

spoke on the subject at the GCSA Conference and Show in Washington. He and Admiral Phillips worked out the program together before the Admiral retired. Jim has enough men and machines to get the work done before play gets under way for the day. Rarely do the golfers see the crew. The secrets are a budget that will provide the physical needs and good management that gets the work done on schedule. Costly? Sure it is! Good equipment and well-trained men cost real money but, if the golfer wants freedom from irritation and is willing to pay the cost, he is entitled to it. If the club can't afford what the golfer wants, it must raise the fees or reduce their wants.

Stay with Successful Bent

Q. Is it advisable to go to a new, more modern strain of bent for my new second 9, or should I plant the same strain of bent that I have in the first? If a new bent is more desirable, which strain would you recommend? The bent in the first 9 is Washington. It is slow in starting in the spring, but holds up well in the season and later into the fall. I do get quite a lot of brownpatch and dollarspot with Washington, but it responds well to treatment with fungicides. Washington also stands up well to the heavy traffic, about 25,000 9-hole rounds per season. I am considering a choice of several bent strains, but would like your advice on this before ordering. (Wis.)

A. You have just told me that Washington bent is quite satisfactory for your conditions, that it stands up well under heavy traffic and the diseases are easy to control. This is not taking a backward step away from the newer, improved bent grasses, but I am going to advise you to stay with the grass that has proven successful in your case. One of the reasons is that your crew has learned to work with the grass that you now have. Since it is satisfactory, why change? Perhaps by an improvement in your fertilization program and in general management, the Washington might be even more satisfactory than it has been.

If, in the meantime, you make a decision that you would like to go to another bent, these would be my choices in order. I would choose first Pennecross bent seed. The reason for this is that it will produce a turf more nearly like the Washington than any other. Being composed of different types of grasses, because of its parentage, it will adapt itself to your climate, soils, management and to the use better than any stolon bent I know. My second choice would be Congressional C-19 bent, because of its earliness and lateness and its resistance to snow mold.

Incidentally, dollarspot can be controlled quite well with additional applications of nitrogen fertilizer. By controlling thatch and mat in the green, you can make your fungicides work more effectively—also your nitrogen fertilizers will be more effective.

Too Much Water

Q. I am writing in regard to a watering situation at our 9-hole golf course. The greens average 5,000 sq. ft. The green committee tells me to water every night. Under this system the greens alone consume 45,000 gal. of water each week, not counting the rain that falls. It is my idea that too much water will cut off the supply of air to the roots. I would appreciate an answer as soon as possible. (Mich.)

A. Let me hasten to assure you that you are 100 per cent correct. The type of watering that you are being asked to do certainly will flood the soil with water and completely cut off the supply of air to the roots. The roots will have to come to the surface of the ground in order to get enough air to continue growth. This creates a very serious situation. In case of a sudden hot spell you could very easily lose all your grass because there would be no roots to support growth.

No bentgrass that I know of can possibly use as much water as you are being asked to apply. It is so excessive that it is almost ridiculous.

The only sensible way to water, in my opinion, is to apply water only when it is needed. The most successful supts. water entirely by hand early in the morning to wash in the dew. They apply the water on those parts of the greens that need water the most. This is determined by the use of a soil probe to find out where the soil is becoming dry. If there is a rain, no watering is needed for a while. Watering according to the needs of the grass is the only sensible way in which to water. To water every day, regardless of rainfall or other considerations, is something that I cannot comprehend. I have seen more serious difficulties arise from too much water than from too little.

I shall be very much interested to hear from you again in regard to the kind of grass that you have, the kind of soil you have in your greens, whether or not drainage has been provided and also your fertilizing program. With the excessive watering, undoubtedly you must be leaching out a great deal of your fertilizer.

Algae in Watering System

Q. Our club has a small pond for the watering system. The pond is filled with algae. Copper sulfate has been suggested to me to kill the algae. I wonder if the copper will affect the greens. I have experimented and am almost sure that it would, but I would like professional advice on the matter. (Iowa)

A. I shudder when I think of pulling water out of a pond filled with algae. Probably there is enough algae spores in the greens now to provide all the algae you will ever want to fight for a long time to come. There is little sense in pouring more on to the greens when it could be avoided. Yes, copper sulfate will kill the algae but its continued use in the water that is being used for irrigating the greens will eventually begin to affect the grass on the greens. This was recognized years ago when Bordeaux mixture was being used for disease control. Copper poisoning was the result. How long that would take depends on a number of factors, but there's no need to court trouble.