

Supplemental Labeling



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RESTRICTED USE PESTICIDE

May Injure (Phytotoxic) Susceptible, Non-Target Plants. 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 Applicator's certification. Commercial certified applicators must also ensure that all persons involved in these activities are informed of the precautionary statements.

Tordon* K

EPA Reg. No. 62719-17

For Use on Rangeland and Permanent Grass Pastures and Conservation Reserve Program (CRP) Acres

For Distribution and Use Only in the States of Colorado, Kansas, Minnesota, Montana,
Nebraska, North Dakota, South Dakota, and Wyoming

ATTENTION

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for Tordon* K herbicide before applying. Carefully follow all precautionary statements and applicable use directions.
- Except as directed in this supplemental labeling, use of Tordon K is subject to all use precautions and limitations imposed by the label affixed to the product container.
- **This product is NOT for sale or use in the San Luis Valley of Colorado**

Specific Use Directions for Rangeland, Permanent Grass Pastures

General Requirements for Rangeland and Permanent Grass Pastures for States West of the Mississippi River

Use Tordon K on rangeland and permanent grass pastures to control susceptible broadleaf weeds and woody plants including, but not limited to those shown in the following tables. Many annual weeds at the seedling stage can be controlled at the rate of 1 pt per acre. Where a rate range is recommended, choose the higher rate for dense weed infestations, and for more dependable, longer-lasting control. Lower rates will perform best when applied under favorable conditions and at the optimum growth stage, but may provide a lower level of control and require retreatment. For best results treat when weeds are small and actively growing in the spring before full bloom, however, certain weeds may also be treated in late summer to fall. Treatments during full bloom or seed stage of some weeds may not provide acceptable control.

Refer to "Application Methods" section below for information on various methods of application including ground or aerial broadcast, high volume foliar application, spot treatments, and special application methods for certain weeds or woody plants including spot concentrate application or application with special low volume or hooded spray equipment.

Precautions and Restrictions:

- **Maximum Use Rates for Rangeland and Permanent Grass Pastures:** For control of noxious weeds as defined by federal, state, or local authorities, Tordon K may be applied at up to 2 quarts (1lb ae) per acre per annual growing season as a broadcast treatment. Spot treatments may be applied at the equivalent broadcast rate of up to 2 quarts per acre.

For control of other broadleaf weeds and woody plants, Tordon K may be applied broadcast (ground, air, or high volume foliar) at up to 1 quart (0.5 lb ae) per acre per annual growing season. Spot treatments (hand sprayer, calibrated boom, high volume foliar, or soil spot concentrate) may be applied at an equivalent broadcast rate of up to 2 quarts per acre per annual growing season, but not more than 50% of an acre may be treated. Repeat treatments may be applied as necessary, but total use must not exceed a maximum of 2 quarts per acre. Spot treatments and broadcast treatments can be applied to the same acreage only if the total amount applied does not exceed 2 quarts per acre per annual growing season.

- **Grazing Restrictions:** When applying more than 1 quart of Tordon K per acre, do not cut grass for feed within two weeks after treatment. Meat animals grazing for up to two weeks after treatment should be removed from treated areas three days prior to slaughter. Do not graze lactating dairy animals on treated areas within two weeks after treatment.
- Tordon K at rates over 1 quart per acre may suppress certain established grasses, such as brome grass, blue gramma, and buffalograss. However, subsequent grass growth should be improved by release from weed competition.

Rangeland, Permanent Grass Pastures

Apply broadcast or as a spot application unless otherwise specified (See "Application Methods" section below). For additional species or more specific rates consult your area's current Weed Control Guide and/or your local Dow AgroSciences representative. Rates in the table below are advisory in nature and do not supersede the maximum rates for the use site allowed for different methods of application.

Weed Control Prior to Seeding Perennial Grasses:

Weed control with Tordon K fits into the following grass re-vegetation programs. Tordon K may be applied in the spring or early summer, depending on the target weed species, and grass seed planted in the fall when conditions are favorable. Alternatively, Tordon K may be applied in the fall and grass seed planted in the winter or spring when conditions are favorable.

Apply Tordon K at 1 qt/acre or less; see rate chart for information on control of target weed species. When Tordon K is applied at 1 qt/acre there may be temporary injury on new plantings of certain grass species, depending on sensitivity. However, this injury will be insignificant in comparison with the benefit to grasses due to the removal of weed competition. Germination of annual grass species may be suppressed after treatment. To optimize weed control it is suggested the application area be disturbed as little as possible by the seeding operation. At the very least, the site should be left undisturbed for 14 days prior to seedbed preparation or seeding. To decrease the potential for injury on sensitive grass species, increase the interval between application and seeding.

Weed Species	Broadcast Application (Rate/acre)	Specific Use Directions
Annual and Biennial Weeds:		
bursage (bur ragweed) crupina, common henbane, black horseweed starthistle, Iberian starthistle, purple starthistle, yellow	1-2 pt Tordon K	Apply when there is adequate soil moisture and weeds are actively growing.

Weed Species	Broadcast Application (Rate/acre)	Specific Use Directions
thistles, including, bull distaff Italian musk plumeless scotch	Fall: 1/2-3/4 pt Tordon K Spring: 1/2-3/4 pt Tordon K + 1 lb ae 2,4-D	General: Apply at the rosette stage before bolting in the spring or in the fall prior to soil freeze up. Distaff Thistle: Apply at rosette stage in spring only. Bolted Musk Thistle: Apply before flowering at the rate of 1/2-1 pt of Tordon K + 1 lb ae of 2,4-D/acre.
Perennial Weeds:		
pricklypear, plains	1/2-1 pt Tordon K	Apply at peak of flowering. Use of an oil-water emulsion spray mixture may improve control. Lower rate will provide partial control (stand reduction) and high rate more complete control Treatment response is slow and may continue for 2 years or longer.
sagebrush, fringed	1/2-1 pt Tordon K + 1 lb ae 2,4-D ester	Apply after seed stalk elongation and early flowering and throughout the summer if growing conditions are favorable.
cinquefoil, sulfur larkspur, geyer larkspur, plains locoweeds snakeweed, broom	1 pt Tordon K	General: Apply when weeds are actively growing. Sulfur cinquefoil: Apply during active growth or fall regrowth. Geyer larkspur: Apply when plant is actively growing between rosette stage and flower bud formation. Locoweeds: Apply from early bud to early bloom stage. See "General Use Precautions" section for note on grazing treated poisonous plants. Broom snakeweed: Apply during active growth between full leaf to early bloom stage.
burweed daisy, ox-eye goldenrod, common knapweed, diffuse knapweed, spotted knapweed, squarrose rabbitbrush, Douglas thistle, Canada thistle, wavy leaf wormwood, absinth	1-2 pt Tordon K	General: Lower rates in rate range may require annual spot treatments. Control with lower rates may be improved by tank mixing with 1.0 lb ae per acre 2,4-D. Goldenrod: Apply during active growth prior to bud stage. Diffuse or spotted knapweed: Optimum application from rosette to mid-bolting stage or to fall regrowth. Thistle (Canada and Wavy Leaf): Apply when most basal leaves have emerged, but before bud stage, or apply to regrowth in the fall. Apply rates less than 1 1/2 pt/acre only under favorable conditions and in combination with 1 lb ae/acre of 2,4-D; retreatment may be required. Absinth wormwood: Apply in spring or early summer when plants are actively growing.
licorice, wild milkweed	2 pt Tordon K	Wild Licorice: Apply at bloom stage. Milkweed: Treat during active growth and tank mix recommended rate of Tordon K with 1 lb ae/acre 2,4-D.

Weed Species	Broadcast Application (Rate/acre)	Specific Use Directions
bindweed, field gorse lupines knapweed, Russian ragwort, tansy skeletonweed, rush spurge, leafy St. Johnswort toadflax, dalmation	2-4 pt Tordon K	General: Annual retreatment of these species will be required at rates at low end of rate range. Control at low end of rate range may be improved by tank mixing with 1 lb ae/acre 2,4-D. Russian Knapweed: Apply during active growth from bud to mid-flowering, or to fall regrowth. Leafy Spurge: Apply at true flower stage of growth or apply to fall regrowth. Re-apply when level of control falls below 80 percent. Dalmation Toadflax: Apply when plants are actively growing through full bloom stage of growth.
larkspur, tall sowthistle, perennial toadflax, yellow	4 pt Tordon K	General: A retreatment program may be necessary for satisfactory control of these species. Tall Larkspur: For best results apply from 6 inches tall to late bloom stage. For increased control, apply in tank-mix with Ally or Escort herbicide and non-ionic surfactant. See General Use Precautions for note on grazing treated poisonous plants.
Woody Plants:		
juniper	4 qt Tordon K per 100 gallons of spray [†]	[†] Apply as a high volume foliar spray / individual plant treatment
redcedar, eastern	Eastern redcedar can be controlled with spot concentrate applications of Tordon K in either the spring (April-May) or fall (September-October). For best results, use 3 ml to 4 ml of Tordon K (undiluted) per 3 feet of plant height. Application should precede periods of expected rainfall. Apply directly to soil within the dripline and on the upslope side of the tree. Application to trees taller than 15 feet is not recommended. Do not use more than 2 pints of Tordon K per acre in any one year.	

Conservation Reserve Program (CRP) for Seeding to Permanent Grasses Only

Do not use Tordon K if legumes are a desired cover during CRP.

Conditions that stress grasses, such as drought, will increase potential for injury to the grass at all stages of growth. Do not rotate to grain sorghum (milo) if greater than 1 pint per acre of Tordon K has been applied. Do not plant grain sorghum within 8 months after application. This product is not intended for use on land planted to sweet sorghum.

To reduce potential damage to subsequent small grain crops or grain sorghum (milo), use the lower rate or discontinue the use of Tordon K at least 2 years prior to the seeding of small grain crops. After CRP, do not plant broadleaf crops in treated acres until an adequately sensitive bioassay shows that no detectable picloram is present in the soil.

Broadcast Treatment (Ground and Aerial Applications)

Applications of Tordon K should be made after perennial grasses are well established (have developed a good secondary root system and show good vigor). Most perennial grasses show improved tolerance to the herbicide at this stage of development.

For control of actively growing perennial weeds, use up to 2 pints per acre of Tordon K after the grass is established. For best results, use in 2 or more gallons of water per acre by air or in 5 or more gallons of water per acre by ground. Increasing the rate of application can increase the risk of injury.

For control of actively growing susceptible annual broadleaf weeds, (including Russian thistle) apply 1/4 to 1/2 pint per acre of Tordon K. Tordon K can also be tank mixed with 1/2 to 1 pound per acre of 2,4-D where 2,4-D sensitive species are present. Read and follow all directions for use and use precautions on other product labels.

Spot Treatment

See "Spot Treatment" in "Mixing and Application Methods" sections for directions for calibration, spray volume determination and mixing. For spot applications when perennial grasses are established, use 1 to 4 pints per acre of Tordon K. Rates of 2 pints per acre or more should only be used for control of deep-rooted perennial broadleaf weeds.

Precaution: Tordon K at rates over 2 pints per acre may suppress certain established grasses such as brome grass, blue gramma and buffalograss. However, subsequent grass growth should be improved by release from weed competition.

Conservation Reserve Program (CRP) for Seeding to Permanent Grasses Only: Do not broadcast apply more than 1 quart per acre of Tordon K per annual growing season or apply more than 2 quarts per acre per annual growing season as a spot application. **To reduce potential damage to subsequent small grain crops,** use the lower rate or discontinue the use of Tordon K at least 2 years prior to the seeding of small grain crops. After CRP, do not plant broadleaf crops in treated acres until an adequately sensitive bioassay shows that no detectable picloram is present in the soil.

Precautions: Read the label for Tordon K before applying. Carefully follow the "General Use Precautions" on the label for Tordon K for avoiding drift and damage to non-target plants.

Mixing Directions

Mixing Oil-Water Emulsions (Ground and Aerial Applications)

For aerial application, add oil to the total spray mix at the ratio of 1 part oil to 5 parts water (1:5 ratio). For ground application, add oil to the spray mix at a rate of 5 to 10% of the total mix. **Do not use more than 1 gallon of oil per acre for aerial or ground application.** Use agricultural spray emulsifiers such as Sponto 712 or Triton X-100 according to mixing instructions given below.

Batch Mixing Instructions

With continuous, vigorous agitation:

1. Add half the amount of water to be used to the spray tank.
2. Add the required amount of water soluble herbicides such as Tordon K, Reclaim* herbicide or 2,4-D Amine.
3. With continued, vigorous agitation slowly add a premix of oil, emulsifier and oil soluble herbicides such as Remedy* herbicide or a 2,4-D ester as required. **Note:** Do not add water or mixtures containing water to the premix or oil soluble herbicide since a thick "invert" (water in oil) emulsion may be formed that will be difficult to break. An invert emulsion will also form if the premix is added to the mixing tank before the addition of water.
4. Finish filling the spray tank and maintain sufficient agitation to ensure uniformity of the spray mixture during application.

Mixing With Sprayable Liquid Fertilizer Solutions

Tordon K is compatible with most non-pressurized liquid fertilizer solutions; however, a compatibility test (jar test) should be made prior to mixing. Jar tests are particularly important when a new batch of fertilizer or pesticide is used, when water sources change, or when tank mixture ingredients or concentrations are changed. Compatibility may be determined by mixing the spray components in the desired order and proportions in a clear glass jar before large scale mixing of spray components in the spray tank. **Note:** The lower the temperature of the liquid fertilizer, the greater the likelihood mixing problems. Use of a compatibility aid such as Unite or Compex may help obtain and maintain a uniform spray solution during mixing and application. Compatibility is best with straight liquid nitrogen fertilizer solutions. Mixing with N-P-K fertilizer solutions or suspensions is more difficult and should not be attempted without first conducting a successful jar test. Agitation in the spray tank must be vigorous to be comparable with jar test agitation. For best results, liquid fertilizer rates should not exceed 50% of the total spray volume. Premix Tordon K with water and add to the liquid fertilizer/water mixture while agitating contents of the spray tank. Apply the spray the same day it is prepared while maintaining continuous agitation. Rinse spray tank thoroughly after use.

Note: Foliar applied liquid fertilizers used as carrier for Tordon K can cause yellowing or leaf burn of crop foliage.

Do not use spray equipment used to apply Tordon K for other applications to land planted to, or to be planted to susceptible crops or desirable sensitive plants, unless it has been determined that all phytotoxic residue of this herbicide has been removed by thorough cleaning of equipment.

Application Methods

Ground or Aerial Broadcast

Use Tordon 22K as a broadcast treatment by ground or aerially to control listed broadleaf weeds and woody plants. Apply Tordon 22K as a coarse low-pressure spray at the recommended rates in a spray volume of 2 or more gallons per acre by air or 10 or more gallons per acre by ground.

High-Volume Foliar Applications

Spray to thoroughly wet foliage and stems. An approved agricultural surfactant may be added at the manufacturer's recommended rate. Do not apply more than the maximum application rate of Tordon 22K specified for a given treatment site.

Spot Treatment

Use application rates as suggested in the "Approved Uses" section of this label or recommended by your area weed control specialist. Apply in a total spray volume of 20 to 100 gallons per acre. To prevent misapplication, spot treatments should be applied with a calibrated boom or with hand sprayers according to directions provided below. Do not exceed maximum application rates for Tordon 22K for a given treatment site. On rangeland and permanent grass pastures, spot treatments may be applied at an equivalent broadcast rate of up to 2 quarts per acre per annual growing season, but not more than 50% of an acre may be treated. Repeat treatments may be applied as necessary, but total use must not exceed the maximum amount specified.

Hand-Held Sprayers: Hand-held or backpack sprayers may be used for spot applications of Tordon 22K if care is taken to apply the spray uniformly and at a rate equivalent to a broadcast application.

Application rates in the table are based on an area of 1,000 sq ft. Mix the amount of Tordon 22K (fl oz or ml) corresponding to the desired broadcast rate in 0.5 to 2.5 gallons of water, depending on the spray volume required to treat 1000 sq ft. To calculate the amount of Tordon 22K required for larger areas, multiply the table value (fl oz or ml) by the area to be treated in "thousands" of square feet, e.g., if the area to be treated is 3,500 sq ft, multiply the table value by 3.5 (calc. $3,500 \div 1,000 = 3.5$). An area of 1000 sq ft is approximately 10.5 X 10.5 yards (strides) in size.

Amount of Tordon 22K per 1,000 sq ft to Equal Specified Broadcast Rate					
1/4 pt/acre	1/3 pt/acre	1/2 pt/acre	2/3 pt/acre	1 pt/acre	1 qt/acre
1/10 fl oz [†] (2.7 ml)	1/8 fl oz (3.6 ml)	1/5 fl oz (5.4 ml)	1/4 fl oz (7.3 ml)	3/8 fl oz (11 ml)	3/4 fl oz (22 ml)

[†]1 fl oz = 29.6 (30) ml

Special Application Methods

Soil Spot Concentrate: Tordon 22K may be applied undiluted as a spot concentrate application to control ashe juniper, eastern redcedar and eastern persimmon (see specific user directions for these plant species which follow). Applications should precede periods of expected rainfall. Apply directly to the soil within the dripline and on the upslope side of the tree. Applications to trees taller than 12 feet is not recommended.

Special Ground Sprayer Equipment: To control annual and perennial weed species using special low-volume, minimum drift equipment, such as the hooded Forage Chemical Mower, apply 1 to 2 pt of Tordon 22K in total volumes ranging from 1 gal to 5 gal per acre in water alone or as an oil-water emulsion at a 1:5 and 1:4 oil-to-water ratio for a 1 gal and 5 gal per acre solutions, respectively.

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