

A—By using an aerating machine only once or twice in a season the thinking expressed in the question might have some validity, however slight. The more frequently the machine would be used (within limits) the less valid would be the argument about uneven greens.

Very quickly after aerifying and top-dressing we find new roots beginning to fill the holes, binding and weaving the new soil together like the warp and woof in a rug.

New stem and leaf growth occurs also, stimulated by the aeration and cultivation. The new growth quickly forms a cushion like a woven rug which covers and masks any slight irregularities in the soil.

The soil might be uneven but the creeping grasses tend to minimize this by filling in the low spots with firm growth and by producing a level or smooth uniform surface. Then, by using the "planing action" of vertical mowing equipment, all irregularities are eliminated for smooth accurate roll of the ball. In short, there is good reason to aerify more frequently to minimize uneven soils.

Q—If we change our greens to an improved Bermuda, are they likely to be more difficult or more expensive to maintain? (Va.)

A—I think not. You will have fewer disease problems since the improved grasses are more disease-resistant.

The improved Bermudagrasses actually require less water to live and stay healthy. One of the things we have observed is that good Bermuda greens with deep roots, frequently aerified and adequately fertilized, need not receive water more often than about once or twice a week.

If greens are deeply soaked once a week, it will help to develop the very deep roots which produce that "cushiony" feeling when you play the ball to the green. There is one thing that is absolutely necessary and that is to watch the insects closely and to apply Chlordane whenever there is any insect apparent. Sod webworms and cutworms like the improved Bermudagrasses particularly and have caused severe damage which easily can be confused with disease symptoms.

Q—I planted 4 in. plugs of Bermuda into one of my poa annua tees last spring and now I can hardly find them. I'm rather discouraged with my attempt to produce a Bermuda tee by this method. Do you have any suggestions? (O.)

A—I believe you would be far better off to strip the tee and solid sod it with Bermuda turf from your nursery. I would assume that in order to hold the poa annua through the season you watered rather frequently to keep the Poa from dying. Frequent watering is not good for Bermuda. I doubt also whether you were able to fertilize the Bermuda through the heat of summer as it needed it, as this would not be feasible for holding the poa annua. It is pretty difficult to manage properly for Bermuda when you have to try to hold poa annua.

Q—We are building a new golf course and we have been discussing the use of a mixture of Colonial bent and chewings fescue for greens. Will you please comment? (Wash.)

A—Evidence from many experiment stations clearly indicates that this mixture will produce putting greens that are considerably inferior to those produced from the improved bentgrasses.

At best the chewings fescue is only a nurse crop and most of the permanent turf will develop from the Colonial bent, probably it will be from the creeping strains that are included as impurities. If the greens must be seeded I would greatly prefer Penncross creeping bent seed which will be available in limited quantities in another year. Meanwhile the only logical seed is Seaside.

The new Pennlu creeping bent is one of the better ones where vegetative planting is considered. Pennlu has out-performed Seaside consistently over a period of several years in Pennsylvania.

Q—Our greens have had spots that turn reddish and are almost impossible to wet. Even after prolonged watering or heavy rain the soil in those spots is dust dry. What is your explanation and suggestion? (Ore.)

A—These localized dry spots occur on almost any type of soil, even on sandy soils. They are particularly troublesome where the soil contains an abundance of fine sand, silt or clay particles. They occur also where matted turf prevents the ready movement of water into the soil. Once the soil becomes thoroughly dry, it is difficult to wet.

Most superintendents have found that the regular and frequent use of aerating tools almost completely eliminates the problem. Removal of surface thatch also will help to alleviate the condition. There seems to be no clear and logical explanation of why these spots occur when a few