

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.



Before you set out to go someplace you had better know where you are starting from. This homely thought paraphrased from an admonition given to Glenn Burton of Tifton, Ga., by his father, might have been expressed with a little more regard to grammar but all of us know what it means. I had occasion to recall this bit of homespun philosophy recently as I was listening to testimony in Federal Court in a civil case involving property damage. The construction company involved made it a practice to send a skilled man in to survey the property before any construction was started. Detailed field notes were made which accurately located each tree, stream, fences, noted crops and their condition and probable yield, and the presence or absence of rocks. From these carefully preserved field notes, a report was prepared which became the standard reference regarding the particular property. Thus, regardless of the extent of future operations, they knew where they had started.

The quality of the initial survey and its obvious impression on the court and the opposing counsel, set me to wondering to what extent this approach has been used when a golf course supt. signs his contract and starts his new job. In talking it over with some of the supts. at various conferences, I decided it might be a good idea to bring the thought before readers of GOLFDOM. At the same time there came a letter in the mail from a young man who

is about to step up to a large course and heavier responsibilities. In my reply I urged him to make a complete and detailed survey and inventory of every facility for which he would be responsible. Even at the risk of being too basic, let's outline how this might be done, realizing that methods will change with various situations.

List All Equipment

Equipment would be first on my list. I would list each piece, note its condition and the need for repairs and replacement with a column for approximate cost. It would be a good idea, too, to carry a camera to record things that are unusual so that the committee will be able to view some of the things that are discovered.

Equipment needs good housing and repair facilities. Buildings and their arrangement should be noted with comments on changes for greater efficiency. What is the workshop like and how is it equipped for keeping machinery in operating condition? What are the facilities for the men so that they feel that their needs are recognized?

On the course, my first concern would be with the irrigation system. If a map is not available have one made at the first opportunity. Every outlet should be checked, along with water supply, pumps, hose and sprinklers. Anything unusual that might interfere with the smooth continuous operation of the system should be noted on the field record with recommendations for improvement and possible costs.

Now we are ready to inspect closely each turfgrass area, making detailed notes on kinds of grasses and in what amounts,

**Know Where
You Are
Starting From**

the weeds that are there, the need for repair, renovation, resodding, sprigging, seeding and fertilizer requirements. Soil samples should be taken and sent to the laboratory. This is very important as a reference point in the future. Closely connected with this grass survey is the availability of nursery stock for repair and replacement. Opposite each item in the field notes should be entered the probable cost of the needed item. Included also would be the condition of the bunkers and other features of the course, the need for sand, repairs to the roads, tree care and replacement. Good pictures along the way can be a valuable asset in any discussion about "What was it like when I came here?"

Establishes Reference Point

This little discussion isn't intended to tell anyone how a survey should be conducted because each situation will be different. It has been presented to stimulate thinking in the direction of having a solid reference point in any future deliberations. When a budget is prepared the value of such an inventory will be demonstrated very clearly. There will arise the very important consideration of salary and, of course, raises. Good records are extremely important in the business side of the supt's profession. He will advance faster with good records than without them. The report which will be prepared from the field notes will become a permanent record in the files of the club and the supt.

So, when you are discussing the new position with the committee, make it clear that you consider it your first duty to make a complete and detailed survey and inventory of every facility for which you will be responsible. You should be able to sell the idea for certainly it is necessary for the intelligent preparation of a realistic budget. The survey will have many other practical uses, too.

* * *

Q. Several years ago we started a putting green nursery of Penncross creeping bent from seed, according to your specifications. We are very much pleased with the nursery and our supt. feels it is the best grass for putting greens that he has ever come in contact with. But we have a question. Why is it when we take plugs of Penncross out of the nursery and set them into putting greens they are so slow in spreading? Is it something that we have done or haven't done? (N. Y.)

A. We are glad that the Penncross creeping bent seed has developed such fine turf and that you are pleased with it. We aren't

sure that the best way to use this grass is to plug it into existing greens except where there has been an injury and you need to make immediate repair. The grasses that you have in your greens at the present time are going to be highly resistant to invasion by another type of grass, and it may take several years before the newly set plugs of Penncross will begin to do any perceptible spreading. A far better way to use this grass would be to completely resod the greens with the sod from the nursery and then establish new sod in the nursery for another resodding job when it becomes necessary.

Another way to increase present Penncross sod area is to take the plugs from aerating, or the clippings from vertical mowing, and scatter them on newly prepared seed beds and let new turf develop from these. In that way you will be promoting those strains in the Penncross that have already proved themselves successful under your conditions.

Q. In some of your publications you recommend that common Kentucky bluegrass be mowed 1-1/2 ins. or higher. Then you say that Merion bluegrass will do better if cut 3/4 to 1 in. At other places you recommend a mixture of common bluegrass and Merion bluegrass. We are puzzled as to how we should mow a mixture of this kind, whether at the height to favor the common bluegrass or the height to favor the Merion. (Penn.)

A. The answer here is: "Effect a reasonable compromise". The lower cut is designed for Merion bluegrass grown in pure stand adequately fertilized and managed according to the needs of Merion. The higher cut is designed to help common Kentucky bluegrass overcome some of its weaknesses. However, when the two are in combination a compromise in mowing heights is perfectly logical. Actually, the level of fertility is as important as the mowing height. If the level of fertility is kept high you will find that both grasses will do well at medium height.

Q. What is the most effective chemical that you know of that will help kill *Poa annua* in Seaside Bent Greens? (N.M.)

A. To date, the most effective chemical to help reduce *Poa annua* in Bent Greens is arsenic. Arsenic may be applied either as sodium arsenite or as lead arsenate. Lead arsenate is easier and safer to use. It consists primarily in applying 10 lbs. of arsenate of lead to 1,000 sq. ft. spring and fall during the cool season and continuing the applications until you get results.

Sodium arsenite is best applied as a spray using a liquid preparation. A safe way would be from one 1/2 to 3/4 ozs. per 1,000 sq. ft. used every 10 days to two weeks during a cool season when *Poa annua* is active. It also may be applied by using slightly higher rates, perhaps up to 1 oz. per 1,000 sq. ft. mixed with sand or dry topdressing as a carrier. Frequency of application is the same as for spray.

(Continued on page 95)

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interested, too, and soon dad is out hitting balls and shopping for equipment. Ledwon estimates that two-thirds of his students take up the game with real seriousness.

The hole-in-one event is staged in March under the sponsorship of the Phoenix Lions' clubs with proceeds going to the Lions' Sight Conservation fund. Last year a \$500 prize was offered for a hole-in-one along with numerous special prizes donated by merchants.

A 60 x 80 green was recently built at the range, using 36 yards of sand and topsoil. The grass cover is 2/3 Australian rye and 1/3 Seaside bent. Rings six- and ten-foot in diameter are drawn on the green to provide incentives for special prizes.

During the two years the contest has been conducted, \$8,000 has been turned over to the sight fund and the event is snowballing in interest. The Phoenix press gives the contest good publicity.

Ledwon and his assistant, Leon Pounders of Omaha, Neb., both PGA pros, have built up a busy teaching schedule and the range's overall business is on the increase.

Ledwon started the Camelback range in 1953 after four years as an assistant pro at Encanto GC, Phoenix's municipal course. He obtained a quonset-type steel building

for his golf shop and has been improving the grounds each year.

With his promotional flair, Ledwon hopes to continue building his range into one of the Southwest's finest.

Grau's Answer

(Continued from page 63)

Actually the introduction of a stronger bent grass can help materially in reducing Poa annua. Penncross creeping bent is a stronger grass than Seaside. As soon as you can obtain some, I'd suggest you begin to introduce it into one of your Seaside greens so that they can become stronger and more resistant to the invasion of Poa annua.

Q. What strain of bentgrass seed do you recommend to be used this spring in reseed-ing our greens and "froghair" to help combat Poa annua? (N.M.)

A. On the greens I recommend Penncross creeping bent seed, using 1 lb. per 1,000 sq. ft. following thorough multiple spiking in order to get the seed down into turf. Follow with a light topdressing and keep continually moist for 10 days to two weeks in order to get the grass established.

For the frog hair or collars, I suggest that you give one of the fine strains of bermudagrass a thorough trial. Ugandagrass is one that

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I can suggest with confidence because of its fineness, similarity to bent and ease of maintenance. Another might be Sunturf, somewhat coarser than Ugandagrass but a good strain for this purpose, so far as we know. Genetif is still another fine strain.

Q. Will bermudagrass grow in this latitude? What other grasses do you recommend to stand the heat of our summer seasons in areas which are relatively unshaded? (S.D.)

A. Bermudagrass might possibly do some good in South Dakota in a very sunny spot with adequate fertilization, but the chances are against it. The season is so short that you wouldn't get much satisfaction even if it did grow.

Two cool-season grasses which stand summer heat well, when adequately fertilized and managed, are Merion bluegrass and Kentucky 31 fescue. You did not state intended uses of grasses you would like to plant.

Q. We have a clover problem with our greens. It seems that in the spring it isn't so bad but as the season progresses we can see a definite increase in clover. I've come to the conclusion I'm not fertilizing right. I had a soil test run and this is what the test shows: Phos. 30, Potash 8 and Nit. 4. How is that in accordance with what it's supposed to be?

At present I am doing as follows: Aerating and verticutting once a month and applying 33 per cent nitrogen every two weeks at the rate of 4½ lbs. per 1000 sq. ft. What else should I use, if anything? I don't keep my greens too wet if I can help it. But the grass on the front 9 seems thin and has no root system. My back 9 is altogether different — very little clover and a good healthy grass and root system. Of course, like most public courses, our front 9 gets 3 times the play the back 9 does. We have Arlington bent grass on the greens. (Mich.)

A. In giving the results of the soil test you neglected to state the pH value or lime requirement. This is important. The pH value of the greens should be about 6.5 for best results.

Without knowing the method in which the soil tests were run, I would say that the greens lack potash. You seem to be using adequate quantities of nitrogen. I would suggest that you apply 60 per cent muriate of potash at two pounds to 1,000 sq. ft. when you apply nitrogen. Apply limestone (dolomitic) to bring the pH up to 6.5 if the soil test shows acidity below 6.5. Clover may be coming in as a result of thinning of the grass from disease.

Q. I am having trouble with C-1 Arlington bent greens. It tests 7.6 pH. Don't you think this is running too high? I use ammonium sulfate (2 lbs. by bulk to 1000 sq. ft.) but it has very little effect. I was wondering if I could use ammonium phosphate also to increase acidity. This green looks bad as it has light green and dark green spots scattered over it. I use Vigoro and Milorganite as complete fertilizer. (Kans.)

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A. My first reaction to your problem is that your applications of ammonium sulfate are either too light or you may not be applying frequently enough. I would advise against using ammonium phosphate because your combination of Vigoro and Milorganite already is giving you more phosphorous than you need. You did not say how often you apply the complete fertilizer. I would suggest confining it to spring and fall, using sulfate through the season at double your present rate.

The light green and dark green spots indicate that you might have grasses in your green other than Arlington (C-1). If you have used any seed (Seaside) or if the Arlington stolons nursery made seed before you planted the grass, this would account for the spots.

If water you are using contains lots of lime and if you are using lots of water to soften the greens it would explain results. Actually pH 7.6 is not too high for bent but at that level some of the trace elements will be tied up. You may do well to try ferrous ammonium sulfate to correct any possible iron deficiency. Two to four lbs. sprayed on one green will give you a good indication in a short time of whether it will help your situation. Arlington bent is not one to do well under heavy watering. It thrives on heavy nitrogen feeding and in being kept on the dry side.

Swinging Around Golf

(Continued from page 34)

his death had been accountant at Woodbury CC, Springdale, Conn.

One of those things that seldom happens, a deuce on a par 5 hole, was seen at Glen Arven CC, Thomasville, Ga., where John H. Walter is pro . . . Yeah, the same John who is one of Ike's pros . . . W. R. Bowers, playing with four other fellows, hit tee shot about 250 yds., then belted a 3-wood the rest of the route on the 470 yd. hole.

A lot of golf clubs and associations have been campaigning to move congressmen to favorable action on the Tom Curtis bill for relieving sports clubs of 20 per cent tax on improvements . . . Campaign isn't nearly won as there's still plenty of work to be done, especially on members of Senate Finance committee.

USGA General Counsel and committee doing valuable job now on club tax situation which certainly is murderous on national and local basis . . . USGA circular to member clubs advising of tax developments noted that Internal Revenue Service issued Rev. Ruling 56-620 to effect that payments for club cleaning and storage are not subject to tax if payments are made by members to the pro as an independent contractor or concessionaire, but if the club operates pro dept. cleaning and storage service for a period of more than six days it is subject to tax . . . Internal Revenue also has ruled that minimum charge for food and beverages over a