Bent-Poa Roughs ... A Modern Dilemma

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It is not too hard to think of situations where one action, taken to reduce labor or costs, actually creates a secondary problem, which eventually must be resolved with more work and expense. Such is the case with the contouring of fairways. Changing mowing patterns to create sculptured borders for fairways has become increasingly popular in recent years, and hardly a course has not been affected. The purpose of contour mowing is usually twofold — to create a visually pleasing and strategically challenging playing ground and to reduce the size of the fairways so that maintenance costs can be reduced.

Many 18-hole golf courses have gone from maintaining more than 40 acres of fairways to something less than 25 acres. It shouldn't take long to see that a substantial reduction in the size of the fairways can translate into savings in costs for fertilizers and pesticides and savings in time and labor when mowing smaller fairway areas.

(Above) This bent-Poa rough was scalped and then overseeded with Kentucky bluegrass and perennial ryegrass.

(Left) Fairway contour mowing left this unsightly and non-uniform rough.

Since most golf courses start out with relatively wide fairways, a contour mowing program usually involves a simple narrowing of the fairways in areas designated by the golf course architect or other individual responsible for determining the new patterns. It's a simple process — just let the grass grow up to rough height! No construction. No scalping. No expense.

Or is it so simple? For golf courses whose fairway turf is predominately Kentucky bluegrass, there is really no problem. The bluegrass grows to a higher height and provides an outstanding rough. However, most golf course fairways cut below one inch contain little Kentucky bluegrass. They are instead some combination of bentgrass, Poa annua, and perhaps perennial
ryegrass. Thus, when new fairway contours are established, it is this bent-Poa-rye mix that suddenly goes from being cut at one-half inch to one inch to a height of two or three inches, or even more.

No matter how you look at it, this type of turf does not produce a very satisfactory rough. Bentgrass and Poa annua, when they are cut at rough height, become puffy and thatchy and subsequently suffer from disease or scalping injury. Perennial ryegrass eventually develops into unsightly clumps that are difficult to mow. Even when these grasses can be kept in reasonably good condition through dethatching or aerification, they still produce a turf that is different in color and texture from the Kentucky bluegrass that predominates in the original rough areas. If nothing is done, this line of demarcation between old rough and new rough can remain visible for years. And because the bent-Poa rough looks so much like the fairway turf, it is often difficult to see from a distance just where the fairway ends and the rough begins. Thus, part of the reason for contouring in the first place is lost.

The trick, then, is to establish Kentucky bluegrass in fairway areas that are allowed to grow to rough height after contour mowing patterns are created. Again, this may sound easier than it actually is. To slice and seed Kentucky bluegrass into established bent-Poa turf cut at two to three inches is practically hopeless. Some have avoided the issue by overseeding perennial ryegrass into these rough areas. The ryegrass will usually germinate and develop in spite of the competition from the bent-Poa turf, and it certainly looks like Kentucky bluegrass. However, perennial ryegrass does not have the same growth characteristics as Kentucky bluegrass and often proves unsatisfactory in the long run. It does not have the capacity to spread, and so develops into unsightly and unplayable clumps as time passes. Thus, ryegrass should not be used in a monoculture for rough areas unless overseeding will be done every few years.

Then what's the answer? The secret to establishing Kentucky bluegrass in bent-Poa turf lies in eliminating the competition. The extreme solution is to remove the bent-Poa turf with a sod-cutter and reestablish to bluegrass with either sod or seed. For most golf courses, this would be feasible only in very limited areas.

A more practical approach is to allow the bent-Poa turf to grow to a height of several inches and then scalp the area back down to about one-half inch and remove the debris. The area can then be overseeded with bluegrass or a combination of at least 80 percent Kentucky bluegrass and no more than 20 percent perennial ryegrass. Overseeding is usually accomplished by slicing and seeding in several directions, by aerifying several times and broadcasting the seed, or by a combination of both methods. A dense stand of Kentucky bluegrass need not be obtained from this effort, since the bluegrass has a
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NARROWING FAIRWAYS for contour mowing is not the only practice that has created bent-Poa rough areas. Another trend has been the establishment of uniform collar widths around greens, often one width of a triplex greensmower. This has been done to cut down on the time needed to mow the collars and to reduce the total area that needs to be treated as intensively as the collars should.

Since the turf adjacent to the collars is often mowed at rough height, narrowing the collars has produced bent-Poa rough just a few feet from the edge of the green. The problems and solutions with this situation are nearly identical to those in rough areas adjacent to fairways. However, when the bent-Poa roughs adjacent to collars become diseased and scalped, they leave unsightly rings of unplayable turf in areas where delicate chip shots are often required. Thus, they are usually considered higher priority areas and more frequently are stripped and resodded to Kentucky bluegrass. However, any of the renovation methods already discussed can also be successfully adapted to these bent-Poa rough areas.

The establishment of Kentucky bluegrass in bent-Poa roughs may not be a pressing concern at many golf courses, but this type of renovation work need not be expensive. More important, it can contribute significantly to the appearance and playability of areas that receive a substantial amount of use by most golfers.