

Establishment of native warm season grasses has become a top priority for the USDA-Natural Resources Conservation Service (NRCS) in Alabama. These grasses have potential for pasture, hay, erosion control, biomass, wildlife habitat, and as a plant material for riparian buffer strips.

Native Perennial Grasses Suitable for Alabama

The most widely used native grasses forage are Big bluestem (*Andropogon gerardii*), Coastal panicgrass (*Panicum amarum* v. *amarulum*), Eastern gamagrass (*Tripsacum dactyloides*), Indiangrass (*Sorghastrum nutans*), Little bluestem (*Schizachyrium scoparium*), Side-oats grama (*Bouteloua curtipendula*), and Switchgrass (*Panicum virgatum*). NRCS offers financial incentives to establish their use in programs such as the Environmental Quality Incentives Program (EQIP), Wildlife Habitat Incentives Program (WHIP), and others.



Establishing native warm season grasses is beneficial to wildlife populations.

Characteristics

Of the many native warm season grasses, switchgrass, big bluestem, indiangrass, and eastern gamagrass show the most potential for Alabama. All are called warm season grasses because of their adaptation to warm day climates, but they differ in their seasonal production of forage. Unlike tall fescue and other cool season grasses, warm season grasses are most productive from June to early September. Therefore, a combination of separate cool and warm season pastures can be managed to supply a more constant supply of high quality forage throughout the season than either cool or warm season grasses alone.

Native grass seedlings have very low vigor and do not compete well with weeds. Consequently, switchgrass, big bluestem and indiangrass are moderately difficult to establish and may need two years before they can be hayed or grazed. In exceptional years, plantings may establish well enough to allow grazing in the first year.

Warm season grass pastures will not withstand continuous, close grazing or close clipping without reducing yield the following year. Rotational grazing is necessary to maintain productive warm season grass stands.

In return for careful management, a farmer can produce two to four tons of forage per acre on well-fertilized, warm season grasses between late June and early September. During low rainfall or long drought periods, native warm season grasses provide forage for grazing.

Establishment

Native warm season grass may need special attention given for purchasing and planting seed, and for management of established stands. The following features are important to note which make warm-season grass planting different from other traditional plantings. Planting rates for warm season grasses are based on pure live seed (PLS) lb/acre and NOT bulk lb/acre.



Cattle grazing in switchgrass.

Native warm season grasses emerge in late spring and grow slowly in the seeding year. A commitment to proper planting and management is necessary in order to assure establishment of a native grass stand.

The recommended spring planting dates* for Alabama are: North Alabama April 1 to July 1, Central and South Alabama March 15 to July 1. In Alabama you can plant in Winter, but it should be done after the first heavy frost of the year. Planting should not be done during periods of extended drought.

Chemical Site Preparation

Pre-planting chemical applications are sometimes necessary to ensure good survival of native grass plantings. This is particularly true of those areas containing difficult to control grasses, such as cogongrass, Bermuda grass,

tall fescue, johnsongrass, dallisgrass, and bahia grass. Removing many of these plants can be expensive. Imazapyr* is often recommended by specialists and consultants to use in tank mixes for control of any of the non-native forage grasses. Be sure to follow label directions and use highest labeled rates for cogongrass and Bermuda grass.

The use of some type of herbicide at planting is strongly recommended, even if a site prep spray was done in late summer of the previous year. This will kill any remaining seed that may have survived the previous spraying. It also provides a window with minimal competition during the early growth period of the planting. An appropriate contact herbicide can be used for short term control during the growing season. However, the use of a soil active herbicide will give control for an extended period into the growing season.

Pasture or Hayland Seeding Rates Per Acre

- Big Bluestem 12 lbs pure live seed (PLS) - broadcast (BC), 9 lbs PLS - Drilled (D)
- Little Bluestem 8 lbs PLS - BC and 9 lbs PLS - D
- Eastern Gamagrass 8 lbs PLS
- Indiangrass 12 lbs PLS - BC, 9 lbs PLS - D
- Switchgrass 5 lbs PLS - BC and 4 lbs PLS -D

Planting

Native grasses can be established by preparing a clean, firm, conventional seedbed, using a native warm season grass drill with fluffy seed box, conventional planting, or no-till. Do not use small grains as a carrier, as they compete with the native grasses. Fertilizer can work, but nitrogen must not be used. Nitrogen will promote increased weed competition. Only fertilizers with phosphorus and potassium such as 0-20-20 or 0-46-0 should be used. Seed should be planted to a depth of 1/8 to 1/4 inch, with none deeper than 1/2 inch. Any seed planted deeper than 1/2 inch will not survive.

Fertilization

Soil test the site prior to native grass establishment. Native grasses have low fertility requirements and nitrogen application may promote competition from weed growth. Phosphorus and potassium can be applied at planting according to soil test recommendations, but nitrogen should not be applied. If the soil test reports a pH of less than 5.0, lime should be used to raise the pH prior to planting.

Management

During the establishment year, broadleaf weeds can be controlled by using herbicides labeled for native grasses.

Prescribed burning is a beneficial management tool for native warm season grasses to reduce

unwanted vegetation buildup that can reduce wildlife benefits. Most controlled burning should be done in late winter or early spring just before growth of grasses begins. However, controlled burning should not be done during the nesting season except in certain cases where a burn during the growing season may be needed to control hardwood and shrub competition. Do not burn more than one half of an establishment area in any one-year.

Wildlife Benefits

In addition to being useful as a form of conservation cover or as a forage crop, native grasses are beneficial to wildlife populations. Native grasses provide quality habitat for grassland nesting birds including bobwhite quail, eastern wild turkey, Bachman's sparrow, and many other birds. White-tailed deer utilize native grasses for bedding cover. Native grasses provide both shelter and food for cottontail rabbit and wild turkey. Turkey also use these grasslands for nesting, as well as for brood rearing areas. The poultts consume insects such as grasshoppers as a high percentage of their diet for the first several weeks after hatching.

Wildlife Seeding Rates^{1, 2} Per Acre

- Big Bluestem 3.5 lbs pure live seed (PLS)
- Coastal Panicgrass 5 lbs PLS
- Eastern Gamagrass³ 2 lbs PLS
- Indiangrass 2.5 lbs PLS
- Little Bluestem 2 lbs PLS
- Side-Oats Grama 3 lbs PLS
- Switchgrass 1.25 lbs PLS

1. Seeding rates shown are for use in mixtures of at least two grasses. Stand alone rates should be doubled.
2. Rates above are assuming seed is to be mixed with a carrier and applied with cyclone type spreader. If seed is to be drilled, then reduce the rate by 50 percent.
3. Eastern gamagrass should only be planted as part of a mixture for wildlife. The seed-

ing rate for eastern gamagrass should not be reduced.

References

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* Trade names are used solely to provide information. Mention of a trade name does not constitute a guarantee of the product by the U.S. Department of Agriculture nor does it imply endorsement by the Department or the Natural Resources Conservation Service over comparable products that are not named.

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