



Fig. 11. Excessive thatch layering in a golf green.

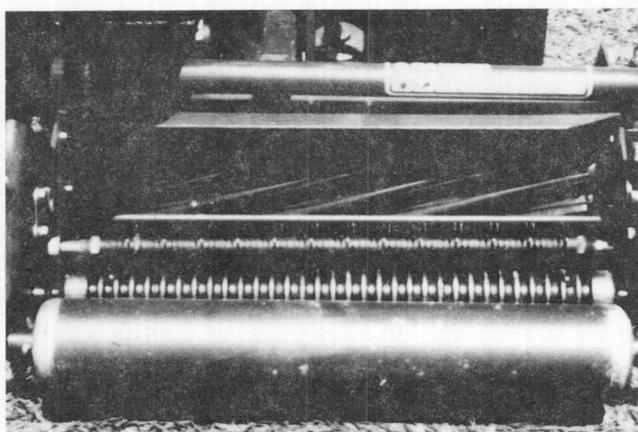


Fig. 12. Grooming unit with a grooved ('Wiehle') roller and vertical mower mounted ahead of a reel mower unit to slightly raise the leaf tissue for better mowing characteristics.

Large turf areas are vertical mowed by using units that operate off a tractor's power take off (PTO). Such units have heavily reinforced construction and large, thick (approximately 1/4 inch) blades which are able to penetrate to the soil surface. Vertical mowing of large turf areas such as fairways or athletic fields are usually performed once or twice yearly. The first is during mid- to late-spring when bermudagrass is actively growing. This removes thatch, and encourages turf spread by slicing stolons and by warming the soil surface quicker than if the thatch is allowed to remain. A second vertical mowing is needed if fall overseeding is to be performed. The second vertical mowing should be timed 2 to 4 weeks before anticipated fall overseeding. This discourages late-season bermudagrass growth which can compete with the overseeded grasses, and exposes the soil surface so overseeded grass can reach the soil better and have optimum germination. However, fall vertical

mowing will result in a degree of surface damage which may not heal until the overseeded ryegrass has time to become established.

Soil and thatch should be dry when deep vertical mowing is performed or turfgrass injury will be more extensive since moist conditions encourage excessive plant material to be removed. Following all major verticutting, debris should be removed and the area immediately irrigated. Approximately 5 to 7 days following vertical mowing one pound of actual nitrogen per 1000 sq. ft. should be applied to encourage rapid recovery. Quick release (soluble) nitrogen sources are preferred.

Topdressing

Topdressing is the cultural practice that adds a thin layer of soil to the turf surface and then is incorporated by dragging or brushing it in (Fig. 13). There are many benefits to topdressing including, increasing thatch decomposition, truing the playing surface, reducing graininess, enhancing recovery from injury, encouraging a denser and finer textured turf, enhancing overseeding, and modifying of existing soil. On newly established turf, topdressing partially covers and stabilizes the newly planting material, smooths gaps that result from sodding, and minimizes turfgrass desiccation. Topdressing is performed on established turf to smooth the playing surface, control thatch and grain, promote recovery from injury, and possibly change the physical characteristics of the underlying soil. Unfortunately, in recent years, many superintendents have reduced the number of coring and topdressing procedures due to member complaints of disrupting play. These procedures, however, are sound, fundamental agronomic practices that are necessary to maintain an optimal bermudagrass putting surface and if eliminated, the quality of the putting green can be expected to diminish over time.

Topdressing frequency and amounts

Frequency and rate of topdressing depends on the objective. Following coring and heavy verticutting, moderate to heavy topdressing is used to help smooth the surface, fill coring holes, and cover exposed roots resulting from these two processes. Irregular playing surfaces or soil profile renovation will require frequent and relative heavy topdressing. Rates ranging from 0.13 to 0.25 inch (0.4 to 0.8 cubic yards of soil per 1000 sq. ft.) are suggested (Table 3), except if the capacity of the turf to absorb the material is limited, as grass smothering would result.