

**MONTANA NATIVE PLANT SOCIETY**  
**CLARK FORK CHAPTER**



**LANDSCAPING WITH NATIVE PLANTS OF**  
**MONTANA:**

A Guide for Granite, Lake, Mineral, Missoula, Powell, and Ravalli Counties

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## **Additional materials:**

### **Resources for Native Plant Landscaping in West Central Montana**

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*Creating Native Landscapes*, a comprehensive guide developed by the USDA Natural Resources Conservation Service – Bridger Plant Materials Center. Available online at: <http://www.mt.nrcs.usda.gov/technical/ecs/plants/xeriscp/>

*Firewise Landscaping for Woodland Homes*, a brochure published by the Montana Department of Natural Resources and Conservation; contains information on how to create a defensible space around your home and how to landscape with fire in mind.

*Guidelines for Collecting Native Plants*, a guide describing when and where it is appropriate to collect native plants, published by the Montana Native Plant Society.

*Plant Collection Guidelines for Teachers*, a guide for educators and the public, published by the Montana Native Plant Society.

*Source Guide for Native Plants in Montana*, lists sources of Montana native plants and seeds. Published by the Montana Native Plant Society.

*Municipal Codes of Missoula – Vegetation*, guidelines regarding hazardous vegetation and nuisance weeds.

# Landscaping with Native Plants of Montana:

## An Introduction to Using Montana Native Plants

The Clark Fork region has often been described as *the five valleys*, including **Granite, Lake, Mineral, Missoula, Powell, and Ravalli counties**. This region of Montana includes varied geographic areas and an abundance of plant habitats. From mountains to valleys, rivers to wide open plains, the Clark Fork region provides opportunities for using native plants in diverse landscape settings. This guide is intended for those with an interest in growing native plants from this area, from backyard gardeners to those restoring larger landscapes. You may wish to introduce native plants to an existing garden, restore large areas overrun with weeds, or replant areas following home construction. We hope the information in this packet helps you start on a Montana native plant adventure.

### What is a native plant?

Native plants are plant species that have evolved in place over geologic time or occur naturally in a specific region or area. Where particular native plants are found across the landscape is largely a response to climate and the result of adaptation to specific site conditions. This guide describes species native to Montana, emphasizing those from Montana.

In contrast to native species, exotic (or non-native) species are plants that were introduced into a particular area by humans, either intentionally or accidentally. While some exotics are harmless and may be used to help meet your landscaping objectives, others pose serious threats to local biological diversity and can become serious pests. The “What Should I Avoid” section that follows has additional information. Escaped exotics can change the composition of native plant communities, successfully compete for resources, displace native species, reduce plant diversity, contribute to soil erosion and carry exotic insects and disease. Exotic species can also diminish the availability of food plants for wildlife, and alter the behavior of native pollinators, plant-eating insects and fruit-eating birds. Invasion by exotics is one factor that contributes to the threat of native plant extinctions. Don’t forget that birds, dogs, other animals, people, vehicles and water can transport and spread plant seeds. An exotic plant from your yard may become a problem in a natural area near you, so during the planning stage consider how invasive a particular exotic species is, and determine if your landscaping objectives can be met by using a Montana native plant instead. Also become familiar with plants that are categorized as noxious weeds by the state of Montana. See the enclosed information about Montana’s noxious weeds for additional details.

## **REASONS TO USE NATIVE PLANTS:**

- **NATIVE PLANTS ARE ADAPTED**

Montana offers the home landscaper, gardener, and reclamation specialist a wide variety of native plants, including colorful wildflowers, unique grasses, and interesting shrubs and trees, both evergreen and deciduous. These natives are genetically adapted to the unique landscape of Montana, with high relief, diverse soils, and temperature extremes of hot and cold. Native plants, properly sited, are adapted to these cold, dry, often erratic conditions and display less evidence of stress. They often require less water and won't require fertilization once they are established in the proper site. Remember that some Montana natives are adapted to cool, shady, or moist areas along stream banks, some to low plains, valleys, and dry prairies, while others are from mountain forests or alpine ridges. There are Montana native plants suitable for your site-specific landscaping needs!

- **NATIVE PLANTS ARE LESS INVASIVE**

Native plants are part of a community of plants and other organisms that developed in a particular landscape with particular conditions, and native plants often have natural partners that keep them from becoming invasive.

- **NATIVE PLANTS PROMOTE SENSE OF PLACE**

Montana supports a unique floral landscape that is worth promoting and protecting. Montana natives inspire a sense of place and connect us to this land of prairies and mountains. Native landscapes reflect where we are and celebrate our unique climatic and ecological conditions. We have the opportunity to express our diversity by maintaining a variety of distinctive native plantings. Such plantings foster pride in our regional communities and heritage, and counter the trend toward the homogenization of landscapes.

Native plant gardens, big and small, provide an educational opportunity and are a great way to introduce students of all ages to the complexities of the natural environment. Enjoyment of native species can broaden public awareness of natural environments and the species they support.

- **NATIVE PLANTS PROVIDE FOR WILDLIFE NEEDS**

Many birds and other fauna are adapted to using specific native plants for food and resting places. Native insects have evolved with native plants and need specific host plants to carry out their important roles in the ecosystem. Many native grasses provide food and shelter for birds and small mammals, and native shrubs provide browse for deer, moose and other large mammals, as well as food for birds and small critters. Conversely, some native species are less attractive to browsing wildlife and can be selected to discourage browsers.

Planting native species, especially those that came from seeds from the local area, may enhance gene flow between native populations separated by development and habitat fragmentation. Even small native plant gardens can help restore the integrity of regional

landscapes. You can help perpetuate the native vegetation that is necessary for wildlife and natural ecosystem function by being mindful of what you plant on your property.

- **NATIVE PLANTS ARE FUN!**

Most of all, native plants are fun, interesting, colorful and attractive. They can provide hours of enjoyment ranging from hands-on puttering to admiring your mature, native plant landscape from your favorite lawn chair. Regardless of the scale of the project, you can help conserve water and other natural resources while restoring and celebrating the unique character of the Montana landscape.

## HOW TO GET STARTED:

Begin to tune into native plants and their habitats. The Montana Native Plant Society sponsors hikes and field trips that provide opportunities to learn about native plants and plant communities. Also, there are many private and public gardens where you can learn about growing many native species. While hiking or driving around Montana, take note of where certain native plants grow, and what plants are often found growing together. Selecting plants that match your water, light, and soil requirements will ensure greater success with native plantings.

Use the *Recommended Species for Native Plant Landscaping in Montana* handout provided with this packet and the *Creating Native Landscapes* brochure to match your soil, light, and water conditions with appropriate species of grasses, wildflowers, groundcovers, shrubs, trees, vines, and cacti. This reference will also help you identify plants that are perennial, biennial, or annual, and which might be self-seeders. Because **native plants should never be removed from the wild**, a list of reputable seed and plant sources in the *Source Guide for Native Plants of Montana* available from the Montana Native Plant Society.

Weed control and site preparation may need to be done prior to planting and while native plants are becoming established on the site. Remember, it takes time for seeds or transplants to become firmly rooted. You should expect native plants to take longer to become established and extra care, weeding, shelter from sun or wind, and water may be required.

### Soil Preparation

Weeds have become prevalent on the Montana landscape and must be dealt with prior to planting. Planting native plants into an unprepared, weedy, disturbed site is the equivalent of throwing away your time and money. Soil compaction due to equipment or foot traffic must be remedied with tilling and amending the soil before attempting to plant. Weed removal and management takes many forms, from smothering mulches to herbicide treatments to tilling, amending and weeding by hand. Contact your local weed district for more information (contact information is listed in the resource section under 'weeds'.)

### Plants or seeds?

If you are a beginner, it may be easiest to start by putting in a few potted native plants rather than planting from seed. Check the *Source Guide for Native Plants of Montana* to see what is available locally. Take your *Source Guide* with you to the nursery. If a plant is not listed, it may not be a Montana native plant. Use *Recommended Species for Native Plant Landscaping in Montana* to help you with your selections.

Your options will increase exponentially if you are willing to start plants from seeds. Some plants, like Lewis's Blue Flax (*Linum lewisii*), Yarrow (*Achillea millefolium*) and Blanket Flower (*Gaillardia aristata*) are very easy to grow from seed, whereas others are

more challenging. Many native species need to be planted in fall or winter and exposed to cold temperatures in order to germinate, whereas others must have their seed coats broken by heat or abrasion. Information on propagation is listed under the resources section on propagation. If you are planting native plants from seed, patience is the key. Native plants, like any other plant, require care and attention for them to look their best, but once they are established you will be rewarded with natural beauty, hardiness, and minimal maintenance.

Don't worry if you don't know the scientific names for plants. The *Source Guide* has an index to common plant names that you can use as a cross-reference. *Recommended Species for Native Plant Landscaping in Montana* also has both common and scientific names. However, when you go to the nursery or look at a seed packet, check the scientific name to be sure you are getting what you want. Often the same common name will be used for very different plants and the scientific name will help you get the right plant. Use one of the field guides listed in *Resources -Recommended Books and Field Guides* if you need to see what a plant looks like. *Wildflowers of Montana* by Donald Anthony Schiemann has wonderfully clear pictures of many plants native to this area. The herbarium at the University of Montana in Missoula contains over 129,000 plant specimens and has the largest and best representation of the flora of the Northern Rocky Mountains in the world. The collection is a good place to look if you are trying to identify a local plant species and of course, you can contact your local chapter of the Native Plant Society (<http://www.mtnativeplants.org/>) for more information.

If you don't see what you are looking for at the nursery, ask for it! More natives are being grown all the time and as the demand increases, so will the supply.

## **Origins of Native Seed**

Definitions of "native" vary from one grower and nursery to the next, and may include cultivated varieties (cultivars) of native species, as well as native plants from another part of the state. For restoration and native habitat projects, it is usually best to use plants originating from the nearest available natural sites. Use the *Source Guide for Native Plants of Montana* to help you locate seed and plant sources. In most instances it is impractical for local nurseries to rely entirely on local sources, and for the home landscaper it is not necessary. Simply ask where your nursery's plants come from and try to get plants as locally grown as possible. When they are available, it is always better to buy native Montana seeds or transplants from a local producer.

## **Collecting Plants and Seed in the Wild**

Although seed and plant collecting is prohibited in a few areas of Montana (such as national parks), collection of modest amounts of seed for personal use is not regarded as harmful. We discourage digging wild plants from the wild unless permission is granted on private land, or plants are rescued from areas that are scheduled to be disturbed by new construction or road building. Read the enclosed *Plant Collecting Guidelines*, the *Plant Collection Guidelines for Teachers*, and consult the *Resources for Native Plant Landscaping in Montana* for more information.

## **When to Seed or Plant**

Fall is a good time to plant seeds of many native species outdoors. Fall planting is from October to November (or later if the ground is not frozen) in this area, and varies depending on the temperature and moisture conditions. Going through a Montana winter will help break down the germination inhibitors associated with many native plant seeds. Home gardeners can plant seeds in pots, water them, and place them outside to simulate field conditions. Species that require cool soil temperatures for germination will be favored using this method. Native grass seed sown earlier than late October may germinate if weather is unseasonably warm and the seedlings may winter kill. Fall plantings generally do not need to be watered and work best if they receive snow cover in the winter. You may not have great success with fall planting if the area to be planted is dry and exposed to wind or if seeds are exposed to birds or other seed eating animals.

If fall seeding is not possible, seeds can also be planted as soon as the ground can be worked, generally from April to mid-June. Spring seedings may require supplemental watering if conditions are dry. Keeping the soil moist for 3 to 6 weeks after planting will improve germination. Many species will not germinate until the following spring after the seed has gone through a winter, so don't give up on them.

Plants in pots should be transplanted in the spring before it gets hot, and will need to be watered until they are established.

## **Where to Plant**

For landscaping purposes, it is important to remember that plants growing in our region are specifically adapted to site conditions determined by elevation (which affects temperature and exposure to sun and wind), topography (which affects moisture, light availability, and exposure), and the amount of shading from other plants. Soil moisture and light availability are important limiting factors that determine where a particular plant can grow. Matching plants to site conditions will usually result in the best plant growth. Check *Recommended Species for Native Plant Landscaping in Montana* to see what conditions are necessary for optimal plant growth. Also, note whether a plant is an annual, biennial, or perennial and place each in an area that meets your landscaping objectives.

If you don't know what kind of soil you have on your property, testing your soil can be informative. The Missoula County Weed District and MSU Extension Office is an excellent resource. Contact info: 2825 Santa Fe Court, Missoula, MT 59808-1685 Phone: 406.258.4200 Fax: 406.258.3916. Their website has a number of publications that can be downloaded for free, including *Soil Testing Labs*, a publication that provides information on soil tests and the laboratories that perform them.

## **Reducing Fire Danger to Your Home**

If your home is located within or adjacent to wildlands or if you are considering building a home in the urban-wildland interface, you will want to consider the possibility of wildland fire. Fire has shaped western Montana landscapes, and are almost inevitable in

our forests and grasslands. As a homeowner, what you do with your home and its immediate surrounds can make the difference between saving and losing your home from wildfire because home ignitability, rather than wildland fuels, is a principle cause of home losses. The key components to help make your home defensible are design elements, elimination of flammable roofing materials such as cedar shingles, and reducing the presence of burnable vegetation (debris, wood piles, shrubs, and wood decks) immediately adjacent to your home. The brochure *Firewise Landscaping for Woodland Homes* will give you some suggestions and recommends native plant species (other than crested wheatgrass (*Agropyron cristatum*), a nonnative we do not recommend) that are fire-resistant.

## What to Avoid

Native species are not the same as “wildflowers.” Some nurseries and garden centers sell plants or seeds of exotic species that are labeled as “wildflowers” that are not native to Montana or even to North America. Also of concern are wildflower mixes. Few commercially available wildflower mixes (such as “meadows in a can”) contain species native to western Montana, and many contain weedy species including noxious weeds (such as oxeye daisy (*Chrysanthemum leucanthemum*)) prohibited from importation into the state. We recommend buying or collecting individual native wildflower seeds or customizing your own mix. We recommend that you avoid the following species that may be found in wildflower mixes or as single-species seeds, some of which are very invasive:

- Baby’s Breath (*Gypsophila paniculata*)
- Bachelor Buttons (*Centaurea cyanus*)
- Bouncing Bet (*Saponaria officinalis*)
- Canada Bluegrass (*Poa compressa*)
- Corn Poppy (*Papaver rhoeas*)
- Creeping Bellflower (*Campanula rapunculoides*)
- Crested Wheatgrass (*Agropyron cristatum*)
- Dame’s Rocket (*Hesperis matronalis*),
- Foxglove (*Digitalis purpurea*)
- Kentucky Bluegrass (*Poa pratensis*)
- Orchard Grass (*Dactylis glomerata*)
- Queen Ann’s Lace (*Daucus carota*)
- Russian Olive (*Elaeagnus angustifolia*)
- Scotch Broom (*Cytisus scoparius*)
- Smooth Brome (*Bromus inermis*)
- Soft Brome (*Bromus mollis*)
- Tansy (*Tanacetum vulgare*)
- Teasel (*Dipsacus sylvestris*)
- White Sweet Clover (*Melilotus alba*)
- Yellow Sweet Clover (*Melilotus officinalis*)
- and members of the Spurge (*Euphorbia*) family.

For more information on plant species that are, or may become, invasive in Montana, visit the Montana Native Plant Society's website at: [www.umt.edu/mnps](http://www.umt.edu/mnps) . In the "Publications" section there is a paper called *Guidelines for Selecting Horticultural Plant Material for Montana*. For a complete list of Montana noxious weeds see: *Montana State Noxious Weeds List* – USDA Natural Resources Conservation Service (NRCS) – Plants Database: <http://plants.usda.gov/java/noxious?rptType=State&statefips=30>

## **Lawns**

The Audubon Society has determined that home lawns blanket 25 million acres of land in the U.S. The average American lawn is 1/3 acre, generates 2 tons of clippings a year and consumes up to 170,000 gallons of water in a single summer. A typically treated lawn receives 3-20 pounds of fertilizers and 5-10 pounds of pesticides a year. The average homeowner spends 40 hours mowing the lawn each year and \$8.5 billion is spent annually on retail sales of residential lawn care products and equipment.

Shrubs, trees, perennial flowers and groundcovers usually consume less water than grass (check plant requirements), add interest and color to your landscape, and provide a welcoming habitat for birds and butterflies. To reduce the size of an already established lawn, try planting groundcovers, low shrubs or perennials beneath mature trees, or expanding the size of an existing plant bed. Eliminate grass from areas where it is hard to grow (dense shade, wet spots, exposed areas, steep slopes) and plant natives there instead.

For suggestions on creating a mowable turf using native sod forming grasses see the booklet: *Creating Native Landscapes*, a comprehensive guide developed by the USDA Natural Resources Conservation Service Bridger Plant Materials Center, available online at: <http://www.mt.nrcs.usda.gov/technical/ecs/plants/xeriscp/> In addition, the Missoula County Weed District and MSU Extension Office's publication "*Low Maintenance & Nativescape Lawn Alternatives*" is available at their website: [www.missoulaeduplace.org](http://www.missoulaeduplace.org)

## **Native Prairies/Meadows**

Many landowners in rural areas wish to reclaim disturbed areas to native grass and wildflowers. This can be a lengthy process that requires non-natives to be removed prior to establishing a native grass community. The seeding rates of native grasses are much lower than typical lawn mixes; instead of pounds of seed per 1000 sq. ft., prairies require seeding rates in pounds per acre. The lower density allows native wildflowers to flourish.

Often with native grass seed, cultivars are the only alternative for quick establishment. To retain genetic diversity, seed can be harvested from the wild and 'increased' in special grass nurseries. Unfortunately, this process is time consuming and not practical for most land owners. Bridger Plant Materials Center in Bridger, Montana is working to develop cultivars for MT native grasses. In the interim, they recommend available cultivars of

native species; see the section on grasses in *Creating Native Landscapes* recommended in the brochures section of additional resources at the back of this document.

## **Big projects**

If you have lots of property to rehabilitate you may wish to contact the following county, state and federal agencies for information. These agencies may be willing to send someone to your property to advise you on the logistics of large-scale restoration. However, they may not always be knowledgeable about native plants or the benefits of using native plants for restoration. Remember to refer to the *Source Guide* for seed and plant sources in your area. The nurseries listed may be able to advise you about large-scale projects, and local environmental consulting firms and landscape professionals may also be of assistance.

### **Granite County Extension Office**

<http://extn.msu.montana.edu/counties/granite.htm>

EMAIL: [extension@co.granite.mt.us](mailto:extension@co.granite.mt.us)

Phone: (406) 859-3771

Fax: (406) 859-3817

Address: 220 N Sansome Street

P.O. Box 665, Phillipsburg, MT 59858-0665

### **Lake County Extension**

[www.msuextension.org/lake](http://www.msuextension.org/lake)

Phone: (406) 676-4271

Fax: (406) 676-4272

Address: 300 3rd Ave NW

Ronan, MT 59864

### **Mineral County Extension Service**

<http://extn.msu.montana.edu/counties/mineral.htm>

Phone: (406) 822-3545, (406) 822-3546 or (406) 822-3547

Fax: (406) 822-3840

Address: 301 2nd Avenue East

P.O. Box 730

Superior, MT 59872-0730

### **Missoula County Weed District and MSU Extension Office**

[www.missoulaeduplace.org](http://www.missoulaeduplace.org)

Phone: (406) 258-4200

Fax: (406) 258-3916

Address: 2825 Santa Fe Court |

Missoula, MT 59808-1685

### **Ravalli County Extension**

[ravalli@montana.edu](mailto:ravalli@montana.edu)

Phone: (406) 375-6611

Fax: (406) 375-6606

Address: 215 S. 4th St, Suite G  
Hamilton, MT 59840

**Natural Resources Conservation Service**

<http://www.nrcs.usda.gov>

Missoula Area Office  
3550 Mullan Road, Suite 106  
Missoula, MT 59808-5168  
Phone: (406) 829-3395  
Fax: (406) 829-3455

**Conclusion:**

Consider your landscape and garden a work in progress that can change and evolve as you learn more and become more adventurous. Information presented here was compiled by gardeners, scientists, nurserymen and native plant enthusiasts. We are all in the process of learning how best to use native plants in naturalized landscapes. Thanks for joining the effort to use native plants in your landscape!

Please join the Montana Native Plant Society:

Membership form available online at: [www.mtnativeplants.org/filelib/127.pdf](http://www.mtnativeplants.org/filelib/127.pdf)

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Modified from Kelsey Chapter's *Where the Prairies Meet the Mountains*

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