



PLANTING GUIDE

DURHAM GERMPLASM SWITCHGRASS Panicum virgatum

USDA-NRCS Jimmy Carter PMC
Americus, Georgia



SPECIES: Switchgrass (*Panicum virgatum* L.)

RELEASE NAME: Durham Germplasm Switchgrass

GENERAL INFORMATION: Switchgrass is a native perennial warm season grass. It is a tall robust grass, which produces an attractive foliage and whitish panicle in the fall. USDA-NRCS Jimmy Carter Plant Materials Center and the North Carolina NRCS recently released a new source-identified plant called Durham Germplasm Switchgrass.

DESCRIPTION: It is a native of Durham, North Carolina. Conservation uses include: conservation buffers, wildlife habitat improvement, urban landscapes and critical areas stabilization. It can also be used in native plant restoration work.

USE: Durham Germplasm will be primarily used for erosion, wildlife habitat improvement and native plant restoration in North Carolina.

ADAPTATION: Durham Germplasm is tolerant of most upland sites. It is most productive on moderately well to well drained soils. It is primarily adapted to the North Carolina area.

ESTABLISHMENT:

Switchgrass (which has a smooth seed coat) can be planted with conventional planters or “native grass” drills. Switchgrass should be seeded at ¼ to ½ inch deep. In sandy soils be especially careful not to bury seed too deep! Planting native grasses with conservation tillage equipment is not recommended at this time.

A native grass drill is required for planting fluffy seed, such as, big bluestem, little bluestem and indiangrass to ensure accurate compaction and good seed soil contact. Conventional planting equipment can be used to plant non-fluffy seed, such as switchgrass and eastern gamagrass.

SOILS: Durham Germplasm is most productive and adapted to moderately well to well drained piedmont sites.

PLANTING DATE: Time of optimum planting can vary due to soils, latitude and elevation. We recommend April 1- April 30 in the Piedmont and March 15 – May 15 in the Coastal Plain as the normal optimal planting dates.

FERTILIZATION: Under low pH conditions, apply enough lime to raise pH to around 6.0. Apply fertilizer when test indicates.

SEEDING RATE: Broadcast 10 pounds pure live seed/acre, or 7-8 pounds pure live seed/acre drilled (for pure stands).

PLANTING DEPTH: Under most conditions for best results plant approximately ¼ inch deep.

PLANTING EQUIPMENT: Planting can be accomplished with fertilizer spreaders followed by cultipackers. Also Truax type native grass drills and conventional drills can be utilized.

MANAGEMENT: At establishment apply fertilizer according to soil test recommendations. However, do not apply N fertilizer during switchgrass establishment. N application at this time will encourage weed competition. Delay N fertilization until switchgrass is well established.

PRESCRIBED BURNING: Native warm season grasses are especially well adapted to management with fire. A spring burn will remove old growth, recycle nutrients tied up in standing dead vegetation, control brush invasion and produce a succulent forage for calves and young stock. Prescribed burning is the most economical method to improve or maintain native grasses. The best time to burn is from December through March. Check with the State Forestry Commission before burning.

MOWING:

Mowing native warm-season grasses can also be an effective way of management. The best time of year to mow is during the fall through late winter. Mow on a three-year cycle where 1/3 of the area is mowed each year. Do not mow during the spring or summer months because of the nesting season. When mowing, cut grass no lower than 6 inches and allow stubble to remain until spring to help insulate plant roots and provide cover for wildlife. If native warm-season grasses are cut lower than 6 inches during the active growing season, the stand will be reduced significantly.

WEED CONTROL: Post-planting weed control requires prompt attention especially during the establishment year. Inspect the planting every two to four weeks for weed pressure. Light infestations of foxtail or broad-leaved weeds during the establishment year are generally not considered to be a problem. Greater infestations of broadleaf weeds can usually be controlled with applications of 2,4-D herbicide. Severe infestations of noxious or highly competitive weeds, such as crabgrass, may require spot spraying with an herbicide such as glyphosate. There are a few broadcast herbicides available to control weeds in native grass restoration plantings. Plateau™ is a relatively new herbicide labeled for most warm-season grasses, though switchgrass may be sensitive to this herbicide. The use of glyphosate during the winter when warm-season grasses are dormant may be useful for controlling cool-season species such as tall fescue. A combined program of mowing, herbicides, and prescribed burning often provides the best results for controlling weeds.

Weed Control the First Year: Mow the growing plants to a height of 8-10 inches during June, July and August. This will slow the weeds but won't harm the grasses. It is important to mow early and often to assure adequate control. Mowing height should never be less than 6 inches.

Weed Control the Second Year: Evaluate the stand to determine if mowing for weed control is necessary. If it is, mow to a height of 8-10 inches. For wildlife habitat, do not disturb during nesting season.

If there is enough material for a spring burn, burning may be used for weed control. Spring burns will tend to encourage warm-season species and work well to control cool-season plants. Burn, in the spring, when the cool-season plants are growing and the warm-season plants are just barely starting to grow.

SEED HARVESTING: Seed can be harvested with standard combines.

DISEASE AND INSECTS: This release does not have any particular resistance to disease or insects beyond those commonly found in the species.

DISCLOSURES: Mention of a trademark or propriety product does not constitute a guarantee or warranty of the product by USDA-NRCS.

WHERE TO GET HELP: For more information about Durham Germplasm contact Donald Surrency, Plant Materials Specialist, Thomson, Georgia, 706-595-1339. E-mail don.surrency@ga.usda.gov, Mike Owsley, Jimmy Carter PMC, Americus, Georgia, 229-924-4499. E-mail mike.owsley@ga.usda.gov. Roger Hansard, NRCS, Raleigh North Carolina, (919) 873-2133, Email: roger.hansard@nc.usda.gov

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