



Chemical Weed and Brush Control for New Mexico Rangelands

COLLEGE OF
AGRICULTURE AND
HOME ECONOMICS

BRINGING
SCIENCE
TO YOUR
LIFE

Cooperative Extension Service • Circular 597

Chemical Weed and Brush Control for New Mexico Rangelands

Keith W. Duncan, Kirk C. McDaniel and Mark J. Renz¹

Noxious woody and weedy plants inhabit much of New Mexico's rangelands. Dense stands of brush and weeds use vast quantities of water, reduce forage production and contribute to erosion. If rangelands are to reach their productive potential, noxious plants need to be managed effectively. Herbicides are effective, economical and efficient methods for controlling brush and weeds and improving and maintaining rangelands.

This circular lists current suggestions for herbicides to control woody and herbaceous weeds on rangeland. Some herbicides provide a high degree of control of certain species and a reduced degree of control of other species. However, seldom is a species eradicated. When developing a woody and herbaceous weed management program, consider all possible rangeland uses. Many woody plants and forbs are valuable sources of food and cover for wildlife and can also be important to livestock operations. A woody and herbaceous weed management program should use control methods that provide optimum benefits to both livestock and wildlife.

Herbicides are effective and safe when they are used properly (Appendix A). Misuse can result in poor woody and herbaceous weed control, increased expense, possible hazards from herbicidal drift or residues that damage or kill desirable

plants. Use the following guidelines for proper herbicide use:

- Correctly identify the plant species and evaluate the need for control.
- Consider the expected benefits and costs of herbicide and alternative control practices, as well as alternative uses of funds.
- Select and purchase the appropriate herbicide for the plant species.
- Provide and require proper safety equipment.
- Calibrate spray equipment to correctly apply the desired rate.
- Mix herbicides in a well-ventilated area, preferably outside.
- Spray under conditions that minimize drift.
- Read and follow instructions on the label.
- Keep a record of the herbicide used, time of application, weather conditions, rate of herbicide applied, date, location and applicator.

¹Extension specialist, Department of Extension Animal Resources; Professor, Department of Animal and Range Sciences; Extension Weed Specialist, Extension Plant Sciences Department.

For successful weed control, the correct quantity of herbicide mixture must be applied to a specific area. To calibrate spray equipment, see NMSU Cooperative Extension Service publications on calibrating pesticide applicators. For information about procedures for obtaining a pesticide applicator's license and other information about applying herbicides properly, contact your county Extension office.

The following suggestions for using herbicides are based upon their effectiveness under New Mexico conditions. Broadcast and individual plant treatments are presented in Table 1. Individual plant treatments are best suited for controlling thin stands of brush (usually less than 150 plants/acre) and for selective control. Broadcast treatments are useful for dense stands of target weed(s).

Suggested herbicides must be registered and labeled for use by the Environmental Protection Agency. Some of the suggested herbicides are restricted-use pesticides and require an applicator's license for purchase and use. **Because the status of herbicide label clearance is subject to change, be certain to use a current label for the herbicide's intended use.**

The user is always responsible for the effects of herbicide residue on livestock and crops, as well as for problems that arise from drift or other herbicide movement from the user's property to that of others.

The label is a legal document and violation of it is a federal offense.

Always read and follow carefully the instructions on the container label. Especially note any grazing restrictions that apply to the herbicide.

Table 1. Herbicides for controlling undesirable brush and weeds on rangelands.

| Plant controlled | Trade name and product rate/acre | Herbicide common name and active ingredient | Spray volume per acre or individual plant | Time of application | Remarks |
|------------------|---------------------------------------|---|---|---|---|
| African Rue | Arsenal 3 pt | Imazapyr 3/4 lb | 10 to 25 gal for ground broadcast. | Spray only actively growing plants. | Caution: Arsenal and Velpar L will damage or kill any other sprayed vegetation. |
| | OR Velpar L 2 ml/plant | Hexazinone | Individual plant treatment. | Anytime of year. | |
| Bindweed, Field | Banvel 1 pt to 1 qt | Dicamba 1/2 to 1 lb | 10 to 25 gal for ground broadcast application. Use surfactant as per label. | Summer fallow prior to planting and when weeds are actively growing or in late summer or fall prior to killing frost or post-bloom. Follow-up applications should be made in spring to control seedlings. | For suppression, refer to label for crop rotation restrictions. |
| | OR Clarity, Overdrive 4 to 8 oz | Dicamba: diflufenzopyr (5:2 mixture) 1/4 to 1/2 lb | | | |
| | OR Weedmaster 1 pt to 1 qt | OR Dicamba: 2,4-D (1:3 mixture) 1/2 to 1 lb | | | |
| | OR Tordon 22K** 1 to 2 qt | OR Picloram 1/2 to 1 lb | | | |
| | Paramount 5 to 8 oz | Quinlorac 1/4 to 3/8 lb | 10 to 25 gal for ground broadcast. Add 1 to 2 pints MSO. | | |
| | OR Roundup* 4 to 5 qt | OR Glyphosate 4 to 5 lb | | Full bloom to early seed stage. | |

* Formulated as 4 lb active ingredient per gallon product

** Restricted use product

Table 1. Herbicides for controlling undesirable brush and weeds on range lands.

| Plant controlled | Trade name and product rate/acre | Herbicide common name and active ingredient | Spray volume per acre or individual plant | Time of application | Remarks |
|--|--|---|---|--|---|
| Bindweed, Field (continued) | OR Tank mix 1 qt Roundup + 1/2 pt Banvel, Clarity | OR Glyphosate 1 lb + dicamba 1/2 lb | | Mid-to late-bloom. | |
| | OR Landmaster BW 3 1/5 pt | OR Glyphosate: 2,4-D (1: 1 1/4 mixture) 1 lb | | Fallow or post harvest when bindweed has 10 inch runners. | |
| | OR 2,4-D* 2 to 3 qt | OR 2,4-D 2 to 3 lb | | Bud stage or summer; follow in early August. | |
| Bitter sneezeweed, broomweed (annual or common), camphorweed, cocklebur, horehound, ragweed, sunflower, thistles, upright prairie coneflower, horsemint, pepperweed, buckwheat, knapweed, lakeweed, and others | 2,4-D 1 pt to 1 qt | 2,4-D 1/2 to 1 lb | 2 to 4 gal water for aerial spray; 10 to 25 gal for ground broadcast application. Add surfactant as needed. | Spring weeds 4 to 6 inches high, before blooming, good growing conditions. | Use 2,4-D amine or low volatile ester. Do not spray near susceptible crops. |
| | OR Weedmaster 1 pt to 1 qt | OR Dicamba: 2,4-D (1:3 mixture) 1/2 to 1 lb | | | |
| | OR Tank mix 1/4 to 1/2 pt Banvel with 3/4 to 1 1/2 pt 2,4-D* | OR Dicamba: 1/8 to 1/4 lb + 2,4-D 3/8 to 3/4 lb | | | |
| | OR Grazon P+D 1 pt to 3 pt | OR Picloram: 2,4-D (1:2 mixture) 3/10 to 9/10 lb | | | |
| | OR Tank mix 1/4 to 3/4 pt Tordon 22K** with 1/2 to 1 1/2 pt 2,4-D | OR Picloram 1/16 to 3/16 lb + 2,4-D 1/4 to 3/4 lb | | | |
| | OR Ally, Escort 5/8 to 4/5 oz | OR Metsulfuron 3/8 to 1/2 oz | | | |
| Black Henbane | Tank mix Ally, Escort 1/2 oz + 3 qt 2,4-D | OR Metsulfuron 1/3 oz + 2,4-D 3 lb | 10 to 25 gal for ground broadcast application. Use surfactant as per label. | Rosette to bloom. | Seedlings should be controlled the following year. |
| Broom snakeweed (perennial broomweed, turpentine weed) | Tordon 22K** 1 pt to 1 qt | Picloram 1/4 to 1/2 lb | 2 to 4 gal water for aerial spray; 10 to 25 gal for ground broadcast application. Add surfactant as needed. | Fall, after full bloom, or spring when growing conditions are good. | Use drift control agent and add emulsifier to oil. Foliar sprays are recommended where broom snakeweed is the primary weed species. |
| | OR Tank mix 1 pt to 1 qt Tordon 22K** + 1 qt 2,4-D* | OR Picloram 1/4 to 1/2 lb + 1 lb 2,4-D | | | |
| | OR Grazon P+D 1 to 2 qt | OR Picloram: 2,4-D (1:4 mixture) 5/8 to 1 1/4 lb | | | |

* Formulated as 4 lb active ingredient per gallon product
 ** Restricted use product

Table 1. Herbicides for controlling undesirable brush and weeds on range lands.

| Plant controlled | Trade name and product rate/acre | Herbicide common name and active ingredient | Spray volume per acre or individual plant | Time of application | Remarks |
|--|---|---|---|--|--|
| Broom snakeweed (perennial broomweed, turpentine weed) (continued) | OR Weedmaster 1 1/2 to 2 qt | OR Dicamba: 2,4-D (1:3 mixture) 1 1/2 to 2 lb | | | |
| | OR Ally, Escort 5/8 to 4/5 oz | OR Metsulfuron 3/8 to 1/2 oz | | | |
| | OR Spike 20P 3 3/4 to 5 lb of pellets | OR Tebuthiuron 3/4 to 1 lb | Aerial broadcast. | Anytime during year. Optimum is prior to rainy season. | Do not use on clay loam, silty clay loam, sandy clay, silty clay or clay soils. |
| Bursage, skeletonleaf | 2,4-D* 1 1/2 to 2 qt | 2,4-D 1 1/2 to 2 lb | 10 to 25 gal for ground broadcast application. | Without cultivation, spring and fall. | Treat after tillage when regrowth is 4 to 6 inches |
| | OR Tordon 22K** 2 qt | OR Picloram 1 lb | 10 to 25 gal for ground broadcast application. | Fully leaved and actively growing. | |
| | OR Banvel, Clarity 1 to 2 qt | OR Dicamba 1 to 2 lb | 10 to 25 gal for ground broadcast application. | Late summer and fall. | |
| Camelthorn | Ally, Escort 3/8 oz | Metsulfuron 1/4 oz | Individual plant treatment. Mix in 100 gal water, add 8 oz silicone surfactant. | Actively growing | Retreatment may be necessary. |
| | Arsenal 3/4 to 1 1/2 qt | Imazapyr 3/8 to 3/4 lb | Individual plant treatment. Mix in 100 gal water, add 8 oz silicone surfactant. | Actively growing | Retreatment may be necessary. |
| Catclaw mimosa, whitehorn acacia | Spike 20P 3 3/4 to 5 lb pellets | Tebuthiuron 3/4 to 1 lb | Aerial broadcast. | Anytime during year. Optimum is prior to rainy season. | Use only on sandy, loamy sand, or sandy loam soils. |
| | OR Tank mix 2 pt Tordon 22K** with 1 pt Remedy | OR Picloram 1/2 lb* Triclopyr 1/2 lb | 2-4 gal oil-in-water emulsion as aerial spray (1 pt to 1 qt diesel oil in water to make 2-4 gal). 10 to 25 gal oil-in-water emulsion for ground broadcast (1/2 to 1 gal diesel oil-in-water to make 10-25 gal). | When leaves are fully expanded. Good growing conditions. | Do not spray near susceptible crops. |
| | OR Reclaim 2/3 pt to 2/3 qt | OR Clopyralid 1/4 to 1/2 lb | | | |
| | OR Tank mix 1/3 to 2/3 pt Reclaim with 1/4 to 1/2 pt Remedy | OR Clopyralid 1/8 to 1/4 lb + Triclopyr 1/8 to 1/4 lb | | | |
| | OR Spike 20P 1/4 to 1/2 oz per 3 ft of canopy diameter or height | OR Tebuthiuron 1/20 to 1/10 oz | Individual plant treatment. | Anytime during year. Optimum is prior to rainy season. | Do not apply to frozen or snowcovered ground. Distribute uniformly under canopy. |
| Catclaw acacia | Spike 20P 5 to 7 1/2 lb of pellets | Tebuthiuron 1 to 1 1/2 lb | Aerial broadcast. | Anytime during year. Optimum is prior to rainy season. | Use only on coarse-textured soils. |

* Formulated as 4 lb active ingredient per gallon product

** Restricted use product

Table 1. Herbicides for controlling undesirable brush and weeds on range lands.

| Plant controlled | Trade name and product rate/acre | Herbicide common name and active ingredient | Spray volume per acre or individual plant | Time of application | Remarks |
|---|---|---|--|---|--|
| Catclaw acacia (continued) | OR Tank mix 2 pt Tordon 22K** with 1 pt Remedy | OR Picloram 1/2 lb + Triclopyr 1/2 lb | 2-4 gal oil-in-water emulsion as aerial spray (1/2 to 1 gal diesel oil-in-water to make 2-4 gal). 10-25 oil-in-water emulsion for ground broadcast (1/2 to 1 gal diesel oil-in-water to make 10-25 gal). | When leaves are fully expanded. Good growing conditions. | Do not spray near susceptible crops. |
| | OR Spike 20P 1/4 to 1/2 oz per 3 ft of canopy diameter or height | OR Tebuthiuron 1/20 to 1/10 oz | Individual plant treatment. | Anytime during year. Optimum is prior to rainy season | Do not apply to frozen or snow-covered ground. Distribute uniformly under canopy. |
| Cattail, common | 2,4-D* 6 qt per 100 gal water | 2,4-D 6 lb per 100 gal water | Spray to wet with handheld equipment. | Before cattail heads appear | Reapplications necessary. Use surfactant as per label. |
| | OR Rodeo 5 3/4 to 7 1/2 pt | OR Glyphosate 2 7/8 to 3 3/4 lb | | Early to full bloom | |
| | OR Habitat 2 qt | OR Imazapyr 1 lb | Broadcast | When plants are actively growing. | Use surfactant as per label. |
| | OR Habitat 1 gal | OR Imazapyr 2 lb | Mix in 100 gal water, spray to wet. | | |
| Cholla, pricklypear | Tordon 22K** 4 to 6 ml per 3 ft of plant width (prickly pear) or plant height (cholla) | Picloram | Individual plant treatment. | Anytime during year. Optimum is prior to rainy season. | Apply within plant area (prickly pear) or at junction of stem and ground (cholla). Do not treat more than 25% of watershed. Herbicide is very slow acting. May take 2 to 3 years to show effect. |
| | OR Tordon 22K** 1 qt | OR Picloram 1/2 lb | 2 to 4 gal water solution as aerial spray. 10 to 25 gal water solution as ground broadcast or individual plant treatment. | Anytime air temperature is above 60°F and has not been 32°F or below during the past 24 hours. For best results, spray when cacti are in bloom. | Do not spray near susceptible crops. Spray to wet. |
| | OR (cholla only) Velpar L 4 to 6 ml per 3 ft of plant height | OR Hexazinone | Individual plant treatment. | Anytime of year. Optimum is prior to rainy season. | Apply diluted Velpar L to soil surface at junction of stem and ground. |
| Crazyweed, silky or Lambert's; whitepoint locoweed; woolly loco | Tordon 22K** 1 qt | Picloram 1/2 lb | 2 to 4 gal water for aerial spray. 10 to 25 gal for ground broadcast application. Add surfactant as per label. | When plants are actively growing and before seeds mature. | To prevent livestock poisoning, avoid grazing until plants are totally dry. |
| | OR Tank mix 1 qt Banvel, Clarity + 1 qt 2,4-D* | OR Dicamba 1 lb + 2,4-D 1 lb | | | |

* Formulated as 4 lb active ingredient per gallon product

** Restricted use product

Table 1. Herbicides for controlling undesirable brush and weeds on range lands.

| Plant controlled | Trade name and product rate/acre | Herbicide common name and active ingredient | Spray volume per acre or individual plant | Time of application | Remarks |
|---|---|--|--|---|---|
| Crazyweed, silky or Lambert's; whitepoint locoweed; woolly loco (continued) | OR Weedmaster 1 to 2 qt | OR Dicamba: 2,4-D (1:3 mixture) 1 to 2 lb | | | |
| | OR Ally, Escort 1/2 oz | OR Metsulfuron 3/10 oz | | | |
| | OR Grazon P+D 1 to 2 qt | OR Picloram: 2,4-D (1:4 mixture) 5/8 to 1 1/4 lb | | | |
| | OR Tank mix 1 to 2 qt Tordon 22K** with 1 1/2 to 3 pt 2,4-D* | OR Picloram 1/4 to 1/2 lb + 2,4-D 3/4 to 1 1/2 lb | | | |
| Creosotebush | Spike 20P 3 3/4 to 5 lb of pellets | Tebuthiuron 3/4 to 1 lb | Aerial broadcast. | Anytime during year. Optimum is prior to rainy season. | Use 1 lb rate when soils are loam, silt or sandy clay loam. |
| | OR Tordon 22K** 2-4 ml per 3 ft of canopy diameter | OR Picloram | Individual plant treatment. | Anytime of year. Optimum is prior to rainy season. | Distribute uniformly under canopy. Do not apply to frozen or snow-covered ground. Do not treat more than 25% of watershed. |
| | OR Velpar L 2-4 ml per 3 ft of canopy diameter | OR Hexazinone | Individual plant treatment. | Anytime of year. Optimum is prior to rainy season. | Apply undiluted Velpar L to soil surface within 3 ft of stem base. Use exact delivery handgun applicator. Do not use on clay soil. Do not apply to frozen or snow-covered ground. |
| | OR Spike 20P 1/4 to 1/2 oz per 3 ft of canopy diameter | OR Tebuthiuron | Individual plant treatment. | Anytime of year. Optimum is prior to rainy season. | Do not apply to frozen or snow-covered ground. Distribute pellets uniformly under canopy. |
| Dalmatian toadflax, Yellow toadflax | Telar 2 oz | Chlorsulfuron 1 1/2 oz | 10-25 gal for ground broadcast. Add 0.25% v/v nonionic surfactant. | Actively growing in spring or fall. | See label. |
| | OR Tordon 22K** 1 to 2 qt | OR Picloram 1/2 to 1 lb | | Through full bloom or to fall regrowth. | Especially effective after first killing frost. |
| Downy brome | Aatrex 1 to 2 pt | Atrazine 1/2 to 1 lb | 10-25 gal for ground broadcast. | When desirable vegetation is dormant. | |
| | OR Gramoxone 26 oz | OR Paraquat 1/2 lb | Add 0.25% nonionic surfactant. | | 2 years successive treatments necessary. |
| | OR Oust 1 oz | OR Sulfometuron 3/4 oz | | Late fall or winter. | See label. |
| | OR Roundup* 1/2 to 1 pt | OR Glyphosate 1/4 to 1/2 lb | | After emergence and before seedset. | See label. |
| | OR Plateau 9 to 13 oz | OR Imazapic 1/7 to 1/5 lb | Add 1 qt /A MSO | | See label. |

* Formulated as 4 lb active ingredient per gallon product

** Restricted use product

Table 1. Herbicides for controlling undesirable brush and weeds on range lands.

| Plant controlled | Trade name and product rate/acre | Herbicide common name and active ingredient | Spray volume per acre or individual plant | Time of application | Remarks |
|--|---|---|---|--------------------------------|-------------------------------------|
| Dyer's wood | 2,4-D* 1 1/2 to 2 qt | 2,4-D 1 1/2 to 2 lb | 10-25 gal for ground broadcast. | Rosette stage. | Repeat treatments may be necessary. |
| | OR Ally, Escort 3/4 oz | OR Metsulfuron 4/10 oz | Add 0.25% v/v nonionic surfactant. | Actively growing plants. | |
| | OR Telar 1 oz | OR Chlorsulfuron 3/4 oz | | | |
| Goatgrass, jointed | Oust 1 3/10 oz | Sulfometuron 1 oz | 10-25 gal for ground broadcast application or 2-4 gal for aerial broadcast. | Late fall or winter. | See label. |
| | OR Roundup 2 1/2 to 3 pt | OR Glyphosate 1 1/4 to 1 1/2 lb | Spot treatments. | When fully tillered. | For spot treatment. |
| Gumweed, curlycup | Ally, Escort 1 oz | Metsulfuron 3/5 oz | 10 to 25 gal for ground broadcast or 2-4 gal for aerial broadcast. Add 0.25% v/v nonionic surfactant. | Early spring. | See label. |
| | OR 2,4-D* 2 qt | OR 2,4-D 2 lb | | | |
| | OR Tordon 22K** 1 pt | OR Picloram 1/4 lb | | | |
| | OR Grazon P+D 2 qt | OR Picloram: 2,4-D (1:2 mixture) 1 2/10 lb | | | |
| | OR Tank mix 1 pt Tordon 22K** with 1 qt 2,4-D* | OR Picloram 1/4 + 2,4-D 1 lb | | | |
| Halogeton | Ally, Escort 1 oz | Metsulfuron 6/10 oz | 10-25 gal for ground broadcast. Add 0.25% v/v nonionic surfactant | Early spring with good growth. | |
| | OR 2,4-D* 2 qt | OR 2,4-D 2 lb | | | |
| Hoarycress, whitetop and related species | 2,4-D* 2 qt | 2,4-D 2 lb | 10-25 gal for ground broadcast. Add 0.25% v/v nonionic surfactant | Before bud stage. | Repeat treatment may be necessary. |
| | OR Telar 1 oz | OR Chlorsulfuron 3/4 oz | | Bud to early bloom. | See label. |
| | OR Ally, Escort 1 oz | OR Metsulfuron 3/5 oz | | Bud to early bloom. | |
| Horsetail, smooth scouring rush | Telar 1 1/2 oz | Chlorsulfuron 1 1/8 oz | 10-25 gal for ground broadcast. Add nonionic surfactant at 1 pt to 1 qt/100 gal spray solution. | Early spring. | See label. |

* Formulated as 4 lb active ingredient per gallon product
 ** Restricted use product

Table 1. Herbicides for controlling undesirable brush and weeds on range lands.

| Plant controlled | Trade name and product rate/acre | Herbicide common name and active ingredient | Spray volume per acre or individual plant | Time of application | Remarks |
|---|---|---|--|--|--|
| Horsetail, smooth scouring rush (continued) | OR Oust 1 1/2 oz | OR Sulfometuron 1 1/8 oz | | | |
| | OR MCPA (4EC) Ester 1 qt | OR 4,2-acetic acid 1 lb | | Before cone heads appear. | Important to use the isooctylester formulation. |
| Houndstongue | 2,4-D* 2 qt | 2,4-D 2 lb | 10-25 gal for ground broadcast. Add 0.25% v/v nonionic surfactant. | Early before bloom. | |
| | OR Ally, Escort 1 oz | OR Metsulfuron 3/5 oz | | Before bolting. | See label. |
| | OR Plateau 13 oz | OR Imazapic 1/5 lb | Add MSO at 1 1/2 to 2 pt/acre. | Before bloom. | |
| Iris, Rocky Mountain | 2,4-D* 2 qt | 2,4-D 2 lb | 10-25 gal for ground broadcast. | Early bloom stage. | Wet thoroughly. |
| Juniper (cedar) | Spike 20P 5 to 10 lb of pellets | Tebuthiuron 1 to 2 lb | Ground or aerial broadcast. | Anytime of year. Optimum is prior to rainy season. | Approved applicators. Use only on sand, loamy sand or sandy loam soils. |
| | OR Velpar L 4 to 6 ml per 3 ft of canopy height | OR Hexazinone | Individual plant treatment. | Anytime of year. Optimum is prior to rainy season. | Apply evenly around trees at dripline. Do not treat more than 25% of watershed. Do not apply to frozen or snow-covered ground. Treat trees under 9 ft. |
| | OR Tordon 22K** 4 to 6 ml per 3 ft of canopy height | OR Picloram | | | |
| Knapweed, diffuse and spotted | Tordon 22K** 1 1/2 pt | Picloram 3/8 lb | 10-25 gal for ground broadcast. 3-4 gal for aerial broadcast. Add 0.25% v/v nonionic surfactant. | Rosette to mid-bolting. | |
| | OR Grazon P+D 2 to 3 qt | Picloram: 2,4-D (1:2 mixture) 1 1/4 to 1 7/8 lb | | | |
| | OR Tank mix 2 to 3 pt Tordon 22K** with 3 to 4 1/2 pt, 2,4-D* | OR Picloram 1/2 to 3/4 lb + 3 to 4 1/2 lb 2,4-D | | | |
| | OR 2,4-D* 2 qt | OR 2,4-D 2 lb | | Early stage of flower stem elongation. | |
| | OR Tank mix 1 pt Banvel, Clarity with 1 qt 2,4-D* | OR Dicamba 1/2 lb + 1 lb 2,4-D | Add 0.25% v/v nonionic surfactant. | Rosette stage. | |
| | OR Curtail 2 to 3 qt | Clopyralid: 2,4-D (1:5 mixture) 1 1/5 to 1 4/5 lb | Add 0.25% v/v nonionic surfactant. | Rosette stage before bolting. | See label. |

* Formulated as 4 lb active ingredient per gallon product

** Restricted use product

Table 1. Herbicides for controlling undesirable brush and weeds on range lands.

| Plant controlled | Trade name and product rate/acre | Herbicide common name and active ingredient | Spray volume per acre or individual plant | Time of application | Remarks |
|---|---|--|--|--|--|
| Knapweed, diffuse and spotted (continued) | OR Reclaim 1/3 to 1 1/3 pt | OR Clopyralid 1/8 to 1/2 lb | | | |
| Knapweed, Russian | Roundup* 4 4/5 qt | Glyphosate 4 4/5 lb | 10-25 gal for ground broadcast. | Late bud to early flower. | Retreatment may be necessary. |
| | OR Tordon 22K** 1 to 2 qt | OR Picloram 1/2 to 1 lb | | Early flower to frost. | |
| | OR Curtail 1 to 2 qt | Clopyralid: 2,4-D (1:5 mixture) 3/5 to 1 1/5 lb | | Full bloom to frost. | See label. |
| | OR Reclaim 2/3 to 1 1/3 pt | OR Clopyralid 1/4 to 1/2 lb | | Full bloom to frost. | |
| Larkspur, geyer | Ally, Escort 1.5 oz | Metsulfuron 9/10 oz | 10-25 gal for ground broadcast. Add 0.25% v/v nonionic surfactant. | Rosette. | |
| | OR Tordon 22K** 1 1/2 to 2 pt | OR Picloram 3/8 to 1/2 lb | | Rapidly growing. | |
| Larkspur, tall or duncecap | Ally, Escort 1.5 oz | Metsulfuron 9/10 oz | 10-25 gal for ground broadcast. Add 0.25% v/v nonionic surfactant. | 6 to 8 leaf stage; less than 8 inches tall. | |
| | OR Tordon 22K** 2 to 3 qt | OR Picloram 1 to 1 1/2 lb | | Bud stage. | |
| Leafy spurge | Banvel, Clarity 2 qt | Dicamba 2 lb | 10-25 gal for ground broadcast. Add 0.25% v/v nonionic surfactant. | Spring to early summer. | Retreatment is necessary. |
| | OR Tordon 22K** 1 to 3 pt | OR Picloram 1/2 to 1 1/2 lb | | | |
| | OR 2,4-D* 1 qt | OR 2,4-D 1 lb | | | |
| | OR Plateau 9 to 13 oz | OR Imazapic 1/7 to 1/5 lb | Add 1% v/v MSO. | Late summer through fall. | |
| Lotebush | Spike 20P 1/4 to 1/2 oz per 3 ft of canopy diameter or height | OR Tebuthiuron | Individual plant treatment. | Anytime of year. Optimum is prior to rainy season. | Do not apply to frozen or snow-covered ground. Distribute pellets uniformly under canopy. |
| | OR Velpar L 2-4 ml per 3 ft of canopy diameter or height, or 2-4 ml per inch of stem diameter | OR Hexazinone | Individual plant treatment. | Anytime of year. Optimum is prior to rainy season. | Apply diluted Velpar L to soil surface within 3 ft of stem base. Use exact delivery handgun applicator. Do not use on clay soils. Do not apply to frozen or snow-covered ground. |

* Formulated as 4 lb active ingredient per gallon product

** Restricted use product

Table 1. Herbicides for controlling undesirable brush and weeds on range lands.

| Plant controlled | Trade name and product rate/acre | Herbicide common name and active ingredient | Spray volume per acre or individual plant | Time of application | Remarks |
|---|--|---|---|--|---|
| Mesquite, grassland | Remedy 1/2 to 1 pt | Triclopyr 1/4 to 1/2 lb | 2 to 4 gal oil-in-water emulsion as aerial spray (1 pt to 1 qt diesel fuel oil and water to make 2 to 4 gal/acre). 10 to 25 gal oil-in-water emulsion (1/2 to 1 gal diesel fuel oil and water to make 20 to 25 gal/acre) as ground broadcast. Add surfactant as needed. | Spring to early summer, 40 to 90 days after bud break. | Apply only when soil moisture conditions are good and plants have full leaf cover of even-aged, undamaged leaves. Do not apply when mesquite plants are stressed from drought, frost, hail, wind or insects. Do not apply near susceptible crops. |
| | OR Reclaim 2/3 pt to 2/3 qt | OR Clopyralid 1/4 to 1/2 lb | | | |
| | OR Tank mix 2/3 pt to 1 pt Reclaim with 1/4 pt Remedy | OR Clopyralid 1/8 to 1/4 lb + Triclopyr 1/8 to 1/4 lb | | | |
| | OR Tank mix 1/3 to 2/3 pt Reclaim with 1/2 to 1 pt Tordon 22K | Clopyralid 1/8 to 1/4 lb + Picloram 1/8 to 1/4 lb | | | |
| | OR Remedy 3 pt | OR Triclopyr 1 1/2 lb per 100 gal water | Individual plant treatment. | Spring to early summer, 40 to 90 days after bud break. | Spray must cover all parts. |
| | OR Velpar L 4 to 6 ml per 3 ft of canopy diameter or height, or 2-4 ml per inch of stem diameter | OR Hexazinone | Individual plant treatment. | Anytime of year. Optimum is prior to rainy season. | Apply undiluted Velpar L to soil surface within 3 ft of stem base. Use exact delivery handgun applicator. Do not use on frozen or snow-covered ground. |
| Mesquite, mixed brush (catclaw, tarbush, whitehorn, creosote-bush, broom snake-weed, wolfberry) | Spike 20P 3 3/4 to 7 1/2 lb of pellets | Tebuthiuron 3/4 to 1 1/2 lb | Aerial broadcast. | Anytime of year. Optimum is prior to rainy season. | Low rate may be used on sand or loamy sand soils. |
| | OR Tank mix 1/2 to 1 pt Banvel with 1/2 to 1 pt Remedy | OR Dicamba 1/4 to 1/2 lb + Triclopyr 1/4 to 1/2 lb | 2 to 4 gal oil-in-water emulsion as aerial spray (1 pt to 1 qt diesel fuel oil and water to make 2 to 4 gal/acre). 10 to 25 gal oil-on-water emulsion as ground broadcast (1/2 to 1 gal diesel fuel oil to make 20 to 25 gal/acre). Add surfactant as needed. | Spring to early summer, 40 to 90 days after bud break. | For best results, monthly precipitation should exceed the annual average from January to the spray season. Foliar sprays should be applied only where there are few associated weeds, such as broom snakeweed, shinnery oak, catclaw, etc. These nontarget species may dominate a stand after mesquite control and provide undesirable results. |
| Milkweed, showy and related species | Tordon 22K** 2 to 3 qt | Picloram 1 to 1 1/2 lb | 10-25 gal for ground broadcast. 0.25% v/v nonionic surfactant | Bud to early bloom. | See label for grazing restrictions |
| | OR Banvel, Clarity 2 qt | OR Dicamba 2 lb | | Emergence to bloom. | |

* Formulated as 4 lb active ingredient per gallon product

** Restricted use product

Table 1. Herbicides for controlling undesirable brush and weeds on range lands.

| Plant controlled | Trade name and product rate/acre | Herbicide common name and active ingredient | Spray volume per acre or individual plant | Time of application | Remarks |
|---------------------------|--|---|--|--|---|
| Oxeye daisy | Remedy 1 1/3 pt | Triclopyr 2/3 lb | 10-25 gal for ground broadcast. | Actively growing. | Retreatment may be necessary. |
| | OR Tordon 22K** 1 to 2 pt | OR Picloram 1/4 to 1/2 lb | | | |
| Perennial pepperweed | Ally, Escort 1 oz | Metsulfuron 3/5 oz | 10-25 gal for ground broadcast. Add 0.25% v/v nonionic surfactant. | Late bud to early flower. | See label. |
| | OR Telar 1 oz | OR Chlorsulfuron 7/10 oz | | Late bud to early flower. | |
| | OR Roundup 3 to 4 qt | Glyphosate 3 to 4 lb | 25-40 gal for ground broadcast. | Mow plants when bolting bud stage spray resprouting plants | Wait until all resprouts emerge before applications |
| | OR 2,4-D* 2 qt | OR 2,4-D* 2 lb | 25-40 gal for ground broadcast. | Late bud to early flower. | Retreatments may be necessary. |
| Poison ivy, poison oak | Roundup* 4 to 6 qt | Glyphosate 4 to 6 lb | 10-25 gal for ground broadcast. | Actively growing to full bloom. | Add 0.25% v/v nonionic surfactant. |
| | OR Roundup 2 gal/100 gal water | OR Glyphosate 8 lb/100 gal water | 2% v/v individual plant treatment. | | |
| | OR Garlon 3 1 to 3 gal | OR Triclopyr 3 to 9 lb | 10-25 gal for ground broadcast. | | |
| | OR Garlon 4, Remedy 1 to 2 gal | OR Triclopyr 4 to 8 lb | | | |
| | OR Garlon 3 4 qt/100 gal water | OR Triclopyr 3 lb/100 gal water | Individual plant treatment. | | |
| | OR Garlon 4, Remedy 3 qt/100 gal water | OR Triclopyr 3 lb/100 gal water | Individual plant treatment. | | |
| Poverty sumpweed | Banvel, Clarity 1 to 2 qt | Dicamba 1 to 2 lb | 10-25 gal for ground broadcast. Add 0.25% v/v nonionic surfactant. | Actively growing. | |
| | OR Tordon 22K** 2 pt | OR Picloram 1/2 lb | | | |
| | OR 2,4-D* 4 to 6 qt | OR 2,4-D 4 to 6 lb | | | |
| Rabbitbush | Velpar L 4-6 ml per 3 ft of canopy diameter | Hexazinone | Individual plant treatment. | Anytime of year. Optimum is prior to rainy season. | Apply undiluted Velpar L to soil surface within 3 ft of stem base. Do not use on clay soils. Do not apply to frozen or snow-covered ground. |
| Ragweed, common (western) | 2,4-D* 2 qt | 2,4-D 2 lb | 10-25 gal for ground broadcast. | Actively growing. | |
| Rayless goldenrod | Spike 20P 5 lb of pellets | Tebuthiuron 1 lb | Aerial broadcast. | Anytime of year. Optimum is prior to rainy season. | Do not apply to frozen or snow-covered ground. |

* Formulated as 4 lb active ingredient per gallon product
 ** Restricted use product

Table 1. Herbicides for controlling undesirable brush and weeds on range lands.

| Plant controlled | Trade name and product rate/acre | Herbicide common name and active ingredient | Spray volume per acre or individual plant | Time of application | Remarks |
|------------------------------------|--|--|--|--|---|
| Rayless goldenrod (continued) | OR Spike 20P oz 1/4 to 1/2 per 3 ft of canopy diameter | OR Tebuthiuron | Individual plant treatment. | Anytime of year. Optimum is prior to rainy season. | Distribute pellets uniformly under canopy. Do not apply to frozen or snow-covered ground. |
| | OR Tordon 22K** 1 qt | OR Picloram 1/2 lb | Aerial or ground broadcast. | Fall, after blooming and before frost. | Do not spray near susceptible crops. |
| | OR Ally, Escort 4/5 oz | OR Metsulfuron 1/2 oz | | | |
| Russian olive (see also saltcedar) | See saltcedar | See saltcedar | See saltcedar. | See saltcedar. | See saltcedar. |
| Sagebrush, big | Spike 20P 2 1/2 lb of pellets | Tebuthiuron 1/2 lb | Aerial broadcast. | Anytime of year. Optimum is prior to rainy season. | Select productive sites for treatment. |
| Sagebrush, fringed | 2,4-D* 2 qt | 2,4-D 2 lb | 10-25 gal for ground broadcast. 2-4 gal for aerial broadcast. | Actively growing. | Retreat for 2 more years as necessary. |
| | OR Spike 20P 2 1/2 to 3 3/4 lb pellets | OR Tebuthiuron 1/2 to 3/4 lb | | Anytime. | |
| Sagebrush, sand | 2,4-D* low volatile ester 1 to 2 qt | 2,4-D 1 to 2 lb | 2-4 gal water solution for aerial spray. 10 to 25 gal water solution for ground broadcast application. Add surfactant as needed. | May 1 to June 15 with good growing conditions. | Do not spray when plants are defoliated by late frost, drought, or other unfavorable growing conditions. Do not spray near susceptible crops. |
| | OR Spike 20P 2 1/2 to 3 3/4 lb of pellets | OR Tebuthiuron 1/2 to 3/4 lb | Aerial or ground broadcast. | Anytime of year. Optimum is prior to rainy season. | |
| Saltcedar | Arsenal, Habitat 1 gal per 100 gal water | Imazapyr 2 lb per 100 gal water with 0.25% surfactant | Individual plant treatment or ground application. | August through September | Spray to wet, especially the terminal ends of all branches. Allow two full growing seasons before follow-up treatment. |
| | OR Tank mix 1/2 to 1 gal Arsenal, Habitat with 1/2 to 1 gal Roundup* | OR Imazapyr 1 to 2 lb + Glyphosate 2 to 4 lb per 100 gal water with 0.25% surfactant | | | |
| | OR Tank mix 1/2 to 1 gal Arsenal, Habitat with 1/2 to 1 gal Rodeo | OR Imazapyr 1 to 2 lb + Glyphosate 2 to 4 lb per 100 gal water with 0.25% surfactant | Individual plant treatment or ground application. | | Spray to wet, especially the terminal ends of all branches. Allow two full growing seasons before follow-up treatment. |
| | OR Arsenal, Habitat 1/2 gal | OR Imazapyr 1 lb with 0.25% surfactant | Aerial broadcast. | | 10-15 gal per acre total solution. Allow two full growing seasons before follow-up treatment. |

* Formulated as 4 lb active ingredient per gallon product
 ** Restricted use product

Table 1. Herbicides for controlling undesirable brush and weeds on range lands.

| Plant controlled | Trade name and product rate/acre | Herbicide common name and active ingredient | Spray volume per acre or individual plant | Time of application | Remarks |
|-----------------------------------|---|---|---|---|--|
| Saltcedar (continued) | OR Tank mix 1 to 1 1/2 qt Arsenal, Habitat with 1 to 2 pt Roundup* | Imazapyr 1/2 to 3/4 lb + Glyphosate 1/2 to 1 lb with 0.25% surfactant | | | |
| | OR Tank mix 1 to 1 1/2 qt Arsenal, Habitat with 1 to 1 1/2 pt Rodeo | OR Imazapyr 1/2 to 3/4 lb + Glyphosate 1/2 to 1 lb with 0.25% surfactant | | | |
| Sand shinnery oak | Spike 20P 2 1/2 to 5 lb of pellets | Tebuthiuron 1/2 to 1 lb | Aerial broadcast. | Anytime of year. Optimum is prior to rainy season. | |
| | OR Velpar L 2-4 ml per 33 square ft of canopy diameter | OR Hexazinone | Individual plant treatment. | Anytime of year. Optimum is prior to rainy season. | Apply undiluted Velpar L to soil surface within 3 ft of stem base or in a grid pattern. Use exact delivery handgun applicator. Do not apply to frozen or snow-covered ground. |
| | OR Spike 20P 1/2 oz per 22 sq ft when treating a thicket or clump | OR Tebuthiuron | Individual plant treatment. | Anytime during year, Optimum is prior to rainy season. | Distribute uniformly under canopy. Do not apply to frozen or snow-covered ground. |
| Shrub oak (wavy leaf, gambel oak) | Spike 20P 3 3/4 to 7 1/2 lb of pellets | Tebuthiuron 3/4 to 1 1/2 lb | Aerial broadcast. | Anytime during year. Optimum is prior to rainy season. | Distribute uniformly under canopy. Do not apply to frozen or snow-covered ground. |
| | OR Velpar L 2-4 ml per 33 sq ft of canopy diameter | OR Hexazinone | Individual plant treatment. Anytime during year. | Optimum is prior to rainy season. | Apply undiluted Velpar L to soil surface within 3 ft of stem base. Use exact delivery handgun applicator. Do not apply to frozen or snow-covered ground. Do not use on clay soils. |
| | OR Spike 20P 1/4 oz per 22 sq ft when treating a clump or thicket | OR Tebuthiuron | Individual plant treatment. Anytime during year. | Optimum is prior to rainy season. | Distribute uniformly under canopy. Do not apply to frozen or snow-covered ground. |
| | OR Arsenal 1 gal per 100 gal water | OR Imazapyr 2 lb per 100 gal water with 0.25% surfactant | Individual plant treatment or ground application. | Anytime during growing season when growing conditions are good. | Spray to wet. |
| | | | | | |
| Skunkbrush sumac | Spike 20P 3 3/4 to 5 lb of pellets | Tebuthiuron 3/4 to 1 lb | Aerial or ground broadcast. Anytime during year. | Optimum is prior to rainy season. | Distribute uniformly under canopy. Do not apply to frozen or snow-covered ground. |
| | OR Spike 20P 1/4 to 1/2 oz per 3 ft of canopy diameter or height | OR Tebuthiuron | Individual plant treatment. | Anytime during year, Optimum is prior to rainy season. | Distribute uniformly under canopy. Do not apply to frozen or snow-covered ground. |

* Formulated as 4 lb active ingredient per gallon product
 ** Restricted use product

Table 1. Herbicides for controlling undesirable brush and weeds on range lands.

| Plant controlled | Trade name and product rate/acre | Herbicide common name and active ingredient | Spray volume per acre or individual plant | Time of application | Remarks |
|-------------------------------------|--|---|---|--|--|
| Starthistle, yellow; malta; purple | Ally, Escort 1 oz | Metsulfuron 3/5 oz | 10 to 25 gal for ground broadcast. Use surfactant as per label. | Seedling to early bud. | |
| | OR Remedy 3 pt | OR Triclopyr 1 1/2 lb | | | |
| | OR 2,4-D* 1 qt | OR 2,4-D 1 lb | | | |
| | OR Arsenal 1 pt | OR Imazapyr 1/4 lb | | | |
| | OR Tordon 22K** 1 pt | OR Picloram 1/4 lb | | | |
| | OR Banvel, Clarity 1 qt | OR Dicamba 1 lb | | | |
| | OR Reclaim 2/3 pt | OR Clopyralid 1/4 lb | | | |
| | OR Grazon P+D 2 qt | OR Picloram: 2,4-D (1:4 mixture) 1 1/4 lb | | | |
| Tarbush | Spike 20P 2 1/2 to 3 3/4 lb of pellets | Tebuthiuron 1/2 to 3/4 lb | Aerial broadcast. | Anytime during year. Optimum is prior to rainy season. | |
| | OR Tordon 22K** 2 to 4 ml per 3 ft of canopy diameter | OR Picloram | Individual plant treatment. Apply anytime during year. | Optimum is prior to rainy season. | Apply undiluted Tordon 22K to soil surface within 3 ft of stem base. Use exact delivery handgun applicator. Do not apply to frozen or snow-covered ground. |
| | OR Spike 20P 1/3 to 1/2 oz per 3 ft of canopy diameter | OR Tebuthiuron | Individual plant treatment. | Anytime during year. Optimum is prior to rainy season. | Distribute uniformly under canopy. Do not apply to frozen or snow-covered ground. |
| Thistle, musk; scotch; Canada; bull | Ally, Escort 1/2 to 1 oz | Metsulfuron 3/10 to 3/5 oz | 10-25 for ground broadcast. Add 0.25% nonionic surfactant. | Rosette. | |
| | OR Telar 1/2 to 1 oz | OR Chlorsulfuron 3/8 to 3/4 oz | | | |
| | OR Tordon 22K** 1 to 2 pt | OR Picloram 1/4 to 1/2 lb | | | |
| | OR Curtail 1 to 2 qt | OR Clopyralid: 2,4-D (1:5 mixture) 3/5 to 1 1/5 lb | | | |
| | OR Tank mix 1 1/3 pt Remedy with 1 to 2 qt 2,4-D* | OR Triclopyr 2/3 lb + 2,4-D 1 to 2 lb | | | |

* Formulated as 4 lb active ingredient per gallon product

** Restricted use product

Table 1. Herbicides for controlling undesirable brush and weeds on range lands.

| Plant controlled | Trade name and product rate/acre | Herbicide common name and active ingredient | Spray volume per acre or individual plant | Time of application | Remarks |
|---|--|---|---|---|---|
| Threadlead groundsel, Riddel's groundsel Also: milkvetch, mustards, pingue, western bitterweed | 2,4-D* 2 to 4 qt | 2,4-D 2 to 4 lb | 10-25 gal for ground broadcast. Add 0.25% v/v nonionic surfactant. | Actively growing, prior to bloom. | |
| | OR Weedmaster 1 to 2 qt | OR Dicamba: 2,4-D (1:3 mixture) 1 to 2 lb | 2-4 gal for aerial broadcast. | | |
| | OR Tank mix 1/2 to 1 pt Banvel with 1 1/2 to 3 pt 2,4-D* | OR Dicamba 1/4 to 1/2 lb + 2,4-D 3/4 to 1 1/2 lb | | | |
| | OR Banvel 1 pt | OR Dicamba 1/2 lb | | | |
| | OR Tank mix 1 to 2 pt Tordon 22K ** with 1 1/2 to 3 pt 2,4-D* | OR Picloram 1/4 to 1/2 lb + 2,4-D 3/4 to 1 1/2 lb | | | |
| | OR Grazon P+D 1 to 2 qt | OR Picloram: 2,4-D (1:4 mixture) 5/8 to 1 1/4 lb | | | |
| | OR Tordon 22K** 1 qt | OR Picloram 1/2 lb | | | |
| | OR Ally, Escort 5/8 to 4/5 oz | OR Metsulfuron 3/8 to 1/2 oz | | | |
| Water hemlock, western | 2,4-D* 1 to 2 qt | 2,4-D 1 to 2 lb | 10 to 25 gal for ground broadcast. | Flower bud stage. | |
| Willows | 2,4-D* 2 to 3 qt | 2,4-D 2 to 3 lb | Individual plant treatment (2 to 3 lb per 100 gal of water solution). | Spring, when leaves are fully expanded. Good growing conditions. | Wet foliage thoroughly. Do not spray when plants are defoliated by late freeze, hail, insects, or other unfavorable conditions. |
| | OR Arsenal, Habitat 1 gal | OR Imazapyr 2 lb per 100 gal water with 0.25% surfactant | Individual plant treatment. | Anytime during growing season. Good growing conditions. | Spray to wet. |
| | OR Tank mix 1/2 to 1 gal Arsenal with 1/2 to 1 gal Roundup* | OR Imazapyr 1 to 2 lb + Glyphosate 2 1/2 to 5 lb per 100 gal water with 0.25% surfactant | | | |
| | OR Tank mix 1/2 to 1 gal Arsenal, Habitat with 1/2 to 1 gal Rodeo | OR Imazapyr 1 to 2 lb + Glyphosate 2 1/2 to 5 lb per 100 gal water with 0.25% surfactant | Individual plant treatment. | Anytime during growing season when good growing conditions exist. | Spray to wet. |

* Formulated as 4 lb active ingredient per gallon product

** Restricted use product

Table 1. Herbicides for controlling undesirable brush and weeds on range lands.

| Plant controlled | Trade name and product rate/acre | Herbicide common name and active ingredient | Spray volume per acre or individual plant | Time of application | Remarks |
|---------------------|---|---|---|--|--|
| Willows (continued) | OR Velpar L 2-4 ml per 3 ft of canopy diameter or height, or 2-4 ml per inch of stem diameter | OR Hexazinone | Individual plant treatment. | Anytime during year. Optimum is prior to rainy season. | Apply undiluted Velpar L to soil surface within 3 ft of stem base. Use exact delivery applicator. Do not apply to frozen or snow-covered ground. |
| Yucca | Velpar L 4-6 ml per whorl. | Hexazinone | Individual plant treatment. | Anytime during year. Optimum is prior to rainy season. | Apply undiluted Velpar L directly to whorl. |
| | OR Remedy 3-4 ml per whorl | OR Triclopyr | Individual plant treatment. | Anytime during year. | Apply to every whorl. May be mixed with water or diesel. |
| | OR Arsenal 2-3 ml per whorl | OR Imazapyr | Individual plant treatment. | Anytime during year. | Apply to every whorl. |

* Formulated as 4 lb active ingredient per gallon product
 ** Restricted use product

APPENDIX A

Common Chemical and Product Names of Herbicides
The herbicides are identified by the accepted Weed Science Society of America common name or other common designation, the correct chemical names as re-

quired on the label, and, where practical, one or more product names. Herbicides marketed under three or more labels have been designated “several manufacturers” rather than attempting to list all the trade formulations.

Table A1. Common Chemical and Product Names of Herbicides

| Herbicide Common Name | Chemical Name | Trade Name | Active Ingredient or Acid Equivalent |
|-----------------------------|--|---------------------------------|--------------------------------------|
| 2,4-D | (2,4-dichlorophenoxy) acetic acid | Several manufacturers | Amine salts and esters, 4 lb/gal |
| Atrazine | 6-chloro-N-ethyl-N'-(1-methylethyl)-1,3,5-triazine-2,4-diamine | Several manufacturers | — |
| Chlorsulfuron | 2-chloro-N-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino] carbonyl] benzenesulfonamide | Telar | 75% |
| Clopyralid | 3,6-dichloro -2-pyridinecarboxylic acid | Reclaim, Stinger, Transline | 3 lb/gal |
| Clopyralid: 2,4-D (1:5) | See Clopyralid and 2,4-D | Curtail | 2 3/8 lb/gal |
| Dicamba | 3,6-dichloro-2-methoxybenzoic acid | Banvel, Clarity, Overdrive | 4 lb/gal |
| Dicamba: 2,4-D (1:3) | See dicamba and 2,4-D | Weedmaster | 4 lb/gal |
| Diesel fuel oil | Refined petroleum fractions | Several manufacturers | — |
| Glyphosate | N-(phosphonomethyl) glycine | Rodeo | 5 lb/gal |
| Glyphosate*** | N-(phosphonomethyl) glycine | Several manufacturers | 4 lb/gal |
| Glyphosate: 2,4-D (1:1 1/4) | See Glyphosate and 2,4-D | Landmaster | 2 1/2 lb/gal |
| Hexazinone | 3-cyclohexy-6-(dimethylamino)-1-methyl-1,3,5-triazine-2,4 (1H,3H)-dione | Velpar L | 2 lb/gal |
| Imazapic | (±)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-methyl-3-pyridinecarboxylic acid | Plateau | 2 lb/gal |
| Imazapyr | (±)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid | Arsenal, Habitat | 2 lb/gal |
| Metsulfuron | methyl 2-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)-amino] carbonyl] amino] sulfonyl] benzoate | Ally, Escort, Cimarron Max | 60% |
| Paraquat | 1,1'-dimethyl-4,4' bipyridinium | Several manufacturers | — |
| Picloram | 4-amino-3,5,6-trichloro-2-pyridinecarboxylic acid | Tordon 22K** | 2 lb/gal |
| Picloram:2,4-D (1:4) | See picloram and 2,4-D | Grazon P+D | 2 1/2 lb/gal |
| Quinclorac | 3,7-dichloro-8-quinolinecarboxylic acid | Paramount | 75% |
| Sulfometuron | methyl 2-[[[(4,6-dimethyl-2-pyrimidinyl) amino] carbonyl] amino] sulfonyl] benzoate] | Oust | 75% |
| Tebuthiuron* | N-[5-(1,1-dimethylethyl)-1,3,4-triazol-2-yl]-N',N'-dimethylurea | Spike 20P | 20% |
| Triclopyr | [(3,5,6-trichloro-2-pyridinyl)oxy] acetic acid | Remedy, Garlon 4EC Garlon 3A | 4 lb/gal 3 lb/gal |

*Under supervision of U.S. government agencies, Spike 20P may be applied by aerial or ground equipment at lower than recommended rates if partial control is desired.

**Tordon 22K is a restricted use product.

***Glyphosate and 2,4-D are sold under several different trade names and formulations. Check the active ingredient rate on the label to determine the correct product application rate.

NOTES

NOTES

To find more resources for your home, family or business, visit the College of Agriculture and Home Economics on the World Wide Web at www.cahe.nmsu.edu.

New Mexico State University is an equal opportunity/affirmative action employer and educator. NMSU and the U.S. Department of Agriculture cooperating.

