

Planting and Care of New Stolon Bent Greens

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Stolons are overground stems of the plant which produce many joints and from each of the joints small plants may start or "break" when they are properly handled. We are able to make use of this habit of growth in producing new areas of grass by cutting these stolons at the proper time, transferring them to a prepared piece of land, and giving them the correct treatment. Not all grasses produce stolons.

The stolon method of producing sod of velvet bent is desirable for two reasons in particular. It produces a tough sod in a short time which may be used in its original location the current season and may be lifted the following season to a new location. This method also produces a pure stand of velvet sod to start with. Weeds and other grass do not have time to become established before the area is completely covered by the stolon growth.

The time to plant stolons in New England is after September first. Before this date stolons are in the early stages of development and a very large quantity would be required to cover the nursery, which would be expensive.

The stolons themselves vary greatly depending upon a number of factors in their production. They will range from short runners with many joints close together to long dry stems with few joints. The first type is, of course, most desirable because they will insure a more even distribution of new plants. If the growth is forced in the fall there is a slight tendency to make the stolons soft. If this type of stolon is used it must be handled with care. They must be planted not later than the next day after cutting. Watering will need to be very carefully handled. A hot sun right after planting could easily destroy them unless very careful use of water is made. Both the grower and user should watch for this condition of stock. Both can be responsible for it. The grower would like to harvest his crop as soon as possible and the user wants to start his plants growing as early as he can in order to take advantage of the long fall season. Stolons with long dry stems and few joints are not so desirable. More bulk in stolon material is required. If the stock is purchased by the bushel this type is costly. The dry hard stems produce shoots less readily. More water is required to make them "break" at the joints.

I have seen spring stolons on old velvet bent nurseries which have not been cut down the previous fall. Whether or not this is true every year I am not sure. I have seen these spring stolons several seasons but have never had the time to experiment with them.

If this spring development can be maintained every year the picture of turf production would be quite different. It may be possible that one could produce sod which could be lifted during the current season. In many ways this would be an advantage which would more than offset the expense of the stolon method of growing turf.

Good drainage is of great importance to stolon produced sod. Excessive amounts of water are required in some of the phases of its production. It is essential that all surplus water be removed as soon as it has performed its function. If loam is used in making the stolon bed it should be of a light sandy type rather than on the clay side for the same reason (drainage).

When buying stolons it would be well for the purchaser to see the stock before buying if possible. They are sold by the bushel or sometime by the thousand square feet of green laid down. The last mentioned method is the fairest way of marketing both for the grower and the buyer. If so purchased it is not so important for the buyer to see the stock beforehand.

Use Stolons Without Delay

Stolons should be used as soon as possible after cutting. Not more than three or four days should pass between cutting and planting. If they must be held as long as four days they should be spread out in a dark place and not exposed to very dry air. For shipment they may be packed solidly in boxes or burlap bags (bags preferred). It would be well not to keep them in such packages over 24 hours if it can be avoided. All green vegetative matter is very apt to heat and spoil if close packed for over long periods. The stolon bed should be in readiness before the stock is cut.

Stolon Planting Method

The steps to be followed in stolon planting are: spreading, rolling, covering and watering.

Spreading is done by hand. A loose bunch of stolons is held under the left arm and small quantities are pulled out and spread over the surface of the ground. Each hand-

ful is shaken out so it completely covers the entire surface. On any bare spots where there are no stolons there will be no turf for a long time. The spreading operation must not be hurried. It is one of the most important of the four items mentioned above.

The workman should walk forward over the area and scatter stolons in the path ahead of him. He should take as few steps as possible. Nobody should be permitted to walk over the stolon bed after it has been prepared for planting. If the stolons are to grow they must be in firm contact with the soil. A stolon resting on a footprint will not make contact with the soil below. Unless it is partly covered with damp soil it will dry out and may die before a new shoot can develop. Thoroughness in this phase of planting pays handsomely.

Rolling should follow immediately after the spreading. The object of rolling is to press the stolons into the stolon bed and to compact the soil. Stolons should not be covered completely. There will be a large number of green shoots already started on the stolons when they are spread. If these shoots are exposed to the air and sun they will become established quickly. The aim in rolling is to make close contact between the stolons and the soil but not to smother them. Only the base of the green shoot should be imbedded in moist soil. The roller should be light in weight. A 24-inch water roller, half full, is heavy enough. If the nursery is on a grade it may be necessary to have two men on the roller. If one man must dig in with his toes to push the roller he damages the surface and the stolons; therefore it is an advantage to have two men for this operation.

Anybody who must walk over the planted stolon bed should be taught to walk flat footed. Stolons or soil should not be scuffed and there should be no heel or toe marks. The men with the roller should keep their feet behind the roller, walking on the rolled surface only.

To be sure that there are no large areas where the roller has not pressed the stolons into the soil properly men should follow the roller with shovels full of loose loam. It is their job to scatter the loam over the stolons. This pins down any loose stems so that all the stolons are bedded in the soil and firmly set. Scattering is done with a brushing motion of the finger tips. There should be no mounds of earth that bury the stolons deeply. When filling their shovels the men should take care that the loam is loose and light. Small shovelfuls are best. If there is too much loam on the shovel it will drop off in lumps.

Watering is the final operation. The soil must be carefully moistened so that the stolons will not be washed out of the

ground but set in place more firmly. A fine mist like spray is best. Sprinkle the planted area lightly several times, or until the soil is thoroughly wet. Do not permit any wash or run-off.

The stolon bed should be so arranged that all parts may be watered without dragging the hose over any part of it. The ideal layout would allow the entire area to be covered with one setting of the sprinklers. The sprinklers should start at high speed so the water will be broken up into a fine mist. After the ground is thoroughly wet the sprinklers may be slowed to normal speed. If sprinklers are used they should be set after the loam has been spread. There should be enough labor available to handle the hose and sprinklers without disturbing the stolons.

Watering Now Chief Factor

From this point on water is the chief factor. The surface must be kept thoroughly wet at all times until the new growth has started. The soil must be close to the saturation point without any runoff of surface water. For the first week or two the ground must not dry out the least bit.

Water is needed to keep the stolons soft and green for the first few days. The stolons must develop roots at every joint if possible. Until these roots develop and start into the ground every other consideration is of minor importance.

Along with root development, or perhaps preceding it, green shoots will start from the joints. These green leaves are necessary for root growth. They keep the roots alive even though no soil contact is made for a day or two. It will not be long before the roots enter the ground. Then the new plant is established. If, during this period, there is plenty of moisture close to the surface the roots will pick up a little nourishment, even though they are out of the soil, and aid the young plant in establishing itself.

Keep close watch of the newly planted area. Several inspections a day should be made. When it is certain that the new plants are established let up on the water. The soil should not be allowed to become dry but the amount of water should be reduced gradually each day. Only enough water should be used to keep the new growth green and healthy. Within 10 days the soil should be dry enough to walk over without leaving footprints. Now is the time for rolling to bring the surface to a smooth condition for mowing. The first rolling should be light. Roll again the next day with a water roller of full weight. Roll as much as is necessary to smooth the surface for the mower. Keep it moist.

The first cutting should be with a lawn-mower set for three-quarters of an inch cut and reduced at each mowing until the mower is set at three-eighths of an inch.

(To be Continued)