



# Home Grounds Fact Sheet

## Growing Lawns Under Shaded Conditions

The establishment and maintenance of good quality lawns in partially shaded conditions may be possible if the basic requirements are known and understood. Trees have extensive root systems that enable them to take up huge amounts of water and nutrients. Dense leaves decrease the light intensity under the trees. Competition for water, nutrients and light are some of the basic causes for turf failure in shaded conditions.

In setting up a turf maintenance program, every effort should be made to alleviate or eliminate this competition. There are some deciduous trees such as beech and Norway maples that are so dense or have such a shallow root system that it is almost impossible to grow grass under them. It is difficult to grow grass under most evergreens unless the branches are cut very high.

Several researchers feel that diseases also keep your lawn from growing well in shady areas. They feel that the disease activity is enhanced by the higher relative humidity and extended dew periods. For example, some Kentucky bluegrasses are extremely susceptible to powdery mildew in shade. Controlling diseases in shady lawns would undoubtedly contribute to a better lawn.

There are a number of additional maintenance and establishment practices that may improve turfgrass under trees:

1. Use grasses that are somewhat shade tolerant. The fine fescues, the tall fescues and *Poa trivialis* makes a very thin turf and survives in cool, shady, extremely moist places. Several varieties of Kentucky bluegrass perform well in the shade with adequate watering. Make sure variety is actually shade tolerant.
2. Fertilize and water fescues less frequently than bluegrasses. Fescues really do best with little water after they are established. Fine fescues tend to die out with excess water and fertilizer.
3. Water deeply and infrequently. Deep watering is essential to prevent movement of tree roots toward the surface.
4. Maintain a soil favorable to the grass. The pH should be 6.3 or above. Apply limestone according to pH test results. Soil tests should preferably be done in the fall.
5. Prune tree branches as much as possible without destroying the function and beauty of the tree. This alone may allow sufficient light to permit fair growth of grass. Selective pruning can add to the beauty of the tree and add more light for the lawn.
6. Prune shallow roots but don't remove more than one large root each year.
7. Plant trees wisely, taking into consideration their number and density.
8. Plant tree species that provide open shade rather than dense shade; this presents a minimum amount of competition for the grass.
9. Provide good drainage and aeration to allow proper penetration of the nutrients, water and air.
10. Early fall lawn seedings in mid-August or early September, rather than spring seedings, are recommended. There is also less competition from weeds in the fall. Falling leaves often smother new seedlings, so excess leaves should be removed by light raking or mulching in with a mulching mower. Late summer seeding gives the grass a head start on falling leaves.

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11. Adjust the mowing height of the grass in shade, if possible. It should be slightly higher than it would be for that particular grass in open sun.
12. Shady grasses are usually more tender and will not stand much foot traffic, so keep off the grass whenever possible.
13. Remove leaves and other debris promptly by raking, sweeping or mechanical blowing. Leaves allowed to accumulate will smother the grass and provide favorable conditions for disease infestation.
14. Instead of growing grass in problem areas, use other types of ground cover such as periwinkle (vinca, myrtle), pachysandra, ajuga, epimedium or English ivy. Plant English Ivy nearest the open or sunny areas. It grows better toward the trunk of a tree. For a list of ground covers, see fact sheet D-1-3.
15. Where shade is too dense, substitute bark mulch or rock mulch. Rock mulch includes sand, gravel, bluestone, limestone, marble chips, crystalline spar, slate, flatstone, bricks, colored blocks, larger sized calcine clays, etc. However, if the shade is caused by trees, the tree roots would benefit from a wood-chip or bark mulch. Never use more than a 3" depth or you will smother tree roots.



Even under the best conditions, you are still going to have a thin, weak lawn until more shade-tolerant, disease-resistant grasses are developed. The best solution is to take your saw in hand and keep trimming the trees.

Or, better yet, enjoy the shade of your trees and forget about planting grass!