

# Grau Answers Turfgrass Questions

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

**L**AST month we discussed "principles" and their importance in everything we do. Every one should learn the same basic principles for whatever work they do, but what a variety of results different people achieve from the same starting point! Principles do not restrict imagination; rather they are the foundation from which all of us may build successfully.

## Principles Are Important

In the construction of golf courses every architect should follow the same basic principles for proper construction. Yet, from the same beginnings, human imagination creates the individual differences and characteristics which distinguish the work of various designers.

There are basic principles to be followed in planting greens. Learn these principles and then adapt them to meet your conditions. First of all, a successful green is dependent upon a good base. This means adequate drainage, with subgrade contoured to avoid pockets that hold water.

A good soil mixture and a sufficient depth of soil are basic principles. There should be a minimum of 12 in. of coarse, sandy loam placed over subgrade, topped by 6 in. prepared material containing 60 to 80 percent sand, 6 to 8 percent clay, 12 to 15 percent organic matter, all by volume. Mixing should be done off the site and prepared material hauled to the green. Mixing of materials in place by tilling has not been wholly successful.

The proper soil pH is a basic principle. To the material for the top 6 ins., should be added dolomitic limestone (if needed) to bring soil to a pH value of 6.5 to 7.0.

Adequate fertility is another basic requirement. Fertilizer may be blended into the topping along with limestone. Use

10-10-10 (or equivalent) at 50 lbs. to each 1,000 sq. ft.

An adapted grass is a fundamental consideration. Choose a grass that has proved itself in your area; preferably one you have tried in your nursery under your management. Choose the best possible grass, which usually means one of the improved strains of bent or bermuda.

The proper amount of planting material (or seed) is basic. With the exception of Penncross bent, all the improved strains are planted from stolons. From here on our discussion will relate to principles for planting and establishing stolons.

A minimum of 5 bu. of stolons to 1,000 sq. ft. is required. Use 10 bu. to 1,000 sq. ft. for rapid coverage.

Spread stolons evenly and don't smother them under a heavy topdressing. This is basic procedure. One method of doing this is to scatter the stolons evenly ahead of a rolled steel doormat, unrolling the mat as grass is spread. When the mat is fully unrolled, scatter sandy topdressing over it lightly to cover about half of the grass. This will require about  $\frac{1}{2}$  to  $\frac{3}{4}$  cu. yd. of topdressing to each 1,000 sq. ft. After topdressing is applied, roll the mat and move to the next location.

Firming the seedbed is another basic principle. Roll topdressed stolons with water-ballast roller completely filled.

Do not allow the stolons to dry out. That is a basic principle. Start watering at once, gently, but don't flood. Water lightly and frequently so that grass stays moist. On dry days sprinkling may be needed every hour or two.

Proper mowing is basic. Start mowing at  $\frac{3}{8}$  in. as soon as there is anything to mow. It is a great mistake to let grass get tall and matted before starting to mow. Do not use a grass catcher for the first several mowings.

Little "touch-up" jobs essential for perfection are basic principles when establishing grass on a putting green. Add topdressing to low places lightly and often. Scatter more stolons in thin or bare areas and press into soil and topdress.

Use the vertical mower soon after starting to mow. Use it frequently, but lightly, to nip off top runners and to help plane off the high places for smoother mowing. Attention to these details will help to develop a uniformly smooth and accurate putting surface quickly.

By following these basic principles for planting greens, good new greens will be established. In order to keep greens in excellent condition, it is necessary to follow the basic principles of maintenance. These will be outlined in our May column.

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**Q**—The management at our course has decided we ought to be able to organize our work so no one will have to work on Sundays. It isn't that they object so much to overtime expense but, as they put it, other businesses close on Sunday. We've tried to explain that during the summer most of our troubles occur on Sunday p.m. when play is heaviest and that we need at least a skeleton crew on hand to stop trouble before it happens and thus save turf that otherwise would be lost. How can we succeed in getting this point across? (Ohio)

**A**—Managing turf on a course is one of the most highly specialized businesses known — one in which we must work with nature and be fully prepared to cope with her fickle moods. There is not very much that I or anyone else can add to what you have told your officials. If I were in your place I would put into writing your description of exactly what would happen. "The course is crowded. It is hot — steamy.

There is a sudden brief shower about noon. As soon as it is over everyone takes off again. Heavy foot traffic seals the soil which is excessively wet right at the surface. Soon the grass begins to turn blue just as anyone would when deprived of oxygen. Half an hour later the grass is beyond recovery and an extensive program of resodding or plugging becomes necessary." The simple remedy is to have someone on the job ready to shower the wilting grass lightly and quickly restore lost moisture. This is a principle of plant physiology and has nothing to do with budgets, overtime, Sundays or anything

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