

# Grau Answers Turfgrass Questions

**From many courses Dr. Fred F. Grau gets and answers the problems handled in this monthly department of GOLFDOM. Superintendents and club officials can avail themselves of this valuable service without charge or obligation. Address your question to Grau Queries, GOLFDOM, 407 S. Dearborn, Chicago 5, Ill.**

**IDENTIFICATION** — that is a familiar word. Most of us have had to identify ourselves at one time or another — when cashing a check, obtaining a passport, applying for hospitalization or when exceeding the speed limit. A person usually has no difficulty in identifying himself.

When it comes to identifying others, that is something else. Errors in identifying other persons are all too common among witnesses.

When the identification is of a thing like turf disease, where differences are even less distinct, the chances for error are very great indeed.

Few of us have been trained to observe carefully. Much time can be saved if we know what to look for. The family doctor does not have to conduct complete diagnostic tests for many common ills, because he knows a few definite symptoms which will provide a pretty positive identification. Superintendents, too, can learn the distinct differences to look for in identifying grasses and weeds, insects and diseases.

Proper identification of these things is very important.

Know how to recognize seed and planting material to be sure you get what you pay for. Proper identification of disease is essential because different treatments are used for different diseases. Learn to recognize injury by insects; insect damage often is hidden from the surface so we are likely to identify it incorrectly.

For instance, a friend of ours was applying a new specific weedkiller on crabgrass. His complaint was that the crabgrass just kept on growing. When properly identified, the weed was quackgrass which requires an entirely different chemical and technique.

On many occasions over the years I have seen turf being treated with fungicides for dollarspot. The trouble kept on getting

worse until it looked like the turf was getting dry. Water was poured on but the turf kept on going downhill.

When properly identified, the trouble was sod webworms and cutworms. The application of a good insecticide cleared up the trouble and in a week the turf was beautiful again. Many more similar examples could be cited.

In addition to these things the superintendent must learn to identify the materials he buys to apply on the turf. Many chemicals are weed-killers, but every weed-killer does not kill every weed. In fact, most of our modern chemicals are selective. We must learn to look at not only the brand name, but also at the ingredients. There are many formulations of 2, 4-D, di sodium methyl arsonate, phenyl mercury, all sold under different brand names. It is the chemical, not the brand name, that tells you for what purpose the product should be used.

A superintendent learns to identify equipment, too. There are different makes of tractors, and greens mowers and aerating tools. The superintendent must learn which one is best suited to his needs and to specify that particular brand when he buys.

A knowledge of equipment and supplies is as necessary as a knowledge of the basic principles of turfgrass culture. Publications like GOLFDOM, exhibits at the Golf Course Superintendents' annual conference and show render a valuable service in acquainting superintendents and officials with what is available for course maintenance.

Proper identification is important not only to superintendents, but also to Green Committee chairmen and club officials. These people must learn to identify the causes for turf failures. It is not wise to attribute every turf failure to the charge that "the superintendent doesn't know his

job." There are various causes for turf failure over which the superintendent has no control.

Severe extremes of weather may be more than any man can cope with. This was so true in 1955.

There may be "built-in" problems, mistakes in design and construction that must be corrected before it is possible to maintain grass.

Sometimes the superintendent knows what should be done but cannot do it because of lack of money, equipment, materials or labor.

Before blaming any one person it is well to study the situation to be sure the cause for failure has been identified correctly. Almost as good as knowing all the answers yourself is to know someone who can help you find the answers and to help you identify troubles in time.

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**Q —** We have one green that goes out every summer. We can't seem to hold it because all the drainage is to the center and all the water spills out into the center of the approach. We've been advised to rebuild but the members don't like to play on temporary greens. What would you suggest? (Pa.)

**A —** I would say — "Rebuild." The temporary inconvenience to the members would be tempered by the lasting pleasure of having a good green all year long. Your chairman can help you put this across.

Be sure to build good drainage into the new green. Use tile or a rock base. The subgrade should be contoured to avoid pockets that hold water. The topsoil should be removed from the old green and mixed off the site with sand and other needed materials while the base is being remade.

Then replace the top and contour so the surface drainage operates in at least two to three directions with no pockets to hold water and "scald" the turf.

To put the green into play in the shortest time, prepare in advance a sod nursery of a good strain of bent so that the sod can be transferred as soon as the green is ready. Consult local authorities for specific details on lime and fertilizer in the seedbed and other points not covered here.

**Q —** We lost a considerable amount of bent after using 2,4-D to control silver crab on greens. Is it possible that the 2,4-D injured the bent? We had exceptionally heavy rain shortly after the material had been applied. (N.J.)

**A —** 2,4-D is not one of the materials I would recommend for controlling silver

crab (goosegrass) on bent greens. It is quite possible that the use of this material weakened the bent.

Damage is particularly likely to occur when the 2,4-D is washed down to the bent-grass roots. Under other circumstances the damage might not have been so severe.

Since the weather can be so unpredictable it is less risky to use one of the newer and safer chemicals such as di sodium methyl arsonate. This, too, must be used with care but the margin of safety is much greater.

**Q —** This past summer we had a great deal of trouble with disease. There is quite a heavy mat on the greens. However, the grass seems to be recovering and making new growth this fall so I wondered if we should go to the trouble and expense of removing the mat. (Ill.)

**A —** It is possible that the grass will recover in spite of the mat, but the new growth will have two strikes against it for the next year because it will be growing on top of trouble which will hide the potential trouble and give a false sense of security.

It would be much better to remove the mat either by multiple aerifying, hand raking or vertical mowing.

Set plugs of new grass close-together in areas destroyed by disease, and follow with a light topdressing to smooth the surface. In the future it would be well to modify your management practices to include treatment to keep thatch and mat under control.

**Q —** I have heard that not all kinds of sand are good to use in topdressing. What is the proper kind of sand to use? (Canada)

**A —** You should use a fairly coarse grade of sand; not the fine plaster sand which sometimes is used. The sand should be as coarse as possible without the individual grains interfering with the putting quality of the green.

The quantity of sand used in topdressing is just as important as the quality. There should be a substantial proportion of sand to provide porosity—about 50 per cent to 60 per cent sand by volume is good for topdressing.

The total clay content of the finished material should be below 10 per cent.

**Q —** We have very sandy soil in our greens. Could we improve the situation by topdressing with peat? (Mich.)

**A —** The good drainage provided by sandy soil is considered very desirable. If you wish to add organic matter in the form



### DAYTON'S NEW COMMUNITY COUNTRY CLUB CLUBHOUSE

This is the east elevation of the new Community Country Club clubhouse in Dayton, Ohio. The central part, in red brick, houses the main lounge, women's lounge and dining room. White sections at either end are locker room facilities with the men's at the left and the women's at right. Brick portion at far left houses the business office, manager's office, pro shop, and club storage. Clubhouse is surrounded by two fine 18-hole layouts.

of peat, be sure the material is thoroughly mixed with the sandy soil.

Topdressing with straight peat, thus creating a layer of pure peat, is one of the worst things we can do. When a peat layer is saturated with water the grass roots tend to grow to that layer and no further because there is no air below the layer.

The best way to mix the peat, without removing the sod, is to apply peat to the surface of the green and then aerify four to six times in different directions. Vertical mowing followed by dragging will help to mix the sand and peat.

**Q — Players use the regular greens for practice as well as play and the concentrated traffic is just too much. Do you think it is possible to keep grass on the greens under these circumstances? (Minn.)**

**A —** I agree with you that there is a point where traffic becomes so heavy it is impossible to maintain good grass, especially on a close-cut area like a putting area.

If your club could provide a practice green this certainly would help to reduce the overload on the regular greens. Plenty of aeration, abundant feeding and keeping the greens on the dry side will help to reduce compaction and to keep good grass growing. A strong vigorous creeping grass will help the situation.

**Q — Every year our greens become infested with clover. We treat the greens to overcome the clover, but isn't there some way to keep clover out entirely? (Ky.)**

**A —** Yes, it would be better to prevent the clover infestation, rather than try to overcome it every year. The clover comes in because the grass is weakened in some way. Maybe you have a poor strain of grass in the first place. If this is the case you would do well to start a nursery of one of the improved strains, such as Pennlu or Cohansey, for example.

Disease may have been the factor that weakened the grass. Removal of surface trash, minimum use of water and chemical preventives all aid in controlling disease.

Insect damage often thins turf and allows clover and other weeds to come in. Modern insecticides do an excellent job of controlling pests. There may be injury by mechanical means — improper mowing or excessive traffic.

Each of these factors should be evaluated and checked.

Clover does not invade perfectly healthy, dense, vigorous turf of adapted strains of grasses. Good grasses, properly managed, to prevent clover infestation are a better answer than constantly trying to get rid of clover.

**Q — We were very successful using old sawdust and sand to topdress greens. I tried the mixture with new sawdust and the results certainly were not at all the same. What might be the trouble? (N.C.)**

**A —** Quite probably you did not use enough nitrogen along with the new sawdust to help the soil microorganisms break down the sawdust.

It might be better for you to incorporate this new sawdust into a compost heap with a little rich loam soil and calcium cyanamid in order to make old sawdust out of new in a matter of a couple of months. I believe this will enable you to get the same results that you had with the old sawdust.

**Q — How thick should sod be cut when moving it from the nursery to a tee? (Ks.)**

**A —** As thin as possible. With modern sod-cutting equipment it is possible to cut sod as thin as  $\frac{1}{2}$  in. Thin-cut sod will knit more quickly than thick sod. We have seen bent and bluegrass sod (thin-cut) send roots down into the seedbed in 24 hours. Thick sod sometimes takes a week or more before it strikes root.

In the nursery you will find that thin-cut sod leaves more rhizomes in the soil which more quickly will re-establish a new sod even without reseeding or replanting. This is particularly true with bluegrass and Bermuda.

Also, you can haul much more thin-cut sod on a load and the men like to handle it better.

**Q — Some of my members have been asking me about Emerald zoysia. Would you comment on this grass (1) for lawns in this area and (2) for my fairways? (N.J.)**

**A —** A solid turf of Emerald zoysia has the appearance of a Manilagrass (*Zoysia matrella*) sod. The texture is about the same but the color tends to be slightly darker. It can be described as "slow-spreading" as compared to Meyer zoysia, for example. It is a hybrid between *Z. japonica* (coarse) and *Z. tenuifolia* (very fine). Its winter hardness comes from the coarse parent but its northern limit has not been determined. It should cover about the same territory as Manilagrass.

The short stiff leaves tend to be prickly, especially when growth is slow, which appears to discourage any direct bodily contact with the mowed turf. This may possibly limit its use to lawns that are made for looks. In my opinion it is likely to produce a fairway turf that could become rather cushiony which players describe as tiring. This occurs with Bermuda that is not properly managed.

Further practical research on management may indicate that it can produce a desirable fairway turf but tests thus far are very limited.

**Q — Have had a lot of trouble with pythium this season. Do you think that the soil has to be extremely wet to have the disease? It seems to me that hand-water-**

**ing during the days seems to bring on the trouble. (Ia.)**

**A —** The usual experience is that the use of set sprinklers is more likely to encourage pythium than hand watering.

It is necessary to hand water to stop wilt, even when soil is soaking wet (wet wilt), also when the soil is bone dry (dry wilt). When soil is too wet the grass plants cannot get enough water because there is not enough oxygen in the root zone.

There is a direct relationship between wet soil and pythium but high temperatures are needed too.

If we can get the root systems good and deep early in the season we can keep the greens drier and avoid some of the disease troubles. By having a porous soil the water applied on the surface will quickly filter down into the soil leaving the surface drier. Dusting hydrated lime (2 lbs. to 1000 sq. ft.) is a good simple home remedy for sick grass. Spraying chemicals keeps the green wet when what we want is less water. Lime dries the grass and checks most diseases.

### **Tournament Pros Plan To Hire Manager**

A PGA Tournament Bureau manager with full authority over PGA tournaments and the responsibility of scheduling tournaments, increasing prize money, handling publicity and administering discipline, is contemplated by the playing professionals.

Approximately 50 PGA tournament circuit players at a meeting during the Sponsors' tournament at Charles River CC (Boston dist.) agreed to begin the hunt for a qualified man. A salary of \$20,000 a year and annual expenses of \$10,000 is to be paid by deduction of three per cent from tournament purses.

Jerry Barber, chmn., PGA Tournament committee, says the PGA Tournament Bureau costs now run about \$75,000 a year. The PGA now is having expense headaches and at its forthcoming meeting will consider a change in location of the association's headquarters in an effort to reduce expenses.

A Division of expenses between home club pro and tournament pro requirements has long been a subject of PGA controversy. The matter of taking a percentage off the top of tournament purses to finance the Tournament Bureau has come up several times but previously has been voted down by tournament players.

The proposed arrangement would continue the services of Ray O'Brien, Tournament director.