



Pasture Grass Varieties for Livestock

By Debbie Moberg-Williams, WSU Extension Educator, Walla Walla County

Things to consider when choosing a pasture grass or a mixture of pasture grasses include annual rainfall, available water rights, soil types, and weed pressure. There are also management questions that need to be addressed before varieties are considered such as the ability to rotate animals, mow, and spray the pasture. It is also important to consider the type of livestock that will utilize the pasture now and in the future.

There are advantages and disadvantages of the different cool season grasses that need to match up with the available resources and management style. The grasses reviewed in this article are Kentucky bluegrass, orchardgrass, smooth brome, perennial ryegrass, tall fescue, hard fescues, and wheatgrasses. This information can be used when property owners are making decisions on establishing or renovating their pastures.



Kentucky Bluegrass (*Poa pratensis* L.)

Advantages:

- Good Forage Quality
- Withstands Traffic
- Tolerates Close Grazing (1 to 2 inches)

Disadvantages:

- Low Yield ~ 2 T/Acre
- Moisture Requirement (minimum of 20" annually)

Kentucky Bluegrass (*Poa pratensis* L.) is a cool-season, sod-forming grass which can handle low stocking rates. Productivity is greatest in spring and fall. It goes dormant in the hottest, dry part of the summer. Mixing with a short legume such as

clover, works well. Kentucky Bluegrass is not usually grown for hay because of its low productivity and short stature. It can be slow to establish. Common methods are conventional seeding or no-till seeding into a killed sod. Frost seeding and interseeding do not work well.



Ryegrass - Annual (*Lolium multiflorum* L.) and Perennial (*Lolium perenne* L.)

Advantages:

- Good Forage Quality
- Easy to Establish
- Tolerates Close Grazing
- Good Yield ~ 6 T/Acre

Disadvantages:

- Moisture Requirement (minimum of 30" annually)
- Poor Shade Tolerance
- Needs Well-drained Soil

Ryegrass [Annual (*Lolium multiflorum* L.) and Perennial (*Lolium perenne* L.)] are cool-season, bunch-type grasses. They establish easily and have high forage quality. Their downfall is that they are not overly tolerant to drought, heat, and winter cold.

They can be interseeded into existing pasture by no-till or frost seeding. Ryegrass may be grazed close early and then rested until 8 inches tall. Grazing lower than 4 inches may damage the plant. Purchase seed that is endophyte-free and resistant to crown rust. For perennial ryegrass, make sure you select forage varieties, not turf.



Smooth Brome (*Bromus inermis* Leyss.)

Advantages:

- High Forage Quality
- Good Yield ~ 5 T/Acre

Disadvantages:

- Aggressive
- Moisture Requirement (minimum of 18" annually)

Smooth Brome (*Bromus inermis* Leyss.) is a cool season grass that forms a dense sod by spreading rhizomes. It is winter hardy, drought and heat tolerant. It can be slow to establish. Common methods are conventional seeding or no-till seeding into a killed sod. Neither frost seeding nor interseeding works well. Brome is sensitive to grazing while stems are elongating so graze when plants are less than 6 inches or after they reach 10 inches.

Grazing lower than 4 inches may damage the plant



Wheatgrasses, Crested (*Agropyron cristatum*) and Tall (*Agropyron elongatum*) Intermediate (*Thinopyrum intermedium*)

Advantages:

- Drought Tolerant (requires a minimum of 8-12" annually)
- Tolerates Salty/Alkali Soils (Tall Wheat Grass)

Disadvantages:

- Poor Palatability at Maturity
- Low Yield < 2 T/Acre
- Doesn't Tolerate Close Grazing

Intermediate Wheatgrass (*Thinopyrum intermedium*) is a cool-season, sod-forming grass that is drought tolerant.

Crested wheatgrass, *Agropyron cristatum*, is a very drought-tolerant, medium height bunch grass. It is cold-hardy, shade-tolerant, and performs well at high elevations. This grass only requires 8 inches of annual moisture, and established stands can persist up to 30 years.

Crested wheatgrass is a slow developer, taking up to 2 years to fully establish.

Tall wheatgrass, *Agropyron elongatum* (Host.) Beauv., is a tall, vigorous bunch grass that is well adapted to saline and alkaline soil conditions. It is late maturing but has good longevity and hardiness. Tall wheatgrass does best with 14 inches or more of annual moisture. Being a non-aggressive grass, it should be used in seed mixes with only one or two other species. It has poor palatability at later maturity.



Orchardgrass (*Dactylis glomerata*)

Advantages:

- Good Forage Quality
- Easy to Establish
- Good Yield ~ 6 T/Acre

Disadvantages:

- Doesn't Tolerate Close Grazing
- Moisture Requirement (minimum of 20" annually) (Paiute requires 16")

Orchardgrass (*Dactylis glomerata*) is a cool-season bunch-type grass

that works well with a range of soils as long as there is adequate moisture. Management can be intense either grazing or cutting for hay. Its downfall is that it is not overly tolerant to drought, heat, winter cold and may thin out over time. It is fairly easy to establish and can be interseeded into existing pasture by no-till or frost seeding. Orchardgrass matures early. It should be grazed frequently to maintain adequate quality (regrow 10' before regrazing). After seedhead removal the regrowth is mainly all leaves. Orchardgrass is very aggressive however grazing lower than 4 inches may damage the plant. Under extremely hot conditions, orchardgrass will have a bigger production slump than meadow brome.



Tall Fescue (*Festuca arundinacea* Schreb.)

Advantages:

- Good Forage Quality
- Easy to Establish
- Good Yield ~ 5+ T/Acre
- Withstands Traffic

Disadvantages:

- Must be Endophyte Free

- Moisture Requirement (minimum of 14" annually)
- Older varieties have lower palatability

Tall Fescue (*Festuca arundinacea* Schreb.) is a cool-season bunch-type grass that spreads from short rhizomes. It is more shade tolerant than other grasses. It is tolerant to drought and flooding but not winter hardy. It is easily established by interseeding into existing pasture by no-till or frost seeding. Tall Fescue is sensitive to grazing while stems are elongating so graze when plants are less than 6 inches or after they reach 10 inches. Grazing lower than 4 inches may damage the plant. It will continue to grow through the summer more than other cool-season grasses. Tall Fescue can be stockpiled. Low palatability can sometimes be a problem. Older varieties have lower palatability. Select endophyte-free and low-alkaloid varieties.



Hard Fescues (*Festuca longifolia*)

Advantages:

- Drought Tolerant (requires a minimum of 10" annually)

- Withstands Traffic
- Tolerates Close Grazing

Disadvantages:

- Poor Forage Quality
- Low Yield < 2 T/Acre

Hard Fescues (*Festuca longifolia*) are cool-season bunch grasses that are drought tolerant and have some shade tolerance. They grow in clump formations and are salt tolerant. They do well on low fertility sites and in shaded areas. Hard fescue tolerates medium acid soils, making it more adapted to forest and foothill regions rather than open prairies. Hard fescue will not tolerate "wet feet", saline, or alkaline soils. Although this species has very good seedling vigor, it is slow to develop. The fine leaves of the seedlings are

unable to emerge through much of a crust on the soil surface. Sheep fescue, *Festuca ovina* var. *sulcata* (L.) Koch, is a short, spreading native bunch grass and is the most drought tolerant species of this group. It is slow to develop, but forms a tough, persistent cover once it is established.

Selection of the proper species or mix is an important step in establishing a pasture that meets the needs of your animals and works for your property. Allowing adequate time for establishment, providing enough moisture, and managing weeds will give your pasture the start it needs.

Check with your local county Extension office or conservation district for recommendations on forage species adapted to your area. For additional information check out these websites: Pasture: Sustainable Management (<http://www.attra.org/attra-pub/sustpast.html>), Tarleton State University (Texas A&M) has compiled a lot of information and pictures (<http://www.tarleton.edu/~range/Home/home.htm>).

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For more information contact: Debbie Moberg-Williams, WSU Extension Educator, Walla Walla County, 328 W. Poplar, Walla Walla WA 99362, Phone: 509-524-2685

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