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.

* * *

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 bentgrass 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 mechancial 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.