

Grass Pastures

Herbicide	Formulation	Product Rate Range
2,4-D Amine 2,4-D Ester	Various	1 - 2 lbs ai/A

- 2,4-D is labeled for use in grass pastures and set-aside land.
- Mode of action: growth regulator.
- Apply 2 pints/A when annual weeds are small and actively growing. Rates of 1.5 to 2 lbs ai/A may be needed for less susceptible annual weeds, and biennial and perennial weeds.
- Spray bull or musk thistles or other biennial weeds in the rosette stage (spring or fall) while they are actively growing. Spray perennials such as Canada thistle in the bud to flower stage or in the fall regrowth stage. Spray susceptible woody species in the spring when leaves are fully expanded.
- The ester formulation is more effective on wild garlic and onion than the amine formulation.
- Do not graze dairy cattle for 7 days after treatment. Remove livestock from treated fields at least 3 days before slaughter.
- Do not apply to newly seeded areas or after heading begins. Do not apply to grass when it is in the boot to milk stage if grass seed production is desired.
- Do not reseed legumes or rotate to other crops for 3 months or until chemical has disappeared from soil.

Herbicide	Formulation	Product Rate Range
Ally/Cimarron	60DF	1/10 - 1.0 oz

- Ally/Cimarron (metsulfuron methyl) is a translocated herbicide for control of broadleaf weeds and brushy plants.
- Mode of action: ALS inhibitor.
- Apply to foliage when weeds and brush are actively growing. For annual weeds, apply in spring or early summer before weeds are 4 inches tall. Apply when brushy plants are fully leafed out.
- In OSU trials, Ally/Cimarron has been highly effective for multiflora rose control; foliar applications provide best control of rose. Apply in late spring or summer when rose plants are fully leafed out. For spot treatment of multiflora rose, blackberry, or Canada thistle, use 1 ounce of Ally/Cimarron per 100 gallons of water. Ally is less effective than Stinger or Roundup Ultra for long-term control of Canada thistle.
- Apply with nonionic surfactant at a rate of 1 to 2 pints per 100 gallons water (1/2 to 1 pint for tall fescue).
- The maximum use rate for fescue pastures is 2/10 ounce/A. Application to fescue may cause stunting, temporary discoloration, and seed head suppression. To minimize injury to fescue, apply later in the spring or fall and/or tank mix with 2,4-D. Bluegrass, orchardgrass, timothy, brome grass, and bermudagrass pastures have demonstrated good tolerance. Ryegrass is highly sensitive to Ally/Cimarron. Grasses should be well-established at time of application.
- Ally/Cimarron is a long-residual herbicide and is labeled with extensive restrictions on over-seeding with legumes, pasture renovation, and crop rotation (34 months to most crops). Cautionary and other restrictive statements on the pasture label should be read and understood by the user prior to use.
- Allow 4 hours between application and rainfall.
- There is no grazing restriction on the Ally or Cimarron label.

Grass Pastures

Herbicide	Formulation	Product Rate Range
-----------	-------------	--------------------

Cimarron Max	co-pack	See labels.
--------------	---------	-------------

- Cimarron Max is a co-pack of Ally/Cimarron (metsulfuron methyl) plus a premix of dicamba and 2,4-D. These are translocated herbicides for control of broadleaf weeds and brushy plants.
- Mode of action: ALS inhibitor (metsulfuron); growth regulator (2,4-D, dicamba).
- Do not apply to timothy until 12 months after establishment. Lowest labeled rate should be applied to timothy in late summer or fall.
- Do not apply to fescue until 24 months after establishment. Lowest labeled rate should be applied late in spring after 5 to 6 inches of new growth, or in the fall.
- On timothy and fescue, use nonionic surfactant rather than crop oil to minimize injury. Do not use additional surfactants if nitrogen fertilizer solution is used as the spray carrier.
- The metsulfuron component is a long-residual herbicide and is labeled with extensive restrictions on over-seeding with legumes, pasture renovation, and crop rotation. Cautionary and other restrictive statements on the pasture label should be read and understood by the user prior to use.
- Allow 4 hours between application and rainfall.
- Do not graze lactating animals within 7 days of treatment. There is no waiting period for non-lactating animals, but meat animals should be removed from treated areas 30 days prior to slaughter. Treated grasses may be harvested for dry hay, but do not harvest within 37 days of treatment.

Herbicide	Formulation	Product Rate Range
-----------	-------------	--------------------

Curtail	2.38L	2 - 4 qt
---------	-------	----------

- Curtail is a premix of clopyralid (Stinger) plus 2,4-D.
- Mode of action: growth regulator.
- Apply when annual weeds are small and actively growing. Treat bull or musk thistles in the spring or fall when they are actively growing and in the rosette stage. Treat susceptible woody species in the spring when fully leafed out.
- Use higher rates for Canada thistle, and treat prior to the bud stage.
- Do not treat pastures containing legumes unless injury can be tolerated. Established grasses are tolerant, but new seedings may be injured.
- Do not graze lactating dairy cattle in treated areas for 14 days after application. Meat animals should be removed from treated areas 7 days before slaughter (this is not necessary if at least 12 weeks have elapsed since application. Do not cut treated grass for hay for 30 days after application.
- Do not transfer livestock from treated grazing areas (or if fed treated hay) to sensitive broadleaf crops without first allowing 7 days of grazing on an untreated pasture (or feeding untreated hay). If livestock are transferred within less than 7 days of grazing untreated pasture or hay, urine or manure may contain enough clopyralid to injure sensitive broadleaf plants.

Grass Pastures

Herbicide	Formulation	Product Rate Range
Dicamba	4L	Annuals - 1/2 - 1 1/2 pt Biennials - 1/2 - 3 pt Perennials - 1 - 6 qt Woody brush - 1 - 8 qt

- Dicamba is sold under various trade names, including Banvel, Clarity, Sterling, and Oracle. Dicamba is a translocated herbicide labeled for use in grass pastures and set-aside land.
- Mode of action: growth regulator.
- Use lower rates for susceptible annuals when they are small and actively growing and for susceptible biennials in the early rosette stage. Use higher rates for larger weeds, for less susceptible weeds, for established perennials in dense stands, and for certain woody brush species.
- Remove livestock from treated fields at least 30 days before slaughter. There is no waiting period between application and grazing for non-lactating animals. Do not graze lactating dairy animals for 7 to 60 days after application, depending upon rate applied.
- Allow 6 to 8 hours between application and rainfall.
- Be cautious of spray drift and volatility.

Herbicide	Formulation	Product Rate Range
Crossbow	3L	Annuals - 1 - 2 qt Biennials - 2 - 4 qt Perennials - 2 - 4 qt Woody brush - 6 qt

- Crossbow is a premix of 2,4-D plus triclopyr for use in grass pastures and set-aside land.
- Mode of action: growth regulator.
- Apply to foliage during warm weather when brush and broadleaf weeds are actively growing. When applying as a spot spray, thoroughly wet all foliage.
- Be cautious of vapor and particle drift, as Crossbow may injure susceptible crops growing nearby.
- Crossbow is effective for control of small ironweed and poison hemlock plants. For ironweed, apply 2 qt/A in early summer before evidence of leaf rust is seen on the ironweed leaves. Apply when poison hemlock is small for best results.
- A foliar application of a 1 1/2 percent Crossbow solution applied in late April to early June has proven effective for multiflora rose control. Dormant season (late winter to early spring) basal bark applications of a 4 to 5 percent solution will also control multiflora rose. See herbicide label for more specific rate recommendations.
- Grazing restrictions for rates of 2 gallons per acre or less: Do not graze dairy animals for 14 days after treatment. Other livestock: no waiting period between application and grazing, but remove animals from treated areas at least 3 days before slaughter.

Herbicide	Formulation	Product Rate Range
Glyphosate	Various	2% v/v solution

- Glyphosate can be used as a spot treatment to control a variety of herbaceous and woody brush species such as multiflora rose, brambles, poison ivy, and quackgrass. Glyphosate should generally be applied when perennial weeds are in the bud to flower stage, and woody perennials are fully leafed out. Table 22 contains a list of currently available glyphosate products. Consult label for recommended timing of application for maximum effectiveness on target species.
- Mode of action: EPSP synthase inhibitor.
- Spray foliage of target vegetation completely and uniformly, but not to the point of runoff.
- Glyphosate is very effective for the selective killing of multiflora rose near desirable trees, due to the lack of soil activity. However, avoid contact with foliage of desirable nontarget vegetation. Apply in late spring or summer when multiflora rose are fully leafed out.
- No more than one tenth of an acre of pasture should be treated at one time. Further applications in the same area may be made at 30-day intervals.
- Do not graze or harvest for 14 days after application.

Grass Pastures

Herbicide	Formulation	Product Rate Range
-----------	-------------	--------------------

Spike	20P	10 - 20 lb
-------	-----	------------

- Spike (tebuthiuron) Controls brush and woody plants, including multiflora rose, in rangeland and grass pastures. Requires sufficient rainfall to move herbicide into root zone. See label for rates on specific species.
- Mode of action: photosynthesis inhibitor.
- Apply anytime throughout the year except when soil is frozen or saturated with moisture. For best results, apply prior to the resumption of active seasonal growth in the spring.
- There are no grazing restrictions following the application of Spike.
- May kill or injure desirable legumes and grasses where contact is made. Apply as a spot treatment or when grasses are dormant to minimize injury.
- Do not apply on or near field crops or other desirable vegetation. Do not apply where soil movement is likely. Refer to label for additional restrictions.

Herbicide	Formulation	Product Rate Range
-----------	-------------	--------------------

Weedmaster/Brash	3.87L	1 - 4 pts
------------------	-------	-----------

- Weedmaster/Brash is a premix of 2,4-D amine plus dicamba for control of broadleaf weeds.
- Mode of action: growth regulator
- When applied as a spot treatment, rates up to 8 pints/A can be used.
- Apply with nonionic surfactant (2 to 4 pts/100 gallons) using a spray volume of at least 5 gpa. Increase volume where in dense or tall vegetation.
- Allow 37 days between application and harvesting of grasses for hay or silage.
- Allow 7 days between application and grazing of lactating animals. There is no waiting period between application and grazing of non-lactating animals, but remove animals from treated areas at least 30 days before slaughter.

Herbicide	Formulation	Product Rate Range
-----------	-------------	--------------------

Stinger	3L	2/3 - 1 1/3 pt
---------	----	----------------

- Stinger (clopyralid) is a translocated herbicide for use in grass pastures and set-aside land.
- Mode of action: growth regulator.
- Controls a limited number of broadleaf weeds, including cocklebur, ragweeds, and nightshade. Controls Canada thistle at higher rates. Suppresses sowthistle and buffalobur.
- Apply when weeds are young and actively growing. Canada thistle should be at least 4 inches tall or across (rosette), but apply before the bud stage.
- Established grasses are tolerant, but new grass seedings may be injured. Some forages, especially legumes, are especially sensitive to Stinger. Do not spray pastures containing legumes unless injury can be tolerated.
- Allow 6 to 8 hours between application and rainfall.
- There is no waiting period between application and grazing. Do not use hay, straw, or manure from treated areas for composting or mulching on susceptible broadleaf crops. Do not transfer animals from treated grazing areas onto sensitive broadleaf crop areas without first allowing 7 days of grazing on an untreated pasture. Otherwise, urine may contain enough Stinger to injure sensitive broadleaf plants.
- Apply only once per 12 month period. Wheat, grasses, field corn, or sugar beets may be planted anytime after treatment. Check the label for recrop intervals on other broadleaf crops.