

Protocol Information

Natural Resources Conservation Service -
Appalachian Plant Materials Center
P. O. Box 390
Alderson, West Virginia 24910
304-445-3005
304-445-7049
John.Vandevender@wv.usda.gov
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/plantmaterials>



United States Department of Agriculture

Family Scientific Name: **Anacardiaceae**

Family Common Name: **Sumac family**

Scientific Name: ***Rhus glabra* L.**

Common Name: **smooth sumac**

Species Code: **RHGL**

Ecotype: **National Park Service source**

General Distribution: **Distributed throughout all the 48 continental states and 7 Canadian provinces.**

Known Invasiveness: **None**

Propagation Goal: **Plants**

Propagation Method: **Seed**

Product Type: **Container (plug)**

Stock Type: **1+0 container**

Time To Grow: **1 Years**

Target Specifications: **A second spring seedling ranging in height from 6" to 18" and having a compact, well developed root system.**

Propagule Collection: **Mature fruit was hand harvested from populations of *Rhus glabra* growing within the confines of USDI-NPS controlled properties.**

Propagule Processing: **Seed can be hand stripped from the plants from September to November or entire seedhead may be clipped. Seedheads were broken apart using a hammermill. Seed was cleaned using a rubber roll huller to remove outer seed covering. As seed covering is oily, chaff was not easily separated**

using clipper fanning mill. Seed and seedcoat chaff were separated by floating off chaff and nonviable seed in water. Seed that sank in water was saved, air dried, and used for planting.

Pre-Planting Treatments: **Mechanical scarification for 15 seconds using a Forsberg seed scarifier.**

Growing Area Preparation/

Annual Practices for Perennial Crops: **Pro-mix BX with biofungicide was moistened and placed in heavy plastic trays. The soil was compacted somewhat to prepare a firm seedbed.**

Establishment Phase: **Seed was spread evenly by hand on the soil surface and then covered with 1/8 to 1/4 inch of additional soil. The top layer was pressed down slightly to ensure good seed to soil contact. The seed was then artificially cold stratified at 35-38 degrees Fahrenheit for 30 days. Upon completion of cold stratification, seed was moved to the greenhouse to stimulate germination.**

Length of Establishment Phase: **1 month**

Active Growth Phase: **Once the seedlings had developed sufficient root systems, they were transplanted into 1 gallon plastic pots filled with Metro-mix 510 growing medium. Transplants were maintained at a minimum of 65 degrees Fahrenheit in the greenhouse under automatic watering and natural lighting.**

Length of Active Growth Phase: **6 - 9 months**

Hardening Phase: **Plants were moved into a shadehouse which provided a minimum of 50 percent shade to allow for hardening off before shipping.**

Length of Hardening Phase: **2 weeks**

Harvesting, Storage and Shipping: **Plants with sufficient top growth were loaded on trailers and shipped back to the USDI-NPS controlled properties. Trailers were covered with tarps to prevent wind burn.**

Length of Storage: **2-7 days**

Outplanting performance on typical sites: **The species will tolerate a variety of soil types, but is especially well adapted to shallow, infertile, rocky soils, derived from a variety of substrates. Sites are typically dry and excessively drained, and are commonly located on sandstone or shale ridges.**

Other Comments: **Smooth sumac is usually considered to be a pioneering species which invades disturbed sites, fencerows, roadsides, abandoned fields and forest**

and grassland borders. Fragrant sumac is thought to be shade intolerant or to have a low shade tolerance. Although it does occur in many different forested communities, the specific sites are often along edges of openings or in stands where canopy closure has not yet occurred. It may be considered more of a late-successional species in the shrub-dominated communities in limestone and dolomite glades.

References: **Baskin, Carol C.; Baskin, Jerry M. 2001. Propagation protocol for production of container *Rhus glabra* . plants; University of Kentucky, Lexington, Kentucky. In: Native Plant Network. URL: <http://www.nativeplantnetwork.org> (accessed 22 June 2015). Moscow (ID): University of Idaho, College of Natural Resources, Forest Research Nursery.**

USDA, NRCS. 2015. The PLANTS Database (<http://plants.usda.gov>, 22 June 2015). National Plant Data Team, Greensboro, NC 27401-4901 USA.

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