

Native Grasses for the Missoula Area

NATIVE Grass Type	Size* Soil	Precipitation Zone Rate	Germination Rate	Establishment	Cultivar	COMMENTS
Slender Wheatgrass	€ Bunchgrass Sandy Loam Clay/Loam	<13"	Fast	First year	Pryor	Drops out in 3 to 7 years; dominates mix first 3 years if >2 lbs/acre rate; excellent early cover; 12 lbs/acre if monoculture.
Thickspike Wheatgrass	€ Rhizomatous Sandy Loam	<13"	Fast- Moderate	1 to 2 years	Banek Critana	Dominates mix if >2 lbs/acre rate; aggressive spreader; competes with knapweed once established; 10 lbs/acre if monoculture.
Streambank Wheatgrass	€ Rhizomatous Sandy Loam to Loam	<13"	Moderate	2 years	Sodar	Best for harsh, dry sites but needs water for germination; more drought tolerant than Thickspike though closely related; 10lbs/acre.
Bluebunch Wheatgrass	€ Bunchgrass Sandy to Clay Loam	<13"	Slow	2 to 4 years	Goldar	Most common native in Missoula Valley; good in a mix; weak weed competitor; fall seeding; seed heavy - 14 lbs/acre.
Western Wheatgrass	€ Rhizomatous Loam to Clay	13-15"	Moderate	2 years	Rosana	Good weed competitor in heavier/moist soil; mix with Thickspike and Slender; 12 lbs/acre.
Big Blue Bluegrass	€ Bunchgrass Sandy Loam Loam	<13"	Fast	First year	Sherman	Taller and <i>much more aggressive</i> than Sandberg Bluegrass; good in mix with Bluebunch; 6 lbs/acre.
Basin Wildrye	∠ Bunchgrass Loam Clay Loam	<13"	Slow	3 to 5 years	Trailhead	Best on moist sites and heavier soils; spindly first 2 years, then very persistent and aggressive; good mixed with 25 to 40% Western; 3' to 7' tall; good for wildlife; 12 lbs/acre.
Green Needlegrass Bunchgrass	€ Sandy Loam Clay Loam	13-15"	Moderate	2 years	Lodorm	Hard seed coat; plant in fall; reported better than Western and Bluebunch for weed suppression; good in mix; 12 lbs/acre.
Mountain Brome	€ Bunchgrass Loam Clay Loam	>18"	Moderate/ Fast	2 to 3 years	Gamet	Good substitute for Slender and Thickspike at elevation >4000'; seed in fall; 20 lbs/acre. Short lived.

Other good native species for creating a grassland in the Missoula area (<10% of mix) but poor weed competitors are:

IDAHO FESCUE § common in Missoula Valley; 3 to 4 years to establish; greens up in November; attracts herbivores
 SANDBERG BLUEGRASS § fills in on disturbed sites but not aggressive; ΔHigh Plains cultivar to be released soon

PRAIRIE JUNEGRASS § warm-season bunchgrass common
 ROUGH FESCUE § long-lived on heavier/moist soils

NON-NATIVE Grass	Size* Type	Precipitation Soil	Zone	Germination Rate	Establishment Rate	Cultivar	COMMENTS
Pubescent Wheatgrass	© Rhizomatous	Sandy-Loam	13-15"	Fast	First year	Manska Luna Rush	Reportedly best weed competitor; good in mix with 10% alfalfa (Ladak 65, Spredor 3); handles harsh site better than Intermediate; 14 lbs/acre.
Russian Wildrye	® Bunchgrass	Loam Loamy-Clay	<13"	Slow	2 to 3 years	Bozoisky	Plant as monoculture; takes over mix; reportedly competes very well with knapweed after first two years; best if drill seeded; 12 lbs/acre; slow to establish.
Intermediate Wheatgrass	© Rhizomatous	Loam, Loamy-Clay	14-15"	Moderate	1 to 2 years	Oahe Rush	Vigorous stand after 2 years; possible alternative to Smooth Brome on weedy site with horses; 14 lbs/acre.
Hard Fescue	® Bunchgrass	Sandy Loam Loam	<13"	Fast	First year	Durar	Aggressive; forms monoculture after 4 to 5 years; not good in clay soils; plant as monoculture or with sheep fescue; competitive with knapweed; 6 lbs/acre.
Sheep Fescue	® Bunchgrass	Sandy Loam	<13"	Fast	1 to 2 years	MX-86 Covar (from Europe)	Like Hard Fescue but will invade bare soil areas; though a native species, no North American selections are available; 6 lbs/acre.
Crested Wheatgrass	© ® Bunchgrass	Loam Loamy Clay	<13"	Fast	First year	Roadcrest Ephraim	Slightly rhizomatous; good on harsh site; rocky hillside; best weed control if kept lightly mowed or grazed (early); some cultivars considered invasive; 8 lbs/acre.
Siberian Wheatgrass	© Bunchgrass	Loam Loamy Clay	<13"	Fast	First year	Vavilov	Same as Crested Wheatgrass but shorter in height; 12 lbs/acre.
Perennial Ryegrass	© Treat as an annual; may winterkill	Loam Loamy Clay	<16"	Very Fast	First year	Good in mixes with Pubescent & Russian Wildrye up to 20%	Can be planted spring or early fall for winter cover; requires irrigation for germination; short lived; not winter hardy; 10 lbs/acre.

Other weed-competitive species are Kentucky and Canada Bluegrass and Smooth Brome; all three species can be invasive in native grasslands.

SIZE KEY: ↪ <8" ^ 12" to 30" ∨ >30"