

Some Suggestions for Beginners on the Vegetative Planting of Creeping Bent

By R. A. Oakley

If you intend to take up any feature of the vegetative planting of creeping bent this fall now is the time to start preparation. If you are a real novice and wish to make only a simple start you may do so with very little effort. While we think very highly of the vegetative method of producing creeping bent turf, we regard it as unwise for any club or individual to make even a very simple start with this method because he has been told it is the proper thing to do. Do not take the word of others. There are now examples enough close at hand so that you may see for yourself with relatively little expense or loss of time just what can be accomplished by this method in the making of bent greens. Really, when one stops to think of all the successes, it seems like a waste of good time to start in the simple way many have started—that is, by planting a row of stolons 100 feet long and waiting for enough material to develop to plant a green or a small practice green two years from the time the start is made; but it is a thoroughly safe way, and about all that is lost is a year's time. If a year's time means anything to you, take our advice and plant a nursery this fall sufficiently large to produce stolons for planting at least one green a year hence; or, if you wish to make even a shorter cut, buy stolons of a good strain from some reputable grower and start planting when the proper time comes this fall.

Knowing that there are many who have heard of vegetative greens, as they are called, but who are still more or less in the doubting class or think they can not afford such greens all at once, and therefore wish to feel their way along, we have thought it might be well worth while to make some suggestions that will start such individuals in the proper way. To you who are in this class we assume that the die is cast and that you have investigated the proposition to the extent that you have a very good comprehension of what it is all about and have decided to make a simple start in a garden or some other similar spot. Very well. Prepare a strip of your garden as you would for planting radishes or lettuce. Do this about the middle of August or the first of September. There are many strains of creeping bent; so it is up to you to choose one you like, or get the advice of some one who knows something about them. The Green Section will give you the names of several growers from whom stolons may be purchased. The selection of the strain is an important step.

For a start such as you have in mind, a row 100 feet long is ample. So order your planting material on this basis.

When the stolons arrive and you open the package you will probably find what looks like a rather rough piece of loose turf. Be ready to do the planting at once. Make a row or drill an inch deep, as suggested, and if your strip is not sufficiently long make as many more as you need, but make them at least 6 feet apart. After the rows have been prepared, tear the stolons or runners apart and lay them in strands of 2 or 3 end to end, or with the ends lapping somewhat in the drill. After this is done cover with a little less than a half-inch of soil, and press down with the foot, or you may use a roller, if you prefer. If the job is well done, parts of the stolons will stick up above the soil. They should not be buried completely. After planting, the rows should be kept moist until the new growth has made a good start. No cutting, dressing, or covering

of any kind will be needed during the fall or winter. What to do next spring is another chapter.

You will doubtless want to know what you may reasonably expect from a 100-foot nursery row if you plant one this fall. If the planting is done the latter part of August or the first part of September, and proper care is given, such as is suggested frequently in *THE BULLETIN*, you should have a row of a thick mat of stolons at least 3 feet in width the following August or September. The row in its actual width should be 4 or 5 feet wide, but the marginal one or two feet will be somewhat thin, and should be thrown in for good measure.

A row of a thick mat of stolons 3 feet wide will give you sufficient material to plant a row at least 25,000 feet long. In other words, a mat of stolons a foot square is sufficient for planting a row 75 to 100 feet long. This is a safe basis upon which to make an estimate.

The beginner who starts with a large nursery has the same problems of planting and care as those that confront the one who begins with a short row, but at the end of the first year he will have a sufficient quantity of stolons for planting one or more greens while the small beginner will have only enough to start a real nursery.

Assuming that you planted a good-sized nursery last fall and will be ready to plant your greens this fall, you will wish to make an estimate of the area your stolons will plant. The first thing to do is to measure the material and calculate the area of stolons that form a thick mat, leaving off the marginal fringes. Then consider that 1 square foot of such a mat of stolons will plant 6 to 10 square feet of green. Lean toward the safe side; for you are likely to be disappointed if you plant thinly. While it is possible to plant too thickly, your own good judgment will keep you from doing so.

As for preparation of the green for planting, this may be the same as for seeding; but don't use all of your available well-rotted manure in making the soil of the greens—you will need some for making compost for covering the chopped stolons at the time of planting. Furthermore, you will need compost for light top-dressings as the growth from the stolons develops. Better provide at least 1½ cubic yards of well-screened compost made of loam or clay loam, sand, and about 20 to 25 per cent by volume of well-rotted manure, as has been suggested many times in *THE BULLETIN*, for each 1,000 square feet to be planted. This will give you enough for covering the stolons and for the subsequent top-dressings that will be needed the first fall.

All preparations should be made by August 15, as the planting should be done between this date and September 15 in the latitude of Washington, D. C. When you are all ready for planting, lift the stolons and chop them by the method that is most convenient to you. A hand-operated fodder cutter is a good implement to use. Chop the stolons into lengths of about 3 inches or less. Some may tell you that it is economical to plant stolons without chopping them. This may be true, but chopped stolons produce more new plants than unchopped stolons. Don't go to the trouble of chopping stolons for planting nursery rows, but chop them for planting the green. Don't worry about chopping too finely, for it would be difficult to do so by any ordinary means. After you have progressed this far in your operations, the following are some very important suggestions to be considered: Chop the stolons as soon as possible after lifting them from the nursery and plant them as soon as possible after they are chopped. Scatter the chopped stolons evenly over the green and cover them evenly

with not more than $\frac{3}{8}$ -inch of compost—preferably less—and in such a way as not to disturb their even distribution. Water with a rose nozzle also in such a way as to avoid disturbing the chopped stolons. Keep the planted area moist until a good growth is made; this is very important. There are many other points involved in planting, but if you observe the ones here emphasized you may count very definitely upon success.

After growth has started from your plantings do not be afraid to cut and top-dress the greens the first fall. Top-dress every two or three weeks if possible. One cubic yard of compost is enough for 3,000 to 5,000 square feet for a single application. About the first of October you might add approximately 2 pounds of ammonium sulfate to each 1,000 square feet of green. Mix the ammonium sulfate well with the compost and water in thoroughly after applying it.

As for cutting, the evidence is in favor of relatively close and frequent cutting. Some allow their greens to grow long enough in the fall so that the cuttings may be used for planting other areas. This means that the cuttings must be sufficiently long to have one or more joints. Such cuttings make excellent planting material if used while fresh; but our advice is not to make nurseries out of your putting greens.

There will be some weeding to do from the time the greens are planted until winter arrives, and the best time to do it is when the weeds first appear. However, many of the weeds that are in evidence in the fall will winterkill and give no further trouble.

If planted properly at the time here suggested, your greens should turf over nearly completely the fall they are planted and be playable by the middle of the following May, but if they seem to cover over slowly do not worry. Give them good care, as advised in THE BULLETIN, and they will come out all right.

Just a word again about nurseries. Don't attempt to continue a nursery after it is one year old. Plant new rows every year, using fresh stolons for planting them. And when you plant your nursery be sure to hand-pick the stolons, otherwise mixtures of strains is nearly inevitable, which of course is undesirable.

The Drainage of Sand and Grass Traps

By Wendell P. Miller, Agricultural Engineering Department, Ohio State University

How to fix the tile-drains in sand and grass traps so that they will drain rapidly and yet not clog with sand is a question very often asked.

The tile-drains from traps should have outlets into the general fairway and green drainage system, but this often results in clogging the tiles because of the sand and sediment carried into the lines through poorly protected tile in traps. The tile must be buried under the sand if a dry bottom is to be obtained; but often the best depth for tile-drains in the fairways is not deep enough to allow much cover over the tile in deep traps. If the tile is placed with open ends at the surface level of the sand in the traps, there will be a continual loss of sand from the trap.

Two possible means of protecting the general drainage system from clogging and at the same time permitting the rapid entrance of water to the tile will be explained.

The first method is used where the tile under the trap can be placed at a depth of 12 inches or more below the bottom of the sand layer, and