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Developed by  
Jimmy Carter  
Plant  
Materials  
Center

# Seedling ID Guide for Native Grasses in the Southeast

**Big Bluestem**  
**Eastern Gamagrass**  
**Indiangrass**  
**Little Bluestem**  
**Switchgrass**



# SEEDLING ID GUIDE FOR NATIVE GRASSES 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.

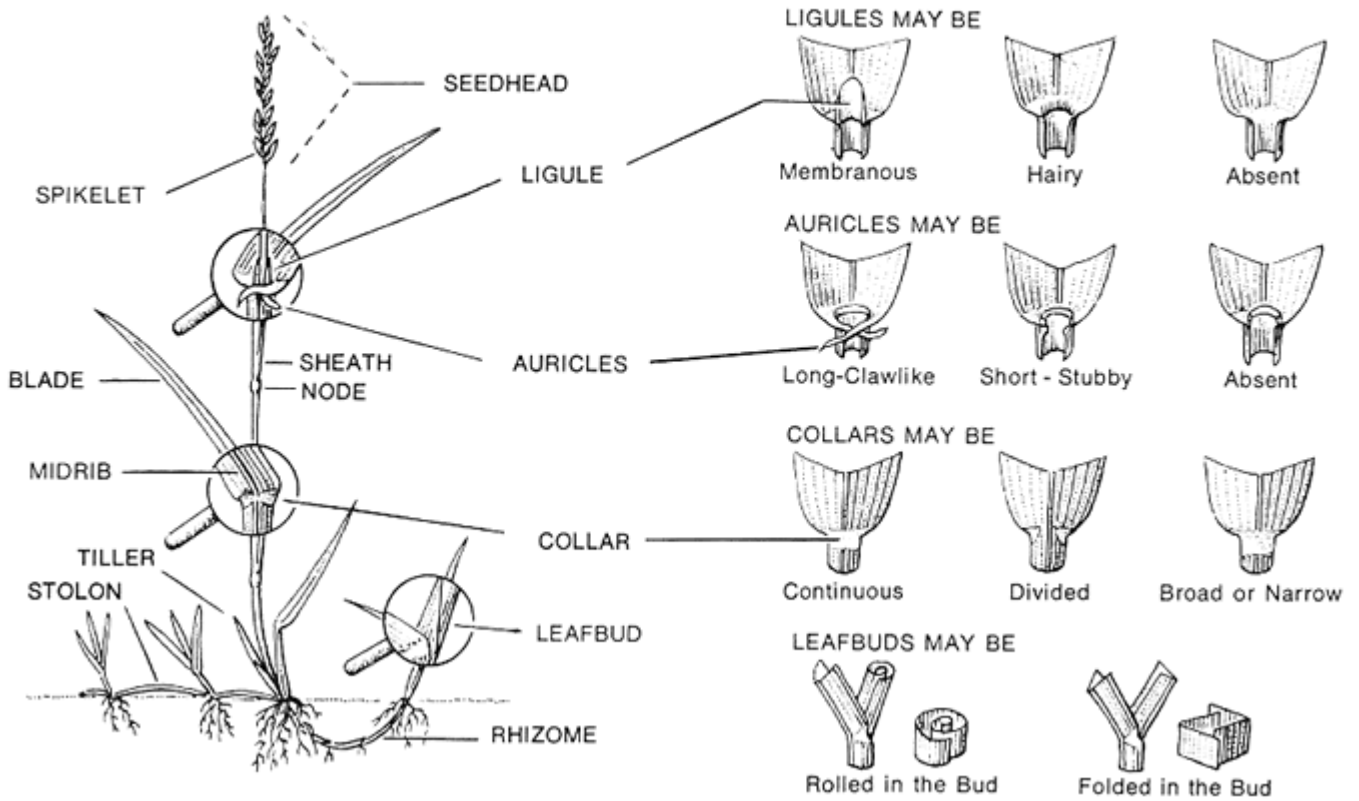
Native plants and especially native grasses are being used much more in the 21<sup>st</sup> century than during any other previous time. These uses include conservation, forage, landscaping, restoration, beautification, buffers, filtration etc. Natives offer alternatives to introduced species which have 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 NRCS conservationists, resource specialist and other interests to native warm season grasses commonly used in Georgia, Alabama, South Carolina, Tennessee, Florida and other areas of the Southeast. The guide is especially useful as a field guide to identify native grasses from non-native grasses when found growing in association with each other: Big bluestem, Eastern gamagrass, Indiangrass, Switchgrass and Little Bluestem. The descriptions given are for adult plants. 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



## **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  $\frac{1}{2}$  inch long, notched at tip

*Seedhead:* Panicle golden bronze to yellow, 6 to 12 inches long rather dense and narrow; spikelets paired, hairy; awns  $\frac{1}{2}$  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 1/4 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 1/2 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

# seeds

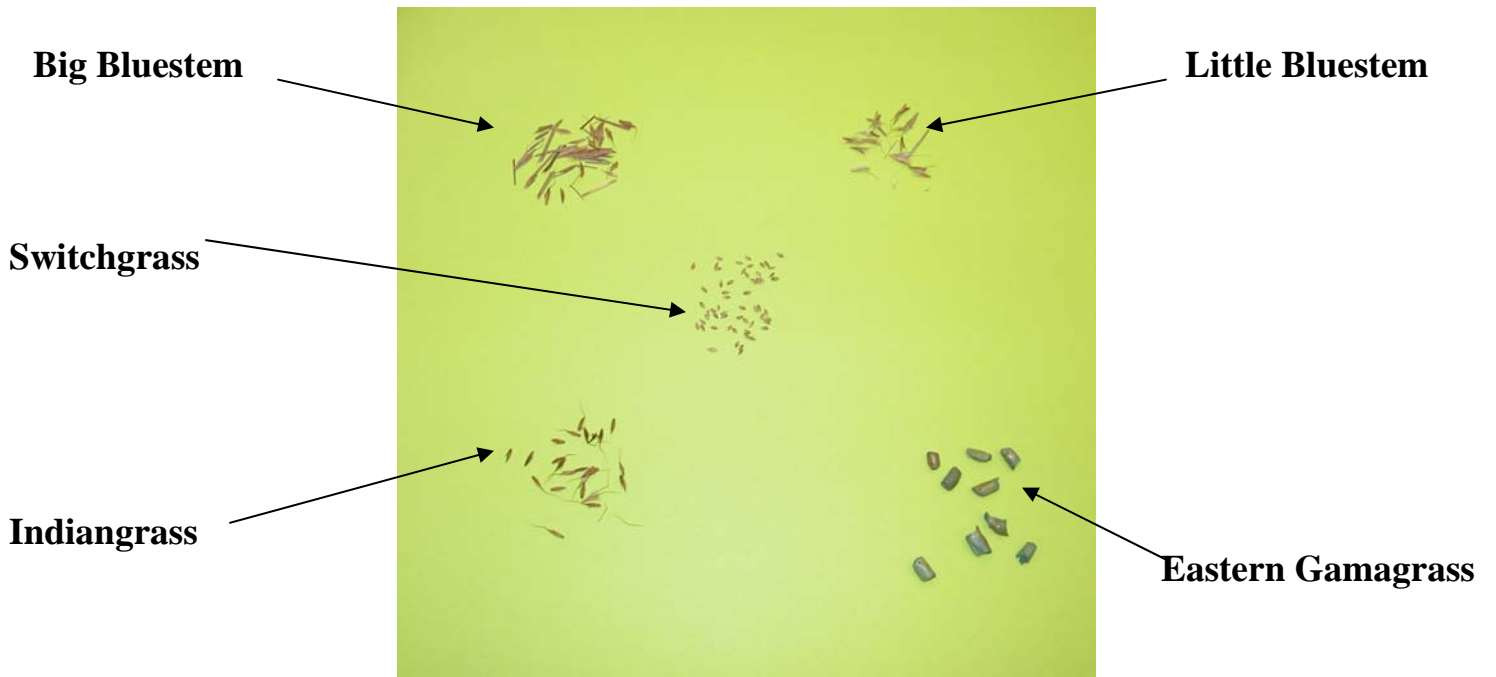
<b>Plant</b>	<b>Number of Seeds per pound</b>	<b>Number of seeds to be found in a square foot per pound seeded</b>
Alfalfa	200,000	5
Alsike clover	700,000	15
Annual ryegrass	227,000	5
Big bluestem	165,000	4
Birdsfoot trefoil	400,000	9
Cereal rye	18,000	4
Crownvetch	110,000	3
Eastern gamagrass	7,280	2
Hairy vetch	20,000	5
Indiangrass	175,000	4
Kentucky bluegrass	2,177,000	50
Little bluestem	260,000	6
Oats	13,000	.3
Orchardgrass	654,000	15
Perennial ryegrass	227,000	5
Red clover	275,000	6
Redtop	4,990,000	114
Reed canarygrass	533,000	12
Sideoats grama	191,000	4
Smooth bromegrass	136,000	3
Sweet clover	260,000	6
Switchgrass	389,000	9
Tall fescue	207,000	5
Timothy	1,230,000	28
Wheat	15,000	.3
White Clover	800,000	18

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



**\* The bluish color is a result of seed treatment.**



## EASTERN GAMAGRASS



## EASTERN GAMAGRASS





# SWITCHGRASS



## SWITCHGRASS





# INDIANGRASS



## INDIANGRASS





# BIG BLUESTEM



# BIG BLUESTEM





## **BIG BLUESTEM**



## LITTLE BLUESTEM





## LITTLE BLUESTEM



## LITTLE BLUESTEM





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### **Disclosures**

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### **Where to Get Help**

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