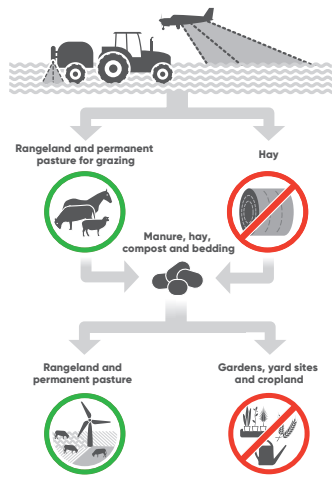
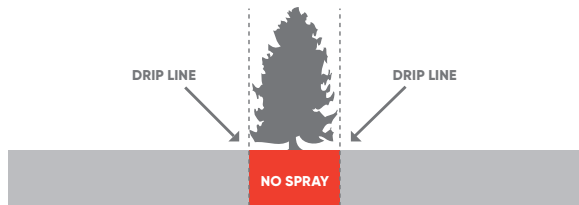


Hay, soil and manure management

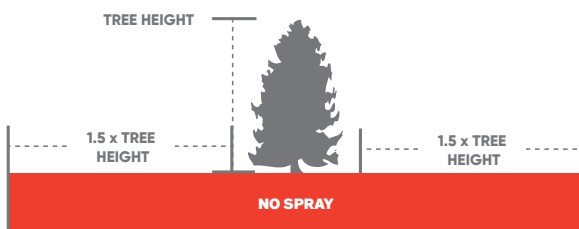


- Soil from treated areas should not be moved to areas where sensitive plants may be planted within five years.
- Manure from livestock consuming treated grass should not be used for compost or around susceptible plants. Clippings from grass that has been treated with range and pasture herbicides should not be used for composting or mulching.

Buffers



- Reclaim™ II herbicide and Restore™ II herbicide should NOT be used over the top of desirable trees. They should only be used up to the drip line (outermost edge of the tree canopy) of desirable trees. Use additional caution around lateral root systems, shallow rooting species and those that propagate vegetatively through layering.



- Grazon™ XC herbicide and Tordon™ 22K herbicide should NOT be used over the top of desirable trees. Applications should remain a distance of 1.5 times the height of desirable trees at all times.
- Do not apply Grazon XC or Tordon 22K to coarse texture soils (>40 percent sand) with a high water table (within 1.8 metres or 6 feet of the soil surface).

Grazing and cutting restrictions



- No grazing restrictions for livestock. Seven day grazing restriction for lactating dairy animals for Restore II, Reclaim II or Grazon XC; six weeks for Tordon 22K.
- Withdraw all animals three days prior to slaughter.
- If forage must be removed from an area treated with Restore II, Reclaim II, Grazon XC or Tordon 22K, do not cut the forage within 30 days of application.
- If livestock is being moved from a pasture treated with these herbicides to a legume-based pasture, it is recommended that animals be grazed on an untreated, non-legume-based pasture for three days when treating with Restore II or Reclaim II and seven days when treating with Grazon XC or Tordon 22K.

Range and pasture products are designed for permanent pasture and rangeland where grazing is the method of harvest. The manure or compost from an animal fed treated forage should only be used on appropriate use sites where the loss of broadleaf plants, including legumes, can be tolerated.

Re-seeding and grass tolerance



- Newly seeded grass should not be sprayed until secondary root development and a minimum of four leaf surfaces have established – well past the seedling stage.



- Safe to established grasses.
- Grasses may be seeded 10 months following an application.
- Legume re-establishment may be affected for up to five years.
- Soil organic matter, rainfall and temperature all affect the rate of degradation.



- Avoid applications under stress conditions when grass is not actively growing (hot or cold weather, excessive moisture, or drought) as grass injury including leaf discoloration and stunting of growth in the season of application may result.

Range and pasture invasive weed and brush control guide



For specific weed and brush control advice, please contact the Corteva Agriscience Solutions Center at 1-800-667-3852 or visit corteva.ca.



Visit us at RangeandPasture.corteva.ca

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Range and pasture products

Grazon™ XC

HERBICIDE

Broad-spectrum control of undesirable pasture species. Recommended rate for weed control is 1.9 L/ac. For tree recommendations, please contact your local Corteva Agriscience™ representative.

Tordon™ 22K

HERBICIDE

Provides the longest lasting control of deep rooted, hard to control leafy spurge and yellow toadflax. For rate recommendations, please contact your local Corteva Agriscience representative.

Reclaim™ II

HERBICIDE

The most effective control of the toughest weeds and shrubs in rangeland and permanent pasture, providing increased grass production and extended control. Recommended rate for extended weed and shrub control is 20 ac/case.

Restore™ II

HERBICIDE

The cost effective choice for invasive weed control and increased grass production. Recommended rate for weed control is 20 ac/case.

Broadcast and spot spraying

	Broadcast application 20 gal/ac water volume	Spot application Mixing in 10 L water
Restore™ II ¹ herbicide	20 ac/case	24 mL
Reclaim™ II ¹ herbicide	20 ac/case Plus 0.25% v/v non-ionic surfactant	2.3 g (1 tsp) Reclaim II A 17 mL Reclaim II B 20 mL surfactant
Grazon™ XC ² herbicide	1.9 L/ac for weed control For tree rates contact Corteva Agriscience	67 mL (i.e. 0.67% solution)
Tordon™ 22K ² herbicide	1.84 L/ac	50 mL (i.e. 0.5% solution)
For backpack/spot application:		
¹ Thoroughly and uniformly wet the foliage, but not to the point of runoff.		
² Apply to foliage until wet, up to the point of runoff. Maximum one application per year for all treatments.		

Water volumes

Ground: Minimum 20 gal/ac

Aerial: Minimum 5 gal/ac

Rainfast

In 4 hours



Invasive weeds and shrubs

Invasive plants can thrive and spread aggressively reducing the quality and quantity of forage available to grazing animals. Here are some of the most invasive weeds and brush to watch out for:



ABSINTH WORMWOOD

Type: Weed
Rate recommendations for best results:
RECLAIM II: 20 ac/case
RESTORE II: 1 L/ac
GRAZON XC: Control has been observed when applied at 1.9 L/ac for a wide variety of susceptible species.
Best practices for control:
Treat in the juvenile stage, when actively growing. Best timing: early to mid-June. Add a non-ionic surfactant such as Gateway™ adjuvant at 0.25% v/v to Reclaim II.



CANADA THISTLE

Type: Weed
Rate recommendations for best results:
RECLAIM II: 20 ac/case
GRAZON XC: 1.9 L/ac
RESTORE II: 1 L/ac
Best practices for control:
Spray once all thistles have emerged, typically in mid-June to late July. For infestations that have been established for > 2 years, either broadcast or spot applications may be required in subsequent years to manage the problem and to remove heavy infestations. Add a non-ionic surfactant such as Gateway at 0.25% v/v to Reclaim II.



HAWKWEED

Type: Weed
Rate recommendations for best results:
RECLAIM II: 20 ac/case
RESTORE II: 1 L/ac
Best practices for control:
Apply when actively growing, prior to flowering. Add a non-ionic surfactant such as Gateway at 0.25% v/v to Reclaim II.



HOUND'S TONGUE

Type: Weed
Rate recommendations for best results:
RECLAIM II: Control has been observed when applied at 20 ac/case for a wide variety of susceptible species.
RESTORE II: Control has been observed when applied at 1 L/ac for a wide variety of susceptible species.
Best practices for control:
Apply when actively growing, prior to flowering. Add a non-ionic surfactant such as Gateway at 0.25% v/v to Reclaim II.



LEAFY SPURGE

Type: Deep-rooted perennial
Rate recommendations for best results:
TORDON 22K: Broadcast – 1.8 L/acre; Spot spray – 3.6 L/ac where no more than 50% of an acre is treated.
GRAZON XC: 1.9 L/ac
Best practices for control:
Apply when actively growing when in full true flower, prior to seed set. Grazon XC will provide seasonal control of leafy spurge. Subsequent treatments may be required. Add a non-ionic surfactant such as Gateway at 0.25% v/v to Grazon XC.



OX-EYE DAISY

Type: Weed
Rate recommendations for best results:
RECLAIM II: 20 ac/case
RESTORE II: 1 L/ac
GRAZON XC: Control has been observed when applied at 1.9 L/ac for a wide variety of susceptible species.
Best practices for control:
Apply when actively growing, prior to flowering. Add a non-ionic surfactant such as Gateway at 0.25% v/v to Reclaim II.



SCENTLESS CHAMOMILE

Type: Weed
Rate recommendations for best results:
RECLAIM II: 20 ac/case
RESTORE II: 1 L/ac
GRAZON XC: Control has been observed when applied at 1.9 L/ac for a wide variety of susceptible species.
Best practices for control:
Apply when actively growing, prior to flowering. Add a non-ionic surfactant such as Gateway at 0.25% v/v to Reclaim II.



TALL BUTTERCUP

Type: Weed
Rate recommendations for best results:
RECLAIM II: 20 ac/case
RESTORE II: 1 L/ac
GRAZON XC: Control has been observed when applied at 1.9 L/ac for a wide variety of susceptible species.
Best practices for control:
Apply anytime from early spring when rosettes are first emerging up to the later stages of flowering. Typically late May to mid-July. Add a non-ionic surfactant such as Gateway at 0.25% v/v to Reclaim II.



TANSY

Type: Weed
Rate recommendations for best results:
RECLAIM II: 20 ac/case
GRAZON XC: Control has been observed when applied at 1.9 L/ac for a wide variety of susceptible species.
Best practices for control:
Apply from rosette to bolt. Add a non-ionic surfactant such as Gateway at 0.25% v/v to Reclaim II.



WESTERN SNOWBERRY (BUCKBRUSH)

Type: Shrub
Rate recommendations for best results:
RECLAIM II: 20 ac/case
Best practices for control:
Apply to actively growing plants after full leaf expansion, but prior to the development of a waxy cuticle on the leaf – typically June to mid-July. Control will be reduced if applied later in the season, past mid-July, once plants have hardened off. Add a non-ionic surfactant such as Gateway at 0.25% v/v to Reclaim II.



WHITE COCKLE

Type: Weed
Rate recommendations for best results:
RECLAIM II: Control has been observed when applied at 20 ac/case for a wide variety of susceptible species.
Best practices for control:
Apply when actively growing and prior to flowering. Add a non-ionic surfactant such as Gateway at 0.25% v/v to Reclaim II.



WILD CARAWAY

Type: Weed
Rate recommendations for best results:
RECLAIM II: 20 ac/case
RESTORE II: Control has been observed when applied at 1 L/ac for a wide variety of susceptible species.
Best practices for control:
Apply when actively growing, prior to flowering. Add a non-ionic surfactant such as Gateway at 0.25% v/v to Reclaim II.



WILD ROSE

Type: Shrub
Rate recommendations for best results:
RECLAIM II: 20 ac/case
Best practices for control:
Apply to actively growing plants, after full leaf expansion. Typically June to mid-July. Add a non-ionic surfactant such as Gateway at 0.25% v/v to Reclaim II.



YELLOW TOADFLAX

Type: Deep-rooted perennial
Rate recommendations for best results:
TORDON 22K: Broadcast – 1.8 L/acre; Spot spray – 3.6 L/ac where no more than 50% of an acre is treated.
GRAZON XC: 1.9 L/acre
Best practices for control:
Apply to actively growing plants, after full leaf expansion at the flowering stage. Grazon XC will provide seasonal control of yellow toadflax. Subsequent treatments may be required. Add a non-ionic surfactant such as Gateway at 0.25% v/v to Grazon XC.