

Native Plant Resource Guide

Landscaping and Restoration
in Teton County and the
Greater Yellowstone Ecosystem



Table of Contents

| | |
|--|-------------------|
| Introduction | Page 2 |
| What is a Native Plant? | Page 3 |
| Benefits of Native Plants | Page 4 |
| What is a Cultivar? What is a Non-Native or Invasive? | Page 5 |
| How to Prevent Invasive Species | Page 6 |
| Invasive Species Best Practices | Page 7 |
| What to Do with Invasive Species | Page 8 |
| Plant Communities of Teton County | Page 9 |
| Sagebrush Steppe - Shrubs & Wildflowers | Page 10 |
| Aspen & Cottonwood Forests and Native Grasses | Page 11 |
| Conifer Forests & Wetlands | Page 12 |
| Teton County Landscaping | Page 13 |
| Teton County & Wildfires | Page 14 |
| Defensible Space Zones | Page 15 |
| Firewise Landscaping | Page 16 |
| Recommended Species for Landscaping | Page 17-20 |
| Sourcing Native Plant Materials | Page 21 |
| Installation and Maintenance | Page 22 |
| Continued Learning Opportunities | Page 23 |
| References and Resources | Page 24-25 |
| Author Information | Page 26 |

Cover Photo: Noah Waldron

Bloom, Trevor; Cadow, Charlotte; McCalman, Raylene (2023); Native Plant Resource Guide: Landscaping and Restoration in Teton County and Greater Yellowstone Ecosystem; Second Edition. The Nature Conservancy in Wyoming, Northern Rockies Conservation Cooperative and Teton Conservation District.

Introduction

The Greater Yellowstone Ecosystem (GYE) is one of the largest intact ecosystems in the world, and is home to an incredible diversity of wildlife. Teton County, Wyoming, hosts over 1,200 known species of native plants. This guide is intended to introduce residents and land managers of Teton County and the GYE to basic best practices for native plant landscaping and restoration on private and public land. For more detailed information see the References and Resources section at the end of this book, and for updated online resources please visit

<https://www.tetonconservation.org/native-plants>



Mules-ears (*Wyethia amplexicaulis*). (Photo: Trevor Bloom).

What is a Native Plant?

The US Forest Service defines native plants as, "the indigenous terrestrial and aquatic species that have evolved and occur naturally in a particular region, ecosystem, or habitat." In Teton County, WY, native plants are those that were present in this ecosystem prior to European contact and the Homestead Act of 1862. There are over 1,200 plants native to Teton County.

Native plants exist in complex relationships with other local flora and fauna, are highly adapted to their environments, and provide a host of benefits within the context of their ecosystems. These benefits may include stabilizing soil, filtering water, supporting wildlife, and increasing the biodiversity that helps ecosystems build resilience to environmental stresses such as droughts, floods, and wildfires.

The natural bounty of native plants is used as food, medicine, textiles, and shelter by the Indigenous people who have been present in this landscape for at least 13,000 years.



*Chokecherry (above, *Prunus virginiana*) and arrowleaf balsamroot (right, *Balsamorhiza sagittata*) are two of over 1,200 species of plants native to Teton County and the Greater Yellowstone Ecosystem.*
(Photos: Raylene McCalman and Trevor Bloom).



Benefits of Native Plants



Black-capped chickadee feeding on the seed of an aspen tree. (Photo: Trevor Bloom).

Once established, native plants tend to require less water than non-native species and can help prevent erosion. Compared with conventional lawns and common horticultural plants, natives do not require fertilizer and take less maintenance, making them ideal for landscaping and restoration.

Native plants and pollinators, including butterflies, bees, beetles, and birds, are interdependent and co-evolved over millennia. Many insects will only reproduce on the native plants with which they have evolved, and the ensuing insect larvae are essential dietary components for birds such as chickadees, sage grouse, and warblers. For an ecosystem to flourish, there must be a robust population of native plants and native insects, from the valley floor to the alpine meadows.

Native plants are critically important to the wildlife that lives in the Greater Yellowstone Ecosystem. Most species, including birds, mammals, and pollinators, rely on native plants for food and shelter.

Landscaping with natives improves habitat, increases biodiversity, and adds complex beauty to curated spaces.

Planting cultivars or non-native species is associated with the loss of biodiversity, nutritional value and a decrease in flowering plant selection for pollinators. Native species are not only better adapted to our local ecosystem, but they are also preferred food sources and more nutritious for local wildlife, native insects, and pollinators.



Large mammals, such as the bull elk above, have evolved with native plants for forage and habitat. (Photo: Trevor Bloom).

What is a Cultivar?



A cultivar is a plant that has been selectively bred for certain traits, or hybridized with other species, and propagated for commercial purposes, resulting in a loss of native genetics. In general, plant materials available from commercial and retail sources will be “cultivars”, or “nativars”, derived from native species collected in the wild and brought into production for commercial uses.

Western Yarrow (Achillea millefolium var. occidentalis, pictured above) is a plant native to North America. Yarrow cultivars, many of which are derived from the more aggressive European subspecies of Achillea millefolium, are often sold in nurseries. (Photo: Trevor Bloom).

What is a Non-Native or Invasive?

Non-native species are plants that are not native to a region, and are typically introduced, either intentionally through agriculture and landscaping, or accidentally by people or livestock.

Invasive species are problematic non-natives that out-compete native plants for resources, reproduce prolifically, alter soil chemistry, and have the potential to dominate entire ecosystems. Invasive species are one of the greatest threats to the Greater Yellowstone Ecosystem.

Noxious weeds are a state or county legal designation that applies to non-native plants that are likely to cause environmental or economic harm.

A non-native species is described as “**naturalized**” when it is not invasive, meaning that it does not displace native species. Dandelions are an example of a non-native naturalized species.



Musk thistle (top) and spotted knapweed (below) are two of the most common and noxious invasive species in Teton County. (Photos Trevor Bloom and Matt Lavin).

How to Prevent Invasive Species

Native plant communities are threatened by the spread of non-native species. Negative effects of invasive species include increased wildfire risk, decreased forage and habitat for wildlife, less nutrition for pollinators, and other harmful effects for humans, livestock, and wildlife.

Here's how you can help:

- Do not intentionally plant invasive species
- Protect areas that are not currently infested with weeds
- Contain and reduce established weed populations
- Disturb as little ground as possible, as invasives can readily establish in bare ground
- If you suspect that you have found an invasive species call Teton County Weed and Pest (307) 733-8419
- Restore, establish, and/or maintain healthy native plant communities -- it is much easier to conserve existing plant communities than to restore them

Some of the worst and common invasive species in Teton County:

- Canada thistle (*Cirsium arvense*)
- Cheatgrass (*Bromus tectorum*)
- Dalmatian toadflax (*Linaria dalmatica*)
- Houndstongue (*Cynoglossum officinale*)
- Musk thistle (*Carduus nutans*)
- Spotted knapweed (*Centaurea stoebe*)



Cheatgrass is becoming widespread across Wyoming and Teton County. It increases the risk of wildfire dramatically and is poor forage for wildlife and livestock.
(Photo: Jennifer Strickland, USFWS).

Invasive Species Best Practices

Before removing invasive species, double check your identification. A few commonly confused species include:



Elk thistle (left), a native species. Canada thistle (right), a state-designated noxious weed. (Photos: W.D. and Dolphia Bransford; MN Department of Agriculture).



Thistles: Wyoming is home to 19 native thistles that look similar to musk, bull, or Canada thistle. Our native thistles attract important pollinators, such as bumblebees, sweat bees, beetles, and butterflies. The leaves and stalks provide food for herbivores such as caterpillars and elk, while the seeds are dense in protein and are preferred by birds. Some, such as elk thistle, are edible for humans. Unlike invasive thistles, our native thistles don't spread rapidly, and like other native species, need our protection. Before removing thistles, make sure you are looking at a non-native thistle. For more information, consult the Wyoming Thistle Field Guide, provided by University of Wyoming Extension.

Mullein: An invasive species native to Europe and Northern Asia, mullein has woolly leaves and produces yellow flowers. Mullein's tall stature bears some similarities to the native monument plant (*Frasera speciosa*), which has shiny leaves and produces purple flowers.



Monument plant (left), a native species. Mullein (right), a noxious weed. (Photos: Charlotte Cadow, Wyoming Weed and Pest).



What to Do with Invasive Species

Managing invasive species requires an awareness of how these species grow and spread. Some, like musk thistle, have deep tap roots, but grow singly, and can be managed by simply pulling or digging the taproot before they go to flower/seed. Others, like Canada thistle, spread via interconnected root systems known as rhizomes. Treatment requires repeated mechanical control and/or properly timed herbicide application.

If using herbicide, apply before invasive plants begin flowering or go to seed. In addition to potentially damaging pollinators and adjacent vegetation, herbicide does not always kill seed, and when used incorrectly, can create bare ground for more invasive weeds to establish. There are many types of chemicals, so consult Teton County Weed and Pest (TCWP) for best practices. In general, once plants have started flowering or fruiting, the best option is mechanical control and removal.

When pulling out invasive species, gloves should be worn to protect from spines or toxins. Pulling or digging is easiest when the ground is damp, and the plant has begun sending up a flowering stalk, but before the plant begins to flower. Once weeds have flowered, it is generally best to remove and deposit flower and seed heads in the trash. To prevent reflowering, sever the root from the rest of the plant, and let it decompose.

If you have invasive plants that need to be sprayed, call TCWP (307) 733-8419, to determine the best course of action.

- **Cheatgrass.** Needs to be sprayed with herbicide.
- **Knapweed.** Mechanical removal or can be sprayed with herbicide.
- **Houndstongue.** Mechanical pulling.
- **Musk Thistle.** Mechanical pulling.
- **Canada Thistle.** Fall herbicide application. Small patches can be controlled with repeated mechanical removal that depletes root reserves. Pulling or mowing once will increase stem sprouts.



*Cheatgrass (*Bromus tectorum*), an annual invasive grass that is converting native ecosystems into highly flammable monocultures. (Photo: Charlotte Cadow).*

Plant Communities of Teton County

Home landscapes in Teton County will generally be at altitudes between 6,000 to 7,200 feet, with porous, rocky soils, and limited access to water. Sagebrush steppe is the predominant plant community in the valleys of Teton County. At higher elevations and along riparian corridors and ponds, we find conifer and deciduous forests and wetland communities.

The timing of the growing season determines when plants make their appearances. As snow begins to retreat in late April, numerous ephemeral wildflowers and cool season grasses emerge in the valley, sagebrush buttercup and spring beauty being among the first. By early June, as the early spring flowers fade, arrowleaf balsamroot, silky lupine, and scarlet gilia appear. By mid-July, various sunflowers begin to dominate. In August, the yellows of showy goldeneye and rabbitbrush compose the landscape's floral palette.

Understanding the unique assemblages and relationships of each of these plant communities can help guide your planning process for reintroducing natives to your home landscape.



The sagebrush steppe is one of the most common and iconic plant communities of Teton County, flowering from late August into September. (Photo: Trevor Bloom).

Sagebrush Steppe

Shrubs

Mountain big sagebrush thrives in Teton County's dry climate and short growing season. Plants can grow up to three feet tall, with grayish green leaves and tiny yellow flowers that bloom in late August and early September.



Iconic sagebrush steppe.
(Photos: Raylene McCalman).

Antelope bitterbrush co-occurs with sagebrush, growing from three to five feet tall locally, with fragrant cream-colored flowers that bloom in June.

Snowberry grows well in the sagebrush steppe as well as in shaded areas and produces attractive, yet poisonous, white berries.

Woods' rose is another very adaptable species that grows well in many conditions in Teton County and has a beautiful distinctive pink flower, as well as an edible rose hip rich in vitamin C.

Wildflowers

The diversity of wildflowers that flourish amongst the shrubs in the sagebrush steppe creates rich habitat and vibrant hues. From showy mule's ear to tiny sagebrush buttercup, each provides important nutrients for pollinators and wildlife.



Mural of common wildflower species in Teton County. (Artists: Julia Brady and Lida Steves-Plummer).

Many of the plants that thrive amongst the sagebrush have cultural significance for the Indigenous people who historically and currently travel through Teton County. Some species, like balsamroot, have edible properties, while others, such as yarrow, have medicinal application. This assemblage of native flowers continues to inspire art around the world.

Aspen and Cottonwood Forests

Aspens primarily reproduce from shoots that sprout up from horizontal roots. This growth pattern creates clonal stands of cream-colored trees where a great diversity of other species can be found. Aspens prefer level, moist sites or dry slopes.

Cottonwoods, close relatives of aspens, grow along rivers and creeks in the valley. Bark on mature trees is heavily furrowed. The species here hybridize freely so identification may be difficult.



Quaking aspen leaf.
(Photo: Noah Waldron.)

Native Grasses

Often overlooked, Teton County is home to hundreds of species of grasses, which are flowering plants. Most of our grasses grow alongside the sagebrush or in the understory of other plant communities, while a few others form entire communities. The most common growth form of native grasses is the bunch grass, which forms in tight clusters or bunches.

There are many native grasses that can be used for landscaping, but some of the most commonly available are: **bluebunch wheatgrass, Idaho fescue, basin wildrye, and needle-and-thread.**



Bluebunch wheatgrass. (Photo: Matt Lavin).

Most lawns are grown with non-native rhizomatous grasses, rather than native bunchgrasses. Rhizomatous grasses spread via their roots to form mats that outcompete native species.

Conifer Forests



Common conifers of Teton County are **Douglas fir**, **Engelmann spruce**, **sub-alpine fir**, **lodgepole pine**, **limber pine**, **blue spruce** near rivers, and threatened **whitebark pine** at higher elevations. Many shrubs thrive in the conifer understory, including the following:

Russet buffaloberry grows two to four feet tall in forests, is a nitrogen fixer, and produces red berries.

Utah honeysuckle grows in open pine forests, with cream-colored flowers blooming in early June, producing red unpalatable berries.

Serviceberry can grow up to fifteen feet tall, with showy white flowers blooming in spring, turning to purple berries by late summer.

Chokecherry can grow up to twenty feet tall, with cylindrical clusters of showy white flowers blooming in spring, turning to dark red berries by August.

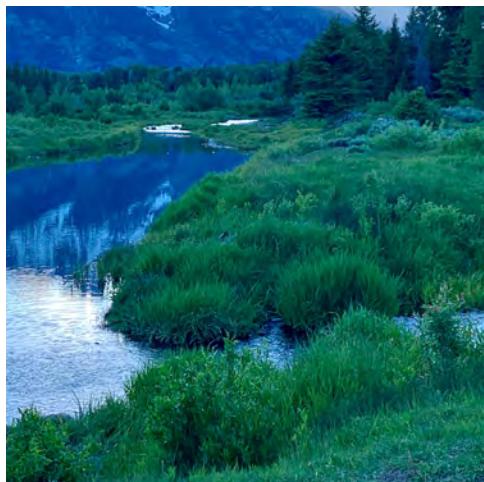
Birch-Leaf Spirea is a three to four foot shrub. Preferring shady environments, the white flowers bloom in early July.

Wetlands

The most common landscaping plants for wetlands are willows.

These plants occur in moist areas, especially along stream banks. Twenty-eight species of willow are found in the Jackson Hole area.

The most popular for landscaping include **Bebb Willow**, **Drummond's Willow**, and **Coyote Willow**. **Red-Osier Dogwood**, **Grey Alder**, and **Silverberry** also grow well in moist soils.



Teton County Landscaping

Keep in mind that many plants currently growing at your home site are likely non-natives. When the **Homestead Act of 1862** passed, individuals arriving in the West were able to establish homesteads for free, as long as they followed stipulations that required putting the land into agricultural production and building structures sufficient to support residence on the land.



Homesteaders attempting to secure their deeds by meeting government requirements cleared native species and introduced non-native smooth brome, timothy grass, alfalfa, barley, oats, and wheat for livestock feed. In addition, some grew large kitchen gardens, introducing other non-natives to the area, some of which have escaped and have become naturalized throughout the area.



Before landscaping your home, explore local areas that are relatively unaltered. By identifying similar growing conditions to your home, you can develop an understanding which species will do best with the soil and water conditions at your site. Your chances for success depend more on choosing species that are adapted to your site than to attempt to adapt your site to species that may not be a good fit. The recommended species list included in this text also provides information about soil and moisture requirements (page 17-20).

Teton County & Wildfires



Blue penstemon (*Penstemon cyaneus*) is one of the stunning species that is recommended for Firewise landscaping. Photo: Charlotte Cadow.

If you live in Teton County, you live in the **Wildlife-Urban Interface (WUI)**. The WUI is where human infrastructure, such as businesses and homes, are close to flammable vegetation.

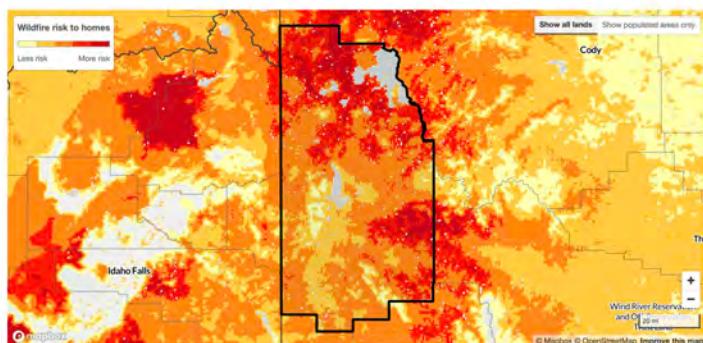
Wildfires are among the natural cycles that govern Teton County. While fire is an essential disturbance event for many of the native species in Teton County, homeowners and land managers should take steps to mitigate the risk of fire spreading to buildings and homes.

During intense wildfires, showers of embers can be carried up to a mile and a half from the front of the fire. If these embers land in dry vegetation or other flammable material, they can ignite and start new fires in urban neighborhoods, a phenomenon that accounts for approximately 90% of structures that ignite during wildfires.

Homes adjacent to steep slopes and dense vegetation are considered to be in areas of high wildfire hazard. Given the topography and size of communities in Teton County, most homes fall within a half-mile of densely vegetated terrain. If a large fire swept through Teton County, many homes could be at risk, and should consider implementing Firewise Landscaping.

Wildfire Risk

Wildfire Risk to Communities in Teton County, with dark red indicating the greatest risk to homes. All of Teton County has at least moderate risk. (Photo: USDA Wildfire Risk to Communities).



Defensible Space Zones

The best way to prevent a wildfire from spreading to your home is to create defensible space, or a buffer between your house and the grass, trees, shrubs, and surrounding area. Defensible space is divided into three concentric zones surrounding a house or structure.

Zone 1 (Immediate) extends 5 feet from a building, and the motto is, lean, clean, and green. In this zone, plant short plants, avoid wood chips, remove dead or dry vegetation, and prune branches that are within 10 feet of the structure, especially the chimney. Additionally, pruning ladder fuels, and planting native fire-resistant species can further increase the survivability of structures. Better yet is a band of rocks or patio around the house.

Zone 2 (Intermediate) spans the area between 5 to 30 feet from a building, or to the edge of your property line. In areas with steeper terrain or denser vegetation, Zone 2 may extend 200 feet from the home. Within this space, grasses should be mowed to a maximum height of 4 inches. Vertical and horizontal space should be created between shrubs and trees to slow the progression of fire across the built landscape. Fallen leaves, twigs, and other dead vegetative material should also be removed.

Zone 3 (Extended) extends from the edge of Zone 2 to the property line. The goal of landscaping in this zone is not to eliminate fire, but rather to interrupt fire's path and keep flames smaller and on the ground. Pruning trees and removing some snags can help to reduce the risk of crown fires.



The three Home Ignition Zones that comprise defensible space. (Photo: NFPA.org).

Firewise Landscaping

Recommended Species for Firewise Landscaping

In general, Firewise species, such as aspen trees, retain more moisture in their leaves, contain limited flammable resins, and often re-sprout after fires. Many Firewise species are also drought-resistant, and may have thick, succulent leaves that retain moisture during dry years.

Spacing

When planting within the defensible space, it's important to consider steps that might help to slow the spread of a fire. Closest to a home, plants should be widely spaced, with at least 10 feet between tree crowns. Ladder fuels need to be removed, and tree branches should be pruned to 6-10 feet from the ground, or a third of the total height of the tree. Spacing between clumps of shrubs should be at least two and a half times their mature height, as flame lengths are double the height of vegetation they burn.

Incorporating gravel or stone pathways can help to bisect swaths of vegetation, thereby forming fire breaks. Moving farther away from the home, plants can be more densely planted and reach greater heights, but stressed, diseased, or dying plants should still be cleared.

Other important considerations include installing fire-resistant roofs, decks, exterior walls, and fences. Firewood and fuel should be stored at least 30 feet from the home, and at least 10 feet away from flammable vegetation.



On August 4th, 2019, lightning ignited a blaze on East Gros Ventre Butte. The fire burned approximately 80-acres. (Photo: Jackson Hole Fire/EMS).

Trees and Plants to Avoid

While conifers are an essential component of the Greater Yellowstone Ecosystem, they tend to be laden with pitch and resin, which are highly flammable substances. These species, such as Douglas Fir, Engelmann Spruce, Blue Spruce, and Common Juniper can still be retained within the defensible space, but should be thinned and pruned to reduce wildfire hazard. The presence of cheatgrass also increases fire risk.

Recommended Species for

A selection of recommended species can be found below.

| Common Name | Scientific Name | Growth Form | |
|--------------------------|--|--------------------------------|-----------------------|
| Blue Columbine | <i>Aquilegia coerulea</i> | Short Perennial Forb | |
| Blue Flax | <i>Linum lewisii</i> | Perennial Forb | |
| Canada Goldenrod | <i>Solidago canadensis</i> | Perennial Forb | |
| Common Yampah | <i>Perideridia gairdneri</i> ssp. <i>borealis</i> | Perennial Forb | |
| Curlycup Gumweed | <i>Grindelia squarrosa</i> | Annual/Perennial Forb | |
| False Solomon's Seal | <i>Maianthemum canadense</i> | Perennial Forb | |
| Fireweed | <i>Chamerion angustifolium</i> | Perennial Forb | |
| Harebell | <i>Campanula rotundifolia</i> | Perennial Forb | |
| Heartleaf Arnica | <i>Arnica cordifolia</i> | Short Perennial Forb | |
| Little Flower Penstemon | <i>Penstemon procerus</i> | Perennial Forb | |
| Littleleaf Pussytoes | <i>Antennaria microphylla</i> | Short Perennial Forb | |
| Monkshood | <i>Aconitum columbianum</i> | Perennial Forb | |
| Oregon Grape | <i>Mahonia repens</i> | Perennial Forb | |
| Pearly Everlasting | <i>Anaphalis margaritacea</i> | Perennial Forb | |
| Prairie Smoke | <i>Geum triflorum</i> | Perennial Forb | |
| Scarlet Gilia | <i>Ipomopsis aggregata</i> | Biannual Forb | |
| Seep Monkeyflower | <i>Erythranthe guttata</i> | Annual/Perennial Forb | |
| Showy Fleabane | <i>Erigeron speciosus</i> | Perennial Forb | |
| Showy Goldeneye | <i>Helianthemis multiflora</i> | Perennial Forb | |
| Silky Lupine | <i>Lupinus sericeus</i> | Short Perennial Forb | |
| Silvery Lupine | <i>Lupinus argenteus</i> | Short Perennial Forb | |
| Spearleaf Stonecrop | <i>Sedum lanceolatum</i> | Perennial Forb | |
| Sticky Purple Geranium | <i>Geranium viscosissimum</i> | Short Perennial Forb | |
| Sulphur Flower Buckwheat | <i>Eriogonum umbellatum</i> | Perennial Forb | |
| Upland Larkspur | <i>Delphinium nudatallianum</i> | Perennial Forb | |
| Wasatch Penstemon | <i>Penstemon cyananthus</i> | Perennial Forb | |
| Western Yarrow | <i>Achillea millefolium</i> var. <i>occidentalis</i> | Perennial Forb | |
| GRASSES | Basin Wildrye | <i>Leymus cinereus</i> | Perennial Grass |
| | Bluebunch Wheatgrass | <i>Pseudoroegneria spicata</i> | Perennial Grass |
| | Bottlebrush Squirreltail | <i>Elymus elymoides</i> | Perennial Grass |
| | Needle and Thread | <i>Hesperostipa comata</i> | Perennial Grass |
| | Prairie Junegrass | <i>Koeleria macrantha</i> | Short Perennial Grass |

Landscaping in Teton County

Find additional information in the reference list at the end of this document.

| Firewise | Bloom Time | Light preference | Soils; Moisture | Pollinators |
|----------|------------|-------------------|-------------------|---------------------------------|
| No | Jun - Aug | Part - Full Sun | Sand, Loam | Bees, Butterflies, Hummingbirds |
| Yes | May - Sep | Part - Full Sun | Sand, Loam | Bees |
| No | Jul - Sep | Part - Full Sun | All; Moist | Bees |
| Yes | Jul - Aug | Part - Full Sun | Clay, Loam; Moist | Bees |
| Yes | Aug - Sep | Part - Full Sun | Dry | Bees, Butterflies |
| Yes | Jun - Jul | Part - Full Shade | All | Bees, Beetles, Flies |
| Yes | Jul - Sep | Full Sun | All | Bees, Butterflies, Hummingbirds |
| Yes | Jun - Sep | Shade - Full Sun | All | Bees, Hummingbirds |
| Yes | May - Jun | Partly Sunny | All | Bees |
| No | Jun - Jul | Full Sun | All; Well-drained | Bees |
| Yes | Jun | Full Sun | Clay, Loam; Dry | Butterflies |
| Yes | Jul - Aug | Part - Full Sun | All | Bees |
| No | Jun - Jul | Part - Full Sun | All | Bees, Butterflies |
| Yes | Jul - Sep | Part - Full Sun | Loam | Bees, Butterflies |
| Yes | Apr - Jun | Part - Full Sun | Loam | Bees |
| Yes | Jun - Jul | Part - Full Sun | All; Dry | Hummingbirds |
| Yes | Apr - Jun | Full Sun | All; Wet | Bees |
| Yes | Jun - Aug | Full Sun | All; Moist | Bees |
| Yes | Jul - Sep | Full Sun | All; Dry | Bees, Butterflies |
| Yes | Jun - Aug | Part - Full Sun | Sand, Loam; Dry | Bees, Hummingbirds |
| Yes | Jun - Jul | Shade - Part Sun | All | Bees, Butterflies, Hummingbirds |
| Yes | Jun - Jul | Part - Full Sun | Well-drained, Dry | Bees, Butterflies, Flies |
| Yes | May - Aug | Shade - Full Sun | Loam | Bees, Butterflies |
| Yes | Jul - Aug | Partly Sunny | Sand, Loam; Dry | Bees |
| No | May - Jun | Part - Full Sun | Clay; Dry | Bees |
| Yes | Jun - Jul | Part - Full Sun | All; Well-drained | Bees, Butterflies |
| Yes | Jun - Sep | Part - Full Sun | Sand, Loam | Bees |
| Yes | Jun - Jul | Part - Full Sun | All, Saline; Dry | No |
| Yes | Jun - Jul | Full Sun | All; Well-drained | No |
| Yes | Jun - Jul | Full Sun | All; Well-drained | No |
| Yes | Jun - Jul | Full Sun | Sand, Loam; Dry | No |
| Yes | Jun - Jul | Part - Full Sun | Sand, Loam | No |

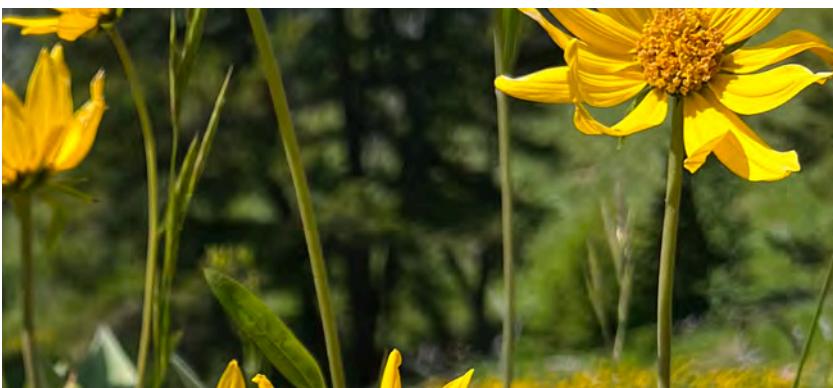
Recommended Species for

| | Common Name | Scientific Name | Growth Form |
|--------|-----------------------------|--|-----------------|
| SHRUBS | Antelope Bitterbrush | <i>Purshia tridentata</i> | Deciduous Shrub |
| | Drummond's Willow | <i>Salix drummondiana</i> | Deciduous Shrub |
| | Fringed Sagewort | <i>Artemisia frigida</i> | Subshrub |
| | Golden Currant | <i>Ribes aureum</i> | Deciduous Shrub |
| | Green Rabbitbrush | <i>Chrysothamnus viscidiflorus</i> | Deciduous Shrub |
| | Mountain Big Sagebrush | <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> | Evergreen Shrub |
| | Raspberry | <i>Rubus idaeus</i> | Deciduous Shrub |
| | Red Elderberry | <i>Sambucus racemosa</i> | Deciduous Shrub |
| | Red-Osier Dogwood | <i>Cornus sericea</i> | Deciduous Shrub |
| | Rubber Rabbitbrush | <i>Ericameria nauseosa</i> | Deciduous Shrub |
| | Russet Buffaloberry | <i>Shepherdia canadensis</i> | Deciduous Shrub |
| | Shrubby Cinquefoil | <i>Dasiiphora fruticosa</i> ssp. <i>floribunda</i> | Deciduous Shrub |
| TREES | Thimbleberry | <i>Rubus parviflorus</i> | Subshrub |
| | Western Snowberry | <i>Symphoricarpos occidentalis</i> | Deciduous Shrub |
| | Woods' Rose | <i>Rosa woodsii</i> | Deciduous Shrub |
| | Black Chokecherry | <i>Prunus virginiana</i> | Deciduous Tree |
| | Black Hawthorn | <i>Crataegus douglasii</i> | Deciduous Tree |
| | Curl-Leaf Mountain Mahogany | <i>Cercocarpus ledifolius</i> | Deciduous Tree |
| | Douglas Fir | <i>Pseudotsuga menziesii</i> | Evergreen Tree |
| | Engelmann Spruce | <i>Picea engelmannii</i> | Evergreen Tree |
| | Lodgepole Pine | <i>Pinus contorta</i> | Evergreen Tree |



Landscaping in Teton County

| Fire Tolerance | Bloom | Light preference | Soils; Moisture | Pollinators |
|----------------|-----------|-------------------|----------------------|---------------------------------|
| No | Jun - Jul | Full Sun | Sand, Loam | Bees |
| Yes | Apr - May | Full Sun | All; Moist-wet | Bees, Insects |
| Yes | Jul - Aug | Full Sun | All | Bees, Butterflies |
| Yes | Apr - Jun | Part - Full Sun | Loam | Bees, Butterflies, Hummingbirds |
| Yes | Aug - Sep | Full Sun | All; Dry | Bees, Butterflies |
| No | Aug - Sep | Full Sun | All; Dry | No |
| No | May - Jul | Partly Sunny | All | Bees, Hummingbirds |
| Yes | Jun - Jul | Shade - Full Sun | Clay, Loam; Moist | Butterflies, Hummingbirds |
| Yes | Apr - May | Part - Full Sun | All; Wet | Bees, Butterflies, Hummingbirds |
| Yes | Aug - Sep | Full Sun | Sand, Loam | Bees, Butterflies |
| Yes | May - Jun | Part - Full Sun | Sand, Loam | Bees |
| Yes | Jun - Aug | Full Sun | All | Bees, Butterflies |
| Yes | May - Jul | Part - Full Sun | All | Bees, Butterflies, Hummingbirds |
| No | Jun - Aug | Full Sun | All | Bees |
| Yes | May - Jul | Part - Full Sun | Clay, Loam; Wet | Bees |
| Yes | Apr - May | Full Sun | All; Moist | Bees, Hummingbirds |
| Yes | May - Jul | Full Sun | All | Butterflies, Hummingbirds |
| No | Apr | Part - Full Shade | All | Bees, Butterflies |
| No | May - Jun | Part - Full Sun | Sand, Loam | No |
| No | Apr - May | Part - Full Sun | Sand, Loam | No |
| No | Jun | Part - Full Sun | All | No |
| Yes | Apr - May | Part - Full Sun | All; Moist | No |
| Yes | Apr - May | Part - Full Sun | Sand, Loam | Insects |
| Yes | Apr - Jun | Part - Full Sun | All; Alkaline, Moist | Bees, Butterflies, Hummingbirds |



Oneflower sunflower.
(Photo: Charlotte Cadow).

Sourcing Native Plant Materials

When purchasing and planting native plants or seed mixes, double check the packaging to ensure that the mix is indeed native to the GYE. Many "Wildflower" or "Native Grass" seed mixes contain non-native species such as toadflax or non-native pasture grasses. Other mixes may include species that are native to the Great Plains or Rocky Mountain Region, but not to Teton County. The Teton Conservation District has developed a native grass mix that is available at local stores including Teton Rental and Wilson Hardware.

As of this publication, here are suggested sources for native plant materials suitable for landscaping in Teton County and the GYE:

Container Plants (shrubs, wildflower, and willows)

- Center for Native Plants, Whitefish, MT - 406-862-4226
- Great Bear Native Plants, Hamilton, MT, 406-381-9829
- MD Nursery, Driggs, ID - 208-354-8816
- North Fork Native Plants, Rexburg, ID - 208-354-3691
- Piney Island Native Plants, Sheridan, WY - 307-683-6753
- Porcupine Nursery, Jackson, WY - 307-733-5721
- Trail Creek Nursery, Victor, ID - 208-787-2470
- West Bank Garden Center, Wilson, WY - 307-733-7395

Seeds

- Granite Seeds (Nature's Seed), Lehi, UT – 801-701-9446
- Stevenson Intermountain Seed, Ephraim, UT – 435-283-6639
- Wind River Seed, Manderson, WY – 307-568-3361

Trees

- MD Nursery, Driggs, ID - 208-354-8816
- Trail Creek Nursery, Victor, ID - 208-787-2470
- Trees Inc, Jackson, WY - 307-733-6563
- Teton Evergreens, Victor, ID - 307-699-5160

For an up-to-date list of commercial and retail sources visit:

www.tetonconservation.org/native-plants

Installation and Maintenance

A wealth of native plant gardening resources are available online. For the purposes of this booklet, we offer a few insights from our experience:

Homeowner associations may have specific requirements for landscaping, including maximum heights for trees and shrubs. Check before planting, encourage your HOA to promote natives, and share this resource guide.

Water. While natives are drought tolerant, most will require some form of irrigation for several years before becoming established.

Patience. Plan on a staged approach to reintroducing native species. In disturbed landscapes, aggressive invasive species, such as cheatgrass, can quickly take over bare ground, crowding out beneficial native species. Whenever possible, avoid removing large areas of existing vegetation.

Timing. Unlike vegetable and flower gardening, native plants may take several years to become established. Plant seeds outdoors in late fall after October 15. Cover seed with 1/8 inch soil & rake very lightly. Do not water in fall. Plant potted plants and seedlings in the spring or fall, either around early June or mid-September.



It is always a good idea to flag out your garden or area before you plant (left). Reseed disturbed areas using a handheld seed spreader (right). Generously water plants before and after installation (above).

Continued Learning Opportunities

Wildflower Watch



Wildflower Watch is an ongoing project where volunteers can serve as citizen scientists and help The Nature Conservancy better understand how plants are responding to climate change. All volunteers receive in-person training with naturalists. Currently, Wildflower Watch serves Jackson and Cody, Wyoming. Visit Nature.org/WildflowerWatch for more information.

Greater Yellowstone Botanical Tour

Pay a visit to the National Museum of Wildlife Art and follow the Sculpture Trail to visit four distinct ecosystem types: Wildflower Meadow, Aspen Grove, Sagebrush Steppe, and Museum Fire Burn Area to learn fun facts and useful information about dozens of native plants from beautiful wildflowers to towering trees. The garden is growing and there are many opportunities to get involved as a volunteer. Inquire at the National Museum of Wildlife Art or contact [Teton Botanical Garden](https://tetonbotanicalgarden.org).



Teton County Conservation District

Contact info@tetonconservation.org for assistance with species identification or selection, information about grant opportunities, the Conservation Planting Program, and/or the availability of private property Walk and Talks.

Teton Plants

Teton Plants, the Teton Chapter of the Wyoming Native Plant Society, offers periodic field trips, monthly programs at the County Library, and publishes "What's in Bloom" to their website. Visit <https://tetonplants.org> to learn more.

References and Resources

A Pocket Guide to the Native Plants of Teton County, Wyoming (2022). Teton Conservation District. www.tetonconservation.org

Create a Defensible Space (2021). Rotary Wildfire Ready. www.rotarywildfireready.com

Defensible Landscaping (2012). Barnyards & Backyards: Rural Living in Wyoming. University of Wyoming. <https://www.uwyo.edu/bambackyard/>

Dennis, F.C. (2012). FireWise Plant Materials 6.305. Colorado State University Extension. <https://extension.colostate.edu/>

Dorn, R. D. (1992). Vascular Plants of Wyoming. Cheyenne, WY.

Fluet, A., Thompson, J. S., Tuthill, D. E., & Marsicek, B. R. (2014). Plants with Altitude: Regionally Native Plants for Wyoming Gardens. University of Wyoming Extension. Chicago.

Grand Teton Common Plants (2012). National Park Service, U. S. Department of the Interior. www.nps.gov.

Heidel (2022). Wyoming Thistle Field Guide: Native and Non-Native. University of Wyoming Extension.

Homesteading in Jackson Hole (2021). Jackson Hole Historical Society & Museum. www.jacksonholehistory.org

Invasive Plant Pocket Guide (2017). Greater Yellowstone Coordinating Committee.

Kershaw Linda, J., MacKinnon, A., & Pojar, J. (2016). Plants of the Rocky Mountains. Partners Publishing. Chicago.

Landscaping Firewise Plant Lists (2019). Alpine Area Wildfire Protection Coalition.

Native plants boost conservation benefits, strengthen wildlife populations (2023). USDA Natural Resources Conservation Service. www.nrcs.usda.gov

Native, Invasive, and Other Plant-Related Definitions (2023). USDA Natural Resources Conservation Service. www.nrcs.usda.gov

Native, or Not So Much? (2016). The National Wildlife Federation. www.nwf.org

References and Resources

Prepare for Wildfire: Defensible Space (2019). Cal Fire. <https://www.readyforwildfire.org/prepare-for-wildfire/>

Protecting Your Home from Wildfire: Creating Wildfire-Defensible Zones (2012). Colorado State Forest Service <https://static.colostate.edu/>

Ready, Set, GO! Being Ready - Wildfire Preparedness (2023). Teton County Wyoming. <https://www.tetoncountywy.gov/>

Tilt, W. (2015). Flora of the Yellowstone: A guide to the wildflowers, shrubs & trees, ferns, and grass-like plants of the Greater Yellowstone Region of Idaho, Montana, and Wyoming. Gallatin Valley Land Trust.

What are Native Plant Materials? (2014). U.S. Forest Service. <https://www.fs.usda.gov/wildflowers/>

White, A. S. (2016). From nursery to nature: evaluating native herbaceous flowering plants versus native cultivars for pollinator habitat restoration. The University of Vermont and State Agricultural College.

Wildfire Risk Reduction Program (2023). Teton Conservation District. <https://www.tetonconservation.org/wildfire-risk-management>



Blue columbine (Aquilegia caerulea). (Photo: Charlotte Cadow).



Prairie Smoke (*Geum triflorum*). (Photo: Raylene McCalman).

Authors

Trevor Bloom MS, Applied Ecologist
The Nature Conservancy, Wyoming
Northern Rockies Conservation Cooperative

Charlotte Cadow MS, Native Plant Technician
The Nature Conservancy, Wyoming
Northern Rockies Conservation Cooperative

Raylene McCalman MS, Consulting Ethnobiologist

Author contact: Trevor@NRCCooperative.org



Published by The Nature Conservancy
in cooperation with Teton Conservation District

For more than 30 years, people like you have helped **The Nature Conservancy** and its partners protect more than 1 million acres of Wyoming's wild and working spaces. We're building on that legacy and bringing people together to help solve today's biggest conservation challenges from climate change and habitat loss to protecting clean water. Together we're stronger!

Teton Conservation District is a local government entity whose mission is to work with the community to conserve natural resources through local projects, partnerships, research, and education.



Supporting Partners

Teton Botanical Garden

Northern Rockies Conservation Cooperative

Teton Chapter, Wyoming Native Plant Society

Community Foundation of Jackson Hole



Bloom, Trevor; Cadow, Charlotte; McCalman, Raylene (2023); Native Plant Resource Guide: Landscaping and Restoration in Teton County and Greater Yellowstone Ecosystem; Second Edition. The Nature Conservancy in Wyoming, Northern Rockies Conservation Cooperative and Teton Conservation District.