VOLGA MAMMOTH WILDRYE

Volga mammoth wildrye is a selection that originates from seed collected in 1934 in the lower Volga region of the former Soviet Union. Volga mammoth wildrye is a long-lived, perennial, strongly rhizomatous grass. It resembles basin wildrye but the leaves are wider and coarser. Volga stems are very stout and the seedheads are approximately twice as long and twice as broad as basin wildrye seedheads. The seedheads are commonly over 12 inches long and 1 inch in diameter Volga is the product of exhaustive testing of a large number of native and introduced shrubs, grasses, and forbs to stabilize inland sand dunes and sand blowout areas.

Adaptation & Performance

Mammoth wildrye is not native to North America. Volga mammoth wildrye is best adapted to areas that receive more than 7 inches of annual rainfall. It performs best on neutral to slightly alkaline soils that are well-drained. Volga thrives in sand and withstands sand deposition well. It is not adapted to coastal areas. It can be grown on loams, silt loams, and clay loams but rhizome activity diminishes.

Volga was originally developed for control of inland sand dunes in the Pacific Northwest by vegetative culms. Vegetative material was released by the Pullman Plant Materials Center in 1949.

Much of the initial testing occurred in the 1940s and took place near Lind and Moses Lake, Washington, and McNary Dam, Oregon. Volga outperformed other sand stilling grasses in persistence and relative erosion control in very trial.

Volga can be established via direct seeding. Its seeds are almost as large as oat kernels. However, proper seedbed preparation, irrigation scheduling, and good weed management are required to establish Volga. Stands have been established on Uranium tailings at 6675 feet elevation with 9 inches of average annual precipitation.

Kochia and Russian thistle can be troublesome during establishment of Volga. Broadleaf herbicides effectively control both weeds. Mowing is not recommended for controlling weeds in Volga stands.

Volga tolerates fire fairly well because it is rhizomatous. The leaves and stems are green during the summer fire season and do not combust as readily as other plants in the community.

Volga is not a forage plant. The leaves and stems are very coarse, have low palatability, and are high in indigestible structural carbohydrates.

Some of the earliest plantings of Volga were made via sprigging. This 1940 photo shows a crew planting Volga. Cold winds, near freezing temperatures, temperamental equipment, and long days were the norm.

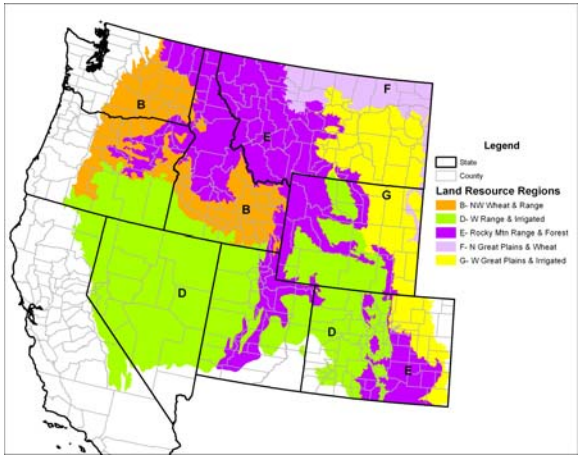
Proposed Uses

The following uses are suggested for Volga:

1. Sand stabilization
2. Mine tailings revegetation
3. Upland wildlife habitat
4. Fire break

Intended Use Areas

Volga grows well throughout most of the western states. The shaded areas are the primary areas for its intended use.



Seed Availability

Foundation seed of Volga is available through the Washington State Crop Improvement Association. Seed growers interested in producing Certified Volga seed need to apply for Foundation seed through the Washington State Crop Improvement Association. They also need to apply with the Washington State Department of Agriculture which will determine if the field meets isolation distance requirements and previous crop requirements. Breeder seed is maintained by the Pullman Plant Materials Center.

For More Information

To obtain additional information on Volga mammoth wildrye and other conservation plants developed by the Pullman Plant Materials Center, contact:

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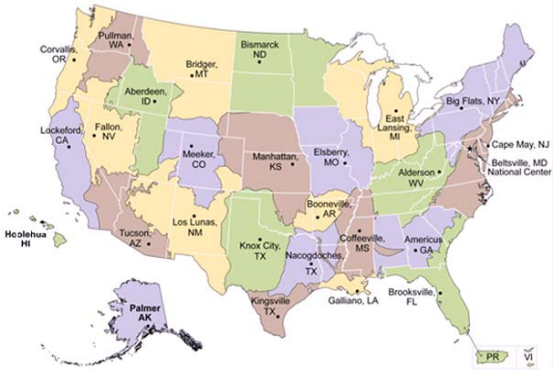
Plant Materials Centers
Locations and Service Areas



Seed & Plant Specifications

Sci Name:	*Leymus racemosus* (formerly *Elymus giganteous*)
Seed Size:	55,000 seeds/lb
Seed Length:	3/4 inch
Awns:	none
Leaves:	flat, stiff, ¾- 1 inch wide, 16-24 inch long
Stems:	stout, 24-48 inch long ¼ - ½ inch diameter
Ease of Establishment:	Moderate
Longevity:	30+ years
Recruitment from Shattered seed:	poor

Volga mammoth wildrye (top) in comparison to Basin wildrye (bottom).

United States Department of Agriculture
NRCS Natural Resources Conservation Service
Plant Materials Program

Volga Mammoth Wildrye

Finding Vegetative Solutions to Conservation Problems