

Prospectors Germplasm Common Snowberry

Description

Common snowberry, in the Caprifoliaceae family, is an erect, densely branched deciduous shrub found at various elevations and climatic zones. It is a cool season plant with rhizomatous roots. The leaves are opposite, elliptic to oval in shape, 0.75 to 1.5 inches long, and light green above and paler below. The leaf margins are entire or wavy-toothed. The branches are opposite, slender, yellowish brown, and pubescent when young, especially at the nodes, becoming glabrous with age. Older branches are hollow. The flowers are pinkish to white, bell-shaped, and less than 0.5 inches in size, with the petals fused together over half of their length. The five stamens and single pistil do not protrude from the flower. The inflorescence is a raceme located at or near the branch tips, flowering from May to August. Peak flowering occurs in June and July. The berry-like fruits (drupes) are pure white, tightly clustered, pulpy, and contain two nutlets, each containing a seed. Time of fruit ripening varies, but typically occurs during September. The fruits often persist throughout the winter. Common snowberry is found on well-drained, open or wooded sites on plains to lower subalpine regions from southern Alaska south to Montana and Colorado.

Uses

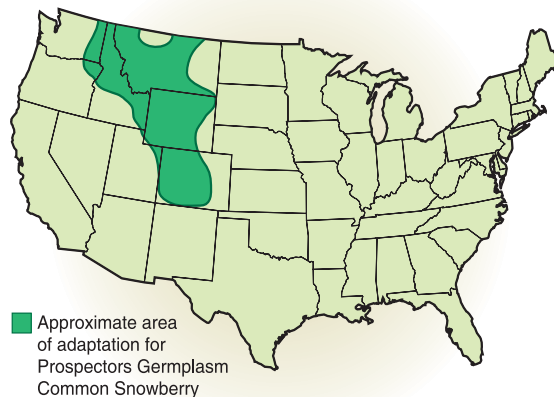
Erosion control/reclamation: Prospectors Germplasm common snowberry was selected for its value in revegetating moderately acidic and heavy-metal laden mineland soils. A densely branched and shallow root system, in combination with short spreading rhizomes, enable Prospectors Germplasm to effectively stabilize soil and reduce soil erosion.

Wildlife: This shrub is utilized for nesting, cover, and protective shelter for many birds, ungulates, and small mammals in the western United States.

Grazing/rangeland: Common snowberry contains a higher percentage of crude protein in the fall and winter compared to grasses and forbs, but lower concentrations in the spring and summer. Crude protein in the leaves and stem range from 3 to 14 percent. This species is generally considered poor to fair forage for cattle and fair to good forage for sheep and goats in the winter.

Origin

Prospectors Germplasm common snowberry originated in Deer Lodge County, Montana. The collection site on Smelter



Hill was located approximately 0.5 mile southwest of the Washoe smelter stack at an elevation of 6,000 feet. Seed was collected from more than 50 plants growing in a loamy textured soil on an east-facing slope. Elevated levels of heavy metals and sulfur compounds are characteristic of the collection site soil due to aerial emissions from past copper smelting

operations. Soil pH at the collection site ranged from 4.1 to 6.0. Arsenic, cadmium, copper, lead, and zinc concentrations ranged from benign to above phytotoxic levels. Precipitation in the Anaconda area averages 12 to 14 inches annually, with most of the precipitation occurring during the spring and summer months. The collection site is within USDA plant hardiness Zone 4a.

Establishment

Adaptation: Prospectors Germplasm performs well on moderately low pH and heavy-metal laden, loamy soils in the foothills of the Anaconda-Pintler mountains. It is expected to perform well in similar soil, climate, and topographical conditions in the foothills of the northern Rocky Mountains. It may also perform well in other regions of its range. Common snowberry is found in the plains, foothills, and montane zones up to 8,000 feet from southern Alaska south to California, Montana, and Colorado in average annual precipitation zones of 12 to 20 inches. It grows in a wide variety of soil types and can survive low nutrient conditions. It is most typically found growing on well-drained soils derived from limestone. It can grow in partial shade but prefers more open sites.

Outplanting: Common snowberry establishes best when 1-0 or 2-0 stock is planted. This species has fair seedling establishment rates and good survival rates once established.



Nursery Production

Seed: Seeds have a hard, tough covering and an under developed embryo. To overcome dormancy, seeds should be warm stratified for 60 to 90 days followed by 120 to 180 days

of cold stratification at 40°F. Immersion of seeds in sulfuric acid for about 30 minutes may be used to soften the endocarp but it is not reported to be as successful as warm stratification. Seeds can be stratified using several methods. One method is to sow seeds 0.25 inch deep into containers filled with standard potting mix. A second method is to wrap seeds in cheesecloth placed in a plastic bag filled with moistened perlite, peat moss, or vermiculite. After the stratification period, the seeds are removed from the cheesecloth and planted in 0.25 inch deep in potting mix. Common snowberry germinates best under full sun at approximately 75°F day/65°F night temperatures. There are about 72,000 seeds/lb.

Cuttings: Cuttings are easy to root. Softwood and semi-hardwood cuttings taken from June to August root readily. Hardwood cuttings are best taken from December to February. Tip stem cuttings 6-8 inches in length should be dipped in IBA talc or solution (1,000 to 3,000 ppm) and then inserted in a shaded mist bed containing either perlite, sand, vermiculite, or a mixture of these materials. Mist should be applied at about 6-second intervals every 6 minutes. Bottom heat maintained at 70°F improves rooting. Root initiation occurs in approximately 5-6 weeks. Upon sufficient root development, cuttings should be lifted and transplanted to containers. The containerized plants should be placed in a shade house for 4-8 weeks prior to full sun exposure. Standard nursery potting mix media, fertilization, and irrigation regimes are sufficient to grow plants. Although snowberry is susceptible to powdery mildew, full sun exposure and good air circulation help control this problem during production.

Distribution

The NRCS Plant Materials Center in Bridger, Montana, maintains foundation-quality (G₁) seed of Prospectors Germplasm. Seed will be distributed through the Seed Stocks Program, Department of Plant Sciences, P.O. Box 173150, Montana State University, Bozeman, MT 59717-3150. Cuttings are also available from the Bridger Plant Materials Center, Route 2, Box 1189, Bridger, MT 59014.

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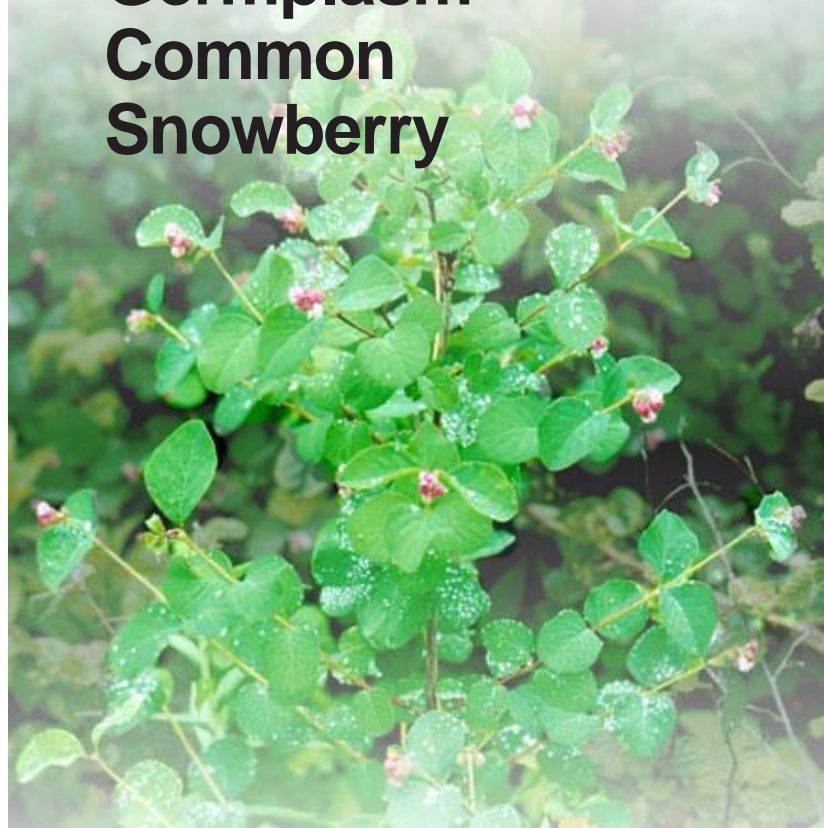
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**A
Conservation
Plant
for Montana
and Wyoming**

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Bridger, MT

**Natural
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