

## Adaptation

High Tide is well adapted to the growing conditions of the Middle Atlantic States, but its northern limit is undetermined. Optimum soil type is a loamy or sandy well drained soil, however, it will also grow on poorly-drained soils and saturated toe of slope.

## Establishment for Conservation Use

High Tide switchgrass naturally occurs in the intertidal shoreline of the Susquehanna River. We are currently recommending that this material be planted by vegetative plugs rather than direct seeding. Direct seeding studies in stream corridors will be conducted starting in 2008.

For additional information consult the PLANTS data base:<http://plants.nrcs.usda.gov>

## Locate and Obtain Plant Material

The Cape May PMC propagates, tests and selects plants best-suited for conservation practices in the eastern U.S. Coastal Plain area. The plants are then released to the commercial nursery industry who make breeder and foundation material available to the public. A list of plant and seed vendors is available from the PMC or online at:

<http://www.nj.nrcs.usda.gov/plants.html>

## Opportunities to Participate

**NRCS Field Offices, District Employees, Partners and Volunteers: We need your help!**

The Cape May PMC serves a nine-state area extending from Massachusetts to North Carolina. The plant developmental process used by the Cape May PMC relies heavily on the cooperation of our conservation partners to locate native plant stands; collect materials and ship them to Cape May; locate suitable plant testing sites; record plant performance data; and publish new scientific findings. Call the Cape May PMC for more details about how you can help.

## Tours Available

Visitors are always welcome at the PMC. The center is open Monday through Friday. Please call the PMC to schedule your visit.

**USDA NRCS Plant Materials Center**  
**1536 Route Nine North**  
**Cape May Court House NJ 08210**  
**Tele: (609) 465-5901**  
**Fax: (609) 465-9284**

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## High Tide Germplasm Switchgrass A Tested Germplasm

*Panicum virgatum (L.)*

## A Mid-Atlantic Ecotype

*Cape May PMC products are  
helping people help the land  
through better plants and science*

## Switchgrass



USDA NRCS. *Wetland flora: Field office illustrated guide to plant species*

### Scientific Name:

*Panicum virgatum* L.

### Common Name:

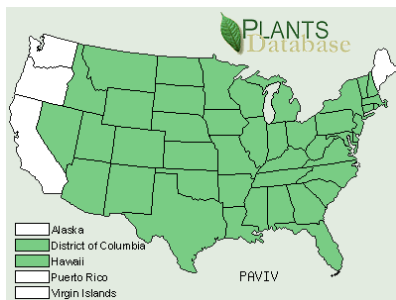
Switchgrass

### Description:

*Panicum virgatum* L., switchgrass, is native to all of the United States except California and the Pacific Northwest. It is a warm season, perennial bunch type grass which becomes more sod-forming in a wetter site. This release grows to 5-6 feet and can be distinguished from other warm-season grasses, even when plants are young, by the white patch of hair at the point where the leaf attaches to the stem. The stem is round and usually has a reddish tint. The seed head is an open, spreading panicle.

### Plant Distribution:

Prior to using any plant material determine its invasive status.



## Origin

High-Tide was found growing in the upper margins of the inter-tidal zone where the Susquehanna River enters the Chesapeake Bay near Perryville, Maryland.

Materials were hand collected from the site and planted at the Cape May PMC for production.

## Establishment

Switchgrass seeding is best done by drilling into a well-prepared conventional seedbed. If this is not possible you can no-till seed into a killed sod at a ½ inch seeding depth. If seed is broadcast, lightly rake and culti-pack the site to provide good seed to soil contact. Solid stands of switchgrass are established using 8-10 pounds of pure live seed (PLS) per acre. In a mixed seeding with other warm-season grasses, the rate would be lowered to 4-6 pounds per acre. The optimum seeding time is mid-April to mid-June. If early cool-season weeds are a problem, suppress weed competition and plant towards the later end of the seeding window (late spring to early summer). On sites where weeds are not a problem, an early spring seeding (April) is best. Fertilization should be with a moderate range of phosphorus and potassium as determined by a soil test. The pH should be adjusted to a range of 5.5 - 6.5. Amendments may be applied prior to, during, or after seeding. Nitrogen should not be applied at seeding time, however it, may be applied to the stand after green-up of the second growing season at a rate of 50 pounds per acre.

## Management

Switchgrass seedlings are slow to establish relative to the cool-season fescue and ryegrass. Stands that appear poor the first year will most likely improve the second growing season. Two or more years may be required to establish productive stands for seed production.

**Weed Control:** Mowing to a height of 4-6 inches is often effective if done three to four times the first year. Atrazine may be applied 4 to 6 weeks following seeding at a rate of two pounds per acre of active ingredient. Broadleaf weeds may be eradicated with 2,4-D or Banvel, however do not apply until switchgrass seedlings have at least four leaves.

## Application and Uses

- ◆ Tidal fresh shoreline/streambank stabilization
- ◆ Planting along riparian buffers
- ◆ Wildlife habitat in wet to dry soils

