St. Augustinegrass

St. Augustinegrass (Stenotaphrum secundatum) grows best during the warm (80 to 95 °F) months of spring, summer and early fall. It grows vigorously during this time and becomes brown and dormant in winter. It is considered to be native to the coastal regions of the Gulf of Mexico and the coastal regions of the Mediterranean.

This grass has large flat stems and broad coarse leaves somewhat similar to centipedegrass. It has an attractive blue-green color and forms a deep, fairly dense turf. It spreads by long, above-ground runners or stolons. While it is aggressive, it is easily controlled around borders. It is planted by vegetative means, including sod, sprigs or plugs.

St. Augustinegrass is the most shade-tolerant warm-season grass, although it still needs 4 to 6 hours of sun to thrive. It is very susceptible to winter injury, especially if planted farther west than Columbia. There has also been documented winter injury along the northern coastal regions of South Carolina. Despite the chance for winter injury, it is well-suited for the coastal plain and has a fair tolerance to salt.

St. Augustinegrass is considered a high maintenance turfgrass. On sandy soils, you can expect to fertilize monthly during the growing season with fertilizer applications every 6 weeks on clay soils. See HGIC 1201, Fertilizing Lawns for specific fertilizer recommendations. Supplemental iron applications along with micronutrient supplements may be needed on soils with a high or alkaline pH.

St. Augustinegrass should be mowed at the recommended mowing heights or at a height where scalping is not an issue. Mowing St. Augustinegrass too short will stress the turf and cause it too thin.

Mowing too high will result in a thatch problem and disease issues as the lower grass canopy will tend to stay wet. A rotary mower can be used but must be sharpened monthly to maintain a healthy turf. If the tips of the grass blade look torn after mowing as opposed to cut, it is time to sharpen your mower blade.

St. Augustinegrass should be watered as other turfgrasses. When irrigating, apply ¾ to 1 inch of water. Allow the turf to thoroughly dry before irrigating again. Localized dry spots can be hand watered as needed. Automatic irrigation systems should be set to manual and run when needed as long as someone is there to monitor the turf.

Perhaps the greatest disadvantage of this grass is its sensitivity to an insect, the chinch bug. Chinch bugs can cause extensive damage to St. Augustinegrass if not controlled early. Most of the improved cultivars of St. Augustinegrass are also susceptible to several turf diseases including large patch and gray leaf spot. Both insect and disease problems can be successfully managed by implementing recommended cultural practices and pest monitoring. For more information on disease control, please see HGIC 2150 Brown Patch & Large Patch Diseases of Lawns and HGIC 2151 Gray Leaf Spot on St. Augustinegrass.

Weed control can also be a challenge when growing St. Augustinegrass. The control of grassy weeds using a postemergent herbicide can be difficult as the choice of a labelled herbicide is limited. This leads grassy weed control to be largely limited to a preemergent herbicide program. Broadleaf weed control is a bit easier using one of the broadleaf weed control products. The limitations to these herbicides are the heat of summer (>90 °F), and the sensitivity during spring green up time. Please see.
HGIC 2310, Managing Weeds in Warm-Season Lawns, as well as specific weed control fact sheets.

There are several cultivars of St. Augustinegrass available in South Carolina. The differences between the various improved cultivars are their ability to resist pest, tolerance to environmental stresses, management inputs and their growth habits.

The cultivars below are grouped according to their mowing height. As a general rule, standard cultivars should be mowed to a height of 3 to 4 inches with the dwarf cultivars being mowed to a height of around 2½ inches. Use the higher mowing height under shade and stress conditions and the lower height in full sun under ideal growing conditions.

Cultivars
The more common standard St. Augustinegrass cultivars are Raleigh, Palmetto, Mercedes, Bitterblue, Floratam, and Jade. The more common dwarf cultivars of St. Augustinegrass consist of Captiva, Delmar Seville and Sapphire. Some cultivars are commonly grown in South Carolina, but others may be more difficult to find.

**Floratam** is an improved type of St. Augustinegrass with reddish stolons (runners). It has a very coarse texture and poor cold and shade tolerance. It will thin in direct relation to the amount of shade received. Its winter and early spring color is lower as it goes into a deeper semi-dormancy period and sheds its leaves more than other cultivars. Spring green-up is also slow. Floratam is one of the preferred cultivars to plant in open sunny areas.

**Raleigh** is a cold-hardy cultivar that can be grown throughout most of South Carolina. It has a medium green color with a coarse texture. As with most St. Augustinegrass cultivars, it is susceptible to chinch bugs and brown patch disease. During peak summertime heat, Raleigh has been noted to yellow and not spread as aggressively as during cooler temperatures. Supplemental iron applications are needed to reduce this yellowing tendency, especially on soils that have a high or alkaline pH. Raleigh is best adapted to heavier, organic, clayey soils with a medium to low soil pH, although adequate drainage will need to be present to prevent disease problems.

**Palmetto** St. Augustinegrass was developed in the mid-1990s in central Florida. It is sometimes considered a semi-dwarf cultivar having a shorter growth habit and shorter internode length. It is tolerant of light shade but will thin under heavy shade and shows no resistant to St. Augustinegrass pests.

**Mercedes** is a newer cultivar that has a finer leaf texture than the other St. Augustinegrass cultivars. It has good cold tolerance and good shade tolerance.

**Bitterblue** is an improved selection of St. Augustinegrass that was selected for its finer leaf blade texture, darker blue-green color and better overall density. It has fairly good cold and shade tolerance. It is susceptible to the common pest problems and is not tolerant to some of the herbicides used on St. Augustinegrass.

**Jade** has good shade tolerance, a semi-dwarf growth habit and dark green color. It is susceptible to chinch bugs, sod webworms and brown patch disease and is cold sensitive.

**Captiva** is also a relatively new cultivar developed by the Florida Agricultural Experiment Station. It is one of the slower growing St. Augustinegrass cultivars having a dark-green color with short, narrow leaf blades. Captiva does show better resistance to Southern chinch bug than other cultivars, but is not resistant. As with many of the dwarf varieties, Captiva does better in shady conditions than the standard varieties.

**Delmar** is another semi-dwarf cultivar with a shorter growth habit and shorter internode length. It has a darker green color and better cold tolerance than the standard cultivars. Delmar is susceptible to chinch bugs, sod webworms and large patch.

**Sapphire** has the common blue-green color with a folded leaf blade giving it a fine textured appearance. It is susceptible to the common St. Augustinegrass pest problems.

**Seville** is also a semi-dwarf cultivar that was selected for its finer leaf texture. It can handle lower mowing heights due to its compact growth habit. Seville is susceptible to the common St. Augustinegrass pest problems. It is also a shallow rooted cultivar that is prone to a thatch problem. Seville is also sensitive to cold temperatures.
Table 1. Growth Characteristics of the Common St. Augustinegrass Cultivars.

<table>
<thead>
<tr>
<th>Cultivar</th>
<th>Mowing height (inches)</th>
<th>Cold tolerance</th>
<th>Shade tolerance</th>
<th>Chinch bug resistance</th>
<th>Green color</th>
<th>Texture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Captiva</td>
<td>2-3</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Dark</td>
<td>Fine</td>
</tr>
<tr>
<td>Delmar</td>
<td>2-3</td>
<td>Good</td>
<td>Good</td>
<td>Poor</td>
<td>Dark</td>
<td>Fine</td>
</tr>
<tr>
<td>Floratam</td>
<td>3-4</td>
<td>Poor</td>
<td>Fair</td>
<td>Slight</td>
<td>Dark</td>
<td>Coarse</td>
</tr>
<tr>
<td>Jade</td>
<td>2-3</td>
<td>Good</td>
<td>Good</td>
<td>Poor</td>
<td>Dark</td>
<td>Fine</td>
</tr>
<tr>
<td>Mercedes</td>
<td>3-4</td>
<td>Good</td>
<td>Good</td>
<td>Poor</td>
<td>Medium</td>
<td>Fine</td>
</tr>
<tr>
<td>Palmetto</td>
<td>3-4</td>
<td>Fair</td>
<td>Fair</td>
<td>Slight</td>
<td>Lighter green</td>
<td>Fine</td>
</tr>
<tr>
<td>Raleigh</td>
<td>3-4</td>
<td>Very good</td>
<td>Medium</td>
<td>Poor</td>
<td>Medium</td>
<td>Coarse</td>
</tr>
<tr>
<td>Sapphire</td>
<td>2-3</td>
<td>Fair</td>
<td>Fair</td>
<td>Poor</td>
<td>Medium</td>
<td>Coarse</td>
</tr>
<tr>
<td>Seville</td>
<td>2-3</td>
<td>Fair</td>
<td>Good</td>
<td>Slight</td>
<td>Dark</td>
<td>Fine</td>
</tr>
</tbody>
</table>

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