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IFAS EXTENSION

Selecting a Turfgrass for Florida Lawns¹

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The lawn is an integral part of the landscape. A beautiful lawn will enhance any landscape, while a poor lawn will detract from the overall appearance. Lawns not only increase the aesthetic and economic value of the landscape, they also provide recreational surfaces for outdoor activities, aid in erosion control, filter pollutants, and provide oxygen to our environment. Because many of the grasses used in Florida vary widely in their adaptation, consider carefully to choose the proper grass for a particular environment. Table 1 provides information to assist in selection of the proper grass for a location. Some of the following questions may serve as guidelines to grass selection:

What type of lawn is desired or expected and what level of maintenance can you provide?

It is important to have an idea of the type of yard you want to maintain. Do you want a lawn that is highly manicured and carefully tended, or are you looking for an average lawn, which will require medium inputs in terms of fertility and maintenance? Or perhaps you're looking for something more

naturalized, with less grass and more plantings of other types. Since maintenance levels differ between the lawngrasses commonly used in Florida, it is important to select the correct grass for the type of yard you desire. Most turfgrasses will respond to a range of maintenance levels, however, there is an optimum level for each grass. Levels of maintenance are closely related to cost and time, with high-maintenance turf costing the most and taking the most time to maintain. It is important to realistically assess your ability to maintain your lawn, whether you do the work yourself or pay to have it done. For example, a bermudagrass or St. Augustinegrass lawn will not perform well in a site that does not provide supplemental irrigation during dry times. And, while bahiagrass may be able to survive without supplemental irrigation, it may never form a dense, lush, dark green lawn as some of the other grass species will.

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Are there any physical or environmental limitations to the planting site?

Quality turf requires irrigation, so water quantity and quality are selection factors. Can the area be easily mowed? Soil type, pH, drainage, and other soil characteristics are important. The amount of shade the turf will receive can limit the selection of suitable grasses. With answers to these questions in mind, use Table 1 and the following descriptions to select the proper turfgrass for your Florida lawn.

Avoid using the cost of installment and establishment as the major reason for choosing a grass.

A lawn should be considered a long-term property investment, and your choice of a grass should reflect what you desire and can adequately maintain.

Region of Adaption

Environmental and soil conditions vary throughout the state and certain turfgrasses grow better in some locations than in others. There are several turfgrass species, and cultivars within those species, from which to choose. Some turfgrasses can be planted statewide, while others perform best in the Panhandle and north Florida regions. *Note:* Grasses grown in Florida are maintained in a totally different way from those grown in the northern regions of the United States. Northern-grown grasses (e.g., fescue, bluegrass, ryegrass) will grow in Florida only during fall, winter and early spring months, and will *not* survive year-round.

Soil Conditions

Several turfgrasses can grow in a wide range of soil conditions, including pH values of 5.0 to 8.5. Most Florida soil types for turfgrass growth include sand, clay, marl, or muck-type soils. For example, centipedegrass and carpetgrass grow best in acid soils. Iron chlorosis is a problem if these grasses are grown in high pH (alkaline) soils. Carpetgrass grows best in wet soils, whereas an established planting of bahiagrass is more tolerant of drought and grows better in sandy soil than most other lawngrasses.

Environmental Stress Tolerances

Turfgrasses vary in their ability to withstand stresses. Drought tolerance is a measure of how well the turf will survive extended dry periods without irrigation or rainfall. For example, bahiagrass and centipedegrass have good drought tolerance, while St. Augustinegrass does not. In many coastal areas, turf can be subjected to salt stress from irrigation water, saltwater intrusion, or salt spray from the ocean. Most grasses will not grow well in this type of environment, but seashore paspalum thrives in a salt-affected site. Although shade from trees or buildings is common in most landscapes, turfgrasses vary widely in their shade tolerance. Both St. Augustinegrass and zoysiagrass have good shade tolerance compared to other warm-season grasses. Wear tolerance is a measure of how well a grass continues to grow after being walked or played upon, and can determine whether or not a grass will be able to survive in an area of moderate traffic. Seashore paspalum, zoysiagrass, and bermudagrass all have good wear tolerance.

Major Pest Problems

Each turfgrass has some major pest problem that could limit its use in certain locations. Major insect pests are chinch bugs, mole crickets, ground pearls, webworms, spittlebugs, and billbugs. Major disease problems are brown patch, dollar spot, *Pythium*, *Helminthosporium* and gray leaf spot. Nematodes can limit use of some species for home lawns. Other pest problems can occur and cause severe damage. Proper management practices can help keep most pest problems to a minimum.

Leaf Texture

Leaf textures may be coarse, medium, or fine. This is a relative measure of the leaf blade width. The choice of texture is merely a visual preference unless the grass is important for a sport such as golf. Most southern lawn grasses are coarser in leaf texture than those (e.g., fescue, bluegrass and ryegrass) grown further north. This is especially true of the three most used lawn grasses in Florida (St. Augustinegrass, bahiagrass and centipedegrass).

Turf Density

The number of leaves or shoots per area of the ground is a measure of turf density. Species with a high density and finer leaf texture generally produce better quality lawns. Turf with a lower density and coarser leaf texture often requires a higher mowing height to produce an acceptable quality lawn. Higher density varieties include hybrid bermudagrasses and zoysiagrass. Bahiagrass has a low stand density while other warm-season grasses have a medium density.

Maintenance Level

Each turfgrass grows at a different rate, and has optimum levels of fertility, mowing, and irrigation that produce a quality turf. Generally, as more water and fertilizer are applied to the turf, mowing and pest control needs are increased. Turf at a low level of maintenance is fertilized two to three times a year, mowed as needed, often just to remove seedheads, and may or may not be irrigated. High-maintenance turfgrasses receive monthly fertilizing and twice-per-week mowing. More fertilizer applied, particularly during the summer months, results in more shoot growth (more mowing needed), and increases the incidence of some insect or disease problems.

Mowing Height

The growth habit of each turfgrass determines the mowing height for the best quality turf. Mowing turf below the recommended height can stress the grass and subject it to invasion by weeds, insects and diseases. Mowing at higher heights results in increased leaf surface for more photosynthesis, deeper root systems, better drought tolerance, and healthier turf.

Mowing Frequency

Turfgrass species and level of management determine how often a lawn needs to be mowed. The frequency of mowing can be reduced somewhat by moderating amounts of fertilizer and water applied. Recycling lawn clippings also reduces the amount of fertilizer needed.

Establishment Methods

Some turf species (e.g., St. Augustinegrass) are limited to vegetative propagation by sod, sprigs, or plugs because seed is not available or does not germinate true-to-type. Other turf species produce seed in sufficient quantity and trueness-to-type to allow establishment by seed (e.g., bahiagrass, centipedegrass, carpetgrass, and common bermudagrass). A quality lawn can be established by either method if the site is properly prepared and maintained.

Table 1. Turfgrass Characteristics

| Characteristics | Species | | | | | | |
|-----------------------|------------------|-------------------------------|--------------|--------------------------|------------------------------|--------------------|--------------------|
| | Bahiagrass | Bermudagrass | Carpetgrass | Centipede grass | Seashore Paspalum | St. Augustinegrass | Zoysiagrass |
| Area Adapted To | Statewide | Statewide | Wet Areas | N. Florida and Panhandle | Statewide | Statewide | Statewide |
| Mowing Ht. (inches) | 3-4 | .5-1.5 | 1.5-2 | 1.5-2 | 1-2 | 1.5-4 | 1-2 |
| Soil | Acid, Sandy | Wide range | Acid, wet | Acid, infertile | Wide range | Wide range | Wide range |
| Leaf Texture | Coarse-medium | Fine-medium | Medium | Medium | Fine-Medium | Coarse-Medium | Fine-Medium |
| Drought Tolerance | Excellent | Good | Poor | Medium | Good | Fair | Medium |
| Salt Tolerance | Very Poor | Good | Poor | Poor | Excellent | Poor | Good |
| Shade Tolerance | Poor | Poor | Fair | Fair | Poor | Good | Good |
| Wear Tolerance | Poor | Good-excellent | Poor | Poor | Good-excellent | Poor | Good-excellent |
| Nematode Tolerance | Very Good | Poor | Poor | Poor | Good | Good | Poor |
| Maintenance Levels | Low | Medium-High | Low | Low | Medium | Medium | High |
| Uses | Lawns, roadsides | Athletic Fields, golf | Wet Areas | Lawns | Lawns, athletic fields, golf | Lawns | Lawns |
| Establishment Methods | Seed, Sod | Sod, sprigs, plugs, some seed | Seed, sprigs | Seed, sod, sprigs, plugs | Sod, plugs, sprigs | Sod, plugs, sprigs | Sod, plugs, sprigs |