
Grau's Answers to Turfgrass Question

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.



The Need for Trained Men

One of the prime requisites, and one that's seldom considered first, is, "Who is available and properly trained to manage and direct the golf physical plant? Who can we get to supervise construction, to be responsible for management of the grass and all labor and equipment? Who can we find who has knowledge of managing turfgrass, soils and all related subjects so as to provide the very best possible playing conditions? Who can we get who knows how to set up and operate within a budget? Who is available that is willing to do all this and be on the job 24 hours a day, 7 days a week?"

The job isn't quite as tough as intimated above because a man must get some sleep. What we are trying to emphasize is that somewhere, somehow we need to find or to develop capable men with the specialized knowledge and skills that the profession of the course supt. demands. Many positions are going begging or are being filled temporarily by untrained men who are doing the job by trial and error. Gradually they learn how to do the most necessary things to maintain reasonably good conditions. This is not the most desirable situation.

At the Turf Field days at Penn State, Paul Weiss and Leonard Strong were able to tell us that the GCSA scholarship and research fund has been established. Already one \$400 undergraduate scholarship has been placed at Purdue University.

This is clear evidence of the progressive thinking of the GCSA and of its desire to train men for the exacting profession of

golf course supt. Few details are available but it appears most probable that the men trained under these scholarships will receive both theoretical training in the classroom and practical training on the course and in the research plots of the institution. This program deserves full measure of support from all superintendents, clubs and golfers.

We should like to mention just one phase of construction which, if placed in competent hands, will make life easier for the supt. and will provide greater satisfaction for the golfer. We refer to physical soil conditions, particularly in putting greens and tees and to a lesser extent, in fairways. Many perennial headaches have been built in, relieved only when the areas are completely rebuilt at high cost and to the disgust of the players. Too often the superintendent gets the blame for not being able to grow perfect turf under impossible conditions. Had he been on the job during planning and construction, with complete authority to provide the proper physical soil conditions, the ultimate cost would be lower.

Many letters that come to this department have this as their theme. This was of interest in 1931 when we worked with Ken Welton at the Arlington Turf Gardens making mud pies in an effort to learn the best way to blend soil, sand and humus for the 'perfect' putting green soil. Years of trial and error, considerable research, and new tools to work with have relieved the situation somewhat. None of the knowledge of how to do it right is any good unless it is put to work. No longer need we build headaches into the golf course.

This brings us back to our original theme. We need more trained men that

can be hired to assist in writing specs and in supervising construction so that the facilities are built right the first time.

All golf courses and golf facilities now building or in planning will do well to look to the GCSA. Its members have the know-how. They know the whereabouts of trained men. They are creating scholarships to bring us more trained men.

Q. We are sending a sample of soil and a sample of muck from a nearby farm. Our greens were built in 1924 with this clay soil and we have had a constant battle with compaction. They have improved some with aerifying but it leaves much to be desired. We topdress with 65% sharp sand, 20% topsoil, 15% humus. Gravel underlays the course but it is covered with 4 feet of clay.

How would you advise us to prepare the proper soil mixture for new greens we are going to build to replace the old unsatisfactory ones? Can we use the muck? Can we use slag? (Ohio)

A. After making several mixtures with the clay soil and the muck which you sent, it appears that the best mixture would be, measurements by volume:

Coarse concrete sand 70 per cent

Clay soil 20 per cent

Muck (brown, fibrous) 10 per cent

Black muck is highly colloidal and would be undesirable in the mixture if used in quantities over 10 per cent by volume. Use the brown fibrous portion — if you can. Mix the materials off the site if at all possible and haul them to the green, spreading it uniformly 12 ins. deep over the prepared well-drained base. By removing the clay and providing gravel for the base, you will need no tile.

These are very basic and incomplete directions or suggestions. They may or may not apply to another golf course, that has a different type of top-soil and subsoil.

You may double-check the calculations but I believe that 12 ins. of this mixture over 1,000 sq. ft. requires 40 cu. yds.

Yes, you may use agricultural slag to replace part of the sand. Slag will provide calcium and several trace elements. Without seeing your slag, I would suggest not more than half slag, half sand. A sample of slag would be appreciated.

Q. I am a doctor and I am constructing a small (10 x 25) putting green in my yard. Is there a small hand mower that would be satisfactory? I feel this size green would not require the usual power putting green mower. Also, I would like information on the proper type of grass and on the care and management of the turf. (UTAH)

A. The best information that I can give you is to solicit help from representatives of the Golf Course Superintendent's Assn. in your area. A. R. Emery, GCSA, Salt Lake City, is one who has given much help to others and in whom I have great confidence. If he can-

50-Year Veteran



John H. Dimmick (center), 50-year vet at Shawnee Inn, Shawnee-on Delaware, Pa., and course supt. there, was the guest around whom all festivities centered when the Pocono Turf Assn. held its annual banquet recently. John is flanked by Fred Waring (left), Shawnee pres., and Harry Obitz, vp and club pro.

not help you he can refer you to someone who can.

Hand putting green mowers are available and would be preferable on such a small area. Your local golf course supply dealers can brief you on hand mowers.

Care and management of bent putting greens is adequately described in *Turf Management* (McGraw-Hill) by H. B. Musser. A subscription to *GOLFDOM* and *Golf Course Reporter* also will keep you up-to-date. Your local golf course superintendents are well versed in the subject.

Q. Do you think that Milorganite has enough trace elements in it so that it will supply what my greens need? (Kans.)

A. Inspection of the analysis of Milorganite indicates that this fertilizer probably will supply most of your trace element requirements. Practical results on many courses support this view. The exception may be iron. When iron chlorosis appears, the sensible way to overcome it is by the application of soluble iron in iron sulfate, ferrous ammonium sulfate, or iron chelates.

Q. I am having trouble with my dirt tees. What would be the best dirt to use? We have 300 or more rounds of golf a day. (Mass.)

A. From our limited experience with bare-soil tees, we would suggest a sandy clay with 10 per cent by volume of sawdust mixed in to keep the soil open enough to permit the peg tees to be inserted when the soil is dry. Your soils department at the Agricultural Experiment Station could help you to locate or to mix a sandy clay that would be suitable.

Your chief problem probably is to replace and level the soil as it is worn away by golf shots and to keep it reasonably moist. The sand would keep it from being gummy and sticky in wet weather.

Q. We are starting construction of a new 9-hole course. Our committee is charged with responsibility of securing the best possible putting surfaces and fairways. We know very little about the relative merits of the various strains of Bent and Bermuda. We would appreciate any information you could give us on this subject generally and specifically on the following points:

1. What grasses give the best putting surface during the various seasons in our location? What is the initial comparative cost of the various green turfs in regard to:

- a. cost of seed?
- b. cost of stolons?
- c. Any special green construction cost or soil preparation cost of one green not necessarily applicable to others?

2. Is growing bent, considering initial cost, heat and disease susceptibility, practical in this climate for a small club with somewhat limited funds?

3. What maintenance operations are necessary in the good management of bent that are not also necessary in the management of Bermuda?

4. Is it essential to have a "bent grass" man to grow and maintain bent successfully, or rather can any intelligent greenskeeper master the problems peculiar to management of bent greens?

5. Which variety of Bermuda is best in our section? Which variety of bent is best in our section? (Tenn.)

A. Considering your length of growing season and knowing the habits of improved strains of Bermuda, I would say that your club, with limited funds, will have the best putting surfaces from an improved Bermuda grass.

The cost of preparing and planting a green is about the same regardless of the kind of grass used. Using seed may be slightly cheaper at first but more costly later because of higher maintenance costs.

Stolons of bent or sprigs of improved Bermuda cost about the same for establishing a green, roughly \$40 to \$50 for 1,000 sq. ft. for planting material. Knowing what an improved Bermuda can do on a green in your area I would advise against bent at this time under the conditions which you describe. Bentgrass requires more careful watering, much more attention for disease control, and very delicate handling during the heat of the summer. Bermuda greens are more rugged, and more disease resistant. Mowing costs are the same. Watering costs will be less for Bermuda.

From what I have seen, I'd say a "bentgrass man" is virtually essential for bent greens in your part of the country. Any good supt. can master the problems of bent but it is possible to lose a lot of grass while he learns the proper methods.

Again, based on my experience, I would choose Ugandagrass for bermuda greens in your section. It is as fine as bent, it is rugged, easy to keep, and it is a good companion to

Turfgrass Meetings

Feb. 10-15 — 28th National Turfgrass Conference & Show, GCSA, Kentucky Hotel, Louisville.

Feb. 18-21 — Penn State Turfgrass Conference, University Park, Pa.

Feb. 25-26 — Southern Turfgrass Conference, Colonial CC, Memphis.

Feb. 25-28 — Cornell Turfgrass Conference, Cornell University, Ithaca, N. Y.

Feb. 27-Mar. 1 — Minnesota Turf Conference, Curtis Hotel, Minneapolis.

Mar. 4-6 — Midwest Turf Conference, Purdue University, Lafayette, Ind.

Mar. 11-13 — Iowa Turfgrass Short Course, Memorial Union, Iowa State College, Ames.

Mar. 18-19 — School of Soils, Fertilization, Maintenance Conference, Ontario Agricultural College, Guelph.

Apr. 12 — Truro Turfgrass Conference, Nova Scotia Agricultural College, Truro, N. S.

Poa annua which is our universal winter grass. No Bermuda that I have seen produces finer putting surfaces. It is very winter-hardy into Pennsylvania, West Virginia and New York.

If I were to grow bent greens in your area I would choose Cohansey (C-7) bent. It is a good heat-resistant bent but very susceptible to dollarspot. There are excellent greens of Arlington (C-1) bent in Tennessee but I would hesitate to select this grass under your conditions.

1957 International Matches To Be Held in Japan

The third International Trophy matches and fifth annual competition for the Canada Cup will be held concurrently in Tokyo in October, according to the International Golf Assn. of which John Jay Hopkins is founder and chmn. This will be the first major event played in Japan in which golfers throughout the world will participate.

In accepting the invitation of the Japanese Golf Assn. to hold the international competitions in Tokyo, Hopkins said he was influenced by the fact that the Japanese are among the world's most enthusiastic golfers and many of their courses are of championship caliber. In the 1956 matches in Surrey, Eng., Japan, represented by Yoshiro Hayashi and Michio Ishii, placed fourth in the Canada Cup competition.