Turfgrass Questions Answered by Grau

WHERE sound principles have been followed in the construction and planting of greens the job of maintaining the greens is made much easier. Still, certain basic principles of maintenance must be carried out in order to keep the greens as perfect as new.

Soil management to maintain physical and chemical fertility is essential. The productive soil must contain needed plant nutrients plus sufficient oxygen that plant roots can function to take up nutrients. Adequate fertilization is a principle that everyone should recognize by now. Clippings are removed from putting greens so all the plant food used for growth must be replaced by fertilizer. Nitrogen is the most vital element for grasses. Frequent, light applications throughout the growing season usually are preferred. Phosphorus and potash may be applied spring and fall.

Lime influences both chemical and physical soil conditions. It neutralizes soil acids, thereby raising the pH. In clay soils it has the physical effect of improving structure by aggregating small particles.

Use Aerating Tools

Physical soil condition is maintained by mechanical loosening of the soil to overcome compaction. Aerating tools, used regularly, keep soil porous and well-ventilated.

Proper use of water is another fundamental principle. Water deep but water seldom is the general rule to follow. Light sprinkling that wets only the soil surface restricts root growth to this shallow moist layer. Frequent watering that keeps soil saturated suffocates the roots, encourages disease and breaking down of soil structure. Water deep and then don’t water again until the grass needs it. Water in the early morning, rather than at night, to reduce disease. Keep soil open to prevent wasteful runoff and assure deep penetration.

Control of disease is a basic principle. Disease can weaken or destroy large areas of turf on putting greens. If good cultural practices are carried out the disease problem is less severe. Even so, it is wise to protect the turf with preventive chemicals when weather conditions are critical.

Control of insects is another fundamental. Insects weaken the turf and allow weeds to invade. Fortunately, we have excellent insecticides to give protection from insect pests.

Control of weeds is basic. Proper watering and the control of diseases and insects that weaken turf will go a long way in preventing weed invasion. Tight, vigorous turf is the best defense against weeds. If turf becomes thin enough to prevent weeds to come in, then chemical control may be necessary.

Grain and Thatch Control

Control of grain and thatch is a basic principle. Close, frequent mowing and the use of brushes and combs help to prevent grain and thatch. Regular use of vertical mowers is the surest way to prevent grain and thatch, and to ensure a true putting surface at all times. Vertical mowing to remove surface accumulation makes disease control easier and it helps to limit the spread of weeds, too.

Proper mowing is another fundamental. Proper mowing on putting greens means close cutting to keep a tight, smooth turf. It must be frequent so only a small amount of leaf length is removed at each mowing. The greens mower is a precision tool. Blades must be sharp enough to cut clean without bruising. Machines must be kept in perfect condition to provide a uniformly smooth cut.

Trained labor also is basic. The men who work on putting greens must be capable of careful workmanship. They must understand the importance of using the proper quantities of chemicals and the necessity for keeping machines in good operating condition. They must be trained to use sprayers and distributors properly so

If you’ve got a question you want Dr. Fred V. Grau to help you answer in this department, please address it to Grau Q&A, Golfdom, 407 S. Dearborn, Chicago 5, Ill.
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there is no skipping or overlapping. They
must be taught to handle machines skill-
fully, to make turns off the putting area,
to adjust machines correctly for the exist-
ing conditions.

Even though we know the basic prin-
ciples of maintaining turf, few people could
maintain perfect putting greens simply by
reading the rules. The alert care of an ex-
perienced superintendent is an important
factor. The ability to recognize unusual
conditions, to interpret and to treat them
correctly is the quality that makes a good
superintendent indispensable.

Q—We wish to establish bentgrass greens.
Which strain would you recommend for our
area? (N. M.)

A—A bent that is giving good results in
high temperature areas is Cohansey (C-7)
bent. Heat resistance is one of its out-
standing characteristics. Pennlu is another
good strain of bent but it has not yet had
its "baptism of fire" in the high-tempera-
ture areas.

Q—Pearlwort on putting greens is our
problem. What do you advise? (Wisc.)

A—Research at Penn State has shown
that the better strains of creeping bent are
effective in crowding out pearlwort. The
most aggressive we know of to date is
Pennlu creeping bent. Congressional (C-19)
is another good one for your area; also Tor-
onto and Old Orchard.

I would recommend that you establish
a sod nursery (maintained like a putting
green) of bents from which you can take
sod plugs to replace plugs of pearlwort
that you remove.

Tiffine, U-3, Uganda, Gene Tift. Once es-

tablished, a sod nursery is a never-ending
source of planting material.

Q—We wish to improve our tees. Would
you advise seeding them with Merion blue-
grass or with Bermuda? (N. C.)

A—I would not recommend seeding
either Merion Kentucky bluegrass or Ber-
muda. I am a firm believer in sodding tees
with a good solid sod from a nursery. The
areas are small enough so it is practical and
the tees can be used within a week or ten
days after sodding. Unless tees are heavily
shaded, I doubt that Merion would be the
best grass. One of the improved Bermudas
which are grown from sprigs or stolons
would be much better. Among these are

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