

# GRAU'S ANSWERS TO TURF QUESTIONS

BY FRED V. GRAU



## Much Remains to Be Done in Drawing Up "Specs"

Two factors are gaining increasing\* attention in this fast growing field of providing new facilities for the nation's golfers.

**1. Specifications:** There have been many so-called "specs" prepared and approved for submission to builders for bidding. The kindest thing that can be said of some of them is that they say, in effect, "We want a golf course built." In too many cases the specific responsibilities of owner, builder, and architect are not spelled out and only a generous amount of mutual respect and tolerance serves to get the course built.

Too often the specs fail to specify the details of seeds and seed quality, fertilization, mixtures of soil and amendments, depth of soil, grades and other essential information. Exact areas and quantities must be made known to the builders so that realistic bids may be submitted.

### Different Conditions

Not many new course specifications find their way across our desk. But among them those prepared by Ed Ault, course architect of Silver Spring, Md., and Jack Snyder of Scottsdale, Ariz., seem to be sound and sensible and a definite asset for the owners, and for the builders who bid on the basis of the specs. Each new course presents a different set of conditions which must be handled according to need. The specs from the last course can be used in part, supplemented by fresh recommendations of professional specialists in each line: engineering, agronomy, hydraulics, etc.

### Smooth Out Rough Spots

**2. Professional Assistance:** The rate at which architects are designing new courses and preparing new specs for bidding by

construction companies seriously limits their ability to adequately cover every detail in the specifications. Close checking by specialists in the various lines smooths out the rough spots and insures a more realistic set of specs which, in turn, will be a break for the owner as well as for the builder.

Specialists often can help in the wording of specs so that clear cut lines of responsibility are drawn. There are cases where the maintenance crew, ready to maintain a "finished" golf course, is forced to pick stones (one of the builder's job) so that the seeding can be done. Sadly enough, the specs failed to spell out areas of responsibility covering this. There is certain to be a heated argument before all claims are settled.

### Build It Right

It is not difficult to see how a confused situation has been allowed to develop in this rapidly growing field. Leadership in "Building A New Course Right The First Time" has been lacking. There has been far too much of the useless but necessary practice of rebuilding the course a year or two after it has been put into play. Perhaps some of the essential research data has been missing but it is more likely that much of that which is available has not been put to use.

We do not pretend to have the final answer to the dilemma of the new golf courses but it is assured that we will keep digging until the real answer, or a reasonable facsimile, is found. Readers may, if they wish, write their views to this department in an effort to aid in improving specs and construction.

### Fall or Spring Seeding

**Q.** We are building a new course on some very sandy soil. Construction may drag on until it is too late for an early fall seeding. One question being discussed is: "Shall we go ahead

# FUTURUS CARPET TILE

**HANDSOME, DURABLE FLOORCOVERING  
ECONOMICAL TO INSTALL—MAINTAIN**

- Absolutely safe and skidproof, wet or dry.
- Will wipe dirt, grime or moisture from shoes.
- Women's spiked heels do not penetrate its surface.
- Highly resistant to spiked soled golf shoes.
- Not affected by exposure to fresh or salt water.
- Can be easily installed by anyone.
- Use outdoors or indoors—completely weatherproof.
- Has excellent sound proofing qualities.
- Neutral color tones blend with any background.
- Guaranteed for THREE years against ALL traffic.

FUTURUS CARPET TILE is made from selected truck and bus tires with nylon cord buffed to chenille-like finish by patented process. Strips of  $\frac{3}{8}$ " thickness are bound to glasscloth, which is impervious to moisture, and cut into 12" by 12" tiles.

For additional information, prices, write:

**FUTURUS, INC.**

1076 West Ninth Street  
UPLAND, CALIFORNIA

and seed when construction is finished or should we wait and make a spring seeding?" Another is: "What will happen to our seedbed fertilizer if we fertilize and seed late in the fall?"

(Maryland)

A. The questions are basic and important. The second question logically comes first.

Seedbed fertilizer, in the absence of active, live, absorbing plant roots, can suffer varying degrees of loss depending upon the character of the fertilizer. Nitrogen and potash will suffer the greatest loss, phosphorus little if any. Soluble sources of nitrogen (urea, ammonium nitrate, sulfate of ammonia), which are used in commercial grades 10-10-10, 10-6-4 and similar, may lose up to 70 per cent of their nitrogen from the leaching action of winter rains and snow.

Potash is soluble and will be leached but not to the same high degree as soluble N because it will be held to a greater extent by soil colloids. Insoluble sources of nitrogen (sludges, tankage, oil meals and ureaforms) will suffer little or no loss of nitrogen over winter. Therefore, if seedbed fertilization includes insoluble sources of nitrogen, it is practicable to consider late fall seeding.

Late fall seedings that do not emerge as seedlings until spring are known as "dormant seedings." Dormant seedings are recommended if adequate erosion protection can be established. This usually means straw or hay mulch or the new wood cellulose pulp. A good example is

Skimont at State College, Pennsylvania where the entire planting was made just before freeze-up.

Since the shale soil was porous and early spring greenup was desired, the source of nitrogen was ureaform. Straw mulch was secured with asphalt tack. Slopes, quite naturally, are much steeper than one would encounter on a course. When the snow pack melted and spring rains came it appeared that every seed germinated with only slight erosion. Similar good results have been achieved on new golf courses. One such is the Lower Cascades in Hot Springs, Virginia.

He would favor late fall (dormant) seeding using non-leaching types of seedbed fertilizer. Erosion-resisting mulch is a *must*. A big advantage is that operations during a soggy spring are avoided. Seed in the soil will start to grow as soon as conditions are favorable. Course opening could be advanced by several months. Weeds in the new turf are likely to be less troublesome with a dormant seeding.

## Clover in Seaside

Q. We have Seaside greens. Clover is becoming a problem. What do you suggest?

(West Virginia)

A. Your first problem is the Seaside itself. This grass is composed of many, many different

(Continued on page 75)

## Grau's Questions/Answers

(Continued from page 46)

strains or types, some of which are weak and highly susceptible to diseases. Some turn purple when cold weather comes; some stay green most of the winter. Some strains get so fluffy and matted that they turn brown when a vertical mower is passed over the green. Clover easily invades weak grasses but rarely is a problem in a strong grass that is well fed and well managed. Once clover becomes established, it absorbs more than its share of nutrients.

One step to take is to prepare the green and overseed (or hydroseed) with Penncross — then manage for Penncross.

Another step is to check your soil and your feeding program to learn if you are fertilizing to encourage clover. High phosphorus and insufficient nitrogen can encourage clover at the expense of the grass.

If clover is encroaching in isolated patches you can treat these with a sharp edging tool and some sulfate of ammonia. First chop the clover in different directions to make "hash" out of it. Then sprinkle sulfate of ammonia crystals on the clover patch and let it "cook" until the clover is visibly affected. Now water the sulfate in to stop further burning. Topdress the patch with sandy topdressing in which one-half lb. of Penncross bent seed has been mixed into one bushel of soil.

Be sure that the greens receive sufficient nitrogen to keep them vigorous. Phosphorus levels

should be low to medium. It would help if you would forward a copy of your most recent soil tests. My address is PO Box 177, College Park, Md.

### Starting from Scratch

**Q.** I am teaching a beginner course on lawns in an evening school. What are the most important items to stress in 1) building a lawn, 2) maintaining a lawn? (Ohio)

- A.** In building a new lawn these are the important steps, in order:
1. Drainage
  2. Deep tillage
  3. Generous supplies of lime and plant food incorporated deeply
  4. Selection of the best adapted grass for the location and purpose
  5. Protect new planting from drying and erosion by mulching.
  6. Start to mow at correct height as soon as there is anything to mow.

Maintenance of the lawn is concerned with:

1. Regular mowing at correct height for the grass that is established, using a sharp mower
  2. Removal of clippings
  3. Water deeply as needed at long intervals.
  4. Regular fertilization to maintain quality
- This is a rough outline that can be expanded considerably.

## SOLVE all your TURF PROBLEMS!

— with products of proven effectiveness  
in modern turf management.

WE SHIP DIRECT  
a specialized line of

- LIQUID FERTILIZERS
- FUNGICIDES
- HERBICIDES
- INSECTICIDES
- WETTING AGENTS

PROVEN SATISFACTION since 1939

write for FREE 1963 catalogue!

American Liquid Fertilizer Co., Inc., and Rokeby Chemical Co.  
Marietta, Ohio • P. O. Box 267 • Phone: FR 3-1394