

PASTURE HERBICIDE PERFORMANCE RATINGS

- E** EXCELLENT (≥91%)
- G** GOOD (81-90%)
- F** FAIR (65-80%)
- P** POOR (<65%)
- N** NONE
- U** UNKNOWN

WEEDS

SITE OF ACTION ^A	WEEDS																										
	Alyssum, hoary**	Aster spp.	Brackenfern**	Broomweed	Buffalobur	Burlock, common	Bursage, woolly leaf/Bur ragweed	Buttercup spp.**	Coreopsis, plains	Daisy, oxeye	Dandelion	Dock, curly	Downy brome	Fleabane, daisy	Goldenrod	Halogeton**	Hawkweed**	Hemlock, poison**	Hemlock, water**	Hemlock, spotted water	Hemp**	Hoarycress (white top)	Horseweed (mare's tail)	Ironweed	Knapweed, Russian	Knapweed, spotted	Kochia
Life Cycle	P	P	P	A	A	B	P	P	A	P	P	P	A	B	P	A	P	B	P	P	A	P	A	P	P	B	A

HERBICIDE

2,4-D (2,4-D) ●	4	FG	FG	P	G	F	E	FG	G	G	FG	E	F	N	FG	G	FG	F	G	G	G	F	F	FG	P	FG	FG		
Aim EC (carfentrazone) ●	14	FG	P	P	FG	GE	N	U	F	FG	FG	FG	F	N	FG	P	G	N	F	P	F	G	G	P	FG	P	FG	E	
Amber ^R (triasulfuron) ●	2	U	U	U	G	GE	E	U	GE	E	U	U	F	F ^R	G	F	U	U	U	U	U	U	P	G ^R	U	U	U	G ^R	
Brush/Weedmaster (2,4-D + dicamba) ●	4,4	FG	E	F	GE	FG	E	G	G	G	G	GE	GE	N	GE	GE	F	F	GE	GE	G	GE	FG	GE	G	F	G	G	
Chaparral (aminopyralid + metsulfuron) ●	4,2	G	G	G	E	E	E	G	E	G	E	E	E	N	E	E	G	E	E	P	F	U	G	G	E	E	E	G	
Cimarron MAX (metsulfuron + dicamba + 2,4-D) ●	2,4	U	G	U	E	E	E	U	E	E	G	E	E	P	U	G	G	U	G	U	F	U	U	E	FG	F	G	E	
Cimarron Plus ^R (metsulfuron + chlorsulfuron) ●	2,2	G	GE	U	G	U	U	G	E	E	U	U	E	U	U	G	G	U	FG	U	U	U	FG	E	P	U	G	E ^R	
Cimarron X-tra ^R (metsulfuron + chlorsulfuron) ●	2,2	U	GE	U	GE	U	U	U	GE	GE	U	GE	GE	U	U	GE	GE	U	GE	U	U	U	GE	E	U	U	GE	E ^R	
Cornerstone/glyphosate ^{R2} (glyphosate) ●	9	E	GE	F	F	E	G	F	G	G	GE	FG	GE	E	E	E	U	G	G	G	FG	FG	E ^R	G	G	G	E ^R		
Crossbow (triclopyr + 2,4-D) ●	2,2	FG	FG	P	F	F	E	P	E	G	E	E	E	P	E	FG	P	F	GE	E	G	G	P	E	GE	P	G	E	
Escort XP ^R (metsulfuron methyl) ●	2	U	F	G	E	P	GE	U	E	E	U	G	G	N	U	G	G	U	G	P	U	N	G	E ^R	P	U	F	F ^R	
Grazon P+D (picloram + 2,4-D) ●	4,4	G	GE	U	E	E	E	GE	GE	GE	GE	E	GE	N	E	GE	P	G	GE	G	U	G	P	GE	E	G	E	FG	
GrazonNext HL (aminopyralid + 2,4-D) ●	4,4	N	G	U	E	E	E	E	E	E	E	G	E	N	E	G	N	E	FG	FG	FG	G	N	E	E	E	E	P	
MCPA (MCPA) ●	4	F	F	P	U	P	GE	F	G	G	F	G	F	N	U	F	F	P	G	U	G	G	N	F	P	P	F	F	
Milestone ^R (aminopyralid) ●	4	N	G	U	G	E	E	G	E	G	E	P	E	N	P	P	N	E	F	U	G	U	N	E	E	E	E	N	
Overdrive (diflufenopyr + dicamba) ●	19,4	FG	E	FG	E	G	E	E	E	E	E	GE	E	P	E	E	F	F	E	E	E	E	FG	E	F	P	F	G	E
Pastora ^R (nicosulfuron + metsulfuron) ●	2,2	U	G	U	F	U	U	U	E	E	U	E	G	F	G	G	U	U	U	U	U	U	U	E	U	U	F	F ^R	
PastureGard HL (triclopyr + fluroxypyr) ●	4,4	G	G	P	G	G	G	F	G	G	G	G	E	N	G	F	N	F	F	E	U	F	N	E	E	P	F	E	
Rave ^R (dicamba + triasulfuron) ●	4,2	U	GE	U	GE	GE	N	U	G	GE	E	G	G	P	G	G	U	F	GE	E	U	U	G	G	G	U	U	E ^R	
Remedy Ultra (triclopyr) ●	2	G	G	P	F	F	G	U	F	U	G	G	E	N	U	F	N	F	F	E	U	F	N	E	GE	P	F	F	
Spike (tebuthiuron) ●	7	U	P	P	P	E	U	P	U	U	U	U	E	G	U	U	P	U	P	U	U	N	P	G	U	P	P	P	
Sterling Blue ^{1R} (dicamba) ●	4	FG	E	FG	G	FG	G	G	F	G	E	G	E	N	E	GE	P	F	E	E	G	G	G	E	GE	G	G	G ^R	
Stinger (clopyralid) ●	4	U	E	N	P	P	G	U	F	U	G	G	FG	N	U	P	U	G	P	P	U	P	P	G ^R	P	F	FG	P	
Surmount (picloram + fluroxypyr) ●	4,4	G	GE	U	E	E	E	G	G	G	G	E	G	N	E	G	P	G	G	G	U	G	P	U	E	G	G	E	
Telar XP ^R (chlorsulfuron) ●	2	U	U	U	U	U	U	U	U	U	U	F	GE	U	U	GE	GE	U	U	U	U	U	U	U	U	U	U	U	U
Tordon 22K (picloram) ●	4	G	E	F	GE	G	E	E	GE	G	GE	E	E	N	GE	E	P	G	E	E	U	GE	P	GE	E	G	G	U	

** May be poisonous to livestock or affect animal health.
 ☀ Also, see Brush Control in the NON-CROP section.
^A Site of action, described on page 759.

^R Poor control of herbicide resistant weed biotypes. See the list of known resistant weeds on the second page of the technical section.
¹ or Banvel, Dicamba Max 4, Clarifier, Clarity.
² or other labeled glyphosates: Cornerstone/Tomahawk, Roundup brands, etc.

For more information: <http://cropsoil.psu.edu/extension/facts/agfact62.pdf>
<http://www.agry.purdue.edu/ext/forages/index.html>
<https://ag.purdue.edu/btny/weedscience/Pages/PoisonousPlants.aspx>

Life Cycle

- A** Annual
- B** Biennial
- P** Perennial

PASTURE HERBICIDE PERFORMANCE RATINGS

WEEDS

	Leafy spurge	Lespedeza, sericea	Locoweed	Loosestrife, purple	Milkweed, common**	Mullein, common	Multiflora rose	Nettle, stinging	Pennycress, field	Plantain spp.	Prickly pear (cactus)	Ragweed, common	Ragweed, giant	Ragweed, lanceleaf	Skeletonweed, rush	Snakeroot, white**	Sneezeweed, bitter	Sorrel, red	Sowthistle	Tansy**	Thistle, bull	Thistle, Canada	Thistle, musk	Thistle, plumeless	Toadflax, yellow	Wormwood, absinth	Yarrow, common or western	Yucca (soapweed)	Life Cycle	HERBICIDE
	P	P	P	P	P	B	P	P	A	P	P	A	A	A	P	P	A	A	P	P	B	P	B	B	P	B	P	P		
2,4-D	P	F	P	FG	FG	P	P	F	FG	E	E	F	E	E	GE	F	FG	E	P	F	F	E	G	G	G	N	G	P	F	P
Aim EC	P	N	U	P	N	FG	G	F	E	E	U	P	F	P	FG	F	GE	GE	F	F	GE	P	F	FG	FG	GE	U	U	U	U
Amber ^R	P	F	P	U	P	P	U	U	E	U	P	E ^R	GE	GE	U	U	U	U	U	G	U	P	P	U	U	U	U	P	F	P
Brash/Weedmaster	P	F	P	G	F	F	P	FG	G	GE	GE	F	E	E	GE	F	G	E	G	FG	FG	GE	FG	GE	GE	P	G	F	P	P
Chaparral	P	G	E	G	F	G	E	G	G	E	G	E	E	E	G	F	E	G	E	E	E	E	E	E	E	P	E	E	F	P
Cimarron MAX	U	E	E	G	G	E	E	F	E	E	P	E	E	E	G	F	E	G	G	E	G	F	E	G	U	U	F	U	U	
Cimarron Plus	U	GE	GE	FG	U	G	GE	N	E	G	U	F	G	U	FG	N	E	G	GE	FG	FG	E	E	GE	U	U	E	G	P	P
Cimarron X-tra	U	GE	G	GE	E	E	GE	N	GE	GE	U	E	E	U	F	U	GE	U	GE	GE	GE	F	GE	GE	U	U	E	GE	P	P
Cornerstone/glyphosate ^R	F	F	G	G	F	G	G	GE	E	GE	P	E ^R	E ^R	GE	P	G	U	G	GE	GE	E	G	E	GE	G	E	G	P	P	P
Crossbow	F	G	P	G	F	P	E	GE	G	E	F	E	E	U	U	GE	U	E	E	F	E	GE	GE	G	N	F	F	P	P	
Escort XP ^R	P	G	G	G	P	G	G	F	G	E	P	F ^R	F ^R	P	P	F	U	G	E	G	G	G	F	GE	FG	F	U	F	F	P
Grazon P+D	F	P	E	U	G	G	G	E	E	E	GE	E	E	E	G	G	E	GE	G	F	E	GE	E	E	F	GE	G	P	P	
GrazonNext HL	P	P	E	E	P	E	F	G	E	G	G	E	E	E	G	P	E	G	E	F	E	E	E	E	N	E	E	P	P	
MCPA	N	P	F	F	N	P	F	F	G	G	U	G	G	G	P	F	U	P	F	N	G	F	F	F	N	P	P	P	P	
Milestone	P	P	E	E	P	G	F	G	G	N	G	E	E	E	E	F	E	G	GE	P	E	E	E	E	N	E	G	P	P	
Overdrive	P	F	GE	F	U	G	F	G	GE	E	E	P	E	E	E	F	E	E	E	G	E	E	E	E	G	P	F	FG	P	
Pastora ^R	U	G	G	U	F	U	F	U	E	G	F	F ^R	F ^R	U	U	U	E	U	G	F	U	F	U	F	F	U	E	U	U	
PastureGard HL	F	E	U	G	E	F	E	GE	G	G	G	E	G	G	U	F	G	E	G	F	G	F	G	G	N	U	F	P	P	
Rave ^R	U	F	G	U	U	F	U	U	E	G	U	E	E	G	U	U	U	GE	GE	U	G	GE	GE	U	U	U	U	P	P	
Remedy Ultra	F	GE	U	G	F	U	E	GE	G	E	F	E	F	F	U	F	U	E	E	U	G	F	F	F	N	U	U	P	P	
Spike	P	P	P	U	P	G	E	U	U	U	P	G	G	U	U	U	U	U	U	G	U	G	F	G	U	U	P	P	P	
Sterling Blue/Banel/Dicamba Max 4/Clariver/Clariv ^R	P	F	F	G	U	F	F	G	G	G	P	F	E	E	GE	F	GE	E	E	GE	G	E	G	GE	G	P	F	FG	P	
Stinger	P	P	FG	P	F	P	P	P	P	P	P	G	GE	U	U	P	U	FG	F	E	G	GE	G	G	U	U	P	P	P	
Sumount	G	E	E	N	E	G	E	G	E	F	E	E	E	E	E	G	E	G	G	U	E	GE	E	E	G	GE	G	P	P	
Telar XP	U	U	U	U	U	U	U	U	GE	U	U	U	U	U	U	U	U	U	GE	U	U	GE	GE	U	U	U	U	U	U	
Tordon 22K	GE	P	GE	U	G	E	GE	G	E	E	E	E	E	E	G	E	E	E	G	GE	E	E	E	GE	G	GE	G	P	P	

HERBICIDES LABELED FOR PASTURE, CRP, OR GRASS SEED

- L CROP LABELED
- L SPECIFIED GRASS LABELED
- NOT LISTED ON LABEL**
- NL NOT LABELED

WARM AND COOL SEASON GRASSES

	Pasture	CRP /buffer strip	Grasses Grown for Seed ¹¹	Bermudagrass	Bluegrass	Bluestem, big	Bigstems, old world or blue	Bromegrass, smooth	Buffalograss	Fescue, tall	Gamagrass, eastern	Grama	Indiangrass	Orchardgrass	Reed canarygrass	Ryegrass	Switchgrass	Timothy	Wheatgrass	
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Minimum growth stage or preferred application timing for pasture or CRP/buffer strips

BEFORE PLANTING

Aatrex 4L or 90DF	NL	L	NL			L					L						L			Notes 3, 4	
Aim EC	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	Note 2
Brash/Weedmaster	L	L	NL																		Delay planting 10 days/pint. Note 2
Callisto/Incinerate	NL	NL	L		L				L							L					
Comerston Plus/Tomahawk 4/Comerstone 5 Plus/Tomahawk 5	L	L	L*																		Notes 1, 2, 16
Durango DMA/Duramax	L	L	L																		Notes 1, 2, 16
Escort XP	L	NL	NL			L			L					L			L		L		
Framework	NL	L ⁵	NL																		Note 5
Gramoxone SL/SL 2.0	L	L	L	L																	
Plateau	L	L	NL								L										Note 8
Roundup PowerMAX/WeatherMAX	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	Notes 1, 2
RT 3	L	L	L	L	L			L		L				L		L		L	L		
Sendero	L	L	NL																		
Trust/Treflan HFP	NL	L ⁵	NL																		Note 5
2,4-D	NL	L	NL																		>30 days before seeding

AFTER PLANTING

Aim EC	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	Note 2
Amber	L	L	NL	L		L			L		L		L ⁶		L ⁶		L	L			Notes 3, 17
Arsenal Powerline	L	NL	NL																		Spot treatment
Bison	NL	L	L	L	L				L				L		L						3 If grass. Notes 7, 12
Brash/Weedmaster	L	L	L	L				NL													Note 2
Callisto/Incinerate	NL	NL	L		L				L							L					
Capstone	L	L	L																		Notes 3, 24.
Carnivore	NL	L	NL																		
Chaparral	L	L	NL																	NL	
Charger Basic/Dual Magnum	NL	NL	L		L				L				L		L						Notes 3, 7
Cimarron Max	L	L	NL	L	L	L	L	L*	L		L	L	L		NL	L	L*	L			2-24 months. Note 13
Cimarron Plus	L	L	NL	L	L	L		L	L		L	L	L		L*	L	NL	L			2-24 months. Note 13.
Cimarron X-tra	L	L	NL	L	L	L		L	L ⁷	L*	L	L	L		NL	L	NL	L			2-24 months. Note 13.
Crossbow	L	L	NL																		Do not use on new seedings. Note 2
Curtail	L	L	L ⁷																		Note 7
Dimetric EXT/Metricludate EXT	NL	NL	L		L				L				L		L					L	Notes 3, 7
Direx/Karmex 4L	NL	NL	L						L												Notes 3, 7

PASTURE WEEDS

HERBICIDES LABELED FOR PASTURE, CRP, OR GRASS SEED

- L CROP LABELED
- L SPECIFIED GRASS LABELED
- NOT LISTED ON LABEL**
- NL NOT LABELED

WARM AND COOL SEASON GRASSES

	Pasture	CRP/buffer strip	Grasses Grown for Seed ¹¹	Bermudagrass	Bluegrass	Bluestem, big	Bigstems, old world or blue	Bromegrass, smooth	Buffalograss	Fescue, tall	Gama grass, eastern	Grama	Indiangrass	Orchardgrass	Reed canarygrass	Ryegrass	Switchgrass	Timothy	Wheatgrass	
AFTER PLANTING (continued)																				
Engenia	L	L	L																	After 3 lf stage
Distinct	L	NL	NL							*	*									Established stands only.
Escort XP	L	NL	NL	L	L	L		L	L	L*		L		L				L	L	Note 19
Express SG	NL	NL	L		L					L				L			L			After 4 lf grass, bentgrass 3-5"
Facet L	L ²⁴	L ²⁴	L	L	L	L		L	L	L	L	L	L	L		L	L		L	Note 14
Fusilade DX	NL	NL	L																	Note 20
Grazon P+D	L	L	NL	L				L*	L*							L				Notes 15, 19
Hi-Dep	L	NL	L																	
Lineage Clearstand	L	NL	NL																	Spot treatment
MCPA Amine	L	L	L																	2 or more true leaves
Milestone	L	L	NL																	
Moxy	NL	L	L	L ⁷	L ⁷					L ⁷				L ⁷		L ⁷				Emerged grass, 4th trifoliolate alfalfa
Opensight	L	L	L																	Notes 3, 24
Outrider	L	NL	NL	L																Well established pasture
Overdrive*	L	NL	NL							L*										Not for newly seeded grasses
Pastora	L ²⁵	NL	NL	L ²⁵														L ²⁵		Note 25
PasturAll HL	L	L	NL	L				*												Notes 10, 14, 26
PastureGard HL	L	L	L																	
Plateau	L	L	NL	L ²²	L*	L*	L	L*	L*	NL		L*	L*				L*	NL	L	Note 8
Poast	NL	L ⁵	NL																	At least 4 lf grass. Note 5
Prowl H2O	NL	NL	L		L					L				L			L			Note 3, 7
Pursuit	NL	L	NL			L												L		≥ 4 lf grass or ≥ 3 trifoliolate
Rave	L	L	NL	L		L		L	L			L						L	L	Notes 3, 14
Remedy Ultra	L	L	NL	L		L					L		L				L			Note 16
Roundup PowerMAX/WeatherMAX	L*	L*	NL	L*	L*	L*	L*	L*	L*	L*	L*	L*	L*	L*	L*	L*	L*	L*	L*	Before grass emergence or growth
Section Three/Select 2 EC/Cleanse	NL	NL	L																	Only cool season grasses grown for seed.
Sendero	L	L	NL																	
Spike	L	NL	NL	L		L				L*	L		L				L		L*	3 lf to pre-joint
Starane NXT	NL	NL	L	L ⁷	L					L				L			L			2 lf to early boot
Starane Ultra	L	L	L	L	L			L		L				L			L		L	2 lf to prior to early boot
Sterling Blue	L	L	L	L				*	*											After perennial grasses established (tillering)
Stinger	L	L	L ⁷																	Note 1
Surmount	L	L	L																	Well established. Note 24
Telar XP	L	L	NL	L	L	L		L	L	L*			L	L			L		L	Note 14

Minimum growth stage or preferred application timing for pasture or CRP/buffer strips

PASTURE WEEDS

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- L** CROP LABELED
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- NOT LISTED ON LABEL****
- NL** NOT LABELED

WARM AND COOL SEASON GRASSES

	Pasture	CRP /buffer strip	Grasses Grown for Seed ¹¹	Bermudagrass	Bluegrass	Bluestem, big	Bigstems, old world or blue	Bromegrass, smooth	Buffalograss	Fescue, tall	Gama grass, eastern	Grama	Indiangrass	Orchardgrass	Reed canarygrass	Ryegrass	Switchgrass	Timothy	Wheatgrass		
AFTER PLANTING (continued)																					
Tordon 22K ●	L	L	NL					*				*									Notes 2, 16
Velpar ●	L	NL	NL	L*																	Established grasses
WideMatch ●	NL	L	NL																		After 5 If grass
Yukon ●	L	L	NL	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
2,4-D ●	L	L	L ¹²	L	L	L	L	L		L	L		L	L	L	L	L	L	L	L	Note 12

* Grass injury or suppression may occur.
 ** Not specifically listed on the label, but not prohibited. Many labels for pasture and CRP do not indicate all grasses included.

¹ May be applied by ropewick.
² May be applied as a spot treatment.
³ State or regional restrictions.
⁴ Winfield atrazine 4L and 90DF are also labeled. Limited to NE, OK, OR and TX. Aatrex or atrazine is labeled for CRP after planting for certain grasses in some states.
⁵ Labeled on forage legumes only.
⁶ Established stands only.
⁷ Established grasses grown for seed only.
⁸ For use only by government agencies.

¹⁰ Do not use on grass grown for seed.
¹¹ See label for grasses included, application timing, and restrictions. See Grasses Grown for Seed section.
¹² Includes 2,4-D Amine 4, LV 4, LV 6, and Shredder E-99.
¹³ 2-24 month after seeding in pasture and to established CRP grasses planted the previous season and are fully tillered.
¹⁴ After perennial grasses established with a good secondary root system.
¹⁵ Applied when grasses have a secondary root system.
¹⁶ For broadcast treatments, apply in early spring or late fall when desirable perennial grasses are dormant.
¹⁷ ≥60 days after grass emergence, ≥ 30 days after bermudagrass sprigging.
¹⁹ See label for minimum planting interval.
²⁰ Fall or spring to fine fescue before seed head develops in boot.
²² Apply after full green-up.
²³ For sprigged bermudagrass, once runners have reached 6".
²⁴ Includes a 24c, 2ee or Supplemental label.
²⁵ Only for established bermudagrass pasture and hay meadow, unimproved bermudagrass turf and Tennessee switchgrass pasture.
²⁶ Not for grass that will be exported.
²⁷ PRE spring or summer, grass can be planted after 4 months; fall PRE-wait until spring to plant. POST during establishment season - see Note 15.

PASTURE WEED CONTROL

Grazing and Harvest Restrictions

Herbicide	Rates/Acre	Lactating Dairy Animals		Beef & Non-Lactating Dairy Animals		Removal Before Slaughter
	Herbicide	Before Grazing	Before Hay Harvest	Before Grazing	Before Hay Harvest	
AMBER	0.28-0.56 oz	0	30 days	0	30 days	0
AIM EC	0.5-2 oz	0	0	0	0	
ARSENAL POWERLINE	2-48 fl oz	0	7 days	0	7 days	0
BRASH/WEEDMASTER	1-4 pt	7 days	37 days	0	37 days	30 days
CAPSTONE	Up to 9 pt	0	14 days	0	14 days	0
CHAPARRAL	1-3.3 oz	0 ⁹	0	0 ⁹	0	0
CIMARRON MAX	5-20 A/unit	7 days	37 days	0	37 days	30
CIMARRON PLUS	0.125-0.25 oz	0	0	0	0	0
CIMARRON X-TRA	0.5-2 oz	0	0	0	0	0
CORNERSTONE/TOMAHAWK brands, Spot or Wiper ¹ Broadcast	Any labeled rate Any labeled rate	14 days 8 weeks	14 days 8 weeks	14 days 8 weeks	14 days 8 weeks	0 0
CROSSBOW	1-4 qt	next season	14 days	0	14 days	3 days
CURTAIL ⁹	2-4 qt	14 days	7 days	0	7 days	7 days ¹¹
DISTINCT	4-8 oz	0	0	0	0	0
ENGENIA	3.2-12.8 fl oz	7	37 days	0	0	
ESCORT XP	0.33 to 2 oz	0-3 ⁶ days	0-3 ⁶ days	0-3 ⁶ days	0-3 ⁶ days	0-3 ⁶ days
FACET L	12-64 fl oz	0	7 days	0	7 days	0
GRASLAN L	1.25-10 pt	7 days	30 days	0	30 days	3 days
GRAMOXONE SL/SL 2.0	1-2 pt	—	40 days ²	—	40 days ²	0
GRAZON P+D ³	1-8 pt	7 days	30 days	0	30 days	3 days
HI-DEP	1-4 qt	7 days	30 days	0	30 days	3 days
LINEAGE CLEARSTAND ¹	0.8-1 oz	0	7 days	0	7 days	
MILESTONE	3-7 fl oz	0 ⁹	0	0 ⁹	0	0
OPENSIGHT	Up to 3.3 oz	0	14 days	0	14 days	0
OUTRIDER	Up to 2 oz	0	14 days	0	14 days	
OVERDRIVE	4-8 oz	0	0	0	14 days	0
PASTORA	1-1.5 oz	0	0	0	0	0
PASTURALL HL	1.2-2.25 pt	0 ¹⁵	14 days	0 ¹⁵	14 days	0
PASTUREGARD HL	0.75-1.5 pt	0	14 days	0	14 days	3 days
PLATEAU	2-12 oz	0	7 days	0	7 days	0
RAVE	2-5 oz	7 days	0	0	0	30 days
REMEDY ULTRA/GARLON	1-4 pt	0	14 days	0	14 days	3 days
ROUNDUP, DURANGO DMA/DURAMAX Spot or Wiper ¹ Broadcast	Any labeled rate Any labeled rate	7 days 0 ¹³	7 days 0 ¹³	7 days 0 ¹³	7 days 0 ¹³	0 0
RT 3	Up to 3.3 pt	0 ¹³	0 ¹³	0 ¹³	0 ¹³	0 ¹³

PASTURE WEED CONTROL

Grazing and Harvest Restrictions (continued)

Herbicide	Rates/Acre	Lactating Dairy Animals		Beef & Non-Lactating Dairy Animals		Removal Before Slaughter
	Herbicide	Before Grazing	Before Hay Harvest	Before Grazing	Before Hay Harvest	
RUGGED	1-2 qt	0	7	0	7	0
SENDERO	0.75-1.75 pt	0	14 days	0	14 days	0
SPIKE 20 P	0.5 oz/45 ft ² 3.75-20 lb/A	0 ⁷ 0 ⁷	1 year ⁷ 1 year ⁷	0 ⁷ 0 ⁷	1 year ⁷ 1 year ⁷	0 ⁷ 0 ⁷
STARANE ULTRA	0.3-0.4 pt	0	7 days	0	7 days	2 days
STERLING BLUE/CLARIFIER/CLARITY or BANVEL/DICAMBA MAX 4	Up to 1 pt Up to 2 pt Up to 4 pt	7 days 21 days 40 days ⁸	37 days 51 days 70 days ⁸	0 0 0	0 ⁸ 0 0	0 0 0
STINGER/TRANSLINE	0.66-1.33 pt	0	0	0	0	0 ⁹
SURMOUNT	1.5-6 pt	14 days	7 days	0	7 days	3 days
TELAR XP	0.25-1.33 oz	0	0	0	0	0
TORDON 22K³	0.5-2 pt 1-2 qt	14 days 14 days	14 days 14 days	0 0	0 14	3 ³ 3 ³
VASTLAN	1-4 pt	0	14 days	0	14 days	3 days
VELPAR L¹²	2.75-4.5 pt	0	38 days	0	38 days	
YUKON	4-8 oz	0	37 days	0	37 days	
2,4-D LV4, LV6, AMINE 4 or SHREDDER E-99	Depends on formulation ⁴	0-14 days	7-30 days	0-7 days	0-30 days	0

¹ Do not treat more than one-tenth of any given acre at one time with spot or wiper applications. Remove livestock before application.

² 40 days for bermudagrass.

³ Remove livestock to untreated grass pasture for 7 days before transferring livestock to broadleaf crop or pasture areas. Removal before slaughter statement only applies to animals grazing treated forage for a period of up to 2 weeks after application.

⁴ Various brands. Be sure to check individual product labels for restrictions and use rates due to the large number of formulations available.

⁵ 14 days if more than 2 gal/acre rate used.

⁶ No restrictions at ≤ 1.67 oz. 3 days for higher rates.

⁷ If no more than 20 lb per acre used, in areas receiving greater than 20" rain/year — areas less than 20" rain/year if no more than 10 lb per acre used.

⁸ Does not include Banvel/Dicamba Max 4 for lactating. 7 days for grass hay for Banvel/Dicamba Max 4.

⁹ Remove livestock to untreated grass pasture for 7 days before transferring livestock to broadleaf crop or pasture areas. 3 days for Milestone, or Surmount.

¹⁰ If less than 25% of a grazed area is treated; no restriction.

¹¹ Withdrawal not needed if 2 weeks or more elapsed since application.

¹² Velpar - Interval is 30 days for alfalfa. See label.

¹³ 0 days for 2 qt or less, 8 weeks for greater than 2 qt.

¹⁵ Graze for 3 days in untreated pasture before moving to sensitive crop.

Preemergence or Postemergence Herbicides

Herbicide	Rate/Acre	Comments/Restrictions
AIM EC	0.5-2 fl oz + 1-2 pt NIS/100 gal	Carfentrazone. PP or PRE up to 30 days before planting. May be mixed with glyphosate for burndown prior to planting. For POST, tank mix with Brush/Weedmaster or Cimarron. May be used alone in 2,4-D sensitive areas to control annual broadleaves or tankmix with Cimarron, Grazon P+D, Milestone, Surmount or Remedy Ultra for broad spectrum annual and perennial weed control. Add Aim to tank before other herbicides.
AMBER	0.26-0.56 oz + 1-2 qt NIS/100 gal	Triasulfuron. POST. Do not apply to new seedings until at least 60 days after grass emergence. Should be tank mixed with 2,4-D, Banvel, Dicamba Max 4, Crossbow or Curtail. Not recommended on orchardgrass, ryegrass, or legumes. For use in CO, ID, KS, MT, MN, ND, NE, NM, NV, OK, OR, SD, TX, UT, WA and WY.
ARSENAL POWERLINE	2-48 fl oz	Imazapyr. Spot treatment POST not to exceed 1/10 of area grazed or cut for hay. Include NIS or HSOC-MSO ¹ .
BRASH/WEEDMASTER	0.5-4 pt + 1-2 qt NIS/100 gal 3 fl oz/3 gal water	Dicamba + 2,4-D amine. POST for broadleaves and brush. May be applied as foliar, dormant basal, or cut surface. Rates above 4/A pt for spot treatment only. SPOT TREATMENT.

PASTURE WEED CONTROL

Preemergence or Postemergence Herbicides (continued)

Herbicide	Rate/Acre	Comments/Restrictions
CAPSTONE	Up to 9 pt	Aminopyralid + triclopyr. Do not use for grass for seed if Capstone was applied within the preceding 18 months. Do not rotate to cropland within 1 year of application. Supplemental label various states (exp. 4/2020) for grass harvested for hay intended for sale off farm or ranch, and harvested for silage, hayage, baylage and green chop for use on farm or ranch.
CHAPARRAL	1-3.3 oz	Aminopyralid+ metsulfuron. POST for annual and perennial broadleaves with residual control of seedlings. Excellent control of certain woody species such as buckbrush, multiflora rose, and blackberry. Fescue and ryegrass are sensitive to metsulfuron. See label for tolerance of forage grass and other use restrictions. Add NIS at 1-2 qt/100 gal.
CIMARRON MAX	5, 10 or 20 acres/unit (5 oz A: 2.5 gal B) + 1-2 pt NIS/100 gal	Metsulfuron-methyl + dicamba + 2,4-D. POST. Wait 2-24 months after pasture grass establishment before application. Fescue and ryegrass are sensitive to metsulfuron. See label for tolerance of forage grass and other use restrictions. See label for specific restrictions.
CIMARRON PLUS	0.125-1.25 oz + 0.5 gal Superb HC ¹ or 1 qt NIS/100 gal	Chlorsulfuron + metsulfuron-methyl. POST. Apply to most weeds when <4" tall or in diameter. Provides residual control. Fescue and ryegrass are sensitive to metsulfuron. See label for tolerance of forage grass and other use restrictions. See label for specific weeds.
CIMARRON X-TRA	0.5-2 oz	Metsulfuron-methyl + chlorsulfuron. Fescue and ryegrass are sensitive to metsulfuron. See label for tolerance of forage grass and other use restrictions. See label for grass and use restrictions.
CORNERSTONE PLUS/ TOMAHAWK 4 or CORNERSTONE 5 PLUS/ TOMAHAWK 5	Up to 4 qt or up to 3 qt + 8.5-17 lb AMS/100 gal ^a 2% v/v 33% v/v or 25% v/v	Glyphosate. POST broadcast to kill emerged broadleaves and grasses prior to planting grasses or forage legumes. PHI 8 weeks. ^a Include WC + NIS ² as needed. SPOT TREATMENT. Treat no more than 0.1 acre at any one time. ROPEWICK.
CROSSBOW	1-4 qt or 4-6 fl oz/3 gal water	Triclopyr + 2,4-D. POST for broadleaf weeds and woody plants. Broadcast in 10-30 GPA to actively growing weeds in rosette stage. Maximum use in rangeland and pasture is 4 qt/A as broadcast spray. SPOT TREATMENT: Thoroughly wet foliage.
CURTAIL	2-4 qt	Clopyralid + 2,4-D. Apply POST to young actively growing weeds. Legumes will be injured.
DISTINCT	4-8 oz + 1 qt NIS/100 gal or 0.75-1 pt HSOC-MSO ¹	Diflufenzopyr + dicamba. POST. Do not apply to newly seeded grasses. Controls many annual and biennial weeds and controls or suppresses many perennial weeds in pasture and rangeland. Maximum 8 oz per season.
DURANGO DMA/ DURAMAX	Up to 7.5 pt + 8.5-17 lb AMS/100 gal ^a 2% v/v 33% v/v	Glyphosate. PRE, POST. Broadcast to kill emerged broadleaves and grasses prior to planting grasses or forage legumes or before perennial grasses break dormancy in spring. PHI 8 weeks at >2.25 qt/A, 0 days for ≤ 2.25 qt/A. ^a Include NIS or WC+NIS ² as needed. SPOT TREATMENT. Treat no more than 0.1 acre at any one time. ROPEWICK.
ENGENIA	3.2-12.8 fl oz	Do not exceed 25.6 fl oz/A/growing season.
ESCORT XP	0.33-4 oz: PP or PRE 0.1 oz: POST new seeding ≤ 1 oz: POST established	Metsulfuron-methyl. PP or PRE for native grass seedlings. POST to actively growing weeds like musk thistle, Canada thistle, buckbrush and other broadleaf weeds. Addition of NIS is recommended for some weeds. Up to 0.1 oz/A POST plus a NIS. Apply to grasses at 3-4 leaf stage in new seedings or 1-5 leaf in grass planted the previous season. Established grass must be fully tillered. See label for grass species and precautions.
FACET L	12-64 fl oz + 1 pt HSOC-COC or HSOC-MSO ¹	Quinclorac. PHI 7 days hay. See label for specific weed rates. WC+NIS ² or a UAN can be added for better efficacy. Add InterLock at 4-6 oz/A.
GRAMOXONE SL/SL 2.0	1-2 pt + 1 pt NIS/100 gal	Paraquat. POST for suppression of existing sod and emerged weeds and grasses prior to, or at planting of grasses or forage legumes. Apply only to grazed or mowed pastures not more than 3" in height at time of treatment.
GRASLAN	0.66-2.66 pt: Broadleaves 1.25-10 pt: Trees and Brush	A higher load formulation of Grazon P+D that allows lower use rates with equal weed and brush control efficacy. No grazing restrictions for any livestock. Can be used broadcast by ground or applied aerially.
GRAZON P+D	1-4 pt: broadleaf weeds 2 gal/100 gal: cactus 1-2 gal/100 gal: brush + 1-2 qt NIS/100 gal	Picloram + 2,4-D. POST for annual and perennial broadleaves with season long residual. Broadcast in 10-25 GPA water or with liquid fertilizer carrier. Can also be applied as oil-water emulsion. Maximum use rate is 1 gal/A/year.
HI-DEP	1-2 qt	Methyl- and ethyl-amine formulation of 2,4-D. POST apply in 1-10 GPA alone or 10-25 GPA water in tank mixes. Follow remarks for 2,4-D below.

¹ Between and Superb HC (COC) and Succeed/Ultra and Destiny HC (MSO) are HSOC adjuvants, generally used at half standard COC or MSO rates.

² Class Act NG or Flex, Alliance, or Ultra-Lite may be used where herbicides require NIS and AMS or a water conditioner.

PASTURE WEED CONTROL

Preemergence or Postemergence Herbicides (continued)

Herbicide	Rate/Acre	Comments/Restrictions
LINEAGE CLEARSTAND	0.8-1 oz + 1 qt NIS/100 gal	Imazapyr + metsulfuron. POST spot treat only to ≤ 1/10 area to be grazed or cut.
MCPA AMINE	0.5 pt: new seeding 1-4 pt: established	MCPA. POST apply to new seedlings of clover or grass after they have 2 or more true leaves.
MILESTONE	3-5 fl oz: annuals, biennials 5-7 fl oz: perennials 14 fl oz: spot treatment	Aminopyralid. POST to actively growing weeds in spring or FALL. Soil residual for season-long control of newly germinating seeds. Can be used on non-irrigation ditch banks and seasonally dry wetlands. Do not use hay from treated area for composting or mulch on broadleaf crops. NIS may be added.
OPENSIGHT	Up to 3.3 oz	Aminopyralid. Do not use for grass for seed if Opensight was applied within the preceding 18 months. Do not rotate to cropland within 1 year of application. Supplemental label various states (exp. 4/2020) for grass harvested for hay intended for sale off farm or ranch, and harvested for silage, hayage, baylage and green chop for use on farm or ranch.
OUTRIDER	Up to 2 oz + 1 qt NIS/100 gal	Sulfosulfuron. POST for johnsongrass, purple and yellow nutsedge and green kyllinga in bermudagrass or bahiagrass pastures. Apply early spring through FALL to well established pastures.
OVERDRIVE	4-8 oz + 1 qt NIS/100 gal or 0.75-1 pt HSOC-MSO ¹	Diflufenzopyr + dicamba. POST. Do not apply to newly seeded grasses. Controls many annual and biennial weeds and controls or suppresses many perennial weeds in non-crop, pasture, hay, and rangeland. Maximum 8 oz per season.
PASTORA	1-1.5 oz	Nicosulfuron + metsulfuron. POST broadleaf and grass control in established bermudagrass pastures, hay meadows, unimproved bermudagrass turf and TN switchgrass pastures. Include NIS or COC ¹ + UAN/AMS ² . Maximum 2.5 oz/A total per year.
PASTURALL HL	1.2-2.25 pt	Aminopyralid + 2,4-D. POST for broadleaves. Apply after perennial grasses are well established. See label for rates, grazing, and other restrictions. Include NIS at 1-2 qt/100 gal.
PASTUREGARD HL	1-2 pt: Broadleaf weeds 1-4 pt: Trees and Brush	Industry standard for control of sericea lespedeza, applied at 12-16 fl oz/A. Can be used alone for general weed and brush control on susceptible species (see label), or in combination with Graslan L, Grazon P+D, or Chaparral for broad spectrum control. No restrictions on any class of livestock including lactating dairy.
PLATEAU 2E	2-12 fl oz + 1 pt HSOC-MSO ¹	Imazapic. Many grasses are sensitive. Available only for government uses.
RAVE	2-5 oz + 1-2 pt NIS or 1 pt HSOC-COC ¹ /100 gal	Dicamba + triasulfuron. POST. Do not apply until at least 60 days after emergence of desired grasses. Can tank mix with most products and OP insecticides; but not malathion. Some crop response. Registered in certain states. See label.
REMEDY ULTRA	1-2 pt: Broadleaf weeds 1.5-4 pt: Trees and Brush	Can be used alone for general weed and brush control on susceptible species (see label), or in combination with Graslan L, Grazon P+D, or Chaparral for broad spectrum control. No restrictions on any class of livestock including lactating dairy.
REMEDY ULTRA + GRAZON P+D	1 pt + 1-2 qt	Triclopyr + picloram + 2,4-D. POST for hard-to-kill broadleaves. Applied as a foliar treatments with surfactant.
ROUNDUP POWERMAX/ WEATHERMAX**	Up to 3.3 qt + 8.5-17 lb AMS/100 gal ^a 2% v/v 33-75% v/v	Glyphosate. POST broadcast to kill emerged broadleaves and grasses prior to planting grasses or forage legumes. PHI 8 weeks for grazing at > 2 qt/A, 0 days for ≤ 2 qt/A. ^a Include NIS or WC+NIS ² as needed. SPOT TREATMENT. Treat no more than 0.1 acre at any one time. ROPE or SPONGE WICK.
RT 3	11-44 fl oz/11-32 fl oz: annuals Up to 3.3 qt: perennials + 8.5-17 lb AMS/100 gal ^a	Glyphosate. PP, PRE, renovation, and spot treatment for emerged weeds in pastures and 8-11 fl oz/A for control or suppression in rangelands. For use in CO, ID, KS*, MN*, MT, NE*, NM*, NV, ND, OK*, OR, SD, TX, UT, WA, WY. *See label for county restrictions. ^a Include NIS or WC+NIS ² as needed.
RUGGED	1-2 qt	2,4-D Acid. POST for broadleaves. Apply 1 qt/A for annuals and 1-2 qt/A for biennials and perennials.
SENDERO	0.75-1.75 pt	Aminopyralid + clopyralid. PRE or POST. See label for use restrictions.
SHREDDER E-99	SEE 2,4-D	
SPIKE 20P	3.25-20 lb or 0.5 oz/2-4" stem diameter	Tebuthiuron. May be broadcast or used as individual plant treatment. Rates are based on species to be controlled. See label for exact rate. Grazing is allowed in areas treated with 20 lb/A or less with > 20 in rainfall. With less rain, the rate limit to avoid grass injury is 10 lb. Caution must be taken near desirable trees or shrubs as small amounts of Spike may cause serious injury.

** May use other glyphosate herbicides: Roundup brands: Cornerstone/Tomahawk brands, Durango DMA/Duramax or others at labeled rates.

¹ Between and Superb HC (COC) and Succeed/Ultra and Destiny HC (MSO) are HSOC adjuvants, generally used at half standard COC or MSO rates.

² Class Act NG or Flex, Alliance, or Ultra-Lite may be used where herbicides require NIS and AMS or a water conditioner.

PASTURE WEED CONTROL

Preemergence or Postemergence Herbicides (continued)

Herbicide	Rate/Acre	Comments/Restrictions
STARANE ULTRA	0.3-0.4 pt	Fluroxypyr. See label for grass species. POST to new seedlings from 2-leaf to prior to early boot stage on to established stands with <8" weeds.
STERLING BLUE/CLARIFIER/ CLARITY or BANVEL/ DICAMBA MAX 4	0.5-1.5 pt: annuals 0.5-3 pt: biennials 2-4 pt: perennials 2-4 pt: brush	Dicamba. POST for broadleaf weeds and brush. Rates are for high-volume broadcast spray. On new seedlings, apply to grass from 3-leaf to pre-joint. 1 qt for Canada thistle top growth and 4 qt for control. For foliage suppression. Apply 0.25 oz for 5 ft canopy diameter, 1 oz for 10 ft canopy diameter, 2.25 oz for 15 ft canopy diameter for multiflora rose and other brush. Apply spot concentrate directly to soil as close as possible to the root crown at 3-4 locations, around bush. The best time to apply is as a dormant treatment from Jan. to Mar. to bare soil.
STERLING BLUE/CLARIFIER/ CLARITY or BANVEL DICAMBA MAX 4 + 2,4-D LV4 or LV6	1 pt + 1 qt 2,4-D LV4 or 0.67 qt LV6	Dicamba + 2,4-D. POST apply to annuals in early spring; biennials at rosette stage in FALL or when small in spring prior to bolting; perennials at high rate in bud stage or in FALL.
STINGER/TRANSLINE	0.67-1.33 pt	Clopyralid. Apply POST to actively growing broadleaf weeds before boot stage of grass. Applications to new seedlings should be made after the grass has become established. Do not apply to pastures containing legumes or other desirable forbs. Do not use hay from treated area for composting or mulch on broadleaf crops.
SURMOUNT	1.5-2 pt: annuals 2-4 pt: biennials 3-6 pt: brush	Picloram + fluroxypyr. POST for broadleaves and brush.
TELAR XP	0.25-1 oz	Chlorsulfuron. POST to well established grasses. Use up to 1.33 oz as spot treatment. Rate depends on grass species. See label for sensitive species and precautions. Potential for crop injury. NIS at 1 qt/100 gal improves control. Inhibits musk thistle seed viability.
TORDON 22K + 2,4-D LV4 or LV6	8-12 fl oz: biennial thistles 1-2 pt + 1 qt 2,4-D LV4 or 0.67 qt LV6: other annual, perennial broadleaves 2.5 fl oz/2 gal water	Picloram. Do not exceed 1 qt/A/season Tordon 22K. Apply POST to rosette stage in FALL prior to freeze-up or in spring before weeds begin to bolt. Apply when weeds are actively growing in spring or early fall. Do not apply near desirable trees. Tordon 22K has a longer soil residual than other herbicide choices. Soil residual based on environmental conditions and rates. Average half life in soil is 90 days. SPOT TREATMENT.
VASTLAN	1-4 pt	Foliar control of broadleaf weeds. Can be tank mixed in combination with Milestone, Opensight, imazapyr, Rodeo, or Accord XRTII, to broaden the spectrum of weed and brush control. Also commonly used for individual plant treatments such as spot spraying, and stump treatment. Essentially non-volatile.
VELPAR L or DF	2.75-4.5 pt or 0.9-1.5 lb	Hexazinone. For established bermudagrass/bahiagrass pastures. Make a single application when weeds are actively growing. Controls certain grasses, broadleaves, and woody plants. See label for geographic and other restrictions.
YUKON	4-8 oz	Apply to established grasses that have secondary root system. Dairy animals are permitted to graze fields following application.
2,4-D	1-2 qt Amine 4 or 3-4.2 pt LV4 or 1.5-2.75 pt LV6 or 1.33-2.67 pt Shredder E-99	SEEDLING: Apply POST only after grass in 5-leaf stage or beyond but before boot stage. ESTABLISHED: Apply to grasses before boot stage and to annuals in early spring; biennials in rosette stage in FALL or to small weeds in spring prior to bolting; to perennials, at high rate in bud stage or in fall. Legumes will be injured or killed. Amines are generally tolerated better than esters. Cool season grasses often are less sensitive to 2,4-D than warm season grasses. For grasses grown for seed, use rates are as low as 1 pt/A Amine 4 or LV4, 1.5 pt/A LV6 and 0.5 pt/A E-99. Drought increases risk of injury. Certain university may be lower.

A COMPLETE PROGRAM IS NECESSARY – An effective weed control program for grass pastures involves grazing management and good fertility as well as the use of herbicides. Overgrazing of pastures favors development of weeds. Inadequate fertility results in thin stands of grass which allows more weed growth. Herbicides are most effective when grass is competing vigorously with weeds.

¹ Between and Superb HC (COC) and Succeed/Ultra and Destiny HC (MSO) are HSOC adjuvants, generally used at half standard COC or MSO rates.

² Class Act NG or Flex, Alliance, or Ultra-Lite may be used where herbicides require NIS and AMS or a water conditioner.

PASTURE INSECT CONTROL

Labeled Insecticides

PASTURE	INSECT*	INSECTICIDE																	
		Baythroid XL	Besiege	Blackhawk	Confirm 2F	Coragen	Declare	Dimilin 2L	Entrust SC	Grizzly Too	Intrepid 2F	Karate Z/Warrior II	Malathion 5/SEC	Mustang Maxx	Paradigm/Lambda-Cy Ag	Prevathon	Sevin XLR Plus	Voliam Xpress	Xentari
Armyworm		●	●	●	● ¹	●	●		●	●	●	●	●	●	●	●	●	●	●
Grasshopper		●	●			●	●	●		●		●	●	●	●	●	●	●	●


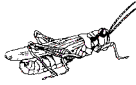
 See Insecticide Resistance Management in the TECHNICAL INFORMATION section.

S - suppression

* Many other insects may be controlled, see label.

¹ 24c, 2ee or Supplemental label.

Insect Treatment Guidelines


Insecticide	Rate/Acre	PHI	G/F	Comments/Restrictions
ARMYWORM 				ET: treat when an average of 4 or more non-parasitized, half grown or larger worms per square foot are found.
BAYTHROID XL	1.6-1.9 fl oz	0	0	Controls 1st and 2nd instar. Maximum is 11.3 fl oz/A/season. Do not exceed 2.8 fl oz/A in a 5 day interval.
BESIEGE	6-9 fl oz	0, 7	0	PHI 7 days for hay, 0 grazing or forage. Beet, fall, southern, and yellow-striped.
BLACKHAWK	1.1-2.2 oz	3	0	Includes beet, fall, southern, and true. Graze when spray has dried.
CONFIRM 2F	6-8 fl oz	0	Dry	24c AR (exp. 2/2021), LA (exp. 12/2018), OK (exp. 9/2018) for Beet, Fall, Southern, True and Yellowstriped armyworm. No more than 2 applications/season.
CORAGEN	3.5-5 fl oz	0	0	Includes beet, fall and southern.
DECLARE	1.02-1.54 fl oz	7	0	Do not apply >4.6 fl oz/A. Minimum 7 GPA by ground, 2 GPA by air.
ENTRUST SC	2-4 fl oz	3	0	Do not make more than 6 applications per season.
GRIZZLY TOO	1.28-1.92 fl oz	7	0	Rate depends on specific type of armyworm. PHI 7 days for hay. Note 1.
INTREPID 2F	4-8 fl oz	7	Dry	PHI 7 days for hay, 0 days for grazing or forage. May graze when dry.
KARATE Z/WARRIOR II	1.28-1.92 fl oz or	7	0	PHI 7 days for hay. Note 1.
MALATHION 5/SEC	2-2.25/2 pt	0	0	Remove animals while spraying.
MUSTANG MAXX	2.8-4 fl oz	0	0	Applications may be made up to 0 days before harvest of forage and hay. It can be used on grass and mixed stand pastures. Note 1.
PARADIGM/LAMBDA-CY AG	2.56-3.84 fl oz	7	0	PHI 7 days for hay. Note 1.
PREVATHON	14-20 fl oz	1		Beet, fall, and southern. 2ee AR, KY, LA, MS, TN, TX (exp. 12/2018) for control of fall armyworm in Bermudagrass and other pasture grasses.
SEVIN XLR PLUS	1-1.5 qt	-	14,0	14 day PHI forage, grazing or seed; 0 days for rangeland. May be applied through sprinkler irrigation (see label). Note 1.
VOLIAM XPRESS	6-9 fl oz	7	0	Maximum 9 fl oz/cutting; 27 fl oz/A/year.
XENTARI/DIPEL ES	0.5-2 lb/2-4 pt	0		Bt. 1-2 instars with light populations. Note 1.
GRASSHOPPER 				7-10 adults per square foot will generally cause economic damage. Spray when small.
BAYTHROID XL	2.6-2.8 fl oz	0	0	Maximum is 11.3 fl oz/A/season. Do not exceed 2.8 fl oz/A in a 5 day interval. Note 1.
BESIEGE	6-9 fl oz	0, 7	0	PHI 7 days for hay. 0 days forage or grazing.
CORAGEN	2-4 fl oz	0	0	2ee AZ, CA, CO, ID, KS, MT, NE, NV, NM, ND, OK, OR, SD, UT, WA, and WY (exp. 12/2018). Apply when most are 2-3 instar. Include MSO.
DECLARE	1.02-1.54 fl oz	7	0	Do not apply >4.6 fl oz/A. Minimum 7 GPA by ground, 2 GPA by air.
DIMILIN 2L	0.75-1 fl oz	-	0	Growth regulator for control of up to 3rd instar stage. Use 0.75-1 fl oz/A on rangeland RAATS (Reduced Area and Agent Treatments) program. Use 1-2 fl oz broadcast on pastureland. No grazing restrictions.
GRIZZLY TOO	1.28-1.92 fl oz	7	0	PHI 7 days for hay. Note 1.
KARATE Z/WARRIOR II	1.28-1.92 fl oz or	7	0	PHI 7 days for hay. Note 1.

PASTURE INSECT CONTROL


Insect Treatment Guidelines (continued)

Insecticide	Rate/Acre	PHI	G/F	Comments/Restrictions
GRASSHOPPER (continued)				
MALATHION 5/SEC	1.5-2 pt	0		Remove animals while spraying.
MUSTANG MAXX	2.8-4 fl oz	0	0	Applications may be made up to 0 days before harvest of forage and hay. It can be used on grass and mixed stand pastures. Note 1.
PARADIGM/ LAMBDA-CY AG	2.56-3.84 fl oz	7	0	PHI 7 days for hay. Note 1.
PREVATHON	8-20 fl oz	1		No more than 4 applications/A/crop. 7 day application interval.
VOLIAM XPRESS	6-9 fl oz	7	0	Maximum 9 fl oz/cutting; 27 fl oz/A/year.

PHI – preharvest interval days. G/F – grazing and feeding interval days.
Note 1: May be applied through sprinkler irrigation systems (see label).

 See Insecticide Resistance Mangement in the TECHNICAL INFORMATION section.

BEE ALERT

 See Insecticide Classification in the Technical Section for information on insecticide toxicity to bees.