

# Grau's Answers to Turf Questions



If you've got a question you want Dr. Fred V. Grau to answer, please address it to Grau Q&A, Golfdom, 407 S. Dearborn, Chicago 5, Ill.

## Test Nurseries — Test Plots Trial Gardens

Call them what you will . . . "A rose by any other name would smell as sweet." The name need not limit the usefulness of the area set aside for testing products designed to improve turf quality. Every course needs a generous area of turf where the supt. can make mistakes — calculated mistakes. On the course mistakes can be costly, even disastrous. Nature being what she is, we can always expect the unexpected which may cause loss of turf in greater or lesser degree. A well planned and well conducted nursery can minimize troubles on the areas under play by deliberately creating and correcting difficulties.

Probably the first comparison most clubs will want to make is that of the grass they now have on the greens with a new kind that has been represented as being superior. Such a test should be conducted so that each grass is managed according to its own needs. We have seen superior grasses fail miserably in test plots where they were being managed according to the needs (real or fancied) of some other grass. Some of the contrasting treatments that should be studied are:

- Overwatering vs. minimum watering
- Heavy vs. light nitrogen feeding
- Disease treatments only when needed vs. regular preventive disease treatments

Others may be studied as space, time, money and desire dictate or permit. It is not how much is done that counts but how much is well done. Whatever study is started, it needs to be given time and attention to develop maximum information before the area is discarded, replanted or converted to another test. A case in point has to do with Old Orchard creeping bent. We have observed, and have been told by others, that Old Orchard tends to thin out in mid-summer and let poa annua invade. This seems to be its only weakness. In all other respects it has high quality. Recently we inspected Old Orchard bent under a set of treatments where it retained excellent density throughout the summer with not the slightest sign of thinning and without a trace of poa. Its needs were being met. We were so impressed that we called Ralph Bond and told him about it so he could pass the information along to Old Orchard users.

We have seen a number of tests on course nurseries which compared Seaside to Pennecross, both seeded. In most cases Pennecross outperformed Seaside at every turn. The contrast is most striking at high fertility (N) levels with minimum irriga-



Grau Photo

Plugs for patching at Portage, CC, Akron, O.

tion and with minimum disease treatments. Paul Addressi at Tamarisk CC, Palm Springs has an excellent test nursery in which Pennecross is outstanding compared to Seaside. As a result of testing Paul has conducted, he now is successfully seeding Pennecross into Seaside greens. The tests gave him confidence to choose and proceed with the program that is improving the already excellent turf.

What started out to be a small test

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nursery of U-3 bermuda at Five Farms, Baltimore, Md., under Bob Scott (retired) now has become the production nursery from which planting material will be taken by Frank Dunlap to plant all the tees on the new 9 and all fairways on the course. Before such a program could be launched there had to be the knowledge that it worked and worked at Five Farms!

Alex Repin's nursery at Tulsa CC told him that Cohansey (C-7) bent was worth trying on a regular green. No. 7 green was planted and managed to suit Cohansey! The results can be seen on many courses in the Southwest, very few of which had test plots of their own. They drew strength from Alex Repin's success and suggestions on maintenance.

Pine Valley's nurseries are the most extensive in the world, so far as we know. Eberhardt Steiniger spends a great deal of time and effort on them and derives from his studies valuable information that can be obtained nowhere else. No experiment station has sand such as Pine Valley has. Therefore, to know whether a grass, a fertilizer, or a tool will work at Pine Valley it must be tried at Pine Valley.

The best place to find out how anything works on your course is to test it

on your course under your management and with your labor force.

### Changing Bents

**Q.** We are interested in your article in July **GOLFDOM** concerning the change from one bent to another. We have our original Seaside in the first 9 built some 20 years ago, to which we have added about ten lbs. each year (after spiking the greens) of Seaside bent seed. The second nine also is seeded with Seaside.

I think that the bent has been satisfactory except that it seems very low in resistance to snowmold. When the bent goes out in the spring, poa annua comes into the spots. Some of our greens are getting to be almost solid poa annua. We are told that our feeding program is okay but we have this fight every spring to get the greens back into play.

Would you advise seeding into the greens some new type of bent, probably Penncross? Would this new seed eventually supersede the Seaside to an extent that Penncross would eventually take over? We have a very good spiker with 250 lb. weights, (pulled by our old three-gang power mower). We count on seeding the Penncross, then compost with the compost that you saw at Magna, Utah. This is three-quarters sheepmanure with one-quarter part very sharp sand. This compost has in the past acted as a very good seed bed when we put Seaside seed into the greens. We don't like to waste expensive seed, but would like to get the Penncross seeding program started.

## "My, the time, labor, money, sweat and tired muscles this machine saves!"

says CARL O. WEIS, Sup't. of Parks, Canton, Ohio



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We, (the Canton Park System) tried the small 3 hp size, liked it, kept it, and since have bought two more of the 7 hp size.

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We are still using the vertical mower. There is a tendency for the know-it-all golfer to insist that we go deeper with the machine but we like to use it often — once each week and not so severely. (Idaho)

A. You have evaluated your Seaside bent correctly. Continuing to sow Seaside bent into the greens does nothing to bring about permanent relief from snowmold and poa. You will do well to begin a program of seeding Pennncross creeping bent seed into greens, particularly if you prepare greens properly before doing so. This consists of removing a great deal of the surface matted material and using a spiker very thoroughly to prepare as good a seedbed as possible for the Pennncross. Even if you damage the Seaside and set it back, it will be all to the good if you prepare your members for what you are doing.

I think you can look for Pennncross to take over the Seaside in time. I have seen excellent results from a program of this kind in different parts of U.S. Do not expect miraculous results in one or two years. You should change the compost to about three parts sand and one part sheep manure. This sounds like a drastic change, but actually it will be for the better. If this seems too drastic, you can start by making it 50/50 by volume.

I would like to review your fertilizer program with you. In some cases I detected evidence where the program actually contributed to poa annua invasion. You are wise to use your vertical mower lightly and frequently. It is possible to do considerable damage with machines

of this type by going too deeply at any one time. The rate of sowing Pennncross will be not more than one lb. to 1,000 sq. ft.

### Invasion of Greens

Q. On our 9-hole course we have two greens that were rebuilt about 10 years ago. Grass on these greens is very fine and dark green and does not grow very fast. It does not develop runners and makes a fine putting surface. The last few years spots of grass similar to that on five of our other greens have shown up in them. This grass is coarser, lighter green, grows faster and develops runners badly. The spots have almost doubled in size the last year. Is there anything I can do to prevent this other grass from taking over? I have not been able to find out what kind of bents are in.

Last year we rebuilt two greens and seeded them with Seaside. I understand Seaside is not the best kind of bent for this part of the country. If I would over-seed with Pennncross would it eventually take over?

I understand greens should be mowed with mowers set at about 1/4 in. Every time I begin to mow my mower below 5/16 inches it seems to remove all the upright growth and they turn brown. The two greens with finer grass I described above will stand to be cut much closer. Our greens have not been topdressed this spring as we were out of material. Will topdressing improve them by firming around the stem that grows above the ground and prevent the mower rollers from going so deep? (Iowa)

A. It is almost impossible to advise from

here what you might do to stop the spread of the stronger, more vigorous grass that you do not like. Do you know the source of the bent you like? Where did the undesirable bent come from?

Seaside is inferior to Penncross over most of the country but you may or may not be successful in trying to seed Penncross into your Seaside greens. It will help to rake, comb and brush very severely and then aerate thoroughly before introducing the Penncross seed. It might work fine; yet you might get only 10 per cent results. Even so, it is worth a try. Sow 1 lb. to 1,000 sq. ft.

Browning at less than 5/16 cut means that your greens are matted or thatched. A thatch removal machine is called for, to be used at a time when the grass will recover most quickly (spring or fall). Topdressing on top of thatch will not help much. Remove the "junk" first, then aerate thoroughly, fertilize well and topdress. Then keep mowers at 1/4 in.

## Re-Examine Course Building

(Continued from page 20)

tion up to 50 yards, presents testing, interesting tactical problems and various pictures of design for each hole on which it is used.

Because it is approached and left by an acute angle foot traffic on this tee is restricted to the immediate playing area.

The width of the actual teeing area is 15½ feet, consequently a 7-gang mower need never turn on the tee. The tractor operator makes one cutting pass down the tee then proceeds to the next fairway.

My design has a minimum of 2250 sq. ft.

The design eliminates dull walks back into the woods. It also is a fascinating equalizer of players of different handicaps. Men and women play from different places of the same tee. That's a factor in reducing maintenance.

There are particular intriguing possibilities of my type of tee on the short holes.

As far as I know the Belair CC course in the Washington district got the first tees of this design when I built the course. The idea is being used on a course under construction in Pennsylvania.

## 1959 IGA Matches to Australia

Seventh International Golf Championship and Canada Cup matches will be played in Australia on a date to be determined, in Nov., 1959. Fred Cocoran, IGA tournament director will visit Australia next spring to select the site of the matches. This year's matches are to be played in Mexico City, Nov. 20-23.

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Chet Wender, Superintendent of the Plainfield Country Club observed the following: "Faster germination and a denser turf was quite evident on the AQUA-GRO treated half of a newly seeded green. Also the grass coverage was much more uniform because the seeds and seedlings stayed put."

Agricultural experiment station tests of seedlings in sphagnum moss over soil show tremendous increase in the depth of roots in the AQUA-GRO treated flats. The deeper rooting assures a healthier, better turf. Soil nutrients are made more readily available because of the more uniform distribution of water. As a practical example, a National League Baseball Stadium Superintendent reports: "Sod roots go deeper, quicker since using AQUA-GRO, even though we may have differences in soil types and densities."

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