

Use Native Species for Restoration on NFS Lands

 National U.S. Forest Service policy emphasizes the use of native plant species for restoration (FSM 2070.3). This policy restricts the use of non-native plants and requires native species to be given primary consideration during restoration, rehabilitation, and revegetation on NFS lands.

 Traditional “off the shelf” commercial seed mixes may contain non-native plant seed. Use of these seed mixes on NFS lands is *not* in accordance with USFS policy.

 Native alternatives are beneficial to both wildlife and pollinators and contribute to sustainable plant communities under climate change.

 If land managers decide to reseed following disturbances such as wildfire, use of native species will help meet management objectives by restoring native plant diversity, attracting beneficial pollinators and enhancing ecosystem resilience while reducing the establishment and spread of weeds and undesirable vegetation.

Additional Information

Fire Effects Information System
www.feis-crs.org/feis/
Xerces Society for Invertebrate Conservation
www.xerces.org
Native Seed Network
www.nativeseednetwork.org
USDA Plants Database
www.plants.usda.gov
National USFS Plant Materials Policy
www.fs.fed.us/wildflowers/Native_Plant_Materials/policy.shtml

Acknowledgements

This brochure was developed by the USFS Northern Region, Native Plant Program

Additional support for this project was provided by the Fire, Fuel and Smoke Science Program of the Rocky Mountain Research Station: www.firelab.org

Inspiration for this project was provided by the “Grow me Instead” initiative of the Invasive Plants Council of B.C.

Photo Credits

Cover image by Pamela Pavek
“Brownbelted bumble bee visiting a blanketflower”
Other cover images by Leah Grunzke, Alan Ramsey and Rebecca Durham

USDA-NRCS PLANTS Database, Greensboro, NC
Others are courtesy of local botanists & photographers

A special thanks to Matt Lavin at Montana State University for his images of grasses.

For more information, contact:
Susan Rinehart: srinehart@fs.fed.us
Eva Masin: emasin@fs.fed.us

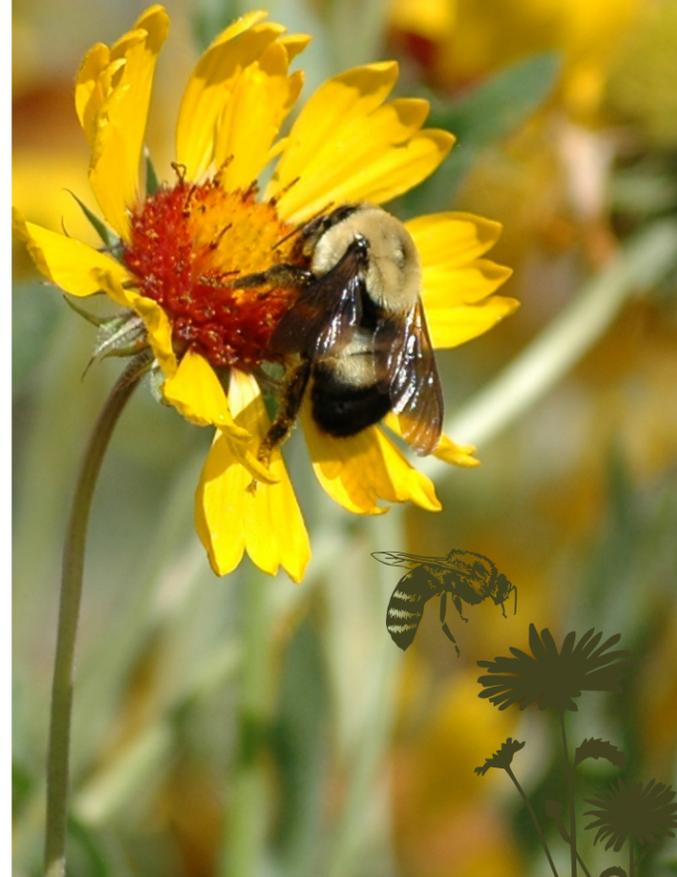
USDA Forest Service, Northern Region
26 Fort Missoula Road
Missoula, Montana 59804

USDA is an equal opportunity provider, employer, and lender.

USDA

United States Department of Agriculture

Sow Natives: A Guide for Restoration & Revegetation Projects



Forest Service

Northern
Region
Native Plant
Program

RI-17-14
April 2017

Best Management Practices

 This brochure provides a snapshot of non-native species vs. their native counterparts to assist land managers in selecting desirable species for revegetation and restoration on National Forest System (NFS) lands in Montana, Idaho, North Dakota and NW South Dakota.

 Best management practices for NFS lands recommend the use of a diverse planting mix containing native grass and forb species.

Species recommendations are based on generalized ecological conditions such as moisture regimes and site disturbance.

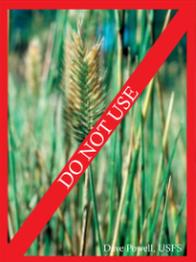
 Revegetation practitioners will also want to investigate other resources for information on native species including those listed on the back of this brochure.



Fifteen Unwanted Plants and Recommended Alternatives for Revegetation and Restoration

Disturbed Sites

These plants thrive on nutrient poor sites and provide soil stabilization and erosion control.

<p>INVASIVE</p>  <p>Intermediate wheatgrass <i>Thinopyrum intermedium</i></p>	<p>NATIVE</p>  <p>Bluebunch wheatgrass <i>Pseudoroegneria spicata</i></p>	<p>NATIVE</p>  <p>Slender wheatgrass <i>Elymus trachycaulus</i></p>	<p>NATIVE</p>  <p>Mountain brome <i>Bromus marginatus</i></p>
<p>INVASIVE</p>  <p>Redtop <i>Agrostis gigantea</i></p>	<p>NATIVE</p>  <p>Rough bentgrass <i>Agrostis scabra</i></p>	<p>NATIVE</p>  <p>Tufted hairgrass <i>Deschampsia cespitosa</i></p>	<p>NATIVE</p>  <p>Idaho fescue <i>Festuca idahoensis</i></p>
<p>INVASIVE</p>  <p>Winter vetch <i>Vicia villosa</i></p>	<p>NATIVE</p>  <p>Silky lupine <i>Lupinus sericeus</i></p>	<p>NATIVE</p>  <p>Rocky Mountain beplant <i>Cleome serrulata</i></p>	<p>NATIVE</p>  <p>Blanketflower <i>Gaillardia aristata</i></p>
<p>INVASIVE</p>  <p>Crested wheatgrass <i>Agropyron cristatum</i></p>	<p>NATIVE</p>  <p>Blue grama <i>Bouteloua gracilis</i></p>	<p>NATIVE</p>  <p>Western wheatgrass <i>Pascopyrum smithii</i></p>	<p>NATIVE</p>  <p>Green needlegrass <i>Nassella viridula</i></p>
<p>INVASIVE</p>  <p>Yellow sweetclover <i>Melilotus officinalis</i></p>	<p>NATIVE</p>  <p>Scarlet globemallow <i>Sphaeralcea coccinea</i></p>	<p>NATIVE</p>  <p>American vetch <i>Vicia americana</i></p>	<p>NATIVE</p>  <p>Purple coneflower <i>Echinacea angustifolia</i></p>

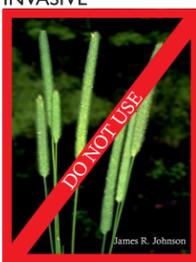
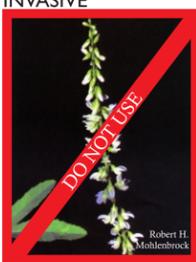
Cool Moist Sites

These species commonly occur on cool, moist, low to middle elevation sites.

<p>INVASIVE</p>  <p>Smooth brome <i>Bromus inermis</i></p>	<p>NATIVE</p>  <p>Mountain brome <i>Bromus marginatus</i></p>	<p>NATIVE</p>  <p>Slender wheatgrass <i>Elymus trachycaulus</i></p>	<p>NATIVE</p>  <p>Columbia brome <i>Bromus vulgaris</i></p>
<p>INVASIVE</p>  <p>Perennial ryegrass <i>Lolium perenne</i></p>	<p>NATIVE</p>  <p>Blue wildrye <i>Elymus glaucus</i></p>	<p>NATIVE</p>  <p>Tufted hairgrass <i>Deschampsia cespitosa</i></p>	<p>NATIVE</p>  <p>Rough bentgrass <i>Agrostis scabra</i></p>
<p>INVASIVE</p>  <p>Red clover <i>Trifolium pratense</i></p>	<p>NATIVE</p>  <p>Common yarrow <i>Achillea millefolium</i></p>	<p>NATIVE</p>  <p>Alberta beardtongue <i>Penstemon albertinus</i></p>	<p>NATIVE</p>  <p>Pearly everlasting <i>Anaphalis margaritacea</i></p>

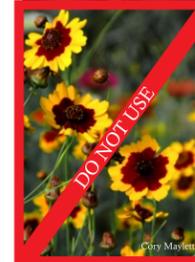
Riparian

These species are well adapted to meadows, riparian sites, and stream margins.

<p>INVASIVE</p>  <p>Timothy <i>Phleum pratense</i></p>	<p>NATIVE</p>  <p>Bluejoint reedgrass <i>Calamagrostis canadensis</i></p>	<p>NATIVE</p>  <p>Nebraska sedge <i>Carex nebrascensis</i></p>	<p>NATIVE</p>  <p>Fowl mannagrass <i>Glyceria striata</i></p>
<p>INVASIVE</p>  <p>White sweetclover <i>Melilotus alba</i></p>	<p>NATIVE</p>  <p>Alpine leafybract aster <i>Symphotrichum foliaceum</i></p>	<p>NATIVE</p>  <p>Arrowleaf ragwort <i>Senecio triangularis</i></p>	<p>NATIVE</p>  <p>Canada goldenrod <i>Solidago canadensis</i></p>

Dry Sites

These species have low water requirements and thrive on sites with low precipitation.

<p>INVASIVE</p>  <p>Sheep fescue <i>Festuca ovina</i></p>	<p>NATIVE</p>  <p>Rough bentgrass <i>Agrostis scabra</i></p>	<p>NATIVE</p>  <p>Sandberg bluegrass <i>Poa secunda</i></p>	<p>NATIVE</p>  <p>Prairie junegrass <i>Koeleria macrantha</i></p>
<p>INVASIVE</p>  <p>Orchardgrass <i>Dactylis glomerata</i></p>	<p>NATIVE</p>  <p>Bluebunch wheatgrass <i>Pseudoroegneria spicata</i></p>	<p>NATIVE</p>  <p>Western wheatgrass <i>Pascopyrum smithii</i></p>	<p>NATIVE</p>  <p>Idaho fescue <i>Festuca idahoensis</i></p>
<p>INVASIVE</p>  <p>Kentucky bluegrass <i>Poa pratensis</i></p>	<p>NATIVE</p>  <p>Green needlegrass <i>Nassella viridula</i></p>	<p>NATIVE</p>  <p>Thickspike wheatgrass <i>Elymus lanceolatus</i></p>	<p>NATIVE</p>  <p>Mountain brome <i>Bromus marginatus</i></p>
<p>INVASIVE</p>  <p>Alfalfa <i>Medicago sativa</i></p>	<p>NATIVE</p>  <p>Silky lupine <i>Lupinus sericeus</i></p>	<p>NATIVE</p>  <p>Utah sweetvetch <i>Hedysarum boreale</i></p>	<p>NATIVE</p>  <p>American vetch <i>Vicia americana</i></p>
<p>INVASIVE</p>  <p>Golden tickseed <i>Coreopsis tinctoria</i></p>	<p>NATIVE</p>  <p>Rosy pussytoes <i>Antennaria rosea</i></p>	<p>NATIVE</p>  <p>Stiff sunflower <i>Helianthus pauciflorus</i></p>	<p>NATIVE</p>  <p>Sulphur buckwheat <i>Eriogonum umbellatum</i></p>