

(Container Label)

Restricted Use Pesticide

May Injure (Phytotoxic) Susceptible, Non-Target Plants. For retail sale to and use only by Certified Applicators or person 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.

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Tordon* 22K

For use in areas west of the Mississippi River for the control of susceptible broadleaf weeds and woody plants on rangeland and permanent grass pastures, fallow cropland, wheat, barley and oats not underseeded with a legume on grainland (which is not flood or sub-irrigated and not rotated to broadleaf crops), non-cropland, and on Conservation Reserve Program (CRP) acres and wildlife openings in forest and non-crop areas

Active Ingredient:

picloram: 4-amino-3,5,6-trichloropicolinic acid, potassium salt 24.4%

Inert Ingredients 75.6%

Acid Equivalent

picloram: 4-amino-3,5,6-trichloropicolinic acid - 21.1% - 2 lb/gal

Precautionary Statements

Hazards to Humans and Domestic Animals
Keep Out Of Reach Of Children

WARNING

Causes Substantial But Temporary Eye Injury - Harmful If Inhaled Or Absorbed Through Skin

Do not get in eyes or on clothing. Wear goggles, face shield or safety glasses when handling. Avoid contact with skin. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Avoid breathing spray mist.

First Aid

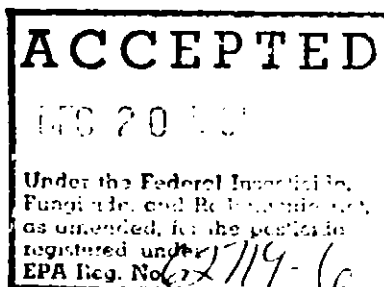
If in eyes: Flush with plenty of water for at least 15 minutes. Get medical attention.

Environmental Hazards

Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Do not contaminate water when disposing of equipment washwaters. Do not contaminate water used for irrigation or domestic purposes by cleaning of equipment or disposal of wastes. Do not allow run-off or spray to contaminate wells, irrigation ditches or any body of water used for irrigation or domestic purposes. Do not make application when circumstances favor movement from treatment site. See additional Environmental Hazards under Precautionary State: nts inside the label booklet.

Refer to inside of label booklet for precautionary information, First Aid and Directions for Use including STORAGE AND DISPOSAL.

Notice: Read the entire label. Use only according to label directions. Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" inside label booklet. In case of emergency endangering health or the environment involving this product call collect 1-7-636-4400.



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EPA Reg. No. 62719-6
87116
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EPA Est. 464-MI-1
900-000207

Herbicide

Net Contents - 2.5 gal

rsb
12/05/91

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(Label Booklet)

Restricted Use Pesticide

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Tordon* 22K

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Active Ingredient:

picloram: 4-amino-3,5,6-trichloropicolinic acid, potassium salt	24.4%
Inert Ingredients	75.6%
Acid Equivalent	
picloram: 4-amino-3,5,6-trichloropicolinic acid - 21.1% - 2 lb per gal	

Keep Out Of Reach Of Children

WARNING

Refer to inside of label booklet for precautionary information, First Aid and Directions for Use including STORAGE AND DISPOSAL.

Notice: Read the entire label. Use only according to label directions. Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" inside label booklet.

In case of emergency endangering health or the environment involving this product, call collect 517-636-4400.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-6

EPA Est. 464-MI-1

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Herbicide

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Precautionary Statements

Hazards to Humans and Domestic Animals**WARNING****AVISO:**

Precaucion al usarlo: Si usted no lee inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

Causes Substantial But Temporary Eye Injury • Harmful If Inhaled Or Absorbed Through Skin

Do not get in eyes or on clothing. Wear goggles, face shield or safety glasses when handling. Avoid contact with skin. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Avoid breathing spray mist.

First Aid

If in eyes: Flush with plenty of water for at least 15 minutes. Get medical attention.

Environmental Hazards

Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Do not contaminate water when disposing of equipment washwaters. Do not contaminate water used for irrigation or domestic purposes by cleaning of equipment or disposal of wastes. Do not allow run-off or spray to contaminate wells, irrigation ditches or any body of water used for irrigation or domestic purposes. Do not make application when circumstances favor movement from treatment site.

Picloram is a chemical which can travel (seep or leach) through soil and under certain conditions has the potential to contaminate groundwater which may be used for irrigation and drinking purposes. Users are advised not to apply picloram where soils have a rapid to very rapid permeability throughout the profile (such as loamy sand to sand) and the water table of an underlying aquifer is shallow or to soils containing sinkholes over limestone bedrock, severely fractured surfaces, and substrates which would allow direct introduction into an aquifer. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

An aquifer is defined as "an underground, saturated, permeable, geologic formation capable of producing significant quantities of water to a well or spring. It is the ability of the saturated zone, or portion of that zone, to yield water which makes it an aquifer" (American Chemical Society, 1983).

Note: Use in Hawaii limited exclusively to Supplemental Labeling. See "General Use Precautions" for details.

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Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

STORAGE AND DISPOSAL

Do not contaminate water, food, feed or fertilizer by storage or disposal. Open dumping is prohibited.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Metal Container Disposal: Do not reuse container. Triple rinse (or equivalent). Puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Plastic Container Disposal: Do not reuse container. Triple rinse (or equivalent). Puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Sprayer Clean-Out: To avoid injury to desirable plants, equipment used to apply Tordon 22K should be thoroughly cleaned before reusing to apply any other chemicals.

1. Rinse and flush application equipment thoroughly after use. Dispose of rinse water in non-cropland area away from water supplies.
2. Rinse a second time, adding 1 quart of household ammonia for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15 to 20 minutes). Let the solution stand for several hours, preferably overnight.
3. Flush the solution out the spray tank through the boom.
4. Rinse the system twice with clean water, recirculating and draining each time.
5. Nozzles and screens should be removed and cleaned separately.

General: Consult federal, state or local disposal authorities for approved alternative procedures.

General Information

In areas west of the Mississippi River use Tordon 22K herbicide to control susceptible broadleaf weeds and woody plants on rangeland and permanent grass pastures, fallow cropland, wheat, barley and oats not underseeded with a legume on grainland (which is not flood or sub-irrigated and not rotated to broadleaf crops), non-cropland, and on Conservation Reserve Program (CRP) acres, and wildlife openings in forest and non-crop areas. This product is NOT for sale or use in the San Luis Valley of Colorado.

General Use Precautions

Use this product only as specified on this label. Observe any special use and application restrictions and limitations, including method of application and permissible areas of use as promulgated by state or local authorities.

To prevent damage to crops and other desirable plants, read and follow all directions and precautions on this label and container before using.

Do not use for manufacturing or formulating.

Do Not Mix With Dry Fertilizer.

Chemigation: Do not apply this product through any type of irrigation system.

In Hawaii, approved uses of Tordon 22K are limited to those described in Supplemental Labeling. This Supplemental Labeling may be obtained from your DowEanco representative or chemical dealer. Refer to this Supplemental Labeling for specific use directions and precautions.

Do not make application when circumstances favor movement from treatment site.

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Do not apply or otherwise permit Tordon 22K or sprays containing Tordon 22K to contact crops or other desirable broadleaf plants, including but not limited to alfalfa, beans, grapes, melons, peas, potatoes, safflower, soybeans, sugar beets, sunflower, tomatoes, and other vegetable crops, flowers, fruit plants, ornamentals or shade trees or the soil containing roots of nearby valuable plants.

Precautions for Avoiding Injurious Spray Drift

Applications should be made to avoid spray drift since very small quantities of spray, which may not be visible, may seriously injure susceptible crops during both growing and dormant periods. To minimize spray drift, use low nozzle pressure; apply as a coarse spray; and use nozzles designed for herbicide application that do not produce a fine droplet spray. To aid in further reducing spray drift, a drift control and deposition aid such as Nalco-Trol may be used with this product. If such a drift control aid is used, follow all use recommendations and precautions on the product label.

Ground Equipment: With ground equipment spray drift can be lessened by keeping the spray boom as low as possible; by applying 20 gallons or more of spray per acre; by keeping the operating spray pressures at the manufacturers recommended minimum pressures for the specific nozzle type used (low pressure nozzles are available from spray equipment manufacturers); by spraying when the wind velocity is low (follow state regulations). Avoid calm conditions which may be conducive to air inversions. In hand-gun applications, select the minimum spray pressure that will provide adequate plant coverage (without forming a mist).

Aerial Application: With aerial applications, drift may be lessened by using a coarse spray; by using a drift control system; or by using Nalco-Trol drift control additive or equivalent. Adjust spray pressure to provide coarse spray droplets and by using nozzles which do not create fine droplets. Spray boom should be no longer than 3/4 of the wingspan or rotor length. Do not use a thickening agent with the Microfoil or the Thru-Valve booms, or other systems that cannot accommodate thick sprays. Spray only when the wind velocity is low (follow state regulations). Avoid calm conditions which may be conducive to air inversions.

Determine Air Movement and Direction Before Foliar Application. Do not spray when wind is blowing toward susceptible crops or ornamental plants near enough to be injured. It is suggested that a continuous smoke column at or near the spray site or a smoke generator on the spray equipment be used to detect air movements, lapse conditions, or temperature inversions (stable air). If the smoke layers or indicates a potential of hazardous spray drift, do not spray.

Do not contaminate water intended for irrigation or domestic purposes. To avoid injury to crops or other desirable plants, do not treat or allow spray drift or run-off to fall onto banks or bottoms of irrigation ditches, either dry or containing water, or other channels that carry water that may be used for irrigation or domestic purposes.

Do not use on flood or sub-irrigated land.

Do not spray if the loss of forage legumes cannot be tolerated. Tordon 22K may injure or kill legumes. New legume seedlings may not grow for several years following application of this herbicide.

Do not use manure from animals grazing treated areas on land used for growing broadleaf crops, ornamentals, orchards or other susceptible, desirable plants. Manure may contain enough picloram to cause injury to susceptible plants.

Do not use grass or hay from treated areas for composting or mulching of susceptible broadleaf crops.

Do not transfer livestock from treated grazing areas onto sensitive broadleaf crop areas without first allowing 7 days of grazing on an untreated grass pasture. Otherwise, manure may contain enough picloram to cause injury to sensitive broadleaf plants.

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Do not apply to snow or frozen ground. Application during very cold (near freezing) weather is not advisable.

Tordon 22K should not be applied on residential or commercial lawns or near ornamental trees and shrubs. Untreated trees can occasionally be affected by root uptake of herbicide through movement into the top soil or by excretion of the product from the roots of nearby treated trees. Do not apply Tordon 22K within the root zone of desirable trees unless such injury can be tolerated.

Do not rotate food or feed crops on treated land if they are not registered for use with picloram until an adequately sensitive bioassay or chemical test shows that no detectable picloram is present in the soil.

Do not move treated soil to areas other than those treatment sites for which Tordon 22K is registered for use. Also, do not use treated soil to grow plants for which use of Tordon 22K is not registered until an adequately sensitive bioassay or chemical test shows that no detectable residue of picloram is present in the soil.

Woody Plants and Broadleaf Weeds Controlled by Tordon 22K

Woody Plants:

absinth wormwood	junipers/cedars
aspen	locust
blackberries	multiflora rose
catclaw acacia	pinyon pine
chaparral sp.	rabbitbrush
fringed sagebrush	Scotch broom
gorse	

Annual and Perennial Broadleaf Weeds:

brackenfern	larkspurs	starthistles
buckwheat, wild	geyer	Iberian
buffalobur	plains	purple
bursage	tall	yellow
burweed	lambsquarters	St. Johnswort
camelthorn	leafy spurge	sulfur cinquefoil
clover	licorice, wild	sunflower
crupina, common	locoweeds	tansy ragwort
dock	lupines	tasajillo
field bindweed	milkweed	toadflaxes
goldenrod	ox-eye daisy	thistles
henbane, black	pigweed	artichoke
horsenettle	pricklypear cactus	beaumont
Carolina	ragweeds	bull
white	common	Canada
horseweed	bur	distaff
ironweed	lanceleaf	golden
knapweed	western	Italian
diffuse	rush skeletonweed	musk
Russian	Russian thistle	plumeless
spotted	snakeweeds	Scotch
squarrose	sowthistle	wavy leaf

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Mixing and Application Methods

Mix the required amount of Tordon 22K in water and apply as a coarse low pressure spray using ground equipment or aircraft. Use enough spray volume to provide uniform coverage of the weeds. For best results treat when the weeds are growing actively in the spring before full bloom, or late summer into fall. Treatments during full bloom or seed stage of some weeds may not give good control.

To prepare the spray add about half the desired amount of water in the spray tank. Then with agitation, add the recommended amount of Tordon 22K and other registered tank mix herbicides. Finally, with continued agitation, add the rest of the water and additives such as surfactants or drift control and deposition aids.

Use With Surfactants

Addition of wetting or penetration agents is not usually necessary when using Tordon 22K. Under extreme conditions, such as drought, addition of a surfactant may improve efficacy. However, if foliar burn occurs too rapidly, translocation of Tordon 22K will not occur and control of perennial weeds, such as field bindweed, may be reduced.

Use With Sprayable Liquid Fertilizer Solutions

Tordon 22K is compatible with most non-pressurized liquid fertilizer solutions; however, if these solutions are to be sprayed with Tordon 22K, 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. Use of a compatibility aid such as Unife or Compex may help obtain and maintain a uniform spray solution during mixing and application. 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 22K 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 can cause yellowing or leaf burn of crop foliage.

Local conditions may affect the use of herbicides. State agricultural experiment stations or extension service weed specialists in many states issue recommendations to fit local conditions. Be sure that use of this product conforms to all applicable regulations.

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. Make sure equipment is properly calibrated and that the amount of Tordon 22K added to the spray mixture corresponds to the desired rate and spray volume.

To Calibrate: —

1. Measure an area 18.5 ft by 18.5 ft in the target application area.
2. Spray the measured area uniformly with water only and record the number of seconds required to cover the area.
3. Measure the amount of water delivered to the test area by spraying into a container for this amount of time.
4. The amount of water collected in fl oz equals spray volume in gallons per acre.
5. Refer to the chart below for the amount of Tordon 22K to mix at the spray volume indicated by the calibration procedure. This chart contains the amount of Tordon 22K to mix when the application rate is 1 quart per acre. For a rate of 1/2 quart per acre (1 pint), divide the amount in the table by 2. For an application rate of 2 quarts per acre, multiply the table value by 2.

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To Apply the Equivalent of 1 Quart of Tordon 22K per Acre at the Spray Volume Indicated. Mix the Following:		
Spray Volume (gallons per acre)	Amount of Tordon 22K per 1 gallon of water	Amount of Tordon 22K per 100 gallons of water
20	10 tsp	5 quarts
40	4 3/4 tsp	2 quarts
60	3 1/4 tsp	1 2/3 quarts
80	2 1/3 tsp	1 1/4 quarts
100	2 tsp	1 quart

Note: tsp = teaspoon

6 tsp = 1 fluid ounce

Do not exceed 4 quarts per acre in any one year as a spot treatment.

Tank Mixture for Spot or Broadcast Treatment of Susceptible Weeds

Tordon 22K may also be tank mixed with 2,4-D products or other registered herbicides for use on areas having mixed species including those which respond well to 2,4-D. Read and follow all directions and use precautions on other product labels.

Wick Application

Mix 1 part of Tordon 22K with 2 parts of water to prepare a 33% solution. Apply when weeds are actively growing and are above most desirable plants. For ironweed and goldenrod, best results are obtained with applications made prior to early bud stage. Wick applicator should be drained and cleaned after each use. Ropes should be changed when flow is reduced from wear, extended use, poor cleaning or intermittent use.

Approved Uses

Non-Cropland Areas

Use Tordon 22K to control susceptible broadleaf weeds and woody plants on non-cropland areas such as on roadsides or other rights-of-way, along fence rows, and around farm buildings. Use up to 2 quarts of Tordon 22K per acre as a broadcast treatment and up to 4 quarts per acre as a spot treatment. Wick Application may be used on non-cropland. See "Wick Application" in "Mixing and Application Methods" section for directions.

Rangeland and Permanent Grass Pastures

Use Tordon 22K on rangeland and permanent grass pastures to control susceptible broadleaf weeds and woody plants such as (but not limited to) those shown in the table.

Grazing Restrictions: When applying more than 1 quart of Tordon 22K 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.

Broadcast Treatment (Ground and Aerial Applications)

Tordon 22K can be applied as a broadcast treatment by ground or aerially to control several broadleaf weeds and woody plants. Apply Tordon 22K at the suggested rates in 2 or more gallons of water per acre by air or in 10 or more gallons of water per acre by ground. Re-treat as necessary but do not exceed 1 quart of Tordon 22K per acre per season. For control of actively growing susceptible annual broadleaf weeds, including Russian thistle, apply 1/4 to 1/2 pint per acre of Tordon 22K. Tordon 22K can also be tank mixed with 1/2 to 1 pound per acre 2,4-D where species present are sensitive to 2,4-D.

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Tordon 22K at rates over 1 quart may suppress certain established grasses, such as bromegrass, bluegrass, and buffalograss. However, subsequent grass growth should be improved by release from weed competition.

Weed Control Guidelines for Tordon 22K In Non-cropland, Rangeland and Pasture†

Weed Species††	Rate per Acre	Comments
biennial thistles bull musk plumeless Scotch	Fall: 1/2 pint Spring: 6 - 8 fl oz with 1.0 lb ae 2,4-D	Apply when thistles are in the rosette stage before bolting in the spring or in the fall prior to soil freeze up.
bolting musk thistle	1 2 - 1 pint + 1 lb ae 2,4-D per acre	Apply before flowering.
broom snakeweed geyer larkspur locoweeds multiflora rose plains larkspur prickly pear cactus sulfur cinquefoil	1 pint	For prickly pear cactus, use of a diesel oil-water emulsion spray mixture may improve control.
black herbane crupina diffuse knapweed spotted knapweed yellow starthistle	1 - 2 pints	
absinth wormwood bursage Douglas rabbitbrush goldenrod ox-eye daisy	1 - 2 pints	Tank mix the lower rate with 1.0 lb ae per acre 2,4-D. Lower rates may require annual spot treatments.
wild licorice	1 quart	
Canada thistle field bindweed gorse lupines rush skeletonweed St. Johnswort tansy ragwort	1 - 2 quarts	Tank mix the lower rate with 1.0 lb ae per acre 2,4-D. Lower rates may require annual spot treatments.
dalmation toadflax juniper perennial sowthistle Russian knapweed	2 - 3 quarts	For Russian knapweed, apply at bud stage or in the fall.
tall larkspur yellow toadflax	3 - 4 quarts	
leafy spurge	1 - 4 quarts	Lower rates will require annual retreatment for several years. Re-treat when control drops below 80%.

† For additional species or more specific rates consult your area's current Weed Control Guide and/or your local DowElanco representative.

†† Many seedling annual weeds can be controlled using 1 pt per acre.

For rates exceeding 1 quart per acre, apply only as a spot treatment and the total area treated in a single season should not exceed 25% of a landowner's acreage found in any particular watershed.

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Spot Treatment

See "Spot Treatment" in "Mixing and Application Methods" section for directions for calibration, spray volume determination and mixing.

Spot Concentrate Application

Eastern red cedar can be controlled with spot concentrate applications of Tordon 22K in either the spring (April-May) or fall (September-October). For best results, use 3 ml to 4 ml of Tordon 22K (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 22K per acre in any one year.

Wick Application

See "Wick Application" in "Mixing and Application Methods" section for directions. Apply when weeds are actively growing and are above most desirable plants. For ironweed and goldenrod, best results are obtained with applications made prior to early bud stage.

Barley, Oats, and Wheat Not Underseeded With a Legume (Which is Not Flood or Sub-Irrigated and Not Rotated to Broadleaf Crops)

Use Tordon 22K for the control of susceptible annual broadleaf weeds such as (but not limited to) volunteer sunflower, wild buckwheat, lambsquarters, pigweed, Russian thistle, and sowthistle.

Use Precautions

Do not apply Tordon 22K within 50 days before harvest.

Spray mixtures may cause shorter straw on some varieties of cereals but grain yields are usually not affected.

Do not graze or feed forage from treated areas for 2 weeks after treatment. Do not harvest hay from treated grain fields.

Use only on land that will be planted the following year to grass, barley, oats, wheat or fallowed. Do not apply more than 1 1/2 fluid ounces of Tordon 22K per acre during the small grain growing season.

Broadcast Treatment (Ground and Aerial Applications)

Tordon 22K can be applied as a single broadcast treatment by ground or aerially to control several broadleaf weeds by itself or as a tank mix with 2,4-D, MCPA, or sulfonyleurea herbicides such as Ally. Apply Tordon 22K at the rates suggested in the following table in 2 to 5 gallons of water per acre by air or in 5 to 20 gallons of water per acre by ground. The addition of surfactants may aid control under dry conditions, but may cause injury to grain if used over the top. Read and follow directions and precautions on other product labels when tank mixing.

Spring Wheat, Barley and Oats

Apply from the 3 to 5 leaf stage to the early jointing stage of growth as indicated in the table below. Applications at the 3 to 5 leaf stage occasionally cause slight head malformations and straw shortening but normally do not affect yield.

Durum Wheat

Do not treat durum wheat since some varieties of durum wheat may be injured.

Winter Wheat and Barley

Apply after resumption of active growth in the spring until the early jointing stage.

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Use Rates for Wheat, Barley and Oats†

Weeds	Weed Growth Stage††	Grain Growth Stage	Amounts of Each Product Per Acre†††		
			Tordon 22K	4 lb ae/gal 2,4-D or MCPA	6 lb ae/gal 2,4-D or MCPA
More susceptible species, such as: lambquarters pennycress wild mustard mayweed	3 inches	3 to 5 leaf to early tillering	1 fl oz	1/2 pint	1/3 pint
	3 to 6 inches	Tillering to early jointing	1 1/2 fl oz	3/4 pint	1/2 pint
Less susceptible species such as: volunteer sunflower wild buckwheat Russian thistle pigweed Canada thistle, top growth suppression	1 to 6 inches	Tillering to early jointing	1 1/2 fl oz	3/4 to 1 pint	1/2 to 2/3 pint

†For oats, do not tank mix with 2,4-D herbicides.

††For best results, treat when weeds have 2 to 4 leaves and are actively growing.

†††When measuring small amounts of Tordon 22K, special care should be taken not to exceed suggested rates.

Fallow Cropland (Not Rotated to Broadleaf Crops)

Apply Tordon 22K as a post harvest or fallow treatment in continuous grain or during the fallow period. Tordon 22K may be applied alone or in tank mix combination with 2,4-D or other herbicides registered for this use. Apply in 2 or more gallons of water per acre by air or 5 or more gallons per acre by ground. Spray only under conditions that will prevent injury to nearby susceptible crops or ornamentals. Refer to "General Use Precautions" section for information on preventing drift to off-target areas.

Application Rates

Note: Do not apply more than 1 pint per acre as a broadcast treatment in any calendar year.

Annual Weeds: To control annual weeds such as Russian thistle and wild buckwheat, apply 1/4 to 1/2 pint per acre of Tordon 22K in tank mix combination with 1/2 to 1 lb ae of 2,4-D or other herbicides registered for use on fallow land. Apply when weeds are actively growing.

Field Bindweed: Apply 1/2 to 1 pint per acre of Tordon 22K plus 1/2 to 1 lb ae per acre of 2,4-D when bindweed is actively growing. Optimum time for treatment is when plant runners reach 8 to 12 inches. Use 1/2-pint per acre to control light to moderate infestations under good growing conditions or to reduce the potential for crop injury. Use higher rates for heavy infestations and longer term control. Some regrowth will occur the following season and a re-treatment program for successive years is recommended.

Canada thistle: Apply 1 pint per acre of Tordon 22K plus 1 lb ae per acre of 2,4-D when the majority of thistle plants are emerged but prior to bud stage.

Crop Rotation

Use only on land to be planted the following year to grass, barley, oats, wheat or fallow. Many broadleaf crops are extremely sensitive to soil residues of Tordon 22K. Do not plant sensitive broadleaf crops for 36 months after treatment or until soil residues have declined to a safe level as

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indicated by an adequately sensitive bioassay using the intended broadleaf crop. A bioassay is recommended following treatment prior to planting any sensitive broadleaf crop.

Preplant Interval

A preplant interval following Tordon 22K application prior to planting small grains is recommended to reduce or eliminate potential crop injury and/or yield reduction. The possibility for crop injury or yield reduction to occur depends on application rate, soil organic matter, rainfall, temperature and incidence of cereal diseases. Adequate soil moisture and soil temperature during the preplant interval is important in reducing, but may not eliminate, the risk of crop injury. When considering use of Tordon 22K on fallow land, growers should consider the benefit of weed control against the risk of crop damage and treat only if the risk of injury to small grains can be tolerated. The following preplant intervals are recommended:

For applications up to 1/2 pint per acre, allow a minimum of 45 days of soil temperatures above 40°F between application and planting.

For applications of greater than 1/2 pint and up to 1 pint per acre, allow a minimum of 60 days of soil temperatures above 40°F between application and planting, except in the states of Idaho, North Dakota, Nebraska, Montana, Oregon, South Dakota, Washington and Wyoming, where the minimum preplant interval is 90 days.

Spot Treatment

See "Spot Treatment" in "Mixing and Application Methods" section for directions for calibration, spray volume determination and mixing.

Spot treatments of Tordon 22K at rates over 1 pint per acre can be made on fallow, non-irrigated cropland if the treated areas comprise less than 10% of the immediate field in any one year. Tordon 22K should not be applied to cropland at rates exceeding 2 quarts per acre. When Tordon 22K at rates above 1 pint per acre are applied, injury to small grains may result for periods up to two years after treatment.

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

Do not use Tordon 22K 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.

To reduce potential damage to subsequent small grain crops, use the lower rate or discontinue the use of Tordon 22K 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 22K 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 1 quart per acre of Tordon 22K 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 22K. Tordon 22K can also be tank mixed with 1/2 to 1 pound per acre of 2,4-D where 2,4-D sensitive species present. Read and follow all directions for use and use precautions on other product labels.



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Spot Treatment

See "Spot Treatment" in "Mixing and Application Methods" section for directions for calibration, spray volume determination and mixing.

For spot applications when perennial grasses are established, use 1 to 8 pints per acre of Tordon 22K. Rates of 2 quarts per acre or more should only be used for control of deep-rooted perennial broadleaf weeds.

Tordon 22K at rates over 2 pints per acre may suppress certain established grasses such as bromegrass, bluegrass and buffalograss. However, subsequent grass growth should be improved by release from weed competition.

Wick Application

See "Wick Application" in "Mixing and Application Methods" section for directions. Apply when weeds are actively growing and are above most desirable plants. For ironweed and goldenrod, best results are obtained with applications made prior to early bud stage.

Warranty Limitations and Disclaimer

DowElanco warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. DOWELANCO MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperature, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of DowElanco or the seller. All such risks shall be assumed by Buyer.

Limitation of Remedies

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at DowElanco's election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

DowElanco shall not be liable for losses or damages resulting from handling or use of this product unless DowElanco is promptly notified of such loss or damage in writing. In no case shall DowElanco be liable for consequential or incidental damages or losses.

The terms of the "Warranty Disclaimer" above and this "Limitation of Remedies" cannot be varied by any written or verbal statements or agreements. No employee or sales agent of DowElanco or the seller is authorized to vary or exceed the terms of the "Warranty Disclaimer" or this "Limitation of Remedies" in any manner.

rsb
12/05/91

Amendments:

- 1) Label reformatted and edited for clarity.
- 2) Updated woody plants and broadleaf weeds controlled listed.

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