

### Seed Cleaning

Seed of 'Shelter' switchgrass is easily cleaned with any two screen fanning mill seed cleaner. Screen sizes are 6/64 round and 1/22 round. It is not necessary to remove the glumes for seed germination.

### Availability

For names of commercial nurseries that sell 'Shelter' or for more information on the availability, planting, and use of 'Shelter' switchgrass, contact your local NRCS office or Soil and Water Conservation District office.

### For More Information

Visit our Plant Materials Internet site at <http://Plant-Materials.nrcs.usda.gov> to find more information on solving conservation problems using plants.

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## 'Shelter' switchgrass



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An improved  
conservation  
plant developed by  
the Big Flats Plant  
Materials Center,  
Corning, NY



## ‘Shelter’ switchgrass

‘Shelter’ switchgrass (*Panicum virgatum*) is a native, perennial, warm season, sod forming grass. The cultivar name reflects the ability of this grass to provide spring nesting cover for ground nesting birds and escape cover for wildlife.

There has been recent interest in the possibility of using forages or herbaceous biomass for energy production.

Switchgrass has been identified as one of the most promising species. Utilizing fermentation technology that is currently under development, it may be feasible to break the forage plant cell walls down into simple sugars that could be converted into ethanol. This would serve as a substantial reduction in U.S. dependence on foreign oil.

The USDA Natural Resources Conservation Service, Cornell University, New York State Division of Fish and Wildlife, and the Pennsylvania Game Commission cooperatively released ‘Shelter.’



### Description

‘Shelter’ switchgrass has short rhizomes, and thicker stems and fewer leaves than other released varieties. The mature height of the plant is 3 to 5 feet,

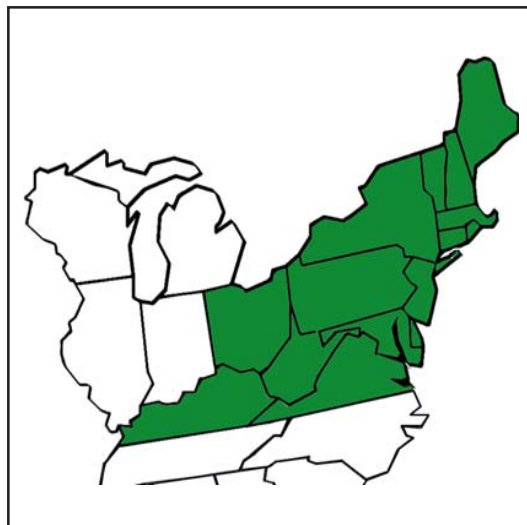
depending on soil conditions. ‘Shelter’ was chosen for its upright form and stiff stems, allowing the plants to remain erect through snows which flatten other grasses.

### Adaptation

Switchgrass is locally adapted from the Rocky Mountains eastward in North America. ‘Shelter’ grows successfully from Virginia to Maine.

It is adapted to a wide range of soil conditions and can tolerate long periods of moisture stress. However, it is not adapted to poor or very poorly drained soils in the Northeast. Best results will be obtained on well drained or moderately well drained sandy loam, silt loam, or silty clay loam soils.

### Area of Adaptation for ‘Shelter’



### Establishment

Fields should be treated in advance to control perennial grasses and weeds with tillage practices and/or chemicals. Also, apply lime, if needed, to raise the pH to 5.5 by planting time. A medium fertility level should be maintained in seed production fields. Fertilize according to soil tests. It is highly recommended that seeding be accomplished

by June 1, with June 15 as a cut off date. ‘Shelter’ can be readily planted in mixtures with other warm season grasses and wildflowers.

### Management

It is important to remember that switchgrass germinates and initially grows slowly. Weed control in new plantings is important. High mowing is a common method of weed control. Selective herbicides can also be utilized. Fertilization and liming are not recommended for establishment of a stand, but fertilizing may be needed later to maintain vigor. Mature stands resist weed and brush encroachment, but are tolerant of mowing or burning for weed control. The stand can be burned in early spring each year or every few years to increase plant vigor and suppress cool season plants. With care, a stand will last 20 years or more.



### Seed Harvesting

Close monitoring of the maturity of ‘Shelter’ seed is advised. Generally, a small amount of shattering occurs before the bulk of the seed is ready. Use a combine for harvesting.