

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.

Practice vs. Proved Principles

A SUBJECT frequently assigned to after-dinner speakers is that of tracing the pattern of progress in some particular field. The writer has been asked to do this in August before the joint Chairman-Supt. meeting sponsored by the Philadelphia Golf Assn. We welcome the opportunity to compare the way we used to do things with the way we do them now (or at least the way we would like to do them now). Based upon current observations, it seems that practice has not always conformed to proved principles.

Principle 1: Putting green turf is easier to maintain when, during construction, all ingredients have been thoroughly blended to provide uniform conditions for plant growth. Practice: Greens are being built that must be rebuilt before being put into play because the ingredients (sand, organic matter, soil) are so non-uniform and so poorly mixed that satisfactory turf for play can't be developed or maintained.

Principle 2: Surface drainage that carries excess water off the green in at least two or three different directions make maintenance much easier and need not affect playing character. Practice: Too many newly-built greens are like saucers tipped toward the fairway. Surface water is dumped into the approach area making it nearly impossible to maintain good turf on either green or approach. Principle 3:

Improved grasses exist that are known to provide superior turf with less disease and trouble and with fewer maintenance headaches. Practice: Many turf areas on new courses are being planted with poorly-adapted grasses which will cause major maintenance headaches. Some eventually will have to be replanted with improved types.

Principle 4: Proper levels of nutrients for the various grasses have been proved for the several uses of grasses. Practice: Everywhere we see starvation causing emergency expenditures which exceed original cost of the balanced diet that should have been provided in the first place to render such expenditures unnecessary.

Principle 5: Sharp mowers make all turf look better and stay healthier. Practice: Everywhere we see sad looking turf — on courses, athletic fields, home lawns, even experiment station plots — where even the best grasses and the best fertilizers have no chance to show to advantage under the dull mantle of chewed, frayed grass blades.

These are but a few of the pet peeves we have developed as a result of the pattern of progress failing to relate practice to proved principles. We hope that every new golf club, before it signs a contract, will make very certain that it has the very best recommendations of agronomists and



Grau Photo
Fertilizer burn on turf aggravated by type of spreader that released material in stream. Goosegrass and crabgrass replaced turf that was killed.

supts. on grasses, contours, drainage and other factors that influence maintenance. Good architectural design can be achieved that recognizes the proved principles underlying plant growth without sacrificing one iota of character.

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Maintaining Tifton 328

Q. We put in Tifton 328 in August, 1957. The growth has been fine and we have as good greens as any in the area. I am wondering about how much water the greens will require to main-

tain their beautiful color and active growth in the long, hot Florida summer. We are presently keeping them pretty wet all the time. However, we try to stay away from middle of the day watering. How often do you think they should be watered? And what time of the day would be best?

I have noticed small brownspot mixed in with the lush green. I do not know whether this is from too much water in the hot sun or actually not enough water.

I have read advertisements concerning the wetting agents, xxxx, in particular. We have well-drained greens built on a rather sandy base. If we do not use plenty of water they will show some compaction on the surface. Do you think xxxx, or something like it, would be of benefit to us? (Florida)

A. The amount of water your Tifgreen requires depends upon how well you have fertilized. Tifgreen does not require constant soaking to keep it beautiful. Keeping greens constantly wet makes it difficult to maintain good color and vigor. The time of watering will have little significance if the grass is properly fed.

The small brown spots could be insects or they could be the result of constant soaking. You should send affected material to Dr. Gene Nutter at Gainesville, Fla., or to Dr. Homer Wells, Tifton, Ga., for examination.

Well-fed grass stays beautiful on about 1/5 the amount of water that hungry grass needs. Try to use minimum water to develop deep, sturdy roots which, in turn, will produce good resilient turf that will hold a well-played shot even when the green is dry.

With well-drained greens built on a sandy base you should not have trouble from drainage. Occasional spiking or aerating should let water through any surface crust that might develop. I do not know if a wetting agent would help. If you already are using too much water it might accentuate your problem — it is hard to say from here. I suggest that you consult your experiment station for data on wetting agents.

Compaction in the surface could be the result of keeping greens constantly wet. This requires more and more water to keep the surface soft. Soon this leads to deterioration of the grass and then something besides water is blamed for the grass dying. My suggestion is to start tapering off on the constant watering, use the spiker or aerator more frequently, keep up the fertilizer applications. Regardless of the kind of fertilizer you use, use plenty of nitrogen — up to 20 lbs. of N to 1,000 sq. ft. a year. Also, keep the phosphate level low.

Clover, Weeds in New Greens

Q. We have new greens that were seeded with Astoria and Seaside bent. We now seem to have quite a lot of clover and chickweed coming in. The greens are a year old and I suppose that some of this weed will be crowded out by next year, but I would like to know what you recommend for over-all protection against clover, broadleaf plants, chickweed, etc. In reading GOLFDOM, I noticed that you are not in favor of 2,4D, which we have been using for spot spraying of plants. Clover seems to be our main

problem now along with some chickweed. (Vermont)

A. Your best defense against clover and chickweed is good management, adequate fertilization, minimum watering, aeration and everything else that goes to make good turf. Next, arsenate of lead at 10 lbs. to 1,000 sq. ft. annually in early fall or spring, whichever suits best, with treating stubborn spots with light dustings of calcium arsenate is recommended.

Actually, Astoria and Seaside bent are not your best grasses for putting greens in your area. Both are highly susceptible to snow mold and they contain weak strains which are highly disease susceptible. I suggest that you give serious consideration to introducing Penncrest creeping bent seed into your greens. I would also suggest that you check very carefully for soil conditions, compaction, drainage, etc.

Peat Fouls Up Greens

Q. Eight of our 18 greens have a layer of peat 2 to 4 ins. thick and about 6 ins. below the surface. The top 6 ins. of soil is very good. Below the peat layer there is sandy clay.

These greens never get a deep root system and are especially bad in the spring. They give one the feeling of walking on foam rubber and it is usually June before they are O.K. Aerating tools will not penetrate into the peat area. Outside of a complete rebuilding job, is there any remedy? (Wisconsin)

A. Your very best remedy probably is to begin with one green at a time, stripping the sod, laying it aside and then thoroughly mixing the material that is under the greens, adding generous quantities of coarse sand, or sand and gravel mixed, so that there will be no further layers. If this is done, you can look forward to many, many years of practically trouble-free maintenance. The job need not be expensive and it can be done relatively quickly so that the greens will be out of play only a very few days at the most. By properly planning the work, having all materials and equipment needed on the job a thing like this could be done almost in one day and the greens could be back in play within a week.

After stripping the sod very thin (not more than 1/2 in. thick) and thoroughly mixing as deeply as possible with a heavy tractor-driven rotovator, have a sample examined critically to see how much coarse sand and gravel is needed to bring the mixture up to about 75 to 80 percent sand. During the operation be sure to incorporate any limestone that may be needed, if the soil test shows the need for lime, adequate quantities of phosphate and potash and then, as a final operation before re-laying the sod, rake your fertilizer into the firm seedbed. This is a factor in getting the sod to knit quickly and produce a good putting surface in the shortest space of time.

I am quite sure that this renovation job will give good results. Any attempts at trying to correct the situation without stripping and renovating would simply be a patchwork affair, would cost a lot of money and would not correct the basic trouble.