

FAIR FAIRWAYS: GOING, GOING, GONE?

Maintenance technology may produce conditions too good for golfers.

BY PATRICK O'BRIEN

Turfgrass managers and course officials are being pummeled by cries of "there's no grass on the fairways." In this era of alleged global warming and massive maintenance budgets, is turfgrass disappearing from fairways? Not likely. Instead, these cries are the results of golfers receiving precisely what they have demanded for years: either "the best conditions possible" or "championship conditions every day." Championship conditions may sound desirable in the 19th hole, but hitting a golf shot off the tight lies associated with these conditions leaves little margin for error and a large margin for frustration.

How have improvements in technology and maintenance techniques allowed turfgrass managers to prepare the best fairway conditions ever? And what is the best strategy for creating the fairest fairway conditions for as many golfers as possible at a given course?

TODAY'S FAIRWAY CONDITIONS

The most typical fairway height of cut today is $\frac{1}{2}$ inch. An appropriate management program combined with a mowing height of $\frac{1}{2}$ inch produces a lie with a minimal amount of grass to be trapped between the ball and the clubface on a well-struck golf shot.

Mowing heights and management strategies at the other ends of the spectrum produce different types of lies and different levels of playability. For



U.S. Open conditions, "We do not desire any grass between the clubface and the ball," reports USGA Director of Championship Agronomy Tim Moraghan. The absence of grass between the clubface and the ball offers the skilled player the best opportunity to control the spin and trajectory of the ball.

As fairway height increases above $\frac{1}{2}$ inch, there is a greater likelihood that grass will be trapped between the ball and the clubface. The chance for "flier" lies is greater at taller mowing heights.

THE EFFECTS OF TIGHT FAIRWAY LIES ON GOLFERS

Many higher-handicap golfers believe a low height of cut on fairways or the use of plant growth regulators can cause them not to play well. This is not a turfgrass problem, but a golfer problem. High handicappers have a tendency to scoop or sweep the ball. The less cushion that exists underneath the ball, the less margin there is for error. Low-handicap players prefer tighter lies because they have greater control of ball flight.

WHY ARE FAIRWAYS MAINTAINED SHORTER TODAY?

There has been a desire to mow fairways lower and improve conditions for many years. As technology has developed and budgets have increased, turfgrass managers have the ability to maintain fairways shorter and tighter than ever before.

Mowing technology has improved significantly since the horse-drawn cutting units of the earlier part of the 20th century.

MOWING TECHNOLOGY

Mowing technology has improved significantly over the past 40 years. Old tractor-drawn 5- and 7-gang pull units of the 1960s and '70s were capable of mowing fairway turfgrass at just below $\frac{3}{4}$ inch. Lower mowing heights were not possible with these machines because the bedknife would drag along the ground.

The next mowing advancement was the 9-gang self-contained unit, with 9-bladed reels that rotated based on the ground speed of the machine. The cutting units were ahead of the tractor for the first time ever. These machines cut the grass without bending the blades with the tractor tires. This produced a higher quality clip, but the mowing height still was limited to just below $\frac{3}{4}$ of an inch.

In the early 1980s, another major advancement occurred with the development of the first hydraulically driven reels with either 5- or 7-gang reels drawn by a tractor. These mowers could cut the fairways at $\frac{1}{2}$ inch, but the tractor was ahead of the reels, causing some bending of the grass blades due to the tires.

In the late 1980s, the first self-contained 5-plex units were developed. These mowers have cutting units ahead of the tractor, similar to the green triplex mowers. Today, these units are made with more durable materials to improve longevity. A grooved front roller has replaced the solid front roller, further reducing the bending of the turfgrass prior to mowing. Articulation of the cutting units also is highly advanced to reduce scalping injury to the turfgrass. Most 18-hole golf courses today have two 5-plex self-contained mowers that easily stay ahead of play with their speed. Mowing at $\frac{1}{2}$ inch or even $\frac{3}{8}$ inch is easily done with these 5-plex machines, and their cost is now more justifiable to practically all types of courses with either lease or purchase plans.

GROWTH REGULATORS

Growth regulators have significantly improved fairway quality since the early 1990s. These products impact the plant by reducing vertical growth without affecting lateral growth. The result is a turfgrass with better density, improved turfgrass health, and reduced water use.

Growth regulators reduce clipping production, which improves the quality of cut and reduces difficulties associated with mowing damp fairways. Scalping is reduced due to less vertical growth. This is a key feature when rain cancels one or



more scheduled fairway mowings. Slower top growth now provides better weekend play when fairways are not mowed.

CULTIVATION EQUIPMENT

Superintendents have better cultivation equipment to battle soil compaction, drainage, and thatch problems. Fairway turf is healthier, smoother, firmer, and more dense. At most courses, full turf coverage exists without minimal bare areas due to modern cultivation strategies. In the Pacific Northwest, fairway topdressing has reduced fairway wetness and earthworm castings.

TURFGRASS SPECIES

The most popular turfgrass species used on golf courses today are hybrid bermudagrass, zoysiagrass, seashore paspalum, creeping bentgrass, *Poa annua*, perennial ryegrass, and Kentucky bluegrass. All these species except Kentucky bluegrass and zoysiagrass can be mowed well below $\frac{1}{2}$ inch and can provide incredibly smooth and tight surfaces.

FINDING A HAPPY MEDIUM

There are several steps that should be followed to establish reasonable fairway conditions.

STEP 1: Be careful what you ask for.

For years, golfers have been clamoring for the best conditions possible on a daily basis. Some-



times this statement sounds better than the results it produces. The best daily fairway conditions just might be too difficult for many golfers to handle.

STEP 2: Remember "The Law of Unintended Consequences."

A decision to raise the fairway mowing height may improve the ease at which a high handicapper can hit a shot from a fairway, but it may have other unintended consequences. For example, taller grass on fairways reduces ball roll. This impacts the player who is accurate, but does not hit the ball far. Distance control will be more difficult at higher heights, as more grass becomes trapped between the clubface and the ball. The cushion beneath the ball offers higher handicappers more margin for error, but they, too, will hit more "fliers" than on fairways with shorter grass. The private club business is becoming increasingly competitive. Fairways with grass taller than the average $\frac{1}{2}$ inch cut may make the course unattractive to some prospective members.

STEP 3: Create a standard at the course.

In today's era of political correctness, it is often the group that screams the loudest that gets the most attention. If a golf course has not established a maintenance standard for fairways that takes into account the desires of all groups, they are vulnerable to the vocal minority and may be

The development of new mower cutting units helps produce some of the finest fairway playing conditions on today's golf courses.

pressured into making a decision that does not reflect the interests of the majority.

STEP 4: Stay with the standards.

You cannot please all of the people all of the time. Keep in mind that the comment "There's no grass on our fairways" is a golfer issue, not a turfgrass issue. A better solution may be instruction, not changing maintenance practices to suit a certain group's skill level.

CONCLUSION

Technology and the skill of today's turfgrass professionals have made a lasting impact on course conditioning. Have we reached a point where conditions have become too good for most of the players? Only time will tell as we examine the standards implemented by golf courses throughout the country.

PATRICK O'BRIEN is the director of the USGA Green Section Southeast Region and just hopes he plays on the fairways.