

think NATIVE

when restoring small-acreage rangelands

Non-irrigated land in Wyoming is considered rangeland if the vegetation is primarily grasses, forbs (wildflowers and, in some cases, weeds), and/or shrubs (sagebrush, rabbitbrush, etc).

When restoring grazing lands or landscaping around a newly constructed home or barn, consider native species. Native species are generally expected to be the best adapted species as long as they are native to your area.

Getting natives from other ecosystems risks the same lack of adaptation as with the introduced species commonly sold. For special purposes, non-native species may be adequate and some are well adapted to most areas in Wyoming. Local conservation agencies usually have information on which native and non-native species work best for local conditions.

Many companies have seed available of both native and non-native species. Pricing may vary depending on the prevalent uses of species and the number of growers producing them. Uncommon species may be expensive but, in general, native species tend to cost more because of the added expense of collecting them

in the wild versus under field-grown conditions. Before going out, contact the agency in charge of the land. Oftentimes, they can assist you.

Native species are conditioned to the environmental extremes of Wyoming weather – high winds, cold winters, snow cover or lack thereof, less than 14 inches of annual precipitation, and relatively short growing seasons.



Alkali sacaton

Native species are also acclimated to frequent drought – most locales in Wyoming receive below-average precipitation six of every 10 years.

An alternative to planting a high water-use bluegrass lawn could be blue grama or buffalograss, which are short, sod-forming species. Species useful as low-maintenance cover on disturbed areas are western wheatgrass, a rhizomatous grass that does well in loamy soils

and can be used on saline, loamy soil. Thickspike wheatgrass and needle and thread grass do well on sandy soils.

Buffalograss is native to eastern Wyoming, and it does well in heavy clay soils in warmer climates and elevations below 6,000 feet. Buffalograss can be an option for a low-maintenance lawn, but seed can be difficult to establish and is more expensive than many other grasses, and sod is very expensive. Establishing buffalograss can be achieved by using plugs (essentially sod that has been cut into small pieces) because buffalograss spreads by stolons (aboveground runners).

For more information on species selection and establishment of low-maintenance lawns, see University of Wyoming publications *Low Maintenance Grasses for Revegetating Disturbed Areas* (<http://ces.uwyo.edu/PUBS/B1070.pdf/>) and *Landscaping: Turf in Wyoming* (<http://ces.uwyo.edu/PUBS/B1129.pdf/>).



Bluebunch wheatgrass



Lewis' flax

If buying or owning land that has been grazed year-round by livestock without adequate rest periods, many desirable grasses and forbs may have been replaced by less desirable species (weeds) or bare ground. Altering the management that led to the degraded condition is the first and most important step to restoring the land.

Purchasing quality seed is important. Use a reputable source for seed that is appropriate for a particular location. Contact a local UW Cooperative Extension Service (UW CES), Natural Resources Conservation Service (NRCS), or conservation district office for assistance. They will be able to help develop a reseeding plan that details the seed mixture, rate, timing, site preparation, and planting techniques that will help ensure a successful outcome.

A list of UW CES offices is available online at <http://ces.uwyo.edu/Counties.asp>. NRCS offices can be found at <http://offices.sc.egov.usda.gov/locator/app>. Wyoming conservation district offices can be found at www.conservwy.com/wacd/districts/index.html.

The reclamation of degraded landscapes cannot be achieved in a single growing season in Wyoming due to the time necessary for seeded species to become established. Wind, cold, and low precipitation may contribute to frequent failures of a seeding to become established.

Most cool-season species are seeded in the late fall through late winter to allow the seed to be ready when the spring soil temperatures are optimum and a combination of enough winter and spring moisture allows the seed to germinate and begin growth.

Spring seeding in warmer areas like eastern Wyoming and the Big Horn Basin may be used with warm-season grasses.

If there is successful germination and sufficient moisture throughout the growing season, an adequate stand will be evident by fall. After seeding, delaying grazing the first growing season is very important to allow plants to fully develop. Limit subsequent grazing in the dormant season and following year to leave ample grass height for soil protection and plant vigor.

Species for Selected Range Sites

Below are different range soil types that may be on a property. If you have any questions about range types for a property, contact a local CES, NRCS, or conservation district office.

Saline sub-irrigated (10- to 14-inch precipitation):

This is a low-lying area with occasional standing water a portion of the year or after heavy rains, normally with subsurface moisture within 1 to 2 feet of the surface. The topsoil often has a white crust present when surface water evaporates. Alkali sacaton, basin wildrye, and alkali bluegrass are suited for these areas in most of Wyoming.

Shallow, upland (15- to 19-inch precipitation):

This is characterized as a ridgeline or top of a low-lying hill with shallow soils and is frequently devoid of winter snows. These native species are present in these locations:

Grasses – bluebunch wheatgrass, slimstem muhly, needle and thread.

Forbs – *Gaillardia* (blanketflower).

Shrubs – black sagebrush.

Sandy (10- to 14-inch precipitation):

These areas are characterized by a fine sandy loam soil. When formed into a ball when wet, the ball will easily crumble when squeezed. The species listed below are frequently found in these areas along with thread leaf sedge, a grass-like plant:

Grasses – bluebunch wheatgrass, Indian ricegrass, needle and thread, thickspike wheatgrass.



Western wheatgrass



Forbs – Lewis' flax, scarlet globemallow.

Shrubs – fringed sagewort, sagebrush.

Loamy (10- to 14-inch precipitation):

These types of soils are common on uplands across eastern Wyoming rangelands. These soils will form a ball when wet.

Grasses – western wheatgrass, needle and thread.

Forbs – Lewis' flax, scarlet globemallow.

Shrubs – big sagebrush, rabbitbrush.

Clayey (most common in 5- to 14-inch precipitation zones):

Clayey soils are characterized by slow water infiltration. Runoff and available water capacity for vegetation is low. The grasses present on this type soil typically consist of western wheatgrass, bottlebrush squirreltail grass, and Indian ricegrass. Shrubs such as sagebrush, Gardner's saltbrush, and rabbitbrush may make up 40 percent of the vegetation on these sites.

Seed source:

Seed is available from local feed stores and area seed dealers such as Granite Seed (801) 531-1456, Wind River Seed (307) 568-3361, Pawnee Buttes Seed (800) 782-5947, and Sharp Brothers Seed Co. (303) 356-1456.

Calvin Strom is a University of Wyoming Cooperative Extension Service educator for Albany and Carbon counties and can be reached at (307) 328-2642 or cstrom@uwyo.edu.