

disease on bent greens. How do you feel about this? (Kentucky)

A—Careful research conducted over 20 years ago answered that question and told us that greens hand-watered in the early morning had much less disease, everything else being equal. Watering in the evening keeps the grass wet and favors the growth of fungi that cause disease. This is especially true when nights are humid.

Q—If we are continually removing grain and thatch from greens can we expect to find better results from our fungicides? (Pa.)

A—Leading pathologists say definitely that by removing the older portions of grass blades and stems the development of disease is retarded. By removing thatch and grain, far better coverage and penetration of fungicides is achieved. Therefore, regardless of the method by which you reduce grain or thatch you can anticipate better results from fungicides, which is the first step in sanitation.

Q—We have been aerifying our Tiffine bermuda greens regularly and we have been throwing away the grass that we sweep up afterwards. Somebody told us we could plant this material and it will grow. Have you had any experience with this? (Louisiana)

A—Superintendents at many courses are carefully preserving material from all improved greens following aerifying. They spread it out on a prepared nursery bed or on a cultivated patch of approach, tee or fairway that needs attention. The usual practice is to roll, topdress, roll again and water. Invariably this material quickly heals and thin places are established to a new turf of improved grass, at a minimum of cost and attention.

Q—What is your opinion of chemical soil conditioners? (Virginia)

A—Manufacturers of soil conditioners agree that a particular soil condition can only be stabilized by the use of a conditioner. This means then that its use on a soil in poor physical condition will only perpetuate that condition. Tests are still being conducted to determine the usefulness of conditioners applied on the surface of established turf areas. In general, this use is not being recommended. Mixing soil conditioners with prepared topdressing in excellent physical condition seems to be increasing in popularity. It would appear that the use of chemical soil conditioners further emphasizes the need for close attention to all of the devices, chem-

ical, physical, and mechanical, which help to create desirable physical soil conditions.

Q—Can you say anything good about Johnsongrass? (Ohio)

A—It depends on where the Johnsongrass is growing. In a field of corn or in the roughs on a golf course or in the nursery, it can be a terrible nuisance. In a pasture under proper management you can find many good things to say about it. We have noticed that where it is closely mowed and at frequent intervals it cannot survive, particularly when it receives heavy competition from dense, well-fertilized adapted turgresses.

Q—What is the best way to establish Bermuda into established fairways by seed? (Miss.)

A—If the fairways must be seeded with common Bermuda seed, the best way to get it established would be to aerify several times, each time in a different direction. Do this in the spring when the soil is warm so that Bermuda seed will germinate promptly. Usually this is soon after corn or cotton planting time.

Dragging the fairway after aerifying will partially fill the holes so that the seed will find favorable germinating places in the crevices but will not be buried too deeply.

I would suggest, however, that before spending money on a Bermuda seeding program you investigate the availability and cost of planting an adapted, improved strain of Bermuda by vegetative methods. The end results might be much more to your liking. All of the improved Bermudas must be planted vegetatively as there is no seed available.

Q—I've been developing zoysia in my nursery for several years and now that I have some zoysia sod I would like to have suggestions as to how to use it. (Ga.)

A—One of the best uses for your zoysia sod will be on your Bermuda tees where the shade is too heavy for best growth of Bermuda. Zoysia is considerably more shade tolerant than Bermuda. I would recommend solid sodding.

Q—What is the best strain of bent for greens in Cincinnati?

A—Several strains of creeping bentgrass are performing well in the Cincinnati area. They include Washington, Arlington and Congressional bents, Old Orchard, Cohansey, Penncross and Pennlu. There also are some unknown and unnamed strains that are performing well once their management requirements have been understood and met. I doubt if any-