

Natural Resources Conservation Service (NRCS) Native Plants for the Pacific Northwest¹

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INTRODUCTION

The Plant Materials Program of USDA Natural Resources Conservation Service (formerly Soil Conservation Service) has been working with and developing plant cultivars since the 1930's for conservation purposes. The Plant Materials Program, through Plant Materials Centers (PMC), have evaluated and released conservation plants that were collected in the USA as well as other parts of the world. Initially, the program concentrated on testing, evaluating, releasing cultivars, and maintaining original seed or plants of conservation grasses and legumes for rangelands and pasturelands, trees and shrubs for windbreaks and shelterbelts, and cover crops for roadbanks and croplands.

PLANT MATERIALS CENTERS

The NRCS PMCs are now predominantly focusing on North American native shrubs, grasses, grass-like plants, legumes, and wildflowers for conservation, restoration, revegetation and rehabilitation purposes. NRCS has cooperatively released almost 200 cultivars of North American native plants for commercial seed or plant production.

Currently, most of the NRCS Plant Materials studies at the Pacific Northwest PMCs involve native species, especially for wetland and riparian sites. The Pacific Northwest PMCs are located at Corvallis Oregon, Pullman, Washington, and Aberdeen, Idaho; with some studies at Lockeford, California, and Bridger, Montana.

The native plant studies include developing methods and techniques for plant propagation, genetic and ecotypic variations within species, seed production and storage, establishment and maintenance of native plantings and onsite monitoring studies, in addition to the evaluation of materials for release purposes. Other federal and state agencies, universities, groups, and individuals are collaborating on many of these efforts to generate technical plant information for public use.

Purposeful genetic manipulation, such as breeding, of germplasm was not practiced during the development of most of the NRCS native cultivars. Unintentional genetic manipulation, genetic drift, can and does occur in the development of native plant cultivars. Certain practices are employed to reduce the level of genetic drift. All cultivars are produced in an environment very similar to the original site. Breeding systems for each cultivar are identified and populations are adequately isolated to diminish potential outcrossing. Multiple harvesting of seed in a growing season captures much of the seed and genetic variability within a

population. The original seed or plants of the original native materials are maintained at the Plant Materials Centers and are used as a base germplasm. The number of generations of seed production are restricted and overseen by State seed certification agencies.

The latest effort to maintain the genetic integrity of native plant materials released from the Plant Materials Program is the adoption of the Pre-Varietal release concept. Native plants released under the Pre-Varietal program do not require the rigorous multiple-generation evaluation process associated with cultivar releases. Plant materials can be released much more quickly and fewer, if any, generations occur beyond the original collection site.

Certified seed and nursery stock of NRCS cultivars and Pre-varietal releases are commercially grown by private seed producers and nurseries to be sold and distributed for conservation plantings.

Native shrub cultivars have been released by NRCS and cooperators from sources originating in the Pacific Northwest states- Washington, Oregon, Idaho, Montana, and northern California. At least 20 released cultivars and numerous selections have been in evaluations at PMCs and are listed in Table 1 (location and responsible PMC in parentheses).

Table 1. Native shrub cultivars from NRCS Plant Materials Centers.

Skamania select Sitka alder, in evaluation	(southwestern WA, Corvallis PMC)
Owyhee select fourwing saltbush, in evaluation	(ID, Aberdeen & Pullman PMCs)
"Wytana" fourwing saltbush	(eastern Montana, Bridger PMC)
"Mason" red-osier dogwood	(western Washington, Corvallis PMC)
"Trailer" western clematis	(central Washington, Pullman PMC)
"Umatilla" snow buckwheat	(northcentral Oregon, Pullman PMC)
:Lassen" bitterbrush	(northeastern California, USFS & Lockeford PMC)
"Curlew" Drummond's willow	(northern Washington, Pullman PMC)
"Silvar" coyote willow	(southeastern Washington, Pullman PMC)
"Rivar" Mackenzie's willow	(southeastern Washington, Pullman PMC)
"Clatsop" Hooker's willow	(northwestern Oregon, Corvallis PMC)
"Rogue" arroyo willow	(southwestern Oregon, Corvallis PMC)
"Rivar" Mackenzie's willow	(southeastern Washington, Pullman PMC)
"Plumas" Sitka willow	(northern California, Corvallis PMC)
Blanchard blue elderberry	(pre-varietal, northern Idaho, Pullman PMC)
"Bashaw" Douglas' spirea	(western Washington, Corvallis PMC)
Okanogan selection common snowberry	(northern Washington, Pullman PMC)

NRCS has also released eight native shrub cultivars originating from plants indigenous to central and southern California.

In addition, cultivars or selections of native grasses, grass-like plants, legumes and wildflowers were originally collected from indigenous stands in the northwestern states (Table 2). The original source state or province and responsible PMC are in parentheses following the plant name. Most native plant cultivars have been cooperatively released with other agencies and state agricultural experiment stations (Table 2).

Table 2. Other native plants from NRCS Plant Materials Centers.

'Canbar' Canby's bluegrass	(Washington, Pullman PMC)
'Shemman' big bluegrass	(Oregon, Pullman PMC)
'Bromar' mountain brome	(Montana, Pullman PMC)

tufted hairgrass	(western Oregon, Corvallis PMC)
California oatgrass	(western Oregon, PMC)
Roswell selection Baltic rush	(western Idaho, Aberdeen PMC)
'Nezpar' indian ricegrass	(Idaho, Aberdeen PMC)
'Rimrock' indian ricegrass	(Montana, Bridger PMC)
Centennial selection Nebraska sedge	(central Idaho, Aberdeen PMC)
Fish Lake selection Columbia sedge, in evaluation	(OR, USFS & Corvallis PMC)
'Goldar' bluebunch wheatgrass	(Washington, Aberdeen PMC)
'Whitmar' beardless bluebunch wheatgrass	(Washington, Pullman PMC)
'Secar' Snake River wheatgrass	(Idaho, Pullman)
'Primar' slender wheatgrass	(Montana, Pullman PMC)
'Pryor' slender wheatgrass	(Montana, Bridger PMC)
'Sodar' streambank wheatgrass	(Oregon, Aberdeen PMC)
'Critana' thickspike wheatgrass	(Montana, Bridger PMC)
'Schwendimar' thickspike wheatgrass	(Oregon, Pullman PMC)
'Bannock' thickspike wheatgrass	(ID, WA & OR sources, Aberdeen PMC)
'Rosana' western wheatgrass	(Montana, Bridger PMC)
'Magnar' basin wildrye	(British Columbia, Canada, Aberdeen PMC)
'Trailhead' basin wildrye	(Montana, Bridger PMC)
'Arlington' blue wildrye	(western Washington, Corvallis PMC)
'Elkton' blue wildrye	(western Oregon, Corvallis PMC)
'Hederma' pine lupine	(western Oregon, Corvallis PMC)
Clearwater selected alpine penstemon	(Idaho, Aberdeen PMC)

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