



Native Grasses for Wildlife Habitat

Georgia Job Sheet
(645)
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Wildlife Benefits

There are many benefits of establishing a stand of native warm season grasses. In addition to being useful as a form of conservation cover or as a forage crop, native grasses are beneficial to wildlife populations.

All species of wildlife have certain basic requirements. These include food, water, cover, space, and arrangement. Native grasses provide both cover and foods for many wildlife species, with warm season grass mixtures providing the most benefits. Properly managed fields provide nesting, protective cover, undisturbed nesting sites, insect populations for food, and open travel under a tall grass canopy.

Native grasses provide quality habitat for grassland nesting birds including bobwhite quail, eastern wild turkey, Bachman's sparrow, and many other birds. The bobwhite quail is an example of a species that will use a grass mixture habitat for shelter from predators, especially when nesting and raising young. Native grasses provide both shelter and food for cottontail rabbit and wild turkey. Turkey also benefit from seeding trails and roads through woodlands with native grasses.

Establishment

In the past, many have been discouraged from using native warm season grasses because they emerge in late spring and grow slowly in the seeding year. This is common with NWSG establishment because the grasses are putting down a deep root structure the first growing season, and little above ground growth is seen. Generally, establishment potential is reached in year 2. A commitment to proper

management is necessary in order to assure establishment of a native grass stand. Native grass seeding rates are based on pounds of pure live seed (PLS) per acre, not bulk pounds per acre. Seeding rates are provided in this guide sheet for several native perennial grasses suitable for wildlife in Georgia.

The recommended planting dates for Georgia are:

North Georgia	April 1 to May 15
Central Georgia	March 15 to May 15
South Georgia	March 1 to May 15

A winter seeding is also acceptable when the ground temperature falls below 55 degrees F. This is usually after a couple of heavy frosts. When seeding in the winter with conventional equipment, plant ½ bushel of oats as a cover crop. If planting bearded seed with conventional spreaders, the oats may be used as a carrier.

Competition Control

It is very important to control the vegetative competition. If Bermuda, bahia, fescue or Johnson grass occur, then remove these species with the appropriate herbicide that is recommended by the UGA Extension Service prior to planting NWSG. It is very important to follow guaranteed label rates. Also in the control of these species, it is very important to use a "residual" herbicide and to follow label directions. NOTE: For Bermuda grass, it may take two growing seasons of herbicide treatments prior to planting for complete control. For other grasses, one growing season is sufficient. It is also important to control broadleaf plants that will shade out the developing NWSG. These can be controlled with herbicides either one growing season prior to

planting in the winter, or just prior to planting if planted in the spring.

Planting with No-till Drill in conventional seedbed

Native grasses can be established by preparing a clean, firm conventional seedbed prior to planting. **NOTE:** if seed has not been debearded, then it **MUST** be planted with a specialty NWSG no-till grass drill, which has picker wheels and oversized tubs to reduce clogging. If debearded seed is used, then conventional no-till drills can be used. When seeding into a conventional seedbed, tillage operations typically used for small seeded forages can be used to prepare a clean seedbed. Plant seeds on the freshly prepared seedbed. It is critical that the seedbed be firm (not clodded) or the tiny seed will be covered too deep with loose soil. Loose, uneven, and/or cloddy seedbeds are a major cause of poor stands. *Cultipacking prior to planting is a good way to prepare a firm seedbed.*

Planting No-till drill in existing vegetation

Planting of native grasses by no-till methods in existing vegetation requires that all existing vegetation be killed. Also, height of surface residues will need to be reduced to a minimum so as much light as possible is available near the soil surface. Fire may be needed to remove tall standing vegetation prior to planting.

Planting with drop spreader or cyclone spreader

Prepare proper seedbed as mentioned above which includes using cultipacking prior to planting. It will be necessary to mix a carrier with the seed so it will spread evenly. The carrier can be 20-30 lbs/ac of pelletized lime or other materials such as oats, sawdust, cracked corn, or cottonseed hulls.

NOTE: Soil Depth is critical, cover the seed from 1/8-inch to 1/4-inch by cultipacking or by using a light harrow.

Forb Establishment

To add additional wildlife species that benefit wildlife, at the time of seeding NWSG, add .5 lbs of partridge pea and .5 lbs of beggar weed or 1 lb of partridge pea or beggar weed lespedeza.

Planting NWSG/forbs in planted Longleaf Pine

Plant NWSG between pine rows with either a no-till drill or conventional spreaders. If using conventional equipment, it will be necessary to prepare seedbed by harrowing the soil. Make sure to allow two feet on either side of the row as a buffer protecting the planted pine. For example, if the rows are 12 ft apart, the maximum size harrow would be 8 ft.

Fertilization

Soil test a site prior to native grass establishment. Native grasses have low fertility requirements and excess nitrogen may promote weed growth. If the soil test reports a pH <5.0, lime should be used to adjust the pH to the 6.0-6.5 range prior to planting. Phosphorus and potassium can be applied at planting according to soil test recommendations. Pelletized lime can be used a carrier if planting with drop or cyclone spreaders.

Management

Broadleaf weeds can be controlled by using herbicides labeled for native grasses. Grasses should reach a height of 6-8 inches before applying herbicides.

Prescribed burning or disking are a beneficial management tools for native warm season grasses. Beneficial uses include reducing unwanted vegetation buildup that can decrease wildlife benefits mentioned above. Most controlled burning should be done in late fall and winter before growth of grasses begins. However, controlled burning or disking 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 or disk more than 1/3 of an establishment area in any one-year.

Mowing is not recommended for NWSG except to control competing vegetation during the first growing season.

Native Perennial Grasses Suitable For Wildlife In Georgia

Big bluestem (*Andropogon Gerardii*) is a native, warm season perennial bunchgrass that grows well on most soil types. It grows best on moist, well-drained soils, but is more drought tolerant than most warm season grasses. Big bluestem grows 3 to 6 feet tall and adapted varieties for Georgia are Earl, Kaw, Roundtree any eastern ecotype. The recommended seeding rate for wildlife habitat is 1.5 lbs PLS/acre when planted with other NWSG species. Big bluestem is often found in mixed stands that have Indiangrass and little bluestem. Plantings of big bluestem should be made on a firm seedbed at 1/8-1/4 inch deep. If seeding with a fertilizer spreader, de-bearded seed may be mixed with carrier to prevent seed from bridging in the spreader.

Indiangrass (*Sorghastrum nutans*) is a native, warm season perennial bunchgrass which grows 3 to 5 feet tall. It is drought tolerant and is well adapted to medium-heavy to light, sandy textured soils. Adapted varieties for Georgia are Lometa, Americus or an eastern ecotype. The recommended seeding rate for wildlife is 1.5 lbs PLS/acre when planted with other NWSG species.

This species has a fluffy seed which makes it difficult to plant unless the drill has a special seed box or the seed is mixed with a carrier. The exception would be to use debearded seed.

Little bluestem (*Schizachyrium scoparium*) is a native, warm season bunchgrass which grows to a height of 3 feet. It grows well on deep, shallow, sandy, fine textured, and rocky soils, and has good drought tolerance. Adapted varieties for Georgia are Aldous, Cimarron, Pastura or an eastern ecotype. The recommended seeding rate of little bluestem for wildlife is 1.5 lb PLS/acre when planted with other NWSG species. Little bluestem should be planted on a firm, weed-free seedbed. Because the seed of this species are fluffy, they require a special seed box on the drill or may need to be mixed with a carrier. The exception would be to use debearded seed.

Switchgrass (*Panicum virgatum*) is a native warm season perennial bunchgrass that can be found growing in Georgia along roadsides, edges of fields, and abandoned sites. It is used as a forage for grazing or hay, provides excellent erosion control, and is beneficial for wildlife such as quail. Switchgrass is well adapted to deep soils with good water-holding capacity, including well-drained to

poorly-drained soils. It will tolerate flooding and will grow on sandy soils. Lowland types may grow to a height of 6 feet on moist, fertile sites. Adapted varieties of switchgrass for Georgia are Alamo, Cave-In-Rock or an eastern ecotype. The recommended seeding rate for wildlife habitat is 0.5 lbs PLS/acre when planted with other NWSG species. The seeds of switchgrass are readily eaten by bobwhite quail.

Eastern Gamagrass (*Tripsacum dactyloides*) is a native, warm season, perennial grass that grows best on moist sites; however, it is considered as a very drought-tolerant species. Growth reaches 5-9 feet tall and Highlander is an adapted variety for Georgia. Seed heads are the size of small corn kernels, thus it can be planted with a corn planter. The recommended seeding rate for wildlife is 4.0 lbs PLS/acre when planted alone.

Native Grass*	Seeding Rate**
Big Bluestem	1.5 lbs PLS/ac
Indian grass	1.5 lbs PLS/ac
Little Bluestem	1.5 lbs PLS/ac
Switch grass	0.5 lbs PLS/ac
Forbs	1 lbs/ac
Gamagrass***	4.0 lbs PLS/ac

* plant 3 lb/ac of wire grass when seed becomes available

** add 15% when planting during dormant season

*** not recommended with LL pine plantings and is usually not planted with other NWSG for wildlife.

References

Harper, et.al. *Native Warm-Season Grasses in the Mid-South*. University of Tenn. PB 1746. December 2004.

Seymour, Randy and John. *Six Basic Elements for a successful Native Grass and Form Establishment*. Roundstone Seed Co. 2003.

Surrency, Don, et.al. *Native Warm Season Grasses for Georgia, Alabama and South Carolina*. USDA NRCS, September 2005.

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