Seedling ID Guide for Native Grasses in the Southeast

Big Bluestem
Eastern Gamagrass
Indiangrass
Little Bluestem
Switchgrass
# SEEDLING ID GUIDE FOR NATIVE GRASS IN THE SOUTHEAST

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INTRODUCTION

Native Warm Season Grass Plant ID Guide for the Southeast

The Jimmy Carter Plant Materials Center

The Jimmy Carter Plant Materials Center is a 327 acre facility near Americus, Georgia. The center, operated by the U.S. Department of Agriculture, Natural Resources Conservation Service, serves the states of Georgia, South Carolina, Alabama, Tennessee, North Carolina and a portion of Florida.

Native plants and especially native grasses are being used much more in the 21st century than during any other previous time. These uses include conservation, forage, landscaping, restoration, beautification, buffers, filtration etc. Natives offer alternatives to introduced species which have been used traditionally in conservation and land management scenarios. Natives that are well adapted to the use areas also present a much reduced invasive weed hazard. However, many introduced species have developed into invasive weed plants requiring extensive eradication programs.

This resource guide is designed to introduce conservationists to commonly used conservation plants for multiple uses. The guide is especially useful for identification of commonly used native grasses: Big bluestem, Eastern gamagrass, Indiangrass, Switchgrass and Little Bluestem. This will enable a user to successfully identify several native and introduced plant materials in a field environment.

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PARTS OF A GRASS PLANT

- **SEEDHEAD**
- **LIGULE**
- **SPIKELET**
- **BLADE**
- **SHEATH NODE**
- **AURICLES**
- **COLLAR**
- **LEAFBUD**
- **RHIZOME**

**LIGULES MAY BE**
- Membranous
- Hairy
- Absent

**AURICLES MAY BE**
- Long-Clawlike
- Short - Stubby
- Absent

**COLLARS MAY BE**
- Continuous
- Divided
- Broad or Narrow

**LEAFBUDS MAY BE**
- Rolled in the Bud
- Folded in the Bud
Big bluestem

*Andropogon gerardii*

About this plant:

*Warm-season*, rhizomatous perennial.
*Height:* 4 to 8 feet
*Leaf blade:* Long, flat; scabrous margins
*Stem:* Purplish at base; covered with fine hair
*Seedhead:* 2 to 3 distinct racemes on top of stem, resembling toes of a turkey’s foot which suggest another common name, turkeyfootgrass.
BIG BLUESTEM
BIG BLUESTEM
Indiangrass
Sorghastrum nutans (native)

About this plant:

*Warm-season,* rhizomatous perennial.
*Height:* 3 to 7 feet
*Leaf blade:* 10 to 24 inches long; flat; narrow at base; sometimes hairy
*Leaf sheath:* Generally shorter than internodes; prominent auricles
*Ligule:* Membrane ½ inch long, notched at tip
*Seedhead:* Panicle golden bronze to yellow, 6 to 12 inches long rather dense and narrow; spikelets paired, hairy; awns ½ inch long, bent, twisted
INDIANGRASS
Switchgrass

Panicum virgatum

About this plant:

*Warm-season, rhizomatous perennial*

*Height:* 3 to 6 feet

*Leaf blade:* Flat; ½ inch wide; up to 30 inches long

*Leaf sheath:* Rounded; smooth; as long as or longer than internodes

*Ligule:* Dense ring of hair; 1/8 inch long.

*Seedhead:* Open panicle about 10 inches long
SWITCHGRASS
SWITCHGRASS
Little bluestem
Schizachyrium scoparium

About this plant:

*Warm-season,* perennial bunch grass.
*Height:* 2 to 4 feet
*Leaf blade:* Flat 6 to 10 inches long; 1/8 to ¼ inch wide
*Leaf sheath:* Mostly basal; strongly keeled; hairy or smooth
*Ligule:* Ring of short hair on some plants.
*Stem:* Basal; flat; purplish during early growth
*Seedhead:* Racemes borne singly, in pairs, or in groups on zigzag rachis; 2 spikelets 1 sterile, 1 fertile
LITTLE BLUESTEM
LITTLE BLUESTEM
Eastern gamagrass
Tripsacum dactyloides

About this plant:

*Warm-season*, rhizomatous perennial.
*Height:* 5 to 9 feet
*Leaf blade:* 12 to 24 inches long; 3/8 to ½ inch wide, flat; pronounced midrib
*Leaf sheath:* Flattened; shorter than internodes
*Seedhead:* 2 to 3 terminal racemes, occasionally 1; Spikelets unisexual; pistillate (female) spikelets on lower fourth of spike; staminate (male) above on same spike
EASTERN GAMAGRASS
EASTERN GAMAGRASS
SWITCHGRASS

Actual native grass seedling approximately 6 weeks after planting
## Conservation plants

<table>
<thead>
<tr>
<th>Plant</th>
<th>Number of Seeds per pound</th>
<th>Number of seeds to be found in a square foot per pound seeded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfalfa</td>
<td>200,000</td>
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<tr>
<td>Alsike clover</td>
<td>700,000</td>
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<tr>
<td>Annual ryegrass</td>
<td>227,000</td>
<td>5</td>
</tr>
<tr>
<td>Big bluestem</td>
<td>165,000</td>
<td>4</td>
</tr>
<tr>
<td>Birdsfoot trefoil</td>
<td>400,000</td>
<td>9</td>
</tr>
<tr>
<td>Cereal rye</td>
<td>18,000</td>
<td>4</td>
</tr>
<tr>
<td>Crownvetch</td>
<td>110,000</td>
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</tr>
<tr>
<td>Eastern gamagrass</td>
<td>7,280</td>
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<tr>
<td>Hairy vetch</td>
<td>20,000</td>
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<tr>
<td>Indiangrass</td>
<td>175,000</td>
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</tr>
<tr>
<td>Kentucky bluegrass</td>
<td>2,177,000</td>
<td>50</td>
</tr>
<tr>
<td>Little bluestem</td>
<td>260,000</td>
<td>6</td>
</tr>
<tr>
<td>Oats</td>
<td>13,000</td>
<td>.3</td>
</tr>
<tr>
<td>Orchardgrass</td>
<td>654,000</td>
<td>15</td>
</tr>
<tr>
<td>Perennial ryegrass</td>
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</tr>
<tr>
<td>Red clover</td>
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<tr>
<td>Redtop</td>
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<tr>
<td>Reed canarygrass</td>
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<tr>
<td>Sideoats grama</td>
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<tr>
<td>Smooth bromegrass</td>
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<tr>
<td>Sweet clover</td>
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<tr>
<td>Switchgrass</td>
<td>389,000</td>
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<tr>
<td>Tall fescue</td>
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<tr>
<td>Timothy</td>
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<tr>
<td>Wheat</td>
<td>15,000</td>
<td>.3</td>
</tr>
<tr>
<td>White Clover</td>
<td>800,000</td>
<td>18</td>
</tr>
</tbody>
</table>

Example: If the recommendation is to plant 8 pounds of big bluestem per acre expect to find about 32 seeds in a square root.
Early ID-Seed is Key
Grasses can be very difficult to identify in early growth stages. The seed may be the best identifying aid. A seed retains its form and position in the ground through the seedling’s early growth stages. To identify a seedling, carefully dig it up and compare it to photographs or actual seeds.
NATIVE GRASS SEED ID

EASTERN GAMAGRASS
EASTERN GAMAGRASS
EASTERN GAMAGRASS
SWITCHGRASS
SWITCHGRASS
INDIANGRASS
INDIANGRASS
BIG BLUESTEM
BIG BLUESTEM
LITTLE BLUESTEM
LITTLE BLUESTEM
LITTLE BLUESTEM
About the Authors

Donald Surrency
USDA-NRCS
Plant Materials Specialist and Plant Materials Program Manager
Alabama, South Carolina and Georgia
Athens/Thomson, GA

Mike Owsley
USDA-NRCS
Manager
Jimmy Carter Plant Materials Center
Americus, GA

Malcome Kirkland
USDA-NRCS
Assistant Manager
Jimmy Carter Plant Materials Center
Americus, GA

Photography
Mary Ann McQuinn, Public Affairs Specialist, Athens, GA
Rhonda Byers, Public Affairs Assistant, Athens, GA

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Where to Get Help
For more information about native grasses contact Donald Surrency, Plant Materials Specialist, Thomson, Georgia, 706-595-1339 ext. 3, email don.surrency@ga.usda.gov or Mike Owsley, Jimmy Carter PMC Americus, Georgia, 229-924-4499, email mike.owsley@ga.usda.gov. For more information about native grasses, visit the Jimmy Carter Plant Materials Center homepage at http://www.ga.nrcs.usda.gov/technical/pmc.pmc.html.