



**Agricultural Use Requirements (cont.)**  
 uses of this product that are covered by the Worker Protection Standard. Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 hours.  
 PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- coveralls,
- chemical-resistant gloves made of any water-proof material,
- shoes plus socks and protective eyewear.

**Non-Agricultural Use Requirements**  
 The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.  
**Reentry Statement:** Do not enter or allow people (or pets) to enter the treated area until sprays have dried.

- 1. Use Restrictions**
- Do not apply this product in a way that will contact any person or pet, either directly or through drift. Keep people and pets out of the area during application.
  - Use on established grass pastures, rangeland and perennial grasslands. Established grass stands are defined as perennial grasses that have been planted one or more seasons before the application of this product.
  - Do not use this product on or near desirable plants, including contact of spray on exposed root systems or adventitious shoots within the drip line of desirable trees and shrubs, since injury may result.
  - Do not broadcast apply this product when temperatures are above 90°F, some injury may be expected with spot treatments when air temperatures exceed 90°F. Where state, county or local governments have more stringent temperature regulations, these regulations must be observed.
  - To avoid turf injury, use only on turfgrass that is reasonably free of stress from diseases, insects, excess heat or cold, drought or excess rainfall/irrigation, shaded areas, nematodes, improper mowing or improper applications of fertilizer and pesticides. Injury can occur if this product is applied under any of these or other stress conditions. Under any of these stress conditions, any turf damage caused by the use of the product is beyond the control of the registrant and all risk is assumed by the buyer and/or user.

**2. Use Instructions**  
 This product consists of the dimethylamine and diethanolamine salts of 2,4-D especially formulated for low volume applications with ground equipment. This product must be applied in compliance with the pesticide regulations of the state in which application is made. Check with local authorities regarding regulations which may affect the application of this product.

**GROUND APPLICATION:** Apply in water, 2 to 50 gallons total solution per acre with conventional equipment. Low spray volumes (2 to 5 gallons per acre) may provide more effective weed control and better economy.

**PRECAUTION FOR PAINTS AND COATINGS OF AUTOMOBILES AND OTHER VEHICLES:** Undiluted spray droplets may damage the paint, coating, or finish of vehicles. Vehicles should not be sprayed. If accidental exposure does occur, then the vehicle should be washed before the spray droplets dry.

WEEDS CONTROLLED		
Use this product to control many broadleaf weeds including:		
PERENNIAL WEEDS		
Artichoke	Goldenrod	St. Johnswort
Aster	Ground ivy	Stinging nettle
Austrian fieldcress	Healall	Strawberry (wild)
Bindweed	Hemlock	Tall buttercup
Blackeyed susan	Ironweed	Tanweed (Swamp Smartweed)
Blue lettuce	Knapweed (spotted Russian, diffuse)	Toadflax
Canada thistle	Leafy spurge	Vervain
Catnip	Locoweed	Whitetop (hoary cress)
Chicory	Mugwort	Wild garlic
Clover (many types)	Nettles	Wild onion
Coffeeweed	Orange hawkweed	Wild sweet potato
Dandelion	Povertyweed	Yellow rocket
Dock	Rush, slender	
Dogbane	Sowthistle	
Dogfennel		

(Weeds Controlled cont. on next column)

ANNUAL AND BIENNIAL WEEDS		
Beggarticks	Jewelweed	Puncturevine
Bitterweed	Jimsonweed	Radish (wild)
Black medic	Jim Hill mustard (Tumble mustard)	Ragweed
Broomweed	Knotweed	Russian thistle
Bull thistle	Kochia	Scotch thistle
Burdock	Lambsquarters	Shepherd's purse
Carpetweed	Lettuce (wild)	Sneezeweed
Catchweed bedstraw	Mallow	Sowthistle (common)
Chickweed	Marestail (horseweed)	Spanish needles
Cinquefoil	Marijuana	Sunflower
Cockle	Marshelder	Tansy mustard
Cocklebur	Mediterranean sage	Tansy ragwort
Croton	Miners lettuce	Tumbleweed
Devilsclaw	Morningglory (annual)	Tumble pigweed
Falseflax	Musk thistle	Velvetleaf
Fleabane (daisy)	Mustard	Vetch
Flixweed	Parsnip	Wild carrot
Frenchweed	Pennycress	Wild parsnip
Galinsoga	Pepperweed	Wild turnip
Goatsbeard	Pigweed (redroot)	Witchweed
Goosefoot	Plantain	Wormwood
Groundsel	Prickly lettuce	Yellow starthistle
Gumweed	Primrose	
Henbit		

**ALSO CERTAIN 2,4-D SUSCEPTIBLE WOODY PLANTS SUCH AS:**

Big sagebrush	Hazel	Poison oak
Buckbrush	Locust	Rabbitbrush
Cedar	Macartney rose	Sagebrush
Chamise	Manzanita	Shinnery oak
Cherokee rose	Multiflora rose	Sumac
Coastal sage	Pine	Tropical soda apple
Elderberry	Poison ivy	Willow

**3. Spray Drift Management**  
 A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

**Droplet Size.** When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a Coarse or coarser spray, apply only as a Coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles. When applying sprays that contain 2,4-D mixed with other active ingredients that require a Medium or more fine spray, apply only as a Medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

**Wind Speed.** Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swath un sprayed at the downwind edge of the treated field.

**Temperature Inversions.** If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

**Susceptible Plants.** Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

**Other State and Local Requirements.** Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

**Equipment.** All ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

**Additional requirements for ground boom application.** Do not apply with a nozzle height greater than 4 feet above the crop canopy.

**4. Pasture and Rangeland**  
 Pasture and Rangeland such as established grass pastures, rangeland, and perennial grasslands not in agricultural production such as

Conservation Reserve program (CRP). This product may be applied postemergence to newly seeded and established grasses grown in pastures, rangelands and Conservation Reserve Program (CRP) acres.

**NEWLY SEEDED AREAS (Applications after the 5 to 6-leaf stage of grass seedlings.):** This product may be applied to newly seeded perennial grasses or to the newly seeded grasses grown with a companion/cover crop such as small grains. Postemergent applications of this product are recommended only after the 5 to 6-leaf stage of the grass seedlings. Or, do not apply this product prior to the beginning of tillering of the perennial grass seedlings. Perennial grasses have shown tolerance to this product when the grass seedlings have tillered and have developed an adequate secondary root system. Apply 0.75 to 1 pint of this product as a broadcast treatment to control annual broadleaf weeds. Biennial and perennial weeds may require follow-up or sequential treatments.

**ESTABLISHED PERENNIAL GRASS STANDS:** Established grass stands are defined as perennial grasses that have been planted one or more seasons before the application of this product. Treatments of this product may injure or kill legumes including alfalfa, clovers, lespedezas, sweet clover, trefoils and vetches. Also, treatments of this product may be injurious and may reduce the seedling growth of buffalograss, bentgrass, kleingrass, sideoats grama, and switchgrass.

Broadcast application rates with ground equipment to Pasture and Rangeland such as established grass pastures, rangeland, and perennial grasslands not in agricultural production.			
Weed Types	Rate per Application	Recommended Spray Volume	When to Apply
Susceptible annual and biennial broadleaf weeds	1.0 quarts/A (1.0 lb 2,4-D ae/A)	2 to 50 gal/A	Spring or fall during active growth
Moderately susceptible biennial and perennial broadleaf weeds	1.0 to 2.0 quarts/A (1.0 to 2.0 lb 2,4-D ae/A)	2 to 50 gal/A	Spring or fall during seedling to rosette stage
For difficult to control weeds and woody plants	2.0 quarts/A (2.0 lb 2,4-D ae/A)	2 to 50 gal/A	Spring or fall during bud to bloom stage. A second application may be required
Spot treatment	2.0 quarts/A (2.0 lb 2,4-D ae/A)	2 to 50 gal/A	

ae = Acid Equivalent. Do not use on alfalfa, clover or other legumes. Do not use on newly seeded areas until grass is well established.

Limitations on 2,4-D pasture and rangeland (established grass pastures, rangeland, and perennial grasslands, not in agricultural production).						
Application Schedule	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Interval Between Applications	Minimum Spray Volume	Pregrazing Interval	Preharvest Interval (PHI)
Postemergent	2.0 quarts/A (2.0 lb 2,4-D ae/A)	2	30 Days	2 gal/A	0 Days	7 Days

ae = Acid Equivalent. Do not exceed the maximum seasonal rate of 1 gallon (4.0 lb 2,4-D ae) per acre per season. Do not apply within 30 days of the previous application. Do not cut forage for hay within 7 days of application. If grass is to be cut for hay, the Agricultural Use Requirements for the Worker Protection Standard (WPS) are applicable. For program lands such as the Conservation Reserve Program, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this labeling must be followed.

**Spray Volumes:** Use a minimum spray volume of 2.0 gallons per acre for ground applications.

**TANK MIXTURES FOR PASTURE AND RANGELAND [AND LEAFY SPURGE]:** This product, a mixed amine salt of 2,4-D, can be applied as a tank mixture with Banvel® Herbicide or Tordon® 22K to broaden the spectrum of weed control. To assure maximum safety and weed control, follow all precautions and limitations on this label and the labels of products used in tank mixtures with this product.

Products	Amount of Product
This Product + Banvel®	1 to 2 quarts/A + 1 to 2 pints/A
This Product + Tordon® 22K	1 to 2 quarts/A + 1/4 to 2 pints/A
This Product + Tordon® 22K + Banvel®	1 to 2 quarts/A + 1/4 to 2 pints/A + 1/2 to 1 qt/A

**SPOT TREATMENTS with this product alone as a high volume foliar treatment.**

**High Volume Leaf Stem Treatments of Individual Plants or Small Areas with Backpack Sprayers, Knapsack Sprayers, Power Sprayers, Spray Guns, or Other Ground Equipment** – This method is appropriate for sparse infestations of brush or woody species, for small areas, or for areas where broadcast applications are not feasible. Woody species including multiflora rose, Macartney rose, southern wild rose, and willow baccharis may be controlled with spot treatments. Perennial weeds including Canada thistle (late bud to early bloom), bull thistle (bud stage), musk thistle (spring or fall in rosette or early bud stage), leafy spurge (early to late bloom), and field bindweed (80% or greater bloom) may be effectively controlled with spot treatments of this product.

For this product alone, mix 2.0 gallons of this product per 100 gallons of water (2.0% spray concentration). Spray volumes will depend upon the height, density, and type of weeds/brush. Thorough coverage of the leaves, stems, trunks, and root collars is essential. Apply as a spray-to-wet application for the best results. Coverage should be thorough for individual plants and use sufficient pressure to penetrate the center of large clumps (e.g. multiflora rose).

**MESQUITE MANAGEMENT IN PERMANENT GRASS PASTURE AND RANGELAND:** This product and three tank mixtures have proven effective on mesquite in pasture and rangeland in Texas, Oklahoma, Arizona, and New Mexico. This product can be tank mixed with Reclaim® Herbicide, Remedy® Herbicide, and Grazon® PC Herbicide for use on pasture and rangeland in accordance with the most restrictive of label limitations and precautions. No label dosages should be exceeded.

This product, Reclaim® Herbicide, and Remedy® Herbicide are classified as General Use Pesticides. However, Grazon® PC Herbicide is classified as a Restricted-Use Pesticide. Two terms of the restrictions include the following: 1. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicators certification. 2. Commercial Certified Applicators must also ensure that all persons involved in these activities are informed of the precautionary statements.

**APPLICATION SCHEDULES:** The appropriate growth stage of mesquite for effective control occurs in the spring or early summer after the mesquite has fully leafed out and has turned dark green in color. Do not apply when the mesquite beans are elongating. The best environmental conditions include soil temperatures above 75°F (24°C) at the depth of 12 to 18 inches and adequate soil moisture for plant growth.

Foliar Broadcast Treatments Using Ground Equipment				
Tank Mix and Application Rate	Approved States	Spray Volume	Rate of Surfactant for Water Solutions	Emulsifiers for Oil:Water Emulsions
This product 2 quarts/A (1.9 lb 2,4-D ae/A)	New Mexico Oklahoma Texas Arizona	Ground 2 to 50 gal/A	—	—
This product 1.0 quarts/A (0.95 lb 2,4-D ae/A) PLUS Reclaim® Herbicide 0.34 to 0.67 quarts/A (0.25 to 0.50 lb clopyralid ae/A)	New Mexico Oklahoma Texas	Ground 10 to 50 gal/A	0.25%v/v	Sponto 712, Triton X-100
For Reclaim® Herbicide tank mix: Do not spray pastures containing desirable forbs, especially legumes, unless injury to such plants can be tolerated. Do not treat more than once a year. Fall treatments are not recommended. Do not transfer livestock from treated grazing areas onto sensitive broadleaf crop areas without allowing 7 days of grazing on an untreated pasture.				
This product 1.0 quarts/A (0.95 lb 2,4-D ae/A) PLUS Remedy® Herbicide 0.50 quarts/A (0.50 lb triclopyr ae/A)	New Mexico Oklahoma Texas Arizona	Ground >10 gal/A	Ground 0.50%v/v	Sponto 712, Triton X-100
For Remedy® Herbicide tank mix: Do not spray pastures containing desirable forbs, especially legumes such as clover, unless injury or loss of plants can be tolerated. Withdraw livestock from treated forage at least 3 days before slaughter during the year of treatment. Do not graze lactating dairy animals on treated areas for one year following treatment. Do not harvest grass for hay from treated areas for one year following treatment.				

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Foliar Broadcast Treatments Using Ground Equipment (cont.)				
Tank Mix and Application Rate	Approved States	Spray Volume	Rate of Surfactant for Water Solutions	Emulsifiers for Oil:Water Emulsions
This product 1.0 quart/A (0.95 lb 2,4-D ae/A) PLUS Grazon® PC Herbicide 0.5 to 1.0 quart/A (0.25 to 0.50 lb picloram ae/A)	New Mexico Oklahoma Texas	Ground 10 to 50 gal/A	0.50%v/v	Sponto 712, Triton X-100
For Grazon® PC Herbicide tank mix: Do not transfer livestock from treated areas onto broadleaf crop areas without first allowing 7 days of grazing on untreated grass pasture. Otherwise, urine may contain enough picloram to cause injury to sensitive broadleaf plants. Do not spray pastures if the forage legume component is desired. Grazon® PC Herbicide may injure or kill legumes. Also, new legume seedlings may not be successful if made within 2 years following application of this herbicide. Do not treat with Grazon® PC Herbicide (Picloram) more than once a year. Maximum application rate for Grazon® PC Herbicide is 2 pints per acre per year. (0.5 lbs. ae/A).				

**Water Solution Spray Preparation:** This product diluted with water forms a solution. Agricultural surfactants such as X-77 Spreader® are recommended for tank mixtures with water alone. Drift control additives such as Nalco-Trol® may be used in reducing drift.

**Oil:Water Emulsion Spray Preparation:** Oil in water emulsions may increase the effectiveness of the tank mixtures when compared to spray mixtures with water alone. Oil in water emulsions include oil (diesel fuel, kerosene, fuel oil, or mineral oil), an emulsifier, and the herbicides. Always use a jar test to check compatibility before preparing tank mixtures. Emulsifiers such as Sponto® 712, Triton® X-100, or Rangeland Spramate® must be used for adequate stability in oil-water emulsions. Drift control agents such as Nalco-Trol® may be used in reducing drift. **Ground Application:** The amount of oil in the spray mixture will range from 5% to 10% (Reclaim® Herbicide or Remedy® Herbicide tank mixes) or 15% to 20% (Grazon® PC Herbicide tank mixes) or the total spray mixture, and the maximum rate of oil should not exceed 1.0 gallon per acre.

**SPOT TREATMENTS of mesquite with this product plus Reclaim® as a high volume foliar treatment**

**HIGH VOLUME LEAF STEM TREATMENTS OF INDIVIDUAL MESQUITE PLANTS WITH BACKPACK SPRAYERS, KNAPSACK SPRAYERS, POWER SPRAYERS, SPRAY GUNS, OR OTHER GROUND EQUIPMENT:** This method is appropriate for sparse infestations of mesquite trees less than 6 to 8 feet in height or as a follow-up treatment in subsequent or different growing seasons. This product may be applied alone or in combination with Reclaim® in a dilution with water or in an oil-water emulsion.

For this product alone, mix 2.0 gallons of this product per 100 gallons of water (2.0% spray concentration). For this product plus Reclaim® tank mixture, mix 1 gallon of this product plus 0.5 to 0.75 gallon of Reclaim® Herbicide per 100 gallons of water (1.0% and 0.5 to 0.75% spray concentration of this product and Reclaim®, respectively). See spray preparation table for mixing 100 gallons of spray.

Spray Preparation Table for Mixing 100 Gallons of Spray Solution						
Application Type and Spray Concentration	Amounts of Products to Make 100 Gallons of Spray Solution					
	This product	Reclaim®	Water	Oil	X-77 Spreader	Emulsifier
Water Dilution 2.0%v/v	2.0 gal	—	98.0 gal	—	—	—
Water Dilution 1.0%v/v + (0.5 to 0.75%v/v)	1.0 gal	0.5 to 0.75 gal	98.0 to 98.25 gal	—	0.25 gal	—
Oil Emulsion 1.0%v/v + (0.5 to 0.75%v/v)	1.0 gal	0.5 to 0.75 gal	93.1 to 93.40 gal	5.0 gal	—	0.12 gal
Nonionic agricultural surfactants may be substituted for X-77 Spreader®. Emulsifiers such as Triton® X-100, Sponto® 712 are added at the rate of 3 fl. oz. per gallon of oil. For Oil:Water Emulsions: Add oil to the total spray mixture at the rate of 5% (vol./vol.), but do not use more than 1 gallon of oil per acre for this oil-water emulsion.						

Spray volumes will depend upon the density and height of the mesquite plants. Thorough coverage of the leaves, stems, trunks, and root collars is essential. Apply as a spray-to-wet application for the best results. However, do not exceed one application of 1 1/3 pints per acre per year of Reclaim® Herbicide.

**5. Noncropland**

Noncropland including fencerows, hedgerows, roadsides, drainage ditchbanks, firebreaks, highway rights-of-way, utility rights-of-way, airports/airfields, vacant lots and industrial sites. Applications to

non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

**Broadcast applications to woody plants:** Apply to trees and brush when foliage is fully expanded and plants are actively growing. Up to 1.0 gallon of product per acre (4.0 lbs. acid equivalent per acre) may be applied in a single application. The maximum noncropland application rate for tree, brush and woody plant control is 1.0 gallon of product per acre per application per site.

Target species	Application Schedule	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Interval between Applications
Woody plants	Broadcast and high volume foliar	1.0 gal/A or 8 pints/A (4.0 lb 2,4-D ae/A)	1	N/A

**High volume foliar applications (100 to 400 gallons per acre):**

Apply 0.25 to 1.0 gallon of product per acre with adequate water or apply a 0.25 to 1.0% vol/vol spray solution as a full cover spray with high volume equipment. Use the lower spray concentrations in the range for susceptible species and use the higher spray concentrations within the range for hard-to-control species, for mature plants during the late summer or under adverse environmental conditions (e.g. drought). The maximum seasonal application rate for trees, brush and woody plant control is 1.0 gallon of product per acre per application per site.

Spray broadleaf weeds, woody plants or mixed brush uniformly and thoroughly by wetting all leaves, stems, bark and root collars. The total volume of spray solution required for adequate coverage of solid stands of mixed brush can range from 100 to 400 gallons of spray solution per treated acre. The spray preparation chart for applications on a spray-to-wet basis is shown in Table 1.

Table 1. Instructions for preparing 100 to 400 gallons of spray solution at 0.25 to 1.0% spray concentration with water for high volume foliar applications.				
Spray solution	Amount of Product Needed for Spray Concentration of:			
	0.25%	0.33%	0.5%	1.0%
100 gal/A	0.25 gal.	0.33 gal.	0.5 gal.	1.0 gal.
200 gal/A	0.5 gal.	0.67 gal.	1.0 gal.	—
300 gal/A	0.75 gal.	1.0 gal.	—	—
400 gal/A	1.0 gal.	—	—	—
Equal measures: 1gallon = 4 quarts = 8 pints= 128 fl. oz.				

**For Backpack sprayers, knapsack sprayers, hand-pressurized pump sprayers, and 12 Volt ATV & Tow-Behind Sprayers**

Table 2. Instructions for preparing 1 to 15 gallons of spray solution at 0.25 to 1.0% spray concentration with water for high volume foliar applications.				
Gallons Of Water	Amount Of Product Needed for Spray Concentration of:			
	0.25%	0.33%	0.5%	1.0%
1	2 teaspoons	3 teaspoons	4 teaspoons	8 teaspoons
2	4 teaspoons	2 tablespoons	3 tablespoons	6 tablespoons
3	2 tablespoons	3 tablespoons	4 tablespoons	8 tablespoons
15	10 tablespoons (5 fl. oz.)	15 tablespoons (7.5 fl. oz.)	20 tablespoons (10 fl. oz.)	40 tablespoons (20 fl. oz.)
Equal measures: 1 fl. oz. = 2 Tablespoons (Tbs.) = 6 Teaspoons (tsp.)				

Dosage rates per acre depend on the density of brush and/or weeds. For small broadleaf weeds, use the lower rate. Heavy dense stands of brush require the high rate with higher water volume. To effectively control brush, all leaves, stems and suckers should be thoroughly wetted to the ground. Apply when plants come into full leaf (spring) to the time plants begin to go dormant. Best results are obtained when brush and broadleaf weeds are young and actively growing. Do not cut brush until the herbicide has translocated throughout the plant causing root death.

**6. Ornamental Turfgrass**

**Broadcast applications to annual and perennial weeds in Ornamental Turfgrass (Lawns, Golf Courses, Cemeteries, and Parks):** Use 1.0 to 1.5 quarts of product per acre. The maximum application rate is 1.5 quarts of product per acre per application (1.5 lbs 2,4-D acid equivalent per acre per application). The maximum number of broadcast applications is limited to 2 per year. The maximum seasonal rate is 3.0 quarts of product per acre (3.0 lbs 2,4-D acid equivalent per acre), excluding spot treatments.

