

brome grasses fact sheet

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Brome grasses are widely used as key grass components in pasture and hay mixtures. The 3 species in use in Western Canada include smooth, meadow, and hybrid brome.

key differences among the 3 brome grasses

species	rhizomes	leaf attachment	best use	rate of regrowth	recovery between use	plant id traits
smooth	aggressively spreading	along stem	hay	slow	60-80 days	m-like watermark on leaves, no hairs
meadow	slowly spreading	mostly basal	pasture	fast	30-45 days	long, soft hairs on leaves and sheaths
hybrid	slowly spreading	basal and along stem	dual purpose	intermediate	45-60 days	can have both watermark and short hairs depending on variety

smooth brome grass

The first known planting of smooth brome in Canada dates back to 1898.

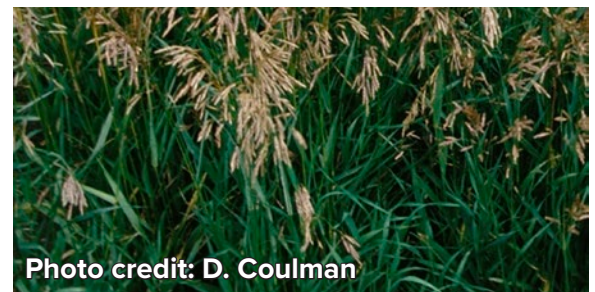
Bromus inermis Current varieties: Carlton, Radisson

Best suited for hay: Management tip: regrowth is faster if the first grazing occurs before stem elongation; cut for hay between heading and flowering for good yield and quality.

Opportunities: The most common brome grass. Long-lived, aggressively creeping and well suited to hay production across the Bulkley-Nechako and Fraser-Fort George (BNFFG) regions. Adapted to a wide range of soil conditions including short periods of spring flooding, saturated and saline soils.

Challenges: Smooth brome regrows slowly after cutting or grazing. Its aggressive creeping habit is both an advantage and a challenge as smooth brome can be invasive when planted close to natural areas and rangeland. The creeping rhizomes can make it root bound over time.

Adaptations: Good drought tolerance. Can withstand 2-5 weeks of spring flooding. Excellent winter hardiness. Suitable for all soil textures although it will perform best on fertile loamy soils. Tolerates pH levels as low as 5.5 although production will decline.



The characteristic watermark on the leaves helps identify smooth brome.

meadow brome grass

The first variety of meadow brome was released in 1980.

Bromus riparius Current varieties: Fleet, MBA

Best suited for pasture: Management tip: cut for hay at early bloom for best quality and yield

Opportunities: Re-grows quicker than smooth brome and is therefore better suited for pasture situations. Adaptations are comparable with smooth brome although meadow brome grass is not quite as hardy under stress conditions. Meadow brome performs better under good soil conditions and is adapted to a wide range of soil textures. It spreads less aggressively than smooth brome.

Challenges: After 2-3 years, meadow brome grass becomes mainly vegetative with basal leaves. This makes it more challenging to harvest as hay. When hybrid brome is in short supply, meadow brome is often used as a substitute in hay blends.

Adaptations: Good drought tolerance with quick recovery after drought. Can withstand up to 2 weeks of spring flooding. Prefers loamy and clay soils with good moisture. Good winter hardiness.



Photo credit: J. Mackenzie

Characteristic basal growth of meadow brome-grass, leaves and sheaths are covered in soft hairs.

hybrid brome grass

The first variety of hybrid brome was released in Western Canada in 2000.

Bromus riparius x B. inermis Current varieties: Bigfoot, Succession, AC Knowles, AC Success

Best suited for hay, pasture, and dual-purpose blends: Management tip: cut for hay at early bloom stage for best quality and yield

Opportunities: Hybrid brome is a cross between smooth and meadow brome grass and has the advantage of faster regrowth compared to smooth brome and greater hay yields compared to meadow brome grass. Being a cross between smooth and meadow brome grass, some varieties express characteristics more like the one or the other.

Challenges: In the BNFFG area, it appears to be slower to establish. Seed supply shortages can make hybrid brome expensive or unavailable.

Adaptations: Good drought tolerance. Can withstand 1-2 weeks of flooding in the spring. Good winter hardiness. Adapted to all soil textures but prefers well drained soils.



Photo credit: AAFC

Hybrid brome (Success) on the left in comparison with meadow brome (Fleet) on the right.

dryland forage

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good to know

Leaf attachment can make a difference in how quickly the grass plant can re-grow after cutting or grazing. For example, meadow brome has mostly basal leaf attachment allowing it to re-grow faster compared to smooth brome which elevates leaves along the stem.

References

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