

BMPs for Invasive Plant Species



What are Invasive Plant Species?

Invasive plant species are non-native plants introduced outside of their natural habitats. In this new environment, free from their natural 'enemies', they have an advantage that allows them to out-compete native plants and agricultural crops for space, moisture and nutrients.*

Examples of invasive plant species relevant to grazing management:

- Leafy Spurge [1]
- Downy Brome [2]

What RISKS do invasive plant species pose to grazing resources?

- Increased management costs for control
- Decreased biodiversity and rangeland health
- Reduced forage productivity (often exponentially)
- Compromised economic and aesthetic value of the land
- Intensified spread through grazing activities, wildlife, and domestic animals
- Elevated physical, nutritional, and reproductive health concerns within a grazing herd



Beneficial Management Practices (BMPs)

Invasive plant species pose a very real threat to production, economic value, and aesthetics of the land. BMPs are practices that can be implemented to fight against invasive plant species, including prevention of their introduction, control of their spread, or elimination of their presence. The following BMPs can assist in these efforts.

HIGH RISK

Invasive plant species in native or tame pastures

- ✓ Develop an inspection and monitoring plan
 - inspect and monitor throughout the growing season
 - map and mark infestations using GPS
 - document with pictures
- ✓ Contain the infestation and minimize spread to non-affected areas
 - fence out affected area
 - focus initial control methods on perimeters
 - quarantine livestock prior to moving to new areas (minimum 48hrs)[†]
 - avoid trailing or moving livestock through infested areas
 - graze infested areas prior to seed set
- ✓ Implement integrated control options
 - herbicide application / hand pulling / mowing / high density grazing / planned grazing periods / multi-species grazing / biological (insects) / burning
 - consult agrologist
- ✓ Initiate or participate locally with awareness and management
 - report infestations to local weed inspector, Rural Municipality or provincial weed specialist
 - ensure visitors make efforts to reduce spread

Become familiar with plant identification and control strategies.



Inspect pastures, holding pens, corrals, trails, salting locations, watering sites, and fireguards regularly.

Beneficial Management Practices

MEDIUM RISK

Invasive plant species in close proximity to native or tame pastures

- ✓ Contact landowner to explain concern
- ✓ Contact Rural Municipality to determine awareness and encourage control
- ✓ Be aware of neighbouring livestock that may cross fencelines and wildlife that roam freely
- ✓ Exercise control methods in adjacent areas and develop buffer zones (obtain landowner permission)
 - spot spray / hand pull / spray ditches and fencelines
- ✓ Work with neighbours and community to raise awareness and encourage management plans

LOW RISK

Invasive plant species are not present in native or tame pastures

- ✓ Use certified, weed-free seed when establishing new pastures — request certificate of analysis
- ✓ Quarantine new animals prior to introducing them to grazing areas (minimum 48hrs)[†]
- ✓ Monitor winter feeding areas during the growing season
- ✓ Ensure gravel or fill is from clean pits prior to use in grazing areas
- ✓ Recognize that all pastures are at risk and implement preventative measures

Thank you to the many groups and individuals who contributed their expertise to the creation of these beneficial management practices.

† **Quarantining** livestock for a period of time reduces the risk of seed spread when ingested by or physically attached to livestock. Time required varies depending on plant and livestock type, time of year, and management for each operation. This can be accomplished in a holding area that can be monitored closely.

Photo Credits

Cattle Grazing (header) — S. Schellenberg, Perrin Ranching 1990 Ltd.
 Leafy Spurge — MT Noxious Weed Program, MSU, Bugwood.org
 Downy Brome — S. Dewey, Utah State University, Bugwood.org
 Whitetail Deer — K. Hull, Rangeland Conservation Services
 Goats Grazing at Elbow AAFC Pasture — D. Ostrander, AAFC
 Pasture Monitoring — S. Schellenberg, Perrin Ranching 1990 Ltd.

Additional Readings and Resources

- Saskatchewan Invasive Species Council www.saskinvasives.ca
- Saskatchewan Ministry of Agriculture www.agriculture.gov.sk.ca (Environment Stewardship / Invasive Alien Plant Program)
- Saskatchewan Watershed Authority www.swa.ca (Invasive Species Fact sheets)
- Native Plant Society of Saskatchewan www.npss.sk.ca
- Saskatchewan Forage Council www.saskforage.ca
- Alberta Invasive Plants Council www.invasiveplants.ab.ca (*invasive species definition adapted from this source)
- Invasive Species Council of Manitoba www.invasivespeciesmanitoba.com
- Government of Canada www.invasivespecies.gc.ca
- Canadian Food Inspection Agency www.inspection.gc.ca (Invasive Alien Plants in Canada)

Inspect and clean vehicles, including undercarriage, prior to entering or leaving pastures.

Ensure that feed sources are weed-free.



Maximize plant vigour and growth by using grazing management strategies to encourage competition with invasive plants.

The Bottom Line

Invasive plant species threaten the productivity, profitability, environmental resilience, and biodiversity of grazing operations. The risk exists and is very real. Prevention is the first, best, and most affordable option.



Project Partners



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Crossing the Medicine Line Network



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