

Bluegrass

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Canadian researchers have found that one solitary Kentucky bluegrass plant, such as everyone has (or wishes he had) growing abundantly in his front lawn, is able to produce 272 yards of rhizomes in a growing season. That adds up to plenty of "spreading power", for it is by rhizomes that bluegrass increases its coverage. A Kentucky bluegrass rhizome is nothing more than a special stem that grows underground for a certain distance, then turns up to become a new daughter plant with its own roots. It's easy to see how a single Kentucky bluegrass seed (and you get over two million of them in a pound for about a dollar) could, in time, account for many square yards of lawn. That, of course, is the big bargain in top quality lawnseed.

The Canadian research shows that rhizome spreading is not erratic. Indeed, each rhizome follows a set sequence of growth steps. The quantity of rhizomes, however, depends upon how well the bluegrass flourishes. If it is mowed fairly tall so that there is a lot of green leaf to make food, and if the soil is good, well fertilized, and if weeds or other pests are controlled, then, of course, there will be more rhizomes. These are the very practices that spell a healthy, sparkling bluegrass lawn.

As to the rhizome, briefly here's how it grows. In response to darkness and accumulated carbon dioxide in the soil, it first bends downward away from the leaves, while twisting exactly 90°. This is independent of gravity, and would be the same if the plant were suspended upside down. When less than an inch long it suddenly responds to gravity and grows horizontally instead of downward. The tip slowly rotates, like an auger enabling it to better penetrate the soil. After several inches of growth the rhizome turns upward, and of course eventually pokes out of the soil as a new bluegrass plant.

Ideally rhizomes grow away from a bluegrass plant in all directions, like the spokes of a wheel. But as these become daughter plants, none of their rhizomes grow towards the original mother plant, only away from it. Thus the colony spreads in an ever-widening circle. When the colony grows on a hill, the downhill rhizomes reach the soil surface quickly, while those on the uphill side penetrate more deeply into the soil. Thus bluegrass on a slope moves uphill.

One doesn't even realize that this sort of thing is going on in the lawn; it can't be seen, for if the rhizome is exposed it changes its behavior, and grows upward into a new green plant. Nevertheless, rhizoming is a special feature of Kentucky bluegrass that makes it such an excellent turf. As a result of rhizoming a beautiful sod can eventuate from even light seeding. Each bluegrass seed first grows a dense cluster of green leaves; then with food gained by the leaves rhizomes spread underground. How quickly sod develops depends upon weather and soil, and to some extent variety. Park Kentucky bluegrass sprouts very quickly, while slower Merion spreads prolifically.

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