

spring from sprigs or runners, not seed. Most economical method is to buy planting stock of good strains, grow them in a nursery and plant fairways with fresh sprigs under most nearly ideal conditions.

Strains of bermuda to start in your nursery should include U-3, Ugandagrass and Magennisgrass. After seeding these grasses perform you may choose one of them for your fairways. Or, you may wish to do what I have often done and recommended: mix them together, plant them and let the best ones win.

400 lbs. of 12-12-12 fertilizer to the acre at planting time is the minimum I would suggest. Besides this complete fertilizer, you will need monthly applications of nitrogen fertilizer during the growing season. With sulfate of ammonia, for example, you should apply monthly at least 400 lbs. to the acre during the first season to encourage the grass to cover and spread rapidly so as to reduce weed competition. Other nitrogen fertilizers should be used to supply an equivalent amount of nitrogen (about 80 lbs. to the acre a month) if you do not have sulfate easily available.

Q — Several years ago I got a little polycross bent seed. I'm well pleased with the performance but now I can't locate any seed. What happened? (Iowa)

A — The small quantity of polycross seed, produced when you got yours, proves that those who prefer to produce greens from seed will be far better off by using polycross seed. This is now known officially as Penncross creeping bent seed. One of the three vegetative parents is Pennlu, along with the numbered strains, 9(38)5 and 11(38)4. Production now is on the increase. Some seed will be produced in 1956, more is expected in 1957. Have patience — and keep right on asking for it.

Q — Greens and collars on our course were heavily infested with silver crabgrass this past season. How can we do better next year? (N. J.)

A — The silver crabgrass in greens and collars can be greatly subdued in 1956 by following a seven-sided program. There is no surefire control for the pest yet, but these steps will help:

1. Grow the sturdiest, healthiest, deepest-rooted grass on the greens that you can. Thorough aerifying in spring and fall aids in accomplishing this.

2. Exercise rigid control over watering the greens. Keep them as dry as possible — to the point where the players notice that

they are dry. This helps to develop deep sturdy roots. Water by hand early in the morning to wash off the dew.

3. Fertilize adequately.

4. Keep diseases, insects under control with good fungicides and insecticides.

5. When silver crab appears start weekly sprays with di-sodium methyl arsonate. Follow directions on package. Small plants are easier to kill than mature ones.

6. If topdressing is used on the greens be sure that all weed seeds are destroyed by using Cyanamid or methyl bromide fumigation.

7. Are you sure you have a good, vigorous, well-adapted strain of grass on the greens?

Q — Is there any bentgrass that is immune to brownpatch and other grass diseases? (Va.)

A — The development of a bentgrass which is resistant to brownpatch and other fungus diseases has received a great deal of thought and attention, but to date none has been developed. Some bents are more resistant to some diseases than others. For instance, the new Pennlu creeping bent is quite resistant to most diseases and has given a very satisfactory account of itself in more than six years of testing at Penn State and in more than 20 years of practical use on a putting green at Lulu CC in the Philadelphia area. The new Penncross creeping bent which is produced from seed is relatively resistant to most of the diseases. I doubt that there will ever be a bentgrass developed in our time that is immune to fungus diseases of grasses. The best we can hope for is marked resistance.

The way in which a bentgrass is managed many times has a great deal to do with its resistance to disease. Watering especially is an important factor. Watering bentgrass greens early in the morning minimizes disease. By giving bentgrass only the amount of water it requires disease can be reduced. Many turfgrass diseases are aided and abetted by ill-timed and ill-conceived management practices such as improper watering and fertilizing.

Rebuild 20-Year Old Greens?

It has been the contention of Ruben Hines and many others that when a green becomes 20 years old, it should be rebuilt. A troublesome green should be rebuilt much sooner.