount of water applied best represents the philosophy of the "art of greenkeeping" in that watering is done by feel. So really, what is meant by overwatering and overfertilizing? Is this an oversimplification? The point being that no reference points exist from which one can say that turf is too lush, overwatered, and overfed. So just how green is green; how brown is brown?

The question can be even further confused by admitting as evidence the

notion that playing conditions in Scotland are ideal and should be copied in America. What are these conditions? On a recent trip to England and Scotland, I found greens that varied from very firm, closely cut and moderately fast to excessively soft, shaggy, and extremely slow. Fairways were almost universally very thin, to the point of having little turf and with quite a bit of bare ground showing. Are these the conditions we want to copy?

What middle ground can we find that would satisfy everyone? The question can best be answered by exploring a few myths that supposedly represent the ideal to be sought in regard to playing conditions.

Myth No. 1 states that we in America have ruined golf as originally intended. Rather, the Americanization of golf is no more than the result of the American desire to improve and perfect. Yes, Americans have changed the game, but not for the worse. Improved turf quality and more refined playing conditions are symptomatic of the American zeal for excellence.

Myth No. 2 believes the Scottish way is the only or best way. Not so! There is much to be copied from the art of green-

keeping as practiced in Scotland, but it is a mistake to think that American conditions could or should emulate totally the conditions across the sea. No doubt the Scots can teach us quite a bit, and they have useful methods to be utilized. However, only those that fit naturally into the American golf-scape should be considered. It is important to note that under-fertilization can be as harmful, especially when soils are allowed to be depleted of meaningful levels of nutrients.

Myth No. 3 is concerned with overwatering. Who is to blame for overwatering? The golf course superintendent? The green committee? The USGA, PGA professionals, or the general playing public?

Frankly, if it is agreed that overwatering is such a major problem, there is enough blame to pass around. Tournament sponsors and TV networks deserve a share for demanding such totally perfect green conditions. Touring professionals also deserve some of the blame for their demand of perfect conditions at all costs through the green. The playing public, observing what the pros demand, then make the same demands. Green committees have been forced to

do more and more to provide those near-perfect conditions on their golf courses. Finally, the golf course superintendent, feeling the pressure to produce the best-looking conditions, relents and begins to manage the golf course for color and not for the best playing conditions.

WHAT IS the answer? There is no doubt that common middle ground must exist from which all of us in golf can agree regarding ideal playing conditions. This middle ground or middle-of-the-road approach lies somewhere between the lean, native approach of the Scots and the lush, overdone approach of many American courses. This middle ground would exemplify the best thinking of the day regarding the judicious use of fertilizer and water. Common sense would dictate just what areas can be expected to be kept alive during summer dormancy. The key word is "alive."

Golf is a great game played on beautiful and aesthetically pleasing grounds. Those grounds can be kept pleasing through the use of common-sense management practices and the belief that Mother Nature needs only our assistance — not our dictations.

How green is green? How brown is brown? The Wairakei International Golf Club, New Zealand.

