

FAIRWAYS

TEES

GREENS

Some Thoughts on Bentgrass Management

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Bentgrasses comprise the major turf component of many golf courses in the cooler regions. Bentgrass is a versatile turfgrass, one that is used for greens, collars, tees and fairways. It can be mowed at heights of less than 3/16's of one inch to more than three inches and it will make a good turf cover. With proper management it forms a superior putting surface, excellent collars, tees and fairways—but a poor rough.

Bentgrasses can be propagated by vegetative means (also referred to as stolons, cuttings or runners) or by seed. Vegetative propagation provides the means for introduction of superior select strains of bentgrass into fairways. Large acreage of vegetative plantings are rare, but it may become more attractive now in view of the rapid increase in the cost of seed. This has been one of the neglected areas of fairway improvement for too long and we predict more interest in this area in the future.

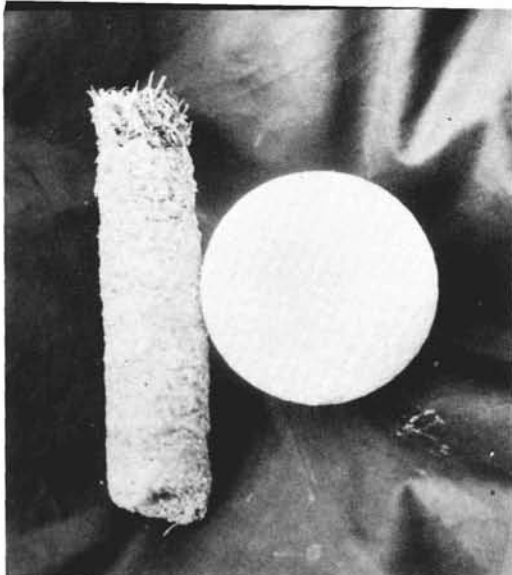
Every turfgrass variety has its own special management requirements. The same program doesn't work for all grasses. The starting point for all, however, is good drainage. Without it, turf excellence is not possible and good playing

conditions become too dependent upon good weather.

Bentgrass management differs for each area use concerned. Greens and tees require more intensive maintenance than fairways. This means careful study of nutrient, irrigation, chemical, and other requirements. While a program for fairways is less intense, it is not any less exacting. Everything involved with growing fine turfgrasses for golf requires careful study and precise execution. Turfgrass enemies quickly strike when weaknesses develop. These include various diseases, weeds, and insects, but there is one thing certain—more problems develop if the turf is on the soft, succulent side than if kept on the hungry side. The late Prof. L.S. Dickinson, founder of the University of Massachusetts turf school program and the 1962 recipient of the USGA Green Section Award, was one of the first who preached the doctrine of moderation. He often said, "Don't force the grass plant to grow . . . *let it grow!*" He principally referred to nitrogen application and watering programs as the cause for major problems. If excessive, they upset program balance, insects revel in lush turf, thatch problems increase, diseases run

Drainage correction is the first step to good turfgrass cover.





Severe thatch development in bentgrass turf. Thatch this deep compounds all other management problems.

rampant and our perennial nemesis *Poa annua* thrives!

Water and fertilizer requirements vary for different soils and locations, even within the boundaries of an individual course. For this reason it is impossible to attempt to define needs precisely for all courses within a region. However, we can make two definite statements concerning all situations. First, new turf planted on new soil will require more water and fertilizer than mature turf for the first two or three years. Secondly, established turf constantly performs better if it is watered and fertilized on the low side. Grasses should not always be a vivid green color. Grasses have their ups and downs due to weather fluctuations, traffic, time of year, soil conditions and can't be uniformly bright green at all times. The primary criteria to judge by is the turf fullness and playing quality, not its color. The statement, "golf is played on grass, not color!" has often been used by many an agronomist in reply to a member's question. Somehow members have the mistaken notion that a deeper green means a healthier turf.

Another difficult practice to define is turf irrigation. The same program doesn't apply for all for obvious reasons of terrain, soils, type of irrigation system, kinds of grasses, amount of water the system can deliver, and other considerations. The rule of thumb is to water infrequently but deeply, but you must first be certain that your soils accept the water readily and uniformly. If not, then it is necessary to adjust. On many soils, frequent, light irrigations work out best. During stress periods it's difficult to water properly because of heavy play and because some clubs will not allow watering during play. The golf course superintendent has to work out the best possible program of



Deep roots in summer is the goal. Management practices have strong bearing on whether they are deep or shallow.

irrigation that his conditions allow. If his turf contains a predominance of bentgrass with a minimum of *Poa annua*, his watering problems will be far less serious than if the reverse is true. Ten to fifteen per cent *Poa annua*, is acceptable in a fine bentgrass turf cover and minimal irrigation and fertilizer applications better insure this balance will be kept.

Mowing height and frequency of cut are other important factors in bentgrass management. Normally most bentgrass fairways are mowed between $\frac{1}{2}$ and 1 inch. Because of the soft texture of bentgrass, the closer to $\frac{1}{2}$ inch, the better. Bentgrasses will not build up thatch so readily when mowed closer. They grow healthier when thatch is minimal and they will play better. Beard *et al* found *Poa annua* to be most competitive at one inch cut. These are strong points in favor of mowing bentgrasses as close as terrain will allow. The rule for frequency of cut for most grasses is to mow as often as required to keep from removing more than one-third of the blade surface. With golf turf, however, more frequent mowing is advised. Under favorable conditions, this can mean three to four mowings weekly most of the season on fairways. Fertilizer and irrigation practices have an important bearing on the number of mowings required weekly.

This is the starting point of all successful bentgrass programs—first good drainage, then select the right bentgrasses for your conditions, next don't force the grasses, and finally, mow frequently and as close as terrain permits. All other management requirements will then fall into place. Insects, disease, weeds, aeration, renovation and other programs should be minimal under such a program. **Letting the grass grow, not forcing it to grow is the key to better golf turf!**