It was just a few years ago that the superintendents of nearly all the golf facilities I visited were looking to take their courses "to the next level." Then the economy changed. Those same facilities are now watching their bottom lines very closely, and many are desperately seeking ways to cut their maintenance budgets.

Interested in an easy way to save money? Eliminate the intermediate rough.

The intermediate rough increases cost, increases potential for turf problems, provides negligible benefits, and adversely affects definition, or contrast, between fairways and roughs. Sounds like an easy decision, doesn't it? Not so fast. Golfers see intermediate roughs on television and are under the impression they are important to have at their courses. A close review of the facts will prove otherwise, in most cases.

**ECONOMICS**

- Mowing the intermediate rough requires a separate mowing operation that is generally done a minimum of twice and as many as five times per week. Golf facilities typically spend six to 15 labor hours per week mowing the intermediate rough.
- Incorporating the area encompassed by the intermediate rough into fairway turf or primary rough would add slightly more time to either of these mowing operations, but the net result would be an overall saving in labor.
- A separate mower is required to mow the intermediate rough, and the cost for this additional mower can range up to $25,000 or more. In reality, many golf facilities simply reconfigure older mowers to mow...
this area. Thus, the machine used to mow the intermediate rough may be old and more prone to mechanical failure, or it may not be well suited to the task.

- Elimination of intermediate rough eliminates a separate mowing task as well as the need for a separate mower (including its maintenance), which results in considerable saving.

**MOWING HEIGHTS**

In the Northeast Region, the typical mowing heights utilized on most golf courses are as follows:

- Fairways: 0.40 to 0.50 inches.
- Intermediate rough (if present): 0.875 to 1.25 inches.
- Primary rough: 2.0 to 2.75 inches.

Cutting heights often deviate for championships or special events, but it is a good bet that 80 to 90 percent or more maintain cutting heights in this range for daily play.

Many consider definition between fairways and rough very important, and the intermediate rough usually detracts from it. Cutting heights in adjacent turf areas must differ by a factor of at least 2.5 to 3 in order to maintain sharp definition. Assuming a fairway cutting height of 0.5 inch, a minimum intermediate rough height of 1.25 inches or more would be necessary to maintain sharp definition between the two areas. A primary rough mowing height of 3.25 inches or higher then becomes necessary to maintain definition between intermediate and primary rough. Rough this long makes golf balls more difficult to find, results in more lost golf balls, is extremely penal (especially to mid- to high-handicap players), and slows the pace of play. Not surprising, long rough is unpopular with most golfers.

If mowing heights are not sufficiently different, the contrast between these areas becomes blurred. When the intermediate rough has been cut and the fairway has not, definition between the two areas is almost nonexistent. The same is true when the primary rough has been cut and the intermediate has not.

**TURF PROBLEMS**

Most golf facilities in the Northeast grow one mixture of turfgrasses on fairways and another in roughs. Few turf species are well adapted to both areas. Creeping bentgrass and annual bluegrass (*Poa annua*) are the most commonly used species on fairways, but they are considered weeds in the intermediate and primary roughs. At higher cutting heights, creeping bentgrass and annual bluegrass form a thatchy, tangled, matted turf that plays very poorly. As weeds in the rough, both are expensive and difficult to control.

An intermediate rough, freshly sodded with Kentucky bluegrass, creates terrific definition with the adjacent bentgrass fairway. Unfortunately, annual bluegrass and creeping bentgrass will quickly encroach and are difficult to control.
Kentucky bluegrass, tall fescue, and perennial ryegrass are the most popular species for roughs, but only perennial ryegrass is well adapted to lower mowing heights required for intermediate roughs or fairways. Unfortunately, it is difficult to seed ryegrass into the intermediate rough without it escaping and establishing in fairways. Patches of perennial ryegrass stand out like a sore thumb in a *Poa annua*/bentgrass fairway, and the more rapid growth rate of perennial ryegrass contributes to uneven playing surfaces. Perennial ryegrass is also highly susceptible to gray leaf spot, a devastating fungal disease, and preventative fungicide applications necessary to protect it are expensive.

In a nutshell, intermediate roughs frequently start out as a mixture of the desired rough grasses previously mentioned, but with prolonged low mowing, annual bluegrass and creeping bentgrass invariably invade. The end result is an unattractive hodgepodge mixture of turf that plays poorly and is difficult and expensive to maintain.

**NEGLIGIBLE BENEFIT**

With added expense, more turf problems, and reduced definition between fairways and primary roughs, why would golf facilities continue to maintain an intermediate rough? The answer is simple: golfers haven’t heard the facts. The intermediate cut of rough was a product of championship golf, where long, penal rough was demanded. Balls landing just a yard into the rough were severely penalized, or just as penalized as a ball errantly hit 20 yards into the rough. Worse yet, a ball landing in the fairway could come to rest against the tall primary rough and leave the player with an extremely difficult, even unfair, lie. In reality, only a few golf facilities actually maintain their primary rough high enough on a regular basis to justify an intermediate rough. Once gone, you will be amazed at how much more course definition can be gained between fairways and primary rough. As Patrick O’Brien, director of the USGA Green Section Southeast Region, stated in his 1997 *Green Section Record* article, the intermediate rough is **A Waste of Time** for most golf facilities. It is also a waste of resources.

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