

Range & Pasture

RANGE & PASTURE PORTFOLIO

Southwest

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.

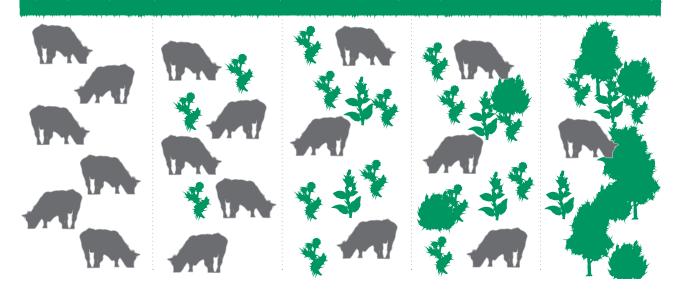




- Well managed pasture with minor weed competition
- Uniform grazing
- Encroachina annual and perennial weeds
- Spot grazing around weeds
- Increased grazing pressure on weed free parts of pasture



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
- 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.

Range & Pasture Solutions to Cover the Majority of My Needs

GrazonNext[®]HL

HERBICIDE

HERBICIDE

Superior, broad-spectrum residual weed control. Provides superior broadleaf weed control with better efficacy and longer residual on more than 100 of the toughest weeds ranchers face. Premier product for control of thistles, nightshades and horsenettle.

PastureGard[®]HL

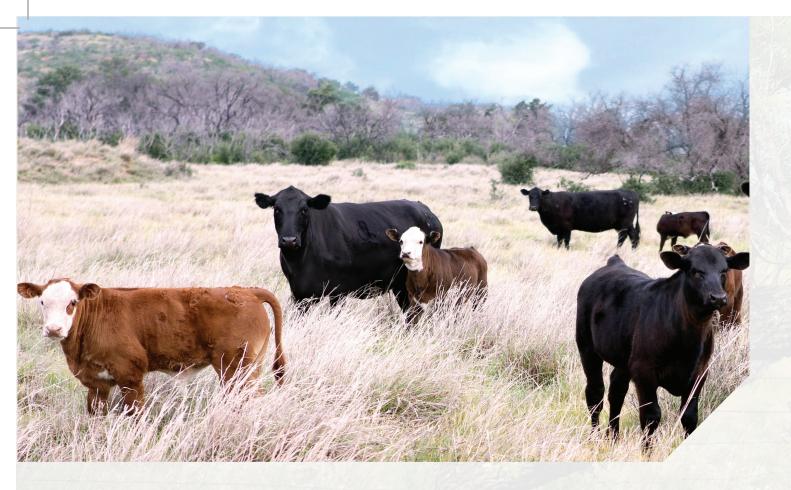
Flexible, all-purpose premier brush control with broader spectrum and non residual weed control. Can be applied to foliage or basal bark. Non restricted option for pricklypear and other brush control.



HERBICIDE

Flexible, long-lasting brush control. Rapidly translocated to roots of woody plants to prevent regrowth. Can be applied to foliage, cut stump surface or basal bark. Non residual option for faster plant back and non target safety.





Solutions to Take Care of Specialized Needs

Chaparral[™]

HERBICIDE

MezaVue™

HERBICIDE

Sendero[®]

HERBICIDE

Surmount[®]

Spike® 20P

HERBICIDE

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.

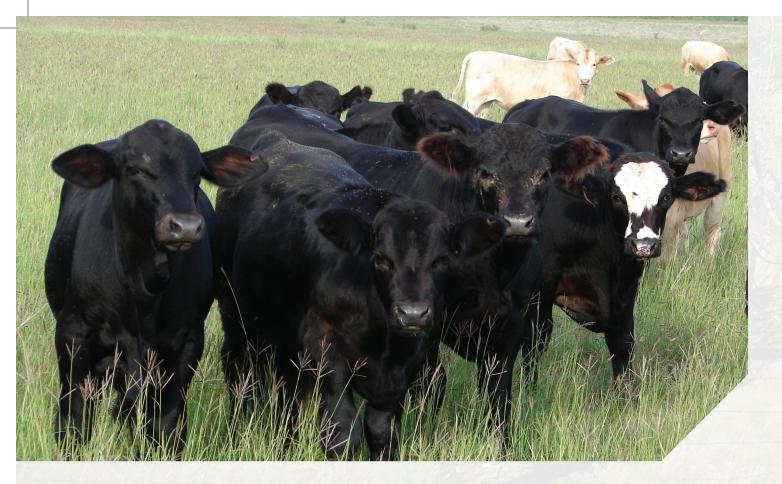
MezaVue® herbicide is the new standard in pricklypear control. It provides faster visual activity and high-level control with speed of kill for increased profitability. MezaVue can be used post emergence as a broadcast spray or as an individual plant treatment

The standard in mesquite control.[®] Offering greater than 15 percent better control and more consistency than the old standard. Also effective on honeylocust and offers industry-leading tolerance of desirable brush species important for wildlife habitat management.

Best choice for broad spectrum brush control in fence lines. Gentle to desirable grasses while controlling a broad spectrum of weeds-the best choice for kochia control. Preemergence, and soil residual activity controls weeds that emerge after application.

Works from the roots up for complete control of brush. Premium long-lasting control of the toughest brush species. Controls catclaw, big sage, shinnery and other oaks, tarbush and creosote bush. Ideal for sagebrush thinning and brush sculpting programs. Enhances grazing and wildlife habitat.





Additional Range & Pasture Needs



Grazon[®] P+D

HERBICIDE

HERBICIDE

The new generation of Grazon® P+D herbicide provides good general weed control with residual properties at a good value per acre. It has broad use rates and has the flexibility to be a good early season option. It's the market's best choice for bindweed and leafy spurge.

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

Tordon[®] 22K

Is still the foundation for many noxious weed and brush control programs. Provides all-purpose noxious weed control and basic invasive weed management. A pesticide applicator's license is required for purchase and application.







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

General early season annual weed control in pastures to improve grass production.

Product GrazonNext® HL specialty herbicide at 1.0 to1.5 pints/A

Application Aerial or ground application. Apply after weed emergence in spring with most weeds 4 to 6 inches high.



SCENARIO 2

Control broadleaf weeds in coastal bermudagrass improved pastures and hay fields without harming bahiagrass.

Product GrazonNext® HL specialty herbicide at 1.5 to 2.0 pints/A

Application

Apply aerial or ground application when target broadleaf weeds are visible through established grass and actively growing. Application after a hay cutting with emerged weeds is ideal.



SCENARIO 3

Take care of hard to control perennial weeds in pastures and hay fields without using 2,4-D.

Product Chaparral" specialty herbicide at 2 to 3.3 oz/A

Application

Apply aerial or ground application when target perennial broadleaf weeds are at bloom or post-bloom phase. In hay fields, weeds should be visible through established grass and actively growing.



SCENARIO 4

Control a broad spectrum of brush species in pastures and fence lines with individual plant treatment.

Product

Remedy® Ultra herbicide at 25 percent in diesel or basal oil

Application

Basal bark application is a great selective application with a broad spectrum of woody plants controlled and little to no impact on surrounding vegetation.

SCENARIO 5

Control mesquite, honeylocust and black locust without harming desirable shrubs and trees.

Product Sendero® herbicide at 1.75 pts/A

Application

Aerial applications in 4 to 5 gallons total spray volume works best. Control locust in spring after full leaf development and begin mesquite applications in early summer about 45 days after bud break with soil temperature at least 75 degrees fahrenheit.

SCENARIO 6

Clear unwanted pricklypear from your pastures improving utilization and access to forage.

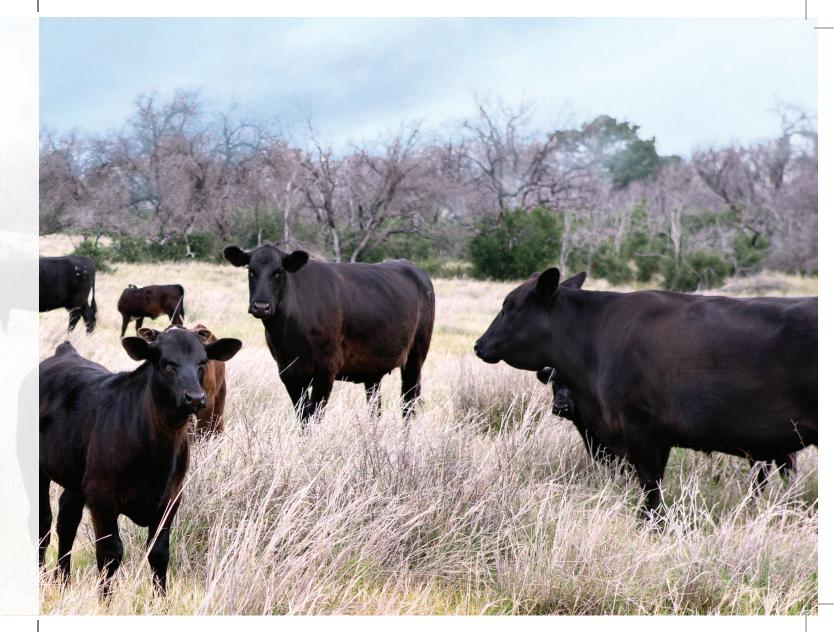
Product MezaVue® herbicide at 2 pints/A

Application

Aerial or ground broadcast application any time of year. Works best with moderate rainfall following application. Most common application time is during late winter to early spring before trees develop leaves. Can also be applied with (IPT) spot application at a 1 percent solution.

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	•	•		•	•		•			•
GrazonNext®HL Herbicide	•			•	•		•		•	
Graslan® L Herbicide	•			•		•		•	•	
MezaVue® Herbicide	•	•		•		•	•		•	
PastureGard® HL Herbicide	•	•	•		•		•		•	
Remedy® Ultra Herbicide	•	•	•		•		•		•	
Tordon® 22k Herbicide	•	•		•		•		•	•	
Sendero® Herbicide	•	•		•	•		•		•	
Surmount® Herbicide	•	•		•		•		•	•	
Spike® 20P Herbicide		•		•	•		•			•



Notes

Notes



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Label precautions apply to forage treated with Chaparral, GrazonNext HL or PasturAll HL and to manure from animals that have consumed treated forage within the last three days. Consult the label for full details. ^{®.TM_SM} Trademarks or Service Marks of Dow AgroSciences, DuPont or Pioneer and their affiliated companies or respective owners. Graslan, MezaVue, Surmount and Tordon 22K are federally Restricted Use Pesticides. Chaparral, GrazonNext HL, MezaVue and Sendero 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. PasturAll HL is not available for sale, distribution or use in the state of New York. State restrictions on the sale and use of Remedy Ultra apply. Consult the label before purchase or use for full details. Always read and follow label directions. ©2019 Corteva Agriscience CRD1 442 023 (01/19) 010-58724