



Frequent aeration of peripheral areas around greens . . . an important cultural program. Kiawah Golf Links, South Carolina.

Maintenance by Priority

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"IHAD TERRIBLE LIES in the roughs today!" "Why aren't the woods cleaned out — I can never find my ball." "Why aren't the roughs mowed and maintained like the fairways?" "Yeah, I even had to play out of a divot hole in the fairway!"

If you are a golf course superintendent, golf professional, or green committee chairman, I'm sure these are familiar complaints. Today, too much emphasis is placed on out-of-play areas on golf courses. Golfers for the most part have been spoiled by quality turf conditions not only from tee to green, but also into the woods. The rough is not supposed to be as uniform as fair-

ways, nor are fairways supposed to be as uniform as the tees and greens.

Think back to the days when golf originated. The greens received major emphasis while fairways, roughs, and for the most part tees, received little attention. Granted, weed control is necessary, but all turf need not be maintained as carpet. After all, if a ball lands out of the playing area, isn't the golfer supposed to be penalized somewhat? Let's take a strong look at course maintenance priorities and try to determine where the emphasis should be placed.

As the costs of labor, materials and fuel continue to increase, all golf

courses, especially those with modest budgets, must adjust priorities, because in the future it may no longer be feasible to pursue high management programs over the entire golf course.

The first place to cut back maintenance is in the roughs. The rough should be maintained at a fair pace, but this does not mean frequent mowing of two or less inches and constant weed control. Reduced fertilization and water will, in turn, make for reduced mowing. Some slight increase in weed infestation may be expected, but a significant savings in course budget will be realized.

The next possible cutback could be in reduced maintenance on fairways.

Reduced fertilizations and waterings will be a first step, but also a reduced mowing schedule may be forced upon us because of increasing energy costs. This is not to say that fairways should be maintained poorly, but the frequency of mowing will have to be cut back to two or three times a week. Less weed control work will also be experienced, but specific problems, such as nematode and mole cricket controls on Florida and coastal courses, will have to be sustained to ensure a quality turfgrass stand. Turf maintained at this lesser pace does not greatly reduce playing quality, but it will certainly reduce maintenance costs. Whether or not playing quality is reduced, and how much, is the key question in deciding the extent to which maintenance practices should be cut back.

AS PRIORITIES are considered, greens must appear at the top of the list. Greens undoubtedly are the most important areas on the golf course because, theoretically, the scratch golfer takes half his strokes on the green. In many cases, putting surfaces are not maintained to the quality they should be today, because too much emphasis is placed on the requirements of large acreage areas. It is not enough to maintain greens with routine aerification, mowing, fertilization, and spraying. Expert grooming is required to produce the best quality putting surfaces.

The most basic requisite of quality grooming is an excellent mowing program. Greens should always be mowed with mowers that are sharp and well-adjusted. Mowing patterns, however, are equally important. Greens should be cut at least five times each week, preferably six times, during active growth periods. Changing direction helps reduce grain and provides a cleaner, more uniform cut.

Other implements important to management can be attached to mowers. These include rollers, combs or brushes. Wiehle rollers help cutting units maintain a truer height of cut. Brushing in spring and fall helps the grass to stand up, allowing for better cut. When planning routine maintenance, practices such as light, frequent vertical mowing and topdressing must also be considered. During active growth, weekly to biweekly light vertical

mowings followed by light topdressings of about $\frac{1}{8}$ cubic yard per 1,000 square feet are very effective in establishing smooth, fast and uniform putting surfaces. The topdressing is lightly matted or brushed into the turf. Light, frequent vertical mowings and topdressings may also help increase the green speed. Remember that root development is directly related to cutting height, nitrogen level, cutting frequency, soil mixture and water management; therefore, all programs must be well-coordinated for true excellence in putting surfaces.

Vertical mowing and topdressing programs are especially important in encouraging upright turfgrass growth and minimizing grain and other surface inconsistencies.

This does not mean that greens on all courses should putt the same; putting green design and differences in turf stands prevent that. However, each superintendent should strive to ensure that all greens on his course putt uniformly. The grooming practices mentioned will help course managers achieve the degree of uniformity and consistency that current golfing standards demand.

These practices are important in overseeded bermudagrass greens during the winter to keep the overseeding somewhat thinned out, but more importantly, to keep it growing upright. This program is also beneficial in the spring to dissipate the overseeding earlier so the bermudagrass can begin its active growth early for the new season.

JUDICIOUS FERTILIZATION is also a key factor to putting surface uniformity. For the most part, putting greens tend to be overfertilized. A lower total nitrogen program of light, frequent applications is better for turf and provides fewer peaks and valleys in the season's growth curve.

Supplemental applications of micronutrients mixed in with routine maintenance sprays can help provide the healthful growth and color desired without having to apply as much nitrogen. Micronutrients are important to turfgrass growth, and it is up to turf managers to keep a close check not only on major factors such as soil pH, nitrogen, phosphorus and potassium



levels, but also on the minor trace elements as well. All nutrients must be carefully considered when designing the best program for optimum growth.

Since greens are the most important areas on the golf course, it follows that care of green surroundings should be almost equally as important. The perimeter area includes bunkers and extends out to a radius of 20-50 feet beyond the collar. Green surroundings must be kept weed-free to prevent the putting surfaces from becoming weed infested, and perimeters should be maintained uniformly to provide for delicate approach play to the putting surface. Green surroundings should be aerated two to three times per season. The plugs can be dragged in to serve as a topdressing. This program helps ensure uniformity and promotes deeper rooting and stronger turfgrass growth.

The second area of priority in golf course care is the tees. As mentioned above, greens receive one-half the strokes of a theoretical scratch round of



Naturalizing out-of-play areas on the golf course saves time and money. Jupiter Hills Club, Florida.

golf and tees receive another one-fourth. When these two small acreage areas are considered, the playing areas for three-fourths of the strokes of a scratch round of golf have been consumed. This being the case, it is evident that these two areas must be quality maintained.

TEEES RECEIVE the most concentrated wear. To maintain tees at the level desired, wear must be offset through aerification, topdressings and vertical mowings. Tees should be aerated two or three times per season, followed by topdressing. Topdressings should be frequent enough to maintain a smooth and level surface for firm footing. Vigorous growth promoted by these cultural programs is needed to fill in divots and other worn areas due to traffic and play. It is unfortunate that many golf courses suffer from the lack of adequate teeing space today, so any time a new tee is considered, it should be large enough to accommodate the amount of play expected on that par-

ticular golf course. Constant rotation of the tee markers is also essential for distributing wear over the entire teeing surface.

On bermudagrass tees, the best program, except for nitrogen, is to maintain them like greens. Bermudagrass tees should receive less total nitrogen than putting greens because of the danger of excessive thatch buildup. Cool-season grass tees require slightly more nitrogen, more aeration and less irrigation than greens. Tees, too, benefit from a well-balanced nutritional program that includes minor elements. Tee surrounds also must be maintained as weed free as possible in order not to infest teeing surfaces.

The third area requiring intensive maintenance is the bunkers. They receive a tremendous amount of play, are expensive to maintain, but must be well cared for because unsightly bunkers detract greatly from pleasurable play. Well-managed bunkers also add to the aesthetic quality of the course.

Golf courses definitely have areas of high priority maintenance. As golf course managers find themselves backed into a corner with budget limitations, they will be forced to be more selective between higher and lower maintenance areas, and they will have to adjust programs accordingly. It is advisable to begin selective types of maintenance programs soon. A gradual compliance will make for an easier transition to reduced maintenance in roughs and higher maintenance of greens, tees and bunkers.

Education is the key to success for introducing new programs to the golfing public. It is up to the superintendent to inform the membership in any way possible of the necessity of priority maintenance as it relates to managing the golf course within the budget. Golfers who truly love the game will agree for the sake of economy that the priority areas need to be maintained first, and other areas can be maintained to the degree dictated by the budget.