

both macroscopic and microscopic. When mixed with the dead leaves, stems, and roots in the turf, they can thrive if other conditions are right.

The other conditions, incidentally, include a little moisture and a near neutral pH level. The microorganisms cannot grow under totally dry conditions, but should not be soaking wet, either. Because decomposition of organic matter generates some weak acids, light liming may be a great help in some instances. When in doubt, check the pH of the thatch layer. An old practice is to apply hydrated lime sparingly. This has nothing to do with changing the soil pH, just ameliorating the growing medium of the decomposition organisms. Thatch management is *not* aided by sulfur application except perhaps under highly alkaline circumstances.

John H. Foy is New Green Section Agronomist for Florida

John H. Foy of Madison, Georgia, has been named as the new USGA Green Section Agronomist for the Southeastern Region. His appointment was effective October 1, 1985, and he will be responsible for Turf Advisory Service visits in Florida, assisting Charles (Bud) White, Southeastern Regional Director. John will be based in West Palm Beach.

With Florida leading the nation in golf course construction and turf maintenance activities, the need for an experienced, unbiased consultation service for USGA Member Clubs is evident. John Foy brings practical and academic experience. A 1977 University of Georgia graduate, he returned for his masters degree in 1980 in plant protection and pest management. He served as a turfgrass sales representative for five years in the Southeast. USGA Member Clubs and Courses and their superintendents throughout Florida will soon come to know, appreciate, and benefit from the talents and knowledge John Foy brings to his new post. We are pleased to have him on the Green Section staff.

Core aeration is not the best-loved turf management practice on any golf course — by either the players or the maintenance staff. It is, therefore, a great deal easier to begin thatch management early when large equipment, frequently used, will do an adequate job. Equipment sized for greens undoubtedly does a more thorough job, but it is very time-consuming and requires several machines to accomplish the desired end. These add up to a high cost that might be averted by preventive use of properly sized equipment.

Most fairway aeration machines do not have enough tines to cut enough cores with one pass over the area, but nothing is wrong with going over a fairway several times — like four — if the turf is adequately rooted. Poorly rooted areas may require a different regime, or the initial use of green-size machines, until deeper roots are developed.

Aeration creates problems with core breakup and trash removal. Dragging with chain harrows, steel dormats, or pieces of chainlink fencing has been the standard procedure used to break up the cores and disperse the soil. Timing is critical on heavy soils, because if the cores are too wet, breakup is poor and a lot of mud is dragged around. If the cores become too dry, they can't be broken up by drags at all. Some superintendents now use the verticut units in triplex putting green mowers for core breakup after removing some of the blades. Others use an adaptation of large hammerknife mowers. Choice of equipment depends

Figure 5. Topdressing by normal earthworm activity mixes soil with surface growth. The newest cast is at center of this plug, above the two vertical worm tunnels.



largely on how smooth the terrain might be.

Trash remaining on the surface must also be dealt with. Leaf sweepers and vacuums seem to do best, although some superintendents simply blow the material into the rough.

A COMPLETE PROGRAM also must include turf recovery and prevention of weed establishment. Recovery should be initiated before the damage is done. Fertilizer should be applied a week or two before aeration so that all grasses are growing vigorously and their top growth and root growth are not inhibited. All that soil brought to the surface will provide escape for any number and type of undesirable seeds. They will certainly make the best of the opportunity, unless their germination is controlled by pre-emergence herbicides. Their application should immediately follow cleanup.

The holes are delightfully adapted as daytime hiding places for cutworms and other insects. If their presence is anticipated, the proper insecticides should be used, those that will control the surface or root feeders selectively and will not seriously affect the earthworm population. These wonderful animals are the best thatch controllers, topdressers, and soil aerators we have, even though their castings are a problem in closely cut turf (*Figure 5*).

These comments are made not to discourage lightweight mowing of fairways to help bentgrass encroachment into *Poa annua* turf but as a reminder that bentgrass requires careful preventive maintenance to provide high quality playing conditions. Remember that curative treatment of heavily thatched bentgrass turf is much, much worse.

Bentgrass is preferred to *Poa annua* because of its ability to withstand a wider range of environmental stress, especially those that occur during the golf season. In general, bentgrass is more resistant to heat, drought, disease, and salinity than annual bluegrass. It is also more cold-tolerant. The playing qualities of the two species are quite similar when both are well maintained and in a vegetative mode of growth. Simply put, bentgrass is more dependable than *Poa annua*, even though it demands more stringent maintenance practices.

I. Dickey, Elbert C.; Peterson, Thomas R.; Eisenhauer, Dean E. and Jasa, Paul J. Soil Compaction I — Where, how bad, a problem; *Crops and Soils*, August - September, 1985.