

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 the hay industry include:

Absinthe Wormwood [1]
Nodding Thistle [2]

What RISKS do invasive plant species pose to the hay industry?

- Jeopardized market opportunities and reputation
- Decreased yield, productivity, and overall profitability
- Compromised nutritional value and palatability (forage quality)
- Increased spread through hay production and livestock feeding practices
- Elevated health concerns for livestock due to poisonous or toxic invasive plants



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 hay fields or bales

- ✓ Contain the infestation and minimize spread to non-affected areas
 - cut and bale clean areas first, followed by isolated affected areas
 - harvest all areas with invasive plants present prior to seed set
 - stack bales from infested areas separately
 - feed bales in locations that allow easy monitoring and control (cropland, pen or on field of infestation)
 - restrict grazing in infested areas to reduce seed spread
- ✓ Develop an inspection and monitoring plan
 - inspect and monitor throughout the growing season
 - map and mark infestations using GPS
 - document with pictures
- ✓ Implement integrated control options
 - herbicide application / hand pulling / timed mowing / biological (insects) / burning plants or bales
 - if necessary, take hay field out of production before seed set and fallow or crop to allow herbicide control
 - consult agrologist
- ✓ Feed weed-free hay to confined livestock for two days prior to turning out onto hay land or pasture
- ✓ Do not sell or transport hay containing invasive plant parts with the ability to propagate

Become familiar with plant identification and control strategies.



Inspect hay fields, fencelines, storage yards, and feeding grounds regularly.

Beneficial Management Practices

MEDIUM RISK

Invasive plant species near hay fields or unknown in purchased hay

- ✓ When baling new areas, inspect for invasive plants prior to cutting
- ✓ Store purchased feed separately, assuming risk of contamination
- ✓ Inquire about invasive species in the area before purchasing standing or baled hay
- ✓ Monitor field edges to ensure invasive plants are not invading inwards
- ✓ Exercise control methods in adjacent areas and develop buffer zone (obtain landowner permission)
 - spot spray / hand pull / spray ditches and fencelines / cultivate buffer strip / plant shelterbelt (tall vegetated areas can help protect against seeds carried by wind)
- ✓ Work with neighbours and Rural Municipality to raise awareness and encourage control

Inspect and clean haying equipment, feeding equipment, and vehicles prior to entering or leaving hay fields.

LOW RISK

Invasive plant species are not present in hay fields or bales

- ✓ Use certified seed free of invasives when establishing new hay fields – request certificate of analysis
- ✓ Visit field of origin for purchased hay during growing season to ensure invasive plants not present
- ✓ Purchase hay from fields cut earlier in growing season as they are less likely to have propagating parts, reducing risk of spread
- ✓ Be extremely cautious and knowledgeable of the source when using manure as a fertilizer
 - invasive plant seeds are easily brought in with manure
- ✓ Recognize that all hay fields are at risk and implement preventative measures

Inspect ditches before cutting for hay. Road-side ditches are common areas of infestation.

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

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 plant 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)
- North American Weed Management Association www.nawma.org/WeedFree.html (Weed Free Forage)



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Only purchase hay and other feeds from known sources that are weed-free.

The Bottom Line

Invasive plant species threaten hay productivity and quality, as well as profitability and market access. 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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