other reason than mowing frequency is reduced from two to three times per week to once per week or less, depending on the time of the year and the growing conditions during the given period.

The type of golf course, the type of play, and the "image" of the golf course will dictate the height of cut in the rough. There are also courses that have areas that are presently manicured as

rough but are out of play for all but the wildest of shots. These areas are being closely studied for the amount of money that is required to maintain them, and on a number of courses they are being eliminated from the maintenance schedule. Others have gone to maintaining them on a limited schedule. If a golf course does not subscribe to the low-maintenance theory for the aesthetics of the area, consideration should be given to the use of growth retardant materials on a limited basis.

Economic considerations are playing a bigger role in golf course maintenance each year. Everyone involved in course maintenance must be concerned, but everyone also has a responsibility to the game. By selective mowing, economic interests can be served without detracting from the integrity of the game, or the golf course.

Topdressing

by DONALD D. HOOS, Western Manager, USGA Green Section

DURING THE PAST few years, the subject of topdressing has received a great deal of attention. One has only to review the proceedings of most major turf conferences conducted during the past four or five years to verify the controversy and ongoing debate surrounding this topic. What is debated most often is the type of material to be used for topdressing. Should it be sand only, or should it be a soil mix? What is not debated are the benefits received from a topdressing program.

Today's golfer is more demanding and generally more aware of the conditions that comprise championship golfing turf. Golfers want consistent putting greens that are fast and firm. To achieve these conditions, a combination of management programs must be carefully coordinated. The key to success in most cases is moderation and consistency — light and frequent vertical mowing, light fertilization to produce consistent growth, mowing as frequently as possible, moderate application of water, and light and frequent topdressings.

It is difficult to separate the different management practices when discussing the development of quality playing conditions. Each practice greatly influences the other. Topdressing definitely influences all the other practices. It is a major component in the development of championship golfing turf.

Among the many benefits of topdressing greens are:

- 1. Tighter, finer-textured turf
- 2. Less grain development
- 3. Better thatch control
- 4. Less disease

- 5. Better water infiltration
- 6. Less compaction

When properly accomplished, there is no doubt that top dressing can provide all of the benefits mentioned above.

Thirty years ago, turf managers would have said that the main reason to topdress is to smooth the surface. Today, the same people would list the reasons mentioned above. The truth, of course, is a combination of all of the above.

TOPDRESSING, if done on a light and frequent basis, greatly influences the breakdown of thatch. If quality putting greens are wanted, thatch must be at a level consistent with good playing conditions. A little bit is needed for cushion, resiliency, and to provide the proper holding qualities. Light applications of topdressing mixed with the thatch minimize excess buildup. The topdressing applications stimulate microbial activity that is responsible for the natural breakdown of the thatch material. Topdressing can be a major tool in managing thatch levels on greens.

In addition to the control of thatch, frequent light topdressings add new soil around the grass plant which covers stems and promotes new root and shoot development. This creates a tighter, finer-textured turf with less grain, which is essential to good-quality turf for golf.

If thatch is at an acceptable level and topdressing has separated the plant residues to prevent matting, other benefits are also realized. Better air and water exchange is possible. More efficient use of water is achieved. Fertilizer and other chemicals are in

more direct contact with the soil because of better infiltration. This can result in improved disease, insect and weed control.

On heavily trafficked greens, we see the additional benefit of alleviating compaction if greens are topdressed frequently. The topdressing material physically supports the grass plant and helps absorb the compacting forces.

WHEN CONSIDERING quality playing conditions, repeated top-dressings to smooth the surface are, of course, a major benefit. Ball marks are filled, footprints are leveled, and damaged areas of turf are smoothed. More consistent year-around playing conditions result. With frequent top-dressings, we see the golf ball hug the green tightly, and not bounce as it rolls toward the hole.

With today's power topdressing machines, a program of light and frequent applications of topdressing is not difficult or time-consuming. All 18 greens can easily be topdressed within a day's time. If topdressing material in a suitable particle size range is used, the particles easily infiltrate into the turf without noticeable disturbance to play. Mixtures or sands that conform to recommendations outlined in the November, 1977, USGA GREEN SECTION RECORD article "Topdressing Mixtures—The Green Section's Position" are recommended for use.

The long-term benefits of a topdressing program are undeniable. In the development of championship golfing turf, its advantages are obvious. In 1981, consider a program of frequent topdressing to improve your greens.