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Growing Grass in Shade

One of the most common problems the homeowner must face is growing grass in the shade. There are not many solutions to the problems associated with growing turf in the shade, but guidelines have been set that may make this more manageable.

If an area gets less than 4 hours of sunlight per day, it is too shady for grass to grow well. The lack of sufficient light reaching the grass causes a reduction in photosynthesis, which is the process that produces energy for growth. As a result, the plant has lower tolerance to heat, cold, disease, drought and wear stress.

Competition with trees and shrubs for limited nutrients and water also reduces vigor, as many shrubs and trees will have root growth in the same area as the turf roots. Disease problems are often more severe in shade due to higher humidity, reduced air circulation and prolonged periods of dew on turf. As a result of all the factors mentioned, turf grown in the shade often shows a steady decline in density over a period of years.

Some measures can be taken to reduce the problems associated with shade. These include plant selection, management of ornamentals and modifications of normal turf management practices.

Certain grasses perform better in shade than others. Of the cool-season grasses, fine fescues are more tolerant of shade than tall fescues. St. Augustine exhibits the best tolerance to shade of all the warm-season grasses. Recommended St. Augustine cultivars for the coastal and midland areas include Raleigh, Palmetto, Delmar and Jade. Bitterblue and Seville are less tolerant of cold but grow well in coastal areas. Zoysia is more tolerant to light or moderate shade than centipede, but neither will survive heavy shade. Zoysia cultivars that have good tolerance to shade include El Toro, Diamond, Belaire and Cavalier. Meyer and Emerald have fair tolerance. Bermuda exhibits extremely poor tolerance to any amount of shade.

It is important to remember that fine and tall fescue grasses are suited to the Upstate, while St. Augustine, Zoysia, Centipede and Bermuda are suited to the Midlands and Coastal Plains. And while some grasses may be more shade-tolerant than others, all grasses prefer sunny locations.

When establishing cool-season grasses, it is best to seed or sod early enough in the fall so there is sufficient time for the turf to mature before leaves cover the ground. During the fall remove leaves by raking, blowing or bagging when mowing to prevent smothering of the turf. Grass will grow long after deciduous trees have dropped their leaves. If grass cannot be seeded by mid-September it would be preferable to wait until spring to avoid the leaf problem.

Ideally the mowing height should be one-half to 1 inch higher than normal. Turf growing in shade needs a large leaf surface to take advantage of what light does filter through the leaves. Mow on a regular schedule, never removing more than one-third of the leaf area at one time. It is also important to remove clippings to prevent further reduction of light to the turf.

Grasses growing in heavily shaded areas require only one-half to two-thirds as much nitrogen as grasses growing in full sun. Reducing the amount of nitrogen to grasses growing in the shade reduces the incidence of disease. Fertilize shady locations at the same time as turf grown in the sun. For

maximum tolerance to disease and environmental stress, maintain the soil pH, potassium and phosphorus levels as recommended by soil tests.

The frequency and quantity of water needed for shady areas is less than that required for sunny areas. Water infrequently but deeply, and only when absolutely necessary. Light, infrequent watering encourages shallow roots, and increases disease problems associated with turf growth in shade.

Most of the same disease problems exist in both shady and sunny areas. Those diseases associated with high moisture and/or high humidity may be more serious in shady areas because air movement is reduced and surface moisture remains longer. Good cultivar selection and good management practices should reduce the severity of these diseases.

Ornamentals that have dense canopies and shallow roots normally result in failure of turfgrass stands even if proper management practices are used. When possible, select trees and shrubs that are deep-rooted and have relatively open canopies. Some species that generally cause fewer problems include sycamores, many oaks and most elms. Undesirable species include ash, willow, poplar and some species of maples.

Some measures can be taken to aid turf survival, whether desirable or undesirable ornamentals are present. Selectively prune branches, particularly low branches, to aid in air movement and light penetration. Ideally, the lowest branches of trees should be over 6 feet above the soil surface. Remove any unnecessary trees and shrubs. Use recommended species and sufficient spacing between plants when placing new plants.

Consider other alternatives if quality turf cannot be maintained, even after following sound management practices and using recommended species and varieties. Two options you may consider are: (1) Removing ornamentals; (2) Planting an appropriate groundcover — such as English ivy, ajuga, liriope and pachysandra — in place of grass.

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