

fore settling. For 10 in. it will take 33 cu. yds. to each 1,000 sq. ft. Grade the base of the green so that there are no pockets to hold water. The center of the base should be the highest point so drainage water will move laterally out of the putting green area. This should largely eliminate the need for tile drains.

After placing the soil on the subgrade to a depth of 8 or 10 in., add another two inches of mixture to which peat or sawdust has been added in the proportion of 5 cu. yds. sandy loam to 1 cu. yd. of organic material plus 20 to 40 lbs. of 10-10-10 fertilizer, all thoroughly blended. Use the larger quantity of fertilizer with sawdust.

Now you are ready to contour the surface so that surface drainage will carry water away in at least two directions, with no pockets where water can stand. Do not spill all the surface water onto the approach. Create gentle contours which will permit easy maintenance. Thoroughly soak the green to promote settling and firming of the loose-packed soil. Finish grade with rakes and you are ready to plant.

The choice of the bentgrass is very important. From all available information it would seem that one of the best choices would be Pennlu creeping bent which is propagated from stolons. Sources of planting material may be found in the ads in GOLFDOM. Suppliers usually furnish detailed planting instructions. Keeping the stolons constantly moist, and starting to mow as soon as there is anything to cut, are cardinal principles. For details on maintenance consult your neighboring golf course superintendents.

Note: These are principles for your guidance. There are other methods of building greens, each capable of interpretation on the basis of local conditions.

Q — We plan to replace an old green with a new and large one. We want to use Seaside bent and I wonder if we should wait until spring to seed it. We have only a few frosts here. (Calif.)

A — It is not necessary to wait until spring. Seaside may be seeded any time the green is ready. However, Seaside tends to become increasingly troublesome over a period of time. Have you ever considered using a superior stolon bent? Pennlu, the latest, has been the best over a wide area. Stolons can be shipped in by air at a cost not greatly in excess of the cost of seed. Disease resistance and vigor and aggressiveness are the main features of Pennlu, plus a good dark green color and a splendid

putting surface. I suggest that you consult with Dr. Stoutemeyer or Dr. Youngner at UCLA as to the stolon bents which have consistently performed best in your area.

Q — We planted stolons of C-1 and C-19 shortly before winter set in. Should some treatment for snowmold be used on this new grass? (Utah)

A — You should need no snowmold treatments on newly planted bent stolons. The disease is very unlikely to attack until a green is a couple of years old. New grass tends to be healthy grass.

Q — Our bent greens are very slow to regain color in the spring. Is there any way we could make them green up more quickly? (Mont.)

A — Some strains of bent are very slow to regain color. Possibly you have Washington bent which tends to lose its color early in the fall and to be long delayed in becoming green in the spring. I suggest you try experimental plantings of Pennlu bent and Congressional (C-19). These two bents are noted for early greening and for holding color late in to the fall. C-19 is resistant to snowmold. Also, greens should be kept mowed closely late into the fall. A "top" on the green would discourage early spring greening.

Q — Could you identify the enclosed weed specimen and offer suggestions for controlling it? (Pa.)

A — The weed is pearlwort which is commonly found in bent putting greens and also is a lawn weed. The appearance in the two situations is quite different, mainly because of maintenance. Arsenicals seem to be a "specific" for pearlwort. Today you can choose from several types of arsenicals —

Lead arsenate — slow, mild, non-burning.
Sodium arsenite — rapid, drastic, burns foliage, turns grass brown too, temporarily.
Di-sodium methyl arsonate — an organic arsenical that works in a week to 10 days, is safe, rated as non-poisonous, and does not burn good grasses when properly used.

Q — What quantity of bent stolons should be used to plant a green? Is a nursegrass necessary? (N. M.)

A — Bent stolons for greens usually are planted at the rate of 5 to 10 bushels to 1000 sq. ft. The higher rate is used when speed of coverage is important and when the budget can stand it. The heavier covering does not dry out so easily which may

be an advantage in your case. Use of a nursegrass with stolons or sprigs usually is not advisable.

Q — How can crabgrass in turf be controlled? (Ky.)

A — There are three basic methods for controlling crabgrass in turf:

1. Cultural — improved, aggressive, disease-resistant grasses, properly managed as to soil, water fertilization, mowing, etc.

2. Mechanical — physical destruction using combs on fairways mowers, vertical mowing on tees and greens, and even a good sharp knife on occasion.

3. Chemical — selective control with chemicals. At present di-sodium methyl arsonate is the latest, safest, most selective chemical known for crabgrass control.

Q — How can we get rid of watergrass in greens? (La.)

A — Watergrass can be crowded considerably by heavy feeding with ammonium nitrate, which is good for the Bermuda. I would apply 3 lbs. to 1000 sq. ft., each week, keeping the green on the dry side. The Bermuda will grow better than ever with this treatment.

BOOK REVIEW

"Tips from the Top"

Is Compact Expert Help

"Tips from the Top," 52 golf instruction articles from Sports Illustrated, selected by the magazine's golf editor, Herbert Warren Wind, has been published by Prentice-Hall, Inc., Englewood Cliffs, N. J. The price of the books is \$2.95.

The professionals who have provided the condensed lessons have told their stories very clearly and the line drawings by Anthony Ravielli are superb jobs of golf technique illustrating. Ravielli, who has illustrated books on anatomy, has brought his brilliant technique into action deftly accenting the significant details of the lessons. Wind wrote a very interesting and helpful preface for the book and did his usual competent job in giving a fine professional finish to the pros' playing pointers.

This book is an excellent job in all respects and gives the golfer 52 capsule treatments of the right size and contents to do him some good.

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