

Cuivre River Selection Virginia Wildrye *Elymus virginicus L.* plant symbol = ELVI3

Contributed by: USDA NRCS Elsberry Plant
Materials Center(PMC)



Alternate Names

Terrell grass
Virginia lyme grass

Key Web Sites

Extensive information about this species is linked to the Plants web site. To access this information, go to the Plants web site at <http://plants.usda.gov/>, select this plant and utilize the links at the bottom of the Plants Profile for this species.

Uses

The Cuivre River Selection of Virginia wildrye can be used for wetland situations, hay, pastures, cover crop, for tree plantings, critical areas, roadside plantings, landscaping, wildlife food and cover.

Status

Please consult the PLANTS web site and your State Department of Natural Resources for this plant's

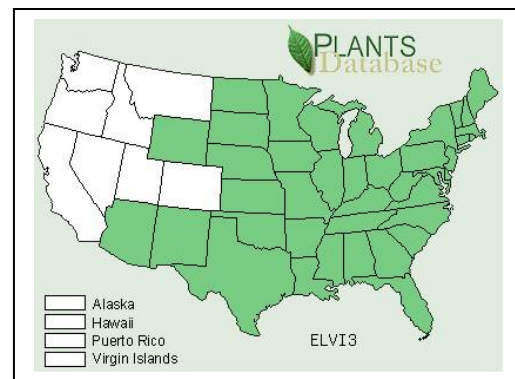
current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

Description

Virginia wildrye is a cool-season perennial native grass that grows to a height of three feet. The leaves are generally smooth to scabrous and vary from 12 to 35cm long and are up to 1.5cm wide. The flower spikes are robust and upright and have straight awns, 0.3 to 4cm long. Each spikelet contains two to three flowers. Empty scales (glumes) are lance-shaped and up to 2.5cm long. In general, the seed heads of Virginia wildrye are straight and upright. It may require 73,000 seeds of Virginia wildrye to make a pound. The grains are edible, but their long awns must be removed before they can be used. Pinole, a natural flour, is made from this and other seeds. Virginia wildrye is palatable and makes good forage and hay. Since it is a cool-season grass, it will furnish fall and spring pastures. Sometimes it is seeded in warm season grass mixtures to extend grazing seasons. It can be used in pure stands in spring and early fall for pasture.

Known Distribution

This map shows adaptation for Virginia wildrye. Cuivre River Virginia wildrye adaptation is now being determined through field plantings.



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Adaptation

Virginia wildrye is most commonly found in low woods, valley bottoms and alluvial wooded banks of streams, and other habitats, such as prairies, open fields, rocky exposures on bluffs, wooded limestone ledges, and rocky limestone glades.

The Cuivre River Selection was collected from a shady island and bottomland along the Mississippi River 50 miles North of St. Louis, Missouri. This selection can tolerate periodic flooding and is suitable

for lowland plantings and adaptable to various soil types.

Cuivre River selection has early vigorous growth, earlier than tall fescue, (*Festuca arundinacea*). The Cuivre River selection growth response is active in early spring days of warm temperatures that can occur in late February and early March for hardiness zone 5. Growth will resumes in the fall after a period of summer dormancy.

The Cuivre River selection is an open bunch grass that can tolerate shade; however, in full sun this selection of Virginia wildrye produces early vigorous growth and a fibrous root system for valuable cover as a single species planting or part of a multiple-species planting.

Establishment

Prepare a clean weed free seedbed by disking and harrowing or using chemical weed control. Firm the seedbed by cultipacking. Seedbed should be firm enough to allow seed to be planted ¼ inch deep to a maximum of ½ inch deep. Seeding with a Brillion type seeder, that has a brush roller in the seedbox, will disperse the seed. Broadcasting with a hand seeder will not allow the seed to be dispersed because of the long awn attached to the seed.

For no-till plantings use a no-till grass drill with double disc openers, depth bands, packer wheels, seed agitators and a positive feed mechanism capable of handling and applying seed at a uniform depth of ¼ to a maximum of ½ inch.

Seeding rates for Virginia wildrye for a solid stand single species is 15 to 20 PLS pounds per acre. For mix species in the planting reduce seeding rate by percent of mix, lbs./acre or by number of Pure Live Seeds/square foot.

Fertilizer can be used the establishment year, as this early cool season grass will respond to a complete fertilizer program. Use 1,000 pounds of 12-12-12/acre or 120 pounds of actual of N-P-K/acre.

Management

Remove dead plant material in the spring by shredding for faster green-up. Burning of straw will weaken the plant unless done before it has broken dormancy.

For broadleaf weed control, usage of a post emergence broadleaf herbicide can provide control and will encourage a good stand.

Graze or clip for hay or pasture in the spring. Clippings at the Elsberry PMC for the end of April were 28% Crude Protein, ADF 26%, and NDF 47%. Clippings for June 1 were 12% Crude Protein, ADF 34%, and NDF 60%. Booting of the seed occurred at the end of May and first week of June at Elsberry.

The Cuivre River selection is a heavy seed producer with yields the second year after establishment of 600 bulk pounds per acre and the third year production of 1300 bulk pounds per acre when managed for seed production.

Pests and Potential Problems

A fungus called ergot (*Claviceps purpurea*) may be a problem if this grass is not harvested early. This fungus infects the grass and forms a black mass that replaces the ovary of the grass flower and become several times larger than the fruit. It may cause abortion and other ill effects in cattle.

Environmental Concerns

Virginia wildrye is not considered weedy or an invasive species and has not been noted spreading to adjoining areas. Seedlings have not been noted spreading from original plantings; or if they do spread, the rate of spread is not alarming. Plants are relatively self-fertile but some crossing occasionally takes place early and often continues through the summer if moisture and temperature are favorable.

Cultivars, Improved, and Selected Materials (and area of origin)

One Source-Identified composite release of Northern Missourui Germplasm Virginia Wildrye has been released by the Elsberry, Missouri Plant Materials Center.

Prepared By & Species Coordinators:

Jimmy Henry, Manager
Steven Bruckerhoff, Conservation Agronomist
Jerry Kaiser, Plant Materials Specialist
Elsberry Plant Materials Center
Elsberry, Missouri

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For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS <<http://plants.usda.gov>> and Plant Materials Program Web sites <<http://Plant-Materials.nrcs.usda.gov>>.

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