

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-

one would be willing to say that there is any one "best bent" for any specific area. It is significant however that the use of Co-hansey in your area rapidly is increasing because it does give excellent performance during the heat of summer. All of the bents that were named give better performance than Seaside.

**Q**—We have many shaded areas in important locations near greens and tees where we have had great difficulty in growing any grass. What would you recommend? (Texas)

**A**—Thorough aerifying, feeding and seeding to Kentucky 31 fescue seed. 200-250 lbs. to the acre has given excellent results on many courses in Texas and Oklahoma. It will do somewhat better if it is not mowed too close or too often. It is deep-rooted and drought tolerant and maintains good color virtually the year round.

**Q**—Where did U-3 Bermudagrass come from? (New Jersey)

**A**—D. Lester Hall, Savannah (Ga.) CC, made the selection about the same time that Joe Valentine noticed the patch of grass which later became Merion bluegrass. U-3, also, is a product of nature, discovered by the keenly observant Les Hall who always is seeking better grasses. He sent a sod plug to the Arlington Turf Gardens about 1930 where it got the experimental designation "U" for Bermuda, "3" for the third accession. U-3 never has been officially named but this column would like to suggest the designation "Hall's U-3 Bermuda". We shall welcome comments pro and con.

**Q**—We've been thinking of planting a green to Penncross (Polycross) creeping bent. My chairman is afraid that this seed will produce spotted greens like those we have seen in Seaside bent. What is your opinion? (Texas)

**A**—On the oldest Penncross greens that we know, there has developed no indication that the greens will become spotted as Seaside bent does. The predominance of uniform types in Penncross seed is developing a uniform type of turf which is extremely pleasing to those who like uniformity of color. You can tell your chairman that Penncross will give you beautiful uniform greens and that he needn't be afraid of spotting.

**Q**—Why is it when I aerify my greens which originally were planted to Seaside bent, some of the patches heal in a couple days and you cannot see the holes. On some of the other patches of grass the

holes will remain in evidence for two to three weeks. What is the cause of this (Okla.)

**A**—The answer lies in the different rate of growth of the different types of bents which have developed from the Seaside seed. The faster growing bents heal the Aerifier holes almost immediately. The slower growing bents, or those which virtually are dormant, are the ones which allow the holes to remain open for a long period of time.

Under these conditions where the holes remain open because of a slow growing, unadapted bent, we possibly can find invasion of annual bluegrass or goosegrass, where otherwise we would not find them.

### PGA Seniors Qualify for Teacher's Trophy

**W**INNERS of the 1954 Teacher's Trophy sectional PGA Seniors' championships who have qualified for the PGA National Seniors' championship at Dunedin, January 28-30, have not been determined in every section.

Those who have qualified and will share in the Teacher's financing of the event are:

Carolinas—Clarence Owen  
Central N. Y.—John Budd  
Connecticut—Frank Kringle  
Eastern Mo.—Ben. Richter  
Illinois—Jim Foulis  
Indiana—Herman Uebele  
Iowa—Wm. Black  
Kentucky—A. J. Hume  
Met. N. Y.—Gene Sarazen  
Michigan—Al Watrous  
Mid-Atlantic—Ralph Beach  
Midwest—John Byrne  
Minnesota—Gunnard Johnson  
Nebraska—Henry Williams  
New England—Tom Mahan  
New Jersey—Harold Sanderson  
NE New York—R. A. Tyrell  
Northern Cal.—Franch Minch  
Northern Ohio—Billy Burke  
Oklahoma—Mike Murra  
Pacific NW—Hugh Starkweather  
Philadelphia—Clarence Ehresman  
Rocky Mountain—John Rogers  
Southern Cal.—Willie Hunter  
Southern Ohio—Francis Marzolf  
Tri-State—Jules Blanton  
Western NY—Charles McKenna  
Wisconsin—Alvin Krueger.