FACT SHEET

MEADOW BROME

(*Bromus biebersteinii* Roemer & J.A. Schultes)

University of Wyoming

Uses

Grazing/Hayland: The primary use of Meadow Brome is for forage production. It is used for pasture, hay and haylage. It is highly palatable to all classes of livestock and wildlife. Meadow Brome is one of the best forage grasses for intensive rotational grazing systems.

Erosion control: Because of its dense network of roots, Meadow Brome provides good erosion control on those soils to which it is adapted. Rhizomes of Meadow Brome are much shorter than those of Smooth Brome. Because of this, Smooth Brome is commonly a better choice for erosion control plantings.

Wildlife: Meadow Brome is used in grass-legume mixes for nesting, brood rearing, escape and winter cover in upland wildlife and conservation plantings. It is excellent forage for big game animals and waterfowl, particularly geese.

Description

Grass Family (Poaceae). Meadow Brome is native to south-western Asia near Turkey. It is a long-lived, rapid developing leafy, introduced, cool-season grass that spreads by short rhizomes. The numerous long, light green leaves are dominantly basal, lax, and mildly pubescent. The numerous erect stems appear earlier in the growing season than Smooth Brome. The awned florets are produced in large terminal panicles. The presence of awns, hairy leaves and stems, and lack of aggressive rhizomes can distinguish Meadow Brome from Smooth Brome. When grown under irrigation, it can reach 2-6 feet in height. It is very productive in close spaced, one-foot rows. Meadow Brome is not invasive. Meadow Brome has 93,000 seeds/pound.

Adaptation

Meadow Brome can be grown under dryland conditions in 14+ inch annual precipitation regions of the foothills, mountains and irrigated areas throughout the west. Meadow Brome is one of the leafiest species to initiate growth in the spring and makes tremendous growth during cool conditions. Due to deep roots and tiller base, it is capable of strong summer growth and regrowth following grazing or haying. It makes rapid recovery following mowing or grazing even during the hot periods of the year.

Unlike Meadow Brome, Smooth Brome regrowth initiates from its crown and thus never achieves rapid recovery or regrowth following grazing or haying. Smooth Brome does not grow well under hot summer temperatures.

Rhizomes of Meadow Brome are much shorter than Smooth Brome resulting in fewer problems with stands becoming sodbound, which is common in Smooth Brome.

Meadow Brome is very winter hardy. It produces in areas with spring frost such as high mountain valleys. In areas with significant spring frost and little snow cover, Meadow Brome is a much better species selection than Orchardgrass.

Meadow Brome performs well on soil textures ranging from shallow to deep, coarse gravely to medium textured, well to moderately well-drained, and moderately acidic to weakly saline to alkali. It performs best on fertile, moderately deep to deep, well-drained soils. It does not grow well in saline soils and wet areas with high water tables. It is also sensitive to flooding and commonly dies if inundated for more than 10 days. It has the ability to establish and persist in areas that receive as little as 14 inches of annual precipitation, but performs best with 16 inches or more rainfall or irrigation. It prefers full sun, but will tolerate semi-shady areas or areas with reduced light.

Establishment

A clean, firm, weed-free seedbed is recommended. Dry land and erosion control seedings should be made in the late fall or very early spring when soil moisture is not limited. Irrigated seedings should be made to early to mid-spring. On dryland, do not seed later than May 15th or a failure may occur because of drought and hot summer conditions before the grass is well established. A deep furrow or double disc drill with press wheels may be used. Meadow Brome does not flow uniformly through a drill unless it is diluted with rice hulls or other carriers. For dryland and irrigated land a seeding rate of 10 pounds Pure Live Seed (PLS) per acre is recommended (20

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seeds per square foot). If broadcast or planted for critical area treatment, double the seeding rate to 20 pounds PLS/acre or 40 seeds PLS/square foot. Meadow Brome is very compatible with legumes such as Alfalfa, Cicer Milkvetch, Birdsfoot Trefoil, Sainfoin, and Clover species. When planting with legumes, alternate row planting is recommended due to differences in seedling vigor. Use 6 to 8 pounds PLS of Meadow Brome seed per acre when planting in alternate rows with a legume. Adjustments in seeding rate should be made when seeding in mixtures. Seeding depth should be ¼ to ½ inch.

Management

Under dryland conditions the new planting should not be grazed until late summer or fall of the second growing season. The plants may be severely damaged or pulled out by over-grazing especially in the seedling year due to poorly rooted seedlings. Under irrigated conditions the new planting should not be grazed until late summer or fall of the first growing season. Meadow Brome establishes roots very slowly and plants may be severely damaged by grazing too soon. Harvesting for hay during the establishment year will be most beneficial to eliminate grazing damage.

Do not graze in the spring until forage is 8 to 12 inches high and remove animals from pasture when 3- to 4-inch stubble height remains. A 3 to 4 week rest period between grazing is recommended. Use no more than 60% of the annual growth during the winter season or 50% during the growing season. This plant responds well to rotation-deferred grazing systems. To maintain long-lived stands, the grass should be allowed to periodically mature and produce seed for continuation of the stand.

Meadow Brome responds very well to good fertility management. One strategy to even out the forage production is to fertilize the stand after the first and second cutting or grazing periods to boost late spring and summer production. Apply fertilizer based on soil tests. Fertilizer nutrient rates need to be balanced rates of nitrogen and phosphorus to maintain optimum stands of grasses and legumes. Nitrogen will favor the grass while phosphorus will favor the legume.

Forage production can be restored and stands may benefit from ripping if sodbound conditions occur. Care should be taken to avoid excessive tillage because stands may be damaged.