

Range & Pasture

RANGE & PASTURE PORTFOLIO

Eastern

Visit us at rangeandpasture.com

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The Value of Controlling Weeds and Brush

Weeds and brush compete with forage grasses for valuable soil nutrients and moisture, sunlight, and space. Due to their rapid growth habits, many weeds and brush left unchecked can quickly outperform desirable grasses reducing forage production and quality. Decades of pasture research has demonstrated removing weed and brush competition coupled with adequate soil fertility and grazing management can lead to improved forage quality and yields. For example, in one study shown in **Figure 1** the dry matter gathered from an area treated with herbicides produced 5.8 tons of forage compared to 2.3 tons in the untreated area.

Controlling weeds when they are small and before they are well established requires the least amount of input costs. Scouting pastures early and often is recommended.

An investment in a proper herbicide treatment is the single best input for increasing forage grass production.



LEFT-Treated with herbicides

RIGHT–Untreated

Using herbicides to manage weeds resulted in a 152% increase in forage grass compared to untreated, 5.8 tons/A vs. 2.3 tons/A.

THE VALUE OF WEED AND BRUSH CONTROL

BEFORE WEED CONTROL

REDUCED CARRYING

MORE PURCHASED

SPOT-GRAZING

AFTER WEED CONTROL

STOCKING RATES



The Condition of My Pasture

A well-managed pasture where fertility is maintained, grazing is properly managed, and weeds are controlled will provide an excellent forage base for livestock. However, if either or all of these components of management are neglected, pastures will decline. Encroaching weeds will invade and take resources from the desirable forages. The presence of weeds encourages spot grazing which leads to increased weed pressure and a declining forage base resulting from the heavy selective grazing. Over time woody plants begin to encroach resulting in an even greater decline in grazeable forage.

As the pasture progresses from stage 1 to stage 5 in the image on the right, the inputs required to transition a pasture back into a more desirable state results in increased costs, time, and effort.





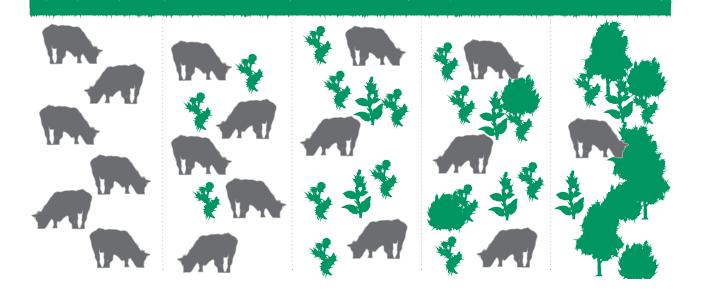
- Well managed pasture with minor weed competition
- Uniform grazing
- Encroachina annual and perennial weeds

2

- Spot grazing around weeds
- Increased grazing pressure on weed free parts of pasture



Significant





perennial weeds

cover most of

Annual and



- Heavy infestation of annual and perennial weeds and woody plants
- Limited grazing with little opportunity for grass recovery from grazing

• Annual and perennial weeds cover most of the pasture

3

- impacts on forage
- the pasture Encroachment of woody plants Grazing becomes more concentrated

in weed

Corteva Agriscience™, Your Range & Pasture Partners

You knew us as Dow AgroSciences—a company synonymous with Range & Pasture management. Corteva Agriscience now builds on that legacy and are reaffirming our commitment to put your needs first.

Corteva Agriscience gives you tools and expertise to help your land flourish todayand for years to come.

Here's how we can help you improve your Range & Pasture land.

Ranching runs in our blood. We have a specialized team of Range & Pasture experts dedicated to working with you. Our goal is to enrich the lives of those who produce and consume beef and those who steward the land. It's a goal that affects nearly everyone on the planet, and founded in our commitment to lead and continually achieve greater results, *together*.

Corteva Agriscience has the industry's most complete Range & Pasture herbicide portfolio to fit your needs. That means you can always count on the highest level of field-proven products to help you achieve your goals.

GrazonNext®HL HERBICIDE Superior, broad spectrum ra The foundation herbicide for than 100 broadleaf weeds. Premier brush and non-resif for hayfields or temporary providesired. Tank mix with Graz to control brush and more to brush along fence rows. Flexible, long-lasting brush

HERBICIDE

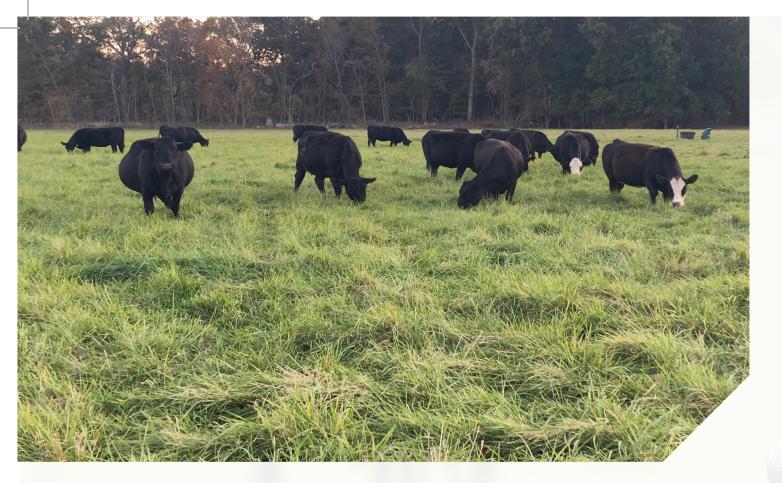
Flexible, long-lasting brush control. Rapidly translocated to roots of woody plants to prevent regrowth. Can be applied as a foliar, basal bark, or cut surface treatment.



Range & Pasture Solutions to Cover the Majority of My Needs

Superior, broad spectrum residual broadleaf weed control. The foundation herbicide for general weed control. Works on more than 100 broadleaf weeds.

Premier brush and non-residual broadleaf weed control. Excellent choice for hayfields or temporary pastures where non-residual weed control is desired. Tank mix with GrazonNext HL for mid to late season applications to control brush and more mature weeds. Selectively target vines and brush along fence rows.



Solutions to Take Care of Specialized Needs

Chaparral[®]

HERBICIDE

Surmount[®]

HERBICIDE

Spike[®] 20P

HERBICIDE

Tordon[®] RTU

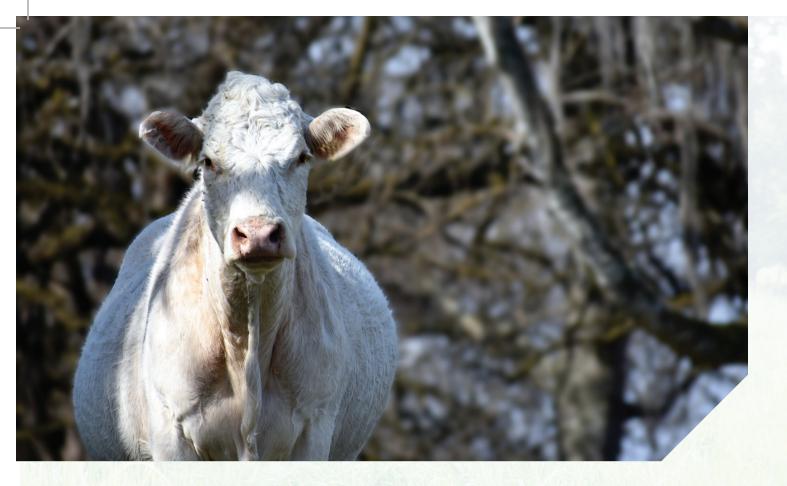
Broad spectrum non-2, 4-D brush and residual weed control in one container. Properly timed applications of Chaparral may be used to reduce fescue toxicity to cattle. Excellent choice for bermuda grass pastures. May be used to remove Pensacola bahiagrass.

Non-2,4-D broadleaf weed herbicide with residual. Excellent on prickly pear, Bois d'arc, and Eastern red cedar. A pesticide applicator's license is required for purchase and application.

A premium, dry pellet formulation used to provide long-lasting control of unwanted brush species. Activated after a suitable rainfall. Ideal as an individual plant treatment for woody plants. Enhances grazing and wildlife habitat.

A simple ready-to-use herbicide solution for individual plant treatments of unwanted brush. Apply after hand-cutting operations to prevent re-sprouting or as a hack and squirt treatment. Apply using the convenient squirt bottle to the cut surface of unwanted woody plants. It can be used nearly year-round.





Additional Range & Pasture Needs



An improved formulation of P+D offering broadleaf weed control with residual. It features broad use rates and the flexibility to be applied at multiple stages of weed growth. A pesticide applicator's license is required for purchase and application.

Grazon[®] P+D

The old standard for residual broadleaf weed control in pastures. A pesticide applicator's license is required for purchase and application.

HERBICIDE





Application Methods

Aerial Application–(BT) Spraying crop protection products onto a crop from an agricultural aircraft.

Ground Broadcast Foliar–(BT) Using a truck, tractor, or similar equipment with either a boomless or boom sprayer the treatment is uniformly applied across the pasture. Well-suited for treatment to large areas especially when targeting low growing weeds and brush.

Directed Spot Foliar-(IPT) or (BT)

Generally the most widely used among all treatment options and may be applied either as a broadcast or directed, spot treatment. This treatment is applied to the foliage of the target vegetation and can be used to control any combination of grasses, sedges, broadleaf weeds, and woody plants based on herbicide selection and/or application method.



2

3

4

Basal Bark–(IPT) Basal bark treatments are used to control unwanted woody plants up to 6 inches in diameter. This method can be used to selectively control unwanted woody plants with little to no damage to surrounding vegetation.

5

Cut Stump-(IPT) Used on any size woody stem to control re-sprouts after a handcutting operation. This treatment should be applied to the cut surface immediately after hand-cutting. This treatment protects the initial cutting investment by reducing or eliminating future maintenance costs.

> (IPT) Individual Plant Treatment (BT) Broadcast Treatment

Choose Your Scenario

Choose Your Scenario



SCENARIO 1

My pasture contains annual, biennial, and/or perennial broadleaf weeds and I want to improve grass production.

Product/Application

1.5-2.1 pts/A GrazonNext® HL specialty herbicide alone or tank mixed with 10-16 oz/A PastureGard® HL herbicide + 0.25-0.5% v/v non-ionic surfactant | Aerial or ground broadcast foliar

Comments

Treating early in the season when target weeds are small provides a greater grass response. Lower rates can be used with early season treatments. Increased rates should be used as weeds mature in size. GrazonNext® HL can be tank mixed with fertilizer to save trips on the field. Consider tank mixing with PastureGard® HL for added control during mid to late season applications when weeds are more mature.



SCENARIO 4

I'm growing grass for hay production. Product/Application

1.5 pts/A GrazonNext® HL herbicide or 1.5 pt/A PastureGard® HL herbicide + 0.25-0.5% v/v non-ionic surfactant | Aerial or ground broadcast foliar

Comments

For residual weed control use GrazonNext HL and PastureGard HL for non-residual weed control. Consider using 1 pt/A PastureGard HL + 1 pt/A 2,4-D for broader spectrum control. See GrazonNext HL supplemental labeling for guidelines when selling hay off farm.





SCENARIO 2

My pasture is infested with broadleaf weeds but I also have clover.

Product/Application

1.5 pts/A GrazonNext HL or 2 oz/A Chaparral[™] herbicide + 0.25 -0.5% v/v non-ionic surfactant | Aerial or around broadcast foliar

Comments

If your clover doesn't make up 40-50% of the total cover, you're likely not getting the intended benefit of the clover. Controlling existing weed populations will provide more benefit that existing clover. This treatment will control emerged clover. See publication on managing clover and weeds for plantback recommendations.

SCENARIO 3

My pasture is overgrown with a variety of weeds and brush.

Product/Application

1.5 pts/A GrazonNext HL + 1-2 pts/A PastureGard HL + 0.25-0.5% v/v non-ionic surfactant | Aerial or ground broadcast foliar

Comments

Applications shouldn't be made until brush is fully leafed out (mid summer). Year 1: broadcast with GrazonNext® HL and PastureGard HL herbicide; Year 2: Treat individual trees, low-volume basal method (Remedy[®] Ultra herbicide tank-mixed with a basal oil).



SCENARIO 5

My pasture is infested with blackberry briars. Product/Application 1 gt/A GrazonNext HL + 1 pt/A PastureGard HL + 0.25-0.5% non-ionic surfactant | Ground broadcast foliar Comments Application after bloom and before frost is optimal.

SCENARIO 6

I've got scattered woody brush species in and around my pastures. Product/Application

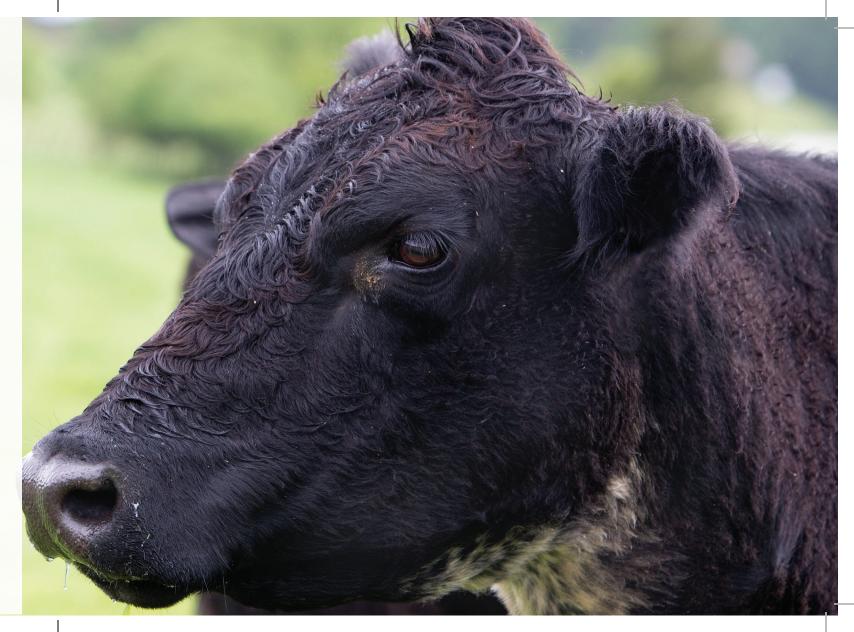
Mix 1% (1.28 oz per gallon of water) PastureGard® HL or Remedy® Ultra herbicides + 0.25-0.5% v/v non-ionic surfactant in spray tank with water for directed, spot treatments. Mix 25% Remedy Ultra + 75% diesel or crop oil for low volume basal treatments | Directed foliar treatment or low volume basal

Comments

For small clumps of brush perform a foliar spot treatment after full leaf out or a low volume basal bark treatment can be performed anytime of year.

Product Use

	Control		Type of Control		Federally Restricted Use Pesticide		Grazing Restrictions		Formulation	
Product	Broadleaf	Brush	Non- Residual	Residual	No	Yes	None for All Livestock	Lactating Dairy	Liquid	Dry
Chaparral [®] Herbicide	•	•		•	•		٠			•
GrazonNext®HL Herbicide	•	•		•	•		٠		•	
Graslan® L Herbicide	•	•		•		•		•	•	
Grazon® P+D Herbicide	•			•		•		•	•	
PastureGard® HL Herbicide	•	•	•		•		٠		•	
Remedy® Ultra Herbicide	•	•	•		•		٠		•	
Tordon® RTU Herbicide		•		•	•		٠		•	
Surmount® Herbicide	•	•		•		•		•	•	
Spike® 20P Herbicide		•		•	•		٠			•



Notes

Notes



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Label precautions apply to forage treated with Chaparral, GrazonNext HL or PasturGard HL and to manure from animals that have consumed treated forage within the last three days. Consult the label for full details.

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Chaparral and GrazonNext are not registered for sale or use in all states. Contact your state pesticide regulatory agency to determine if a product is registered for sale or use in your state. Graslan, Grazon P+D, and Surmount are federally Restricted Use Pesticides. Tordon RTU is not a federally Restricted Use Pesticide. State restrictions on the sale and use of Remedy Ultra apply. Always read and follow label directions.

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