62719-397

07/17/2007 (



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

JUL 17 2007

7-17-07

Ms. Kimberly Gilbert Dow AgroSciences Indianapolis, IN 46268

Subject: Kerb 50 -W Herbicide EPA Registration No. 62719-397 Amended labeling submitted April 25, 2007

Dear Ms. Gilbert:

The amended labeling referred to above is acceptable provided that you meet the following conditions:

1. Make all of the changes specified in the document "Summary of Comments on Microsoft Word – Kerb 50-W-397 MSTR 28Aug06d.doc".

2. Submit final labeling for this product within 30 days of the date of this letter.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

This labeling supercedes all previously accepted labeling for this product except for supplemental labeling. A stamped copy of the label is enclosed for your records. If you have any questions about this letter, you may call Tobi Colvin-Snyder at 703-305-7801.

Sincerely,

Jim Tompkins Product Manager 25 Herbicide Branch Registration Division (7505**9**)

Summary of Comments on Microsoft Word -Kerb 50-W-397 MSTR 28Aug06d.doc

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Page: 1

Author: tsnyder Subject: Inserted Text Date: 7/17/2007 11:54:50 AM

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Restricted Use Pesticide

Because pronamide has produced tumors in laboratory animals, this product is 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.

(Logo) Dow AgroSciences

Kerb[®] 50-W

Selective Herbicide in Water-Soluble Pouches

For use on: alfalfa, apple, apricot, artichoke (globe), birdsfoot trefoil, blackberry, boysenberry, blueberry, cherry, CRP established grass stands, CRP fallowland, clover, crown vetch, endive, escarole, fallowland, grape, lettuce, nectarine, peach, pear, plum, prune, radicchio greens, raspberry, rhubarb, sainfoin, winter peas, turf grown for seed or sod or on nonresidential sites including golf course, industrial and office building sites, stadium fields or professional athletic fields, woody ornamentals, nursery stock of ornamentals, and Christmas trees

Active Ingredient

pronamide: 3,5-dichloro-N-	
(1,1-dimethyl-2-propynyl) benzamide	50%
Inert Ingredients	
Total	100%

Keep Out of Reach of Children CAUTION

Precautionary Statements

Hazards to Humans and Domestic Animals

Causes Moderate Eye Irritation

Avoid contact with eyes or clothing.

Personal Protective Equipment (PPE): Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- · Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing or loading

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/ maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

ACCEPTED with COMMENTS In EPA Letter Dated

JUL 17 2007

Under the Federal Insecticide, Fundicide, and Bodenticide Act as amended, for the pesticide registered under EPA Reg. No. 62719-397 When handlers use enclosed cabs or aircraft in a manner that meet the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

First Aid

If swallowed: Call a Poison Control Center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a Poison Control Center or doctor. Do not give anything by mouth to an unconscious person.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for treatment advice.

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for treatment advice.

Note: Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters,

Storage and Disposal

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

Storage: Store in a cool, dry place but not below 32°F (0°C). Do not remove package from container except for immediate use.

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

Container Disposal: Completely empty bag into application equipment. Then 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.

Steps to be Taken in Case Material is Released or Spilled: Sweep up and place in containers for recovery or disposal. Keep dusting to a minimum. Wear MSHA/NIOSH respirator for dusts encountered. Flush area with water. Keep spill out of all sewers and open bodies of water. Protective Clothing -Refer to Precautionary Statements.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for Directions for Use.

Notice: Read the entire label. Use only according to label directions. Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

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

EPA Reg. No. 62719-397

EPA Est.

Made in Italy

Dow AgroSciences LLC • Indianapolis, IN 46268 U.S.A. [®]Trademark of Dow AgroSciences LLC

> Net Weight 3 lb (3 x 1 lb Water-Soluble Pouch)

(Label Booklet):

Restricted Use Pesticide

Because pronamide has produced tumors in laboratory animals, this product is 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.

(Logo) Dow AgroSciences

Kerb[®] 50-W

Selective Herbicide in Water-Soluble Pouches

For use on: alfalfa, apple, apricot, artichoke (globe), birdsfoot trefoil, blackberry, boysenberry, blueberry, cherry, CRP established grass stands, CRP fallowland, clover, crown vetch, endive, escarole, fallowland, grape, lettuce, nectarine, peach, pear, plum, prune, radicchio greens, raspberry, rhubarb, sainfoin, winter peas, turf grown for seed or sod or on nonresidential sites including golf course, industrial and office building sites, stadium fields or professional athletic fields, woody ornamentals, nursery stock of ornamentals, and Christmas trees

Active Ingredient

pronamide: 3,5-dichloro-N-	
(1,1-dimethyl-2-propynyl) benzamide	50%
Inert Ingredients	<u>50%</u>
Total	100%

Keep Out of Reach of Children CAUTION

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to inside of label booklet for Precautionary Statements and Directions for Use including Storage and Disposal.

Notice: Read the entire label. Use only according to label directions. Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

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EPA Reg. No. 62719-397

EPA Est.

Made in Italy

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Precautionary Statements

Hazards to Humans and Domestic Animals

Causes Moderate Eye Irritation

Avoid contact with eyes or clothing.

Personal Protective Equipment (PPE): Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing or loading

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/ maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use enclosed cabs or aircraft in a manner that meet the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

First Aid

If swallowed: Call a Poison Control Center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a Poison Control Center or doctor. Do not give anything by mouth to an unconscious person.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center of doctor for further treatment advice.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for treatment advice.

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for treatment advice.

Note: Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

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.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE)and restricted-entry interval. The requirements in this box only apply to 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 24 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 over short-sleeved shirt and short pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure

Non-Agricultural Use Requirement

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.

Keep unprotected persons out of treated area until sprays have dried.

Storage and Disposal

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

Storage: Store in a cool, dry place but not below 32°F (0°C). Do not remove package from container except for immediate use.

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

Container Disposal: Completely empty bag into application equipment. Then 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.

Steps to be Taken in Case Material is Released or Spilled: Sweep up and place in containers for recovery or disposal. Keep dusting to a minimum. Wear MSHA/NIOSH respirator for dusts encountered. Flush area with water. Keep spill out of all sewers and open bodies of water. Protective Clothing -Refer to Precautionary Statements.

General Information

Kerb[®] 50-W Selective Herbicide in Water-Soluble Pouches is formulated as a wettable powder containing 50% active ingredient packaged in a 1 lb water-soluble pouch. Kerb 50-W is effective for the control of a wide range of grasses and certain broadleaf weeds. The product is a soil active herbicide with uptake by

sensitive weeds occurring through the roots. Before using this herbicide for a specific crop use, study the following general use information that provides important instructions for the safe and effective application of the product.

Use Restrictions: Hand-spray applications of pronamide may be made only to ornamentals and nursery stock of ornamentals.

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

Spray Drift Management (Aerial Application)

Avoiding spray drift at the application site is the responsibility of the applicator. The potential for spray drift is determined by the interaction of many equipment-and-weather-related factors. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

- The distance of the outer most nozzles on the boom must not exceed ³/₄ the length of the wingspan or rotor.
- 2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where certain states have more stringent regulations, they must be observed.

The applicator should be familiar with and take into account the information covered in the following **Aerial Drift Reduction Advisory Information** section.

Aerial Spray Drift Advisory Information

This section is advisory in nature and does not supersede mandatory label requirements..

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversion section of this label).

Controlling Droplet Size:

- **Volume** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** Do not exceed the nozzle manu facturer's recommended pressures. Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of nozzles -** Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation-** Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations and is the recommended practice. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets and lower drift than other nozzle types.

Boom Length: For some use patterns, reducing the effective boom length to less than ³/₄ of the wingspan or rotor length may further reduce drift without reducing swath width.

Swath Adjustment: When applications are made with a cross-wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

Wind: Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions: Applications should not occur during a temperature inversion, because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. The presence of inversion conditions can be indicated by ground fog. However, if fog is not present, the movement of smoke from a ground source or an aircraft smoke generator can also identify inversion conditions. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas: The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Weed Spectrum

Kerb 50-W may be used for both preemergence and early postemergence control of winter annual and perennial grasses and chickweed and for preemergence control only of certain other broadleaf weeds and certain other grasses listed.

Weeds Controlled Both Preemergence and Early Postemergence

barley, foxtail barley, volunteer bentgrass bluegrass, annual bluegrass, bulbous bluegrass, kentucky brome, downy (cheatgrass) chickweed, common chickweed, mouse-ear fescue, tall goatgrass, jointed oat, volunteer oat, wild

Hordeum iubatum Hordeum vulgare. Agrostis species Poa annua Poa bulbosa Poa pratensis Bromus tectorum Stellaria media Cerastium vulgatum Festuca arundinaceae Aegilops cylindrica Avena sativa Avena fatua

orchardgrass quackgrass rye, volunteer ryegrass, Italian ryegrass, perennial velvetgrass wheat, volunteer Dactylis glomerata Agropyron repens Secale cereale Lolium multiflorum Lolium perenne Holcus lanatus Triticum aestivum

Weeds Controlled Only Preemergence

barnvardgrass canarygrass carpetweed crabgrass, large dodder, field foxtail, yellow goosefoot, nettleleaf goosegrass henbit knotweed, prostrate lambsquarters, common lovegrass mallow, little (cheeseweed) morningglory, annual mustard, wild nettle, burning nightshade, black nightshade, hairy panicum, fall purslane, common radish, wild rocket, London shepherdspurse smartweed, pale sorrel, red (from seed) tomato, volunteer

Echinochloa crus-galli Phalaris canariensis Mollugo verticillata Digitaria sanguinalis Cuscuta campestris Setaria lutescens Chenopodium murale Eleusine indica Lamium amplexicaule Polygonum aviculare Chenopodium album Eragrostis diffusa Malva parviflora Ipomoea purpurea Brassica kaber Urtica urens Solanum nigrum Solanum sarrachoides Panicum dichotomiflorum Portulaca oleracea Raphanus sativus Sisymbrium irio Capsella bursa-pastoris Polygonum lapathifolium Rumex acetosella Solanum esculentum

Note: The weed species controlled by Kerb 50-W are dependent on the rate used, specific crop culture involved, and the associated conditions of temperature, soil type and moisture availability. Refer to specific crop use directions for weed species controlled.

Dosage

The rate of Kerb 50-W required will vary depending on the crop culture involved and weed species to be controlled. See specific crop use directions for all dosage instructions. All dosage instructions listed in this label are in terms of pounds of product or active ingredient per broadcast acre. For banded application, the amount of Kerb 50-W used per acre should be reduced according to the following formula:

Band Width (in inches)		Rate per		Amount Needed per Acre
Row Width (in inches)	Х	Acre Broadcast	=	for Band Application

Timing and Application

Unless specific directions are given under the crop to be treated, Kerb 50-W should be applied in the fall or early winter, when temperatures do not exceed 55°°F, **but prior to freeze-up**. Best weed control results occur when Kerb 50-W is applied preemergence to the weeds and when application is followed by rainfall or irrigation to move the product into the root zone of the germinating weeds.

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Mix Kerb 50-W thoroughly in clean water at the required concentration and apply uniformly as a spray. For ground application, use a conventional low-pressure herbicide sprayer equipped with flat fan nozzles spaced and calibrated to uniformly deliver 20 to 50 gallons of spray per acre. For aerial applications apply in a coarse droplet spray at 5 to 10 gallons per acre. Accurately calibrate spray equipment prior to each use.

Compatibility with Other Pesticides

Kerb 50-W is compatible with most commonly used agricultural pesticides, crop oil concentrate and adjuvants. When preparing tank mixes, user should consult spray compatibility charts or State Cooperative Extension Service Specialists prior to actual use.

Note: Kerb 50-W is compatible with boron and crop oil concentrate; however, the water-soluble pouches must be completely dissolved before adding spray oils or products containing boron to spray mixtures.

Effect of Soil Type, Moisture and Temperature

Kerb 50-W is most active in coarse to medium textured soils of low organic matter and relatively inactive in peat or muck soils or mineral soils high in organic matter content at rates specified in this label. Herbicidal activity is best in soils containing less than 4 percent organic matter. Use in soils with higher organic matter may result in inconsistent or incomplete weed control.

The herbicidal activity of Kerb 50-W is mainly through root absorption in sensitive weed species. Rain, melting snow or irrigation is **essential** following treatment to move Kerb 50-W into the root zone of germinating weeds.

Under field conditions, Kerb 50-W will remain relatively stable with little loss of herbicidal activity when soil temperatures are less than 55°°F. As soil temperatures increase, degradation of the active ingredient takes place. Kerb 50-W may degrade rather quickly if left exposed on the soil surface in warm weather. If Kerb 50-W is applied when air temperatures exceed 85°F, the treatment should be soil incorporated to a shallow depth (top two to three inches) or watered into the soil as soon as possible.

Cultural Considerations

For best results apply Kerb 50-W to a trash-free soil surface. Clean cultivation before application is preferable, but not necessary. To obtain optimum weed control in areas not clean cultivated, the area to be treated should be free of surface litter (dead or decaying crop and weed debris, mowing clippings, etc.). Trash-free areas create ideal conditions for rapid movement of Kerb 50-W into the weed root zone following rain or irrigation.

Rotation Crop Planting Information

Follow the directions given below when rotation crops will be planted to areas previously treated with Kerb 50-W:

Amount of Kerb 50-W Applied per Planted Acre	Root and Tuber Vegetables	Legume Vegetables and Cotton	Brassica Leafy Vegetables, Cucurbits, Fruiting Vegetables and Bulb Vegetables	Other Leafy Vegetables	Cereal Grains
1.0 lb	90	90	90	30	365
2.0 lb	90	90	120	30	365
3.0 lb	90	120	180	30	365
4.0 lb	90	150	210	30	365

Waiting Period in Days before Planting the Crops Indicated (1):

(1) There are no plant back restrictions for Kerb 50-W when rotating to artichokes, grapes, berry fruits, pome fruits or stone fruits.

Whether Kerb 50-W is bed-topped, banded or broadcast, the beds should be knocked down and the field cross-disced before rotation crops other than artichokes, lettuce, endive, radicchio or escarole are planted.

Where the Kerb 50-W treatment is to be followed by a rotation crop within 180 days of application, bed-topped or banded applications are suggested.

Artichoke (Globe)

California (Only)

General Information

Kerb 50-W is a selective herbicide for the control of susceptible weeds in either established (ratoon) or transplanted globe artichokes.

Weeds Controlled

Kerb 50-W is effective at 4 to 8 lb of product (2 to 4 lb active ingredient) per treated acre for the preemergence control of the following weeds:

barley, volunteer bluegrass, annual chickweed, common chickweed, mouse-ear foxtail, yellow goosefoot, nettleleaf henbit knotweed, prostrate mallow, little (cheeseweed) mustard, wild nettle, burning nightshade, hairv oat, volunteer oat, wild rvegrass, italian wheat, volunteer

Kerb 50-W Rate (Per Broadcast Acre) ¹					
Сгор	Weeds	Dependable Rainfall or Overhead Irrigation	Less Dependable Rainfall or Furrow Irrigation	Comments	
globe artichokes (established ratoon)	susceptible annual grasses, volunteer grains	4 lb	Do not apply	sandy soils, sandy loams and silt loams	
	and broadleaf weeds	8 lb	Do not apply	silt, silty clay loams, clay loams and clay soils	

globe artichokes	susceptible annual	4 lb	Do not apply	all soil types except
(newly	grasses,			peat and muck soils
transplanted	volunteer grains			
crowns)	and broadleaf			
,	weeds		· · · · ·	

Dosage instructions listed on this label are in terms of pounds Kerb 50-W per acre broadcast application. For banded treatments down artichoke rows or between rows, the amount of Kerb 50-W used per acre should be reduced according to the following formula:

Band Width (in inches)		Rate per		Amount Needed per Acre
Row Width (in inches)	Х	Acre Broadcast	Ξ	for Band Application

Dosage and Timing

Established Ratoon Artichokes

Apply Kerb 50-W in a single postemergence application to the crop after tillage operations are completed and shoot regrowth of the artichokes has occurred. Apply Kerb 50-W preemergence to the weeds and before new artichoke leaves are greater than 14 to 16 inches long. Apply Kerb 50-W in a banded treatment over the crop row at the rate of 4 to 8 lb of product per broadcast acre (see dosage rate for soil type in chart). A second application of Kerb 50-W at the same rate may be applied 60 days or more prior to harvest in a banded treatment directed to the untreated soil surface between the artichoke rows after the ditching operation is completed later in the season.

Transplanted Artichoke Crowns

Apply Kerb 50-W in a single application after transplanting the crowns but before new shoots have developed 3 to 4 new leaves. Apply Kerb 50-W preemergence to the weeds and banded over the crop row at the rate of 4 lb of product per broadcast acre. Do not use higher rates of Kerb 50-W than 4 lb per acre in one season. A second application of Kerb 50-W at the same rate may be applied 60 days or more prior to harvest in a banded treatment directed to the untreated soil surface between the artichoke rows after the ditching operation is completed later in the season.

Application

Kerb 50-W may be applied by aircraft or ground sprayer for preemergence control of susceptible grasses and broadleaf weeds in established ration artichokes or transplanted artichoke crowns.

Aerial: Mix the specified amount of Kerb 50-W in a minimum of 10 gallons of water per acre for aerial application. Avoid drift to all other crops and non-target areas.

Ground: Mix the specified amount of Kerb 50-W in clean water and apply uniformly with a ground sprayer in 20 to 50 gallons of water per acre. Reduce dosage and volume accordingly for banded treatments. Use a standard low pressure herbicide sprayer equipped with flat fan nozzles that give uniform spray distribution.

Moisture and Irrigation Requirements

Moisture is necessary to activate Kerb 50-W in the soil and move it into the root zone of germinating weeds. In artichoke culture natural rainfall or supplementary overhead irrigation within 1 to 3 days after the application of Kerb 50-W is essential for effective weed control. For best results use overhead sprinkler irrigation equipment to irrigate the field with 1 to 2 inches of water after application of Kerb 50-W.

Effect of Soil Type

Do not apply Kerb 50-W to highly organic or muck soils because herbicidal activity is lowered significantly in these soils. Follow dosage rates suggested in the dosage instruction chart according to the soil type for established and transplanted artichokes.

Rotation Crops

Artichokes are generally long-term perennial crops. In the event that artichokes are discontinued and a rotational crop will be planted within one year where Kerb 50-W was applied at the rate of 4 lb of product

per acre, follow the rotational crop requirements specified in the General Information section of this label under Rotational Crop Planting Information.

Artichoke - Specific Use Restrictions

- Do not apply more than 4 lb/acre active ingredient (8 lb/acre of Kerb 50-W) to established artichokes or more than 2 lb/acre active ingredient (4 lb/acre of Kerb 50-W) to newly transplanted artichokes or make more than one "in-row" application per season.
- Do not harvest artichokes within 60 days of final application.
- Do not make more than one application to the artichoke row per season. Do not make more than one application to the untreated soil between the rows per season.

Turf Grown for Turf or Seed

This product may only be used on turf grown for seed or sod or on nonresidential sites including but not limited to golf course, industrial and office building sites, stadium fields or professional athletic fields.

General Information

Kerb 50-W is a selective herbicide recommended for the preemergence and postemergence control of annual bluegrass (*Poa annua*) from warm season grasses and the removal of perennial rye grass (*Lolium perenne*) from warm season during spring transition. Warm season grasses include ornamental bermudagrass (*Cynodon dactylon*), Zoysiagrass, St. Augustinegrass and Centipedegrass or bermudagrass grown for seed.

Annual Bluegrass (Poa Annua) Control

Kerb 50-W will control annual bluegrass from pre-germination and seedling stages through tillering, heading and seed formation. Kerb 50-W acts slowly on seedling to mature annual bluegrass. Following application of Kerb 50-W annual bluegrass may first become dark green and then gradually turn yellow and die over a 3- to 5-week period.

For effective control of annual bluegrass in turf or seed crops, moisture is necessary to move Kerb 50-W in the weed root zone. Refer to the Moisture Requirements section of this label for details.

Dosage and Timing

For annual bluegrass control Kerb 50-W is applied at the rate of 1 to 3 lb of product (0.5 to 1.5 lb active ingredient) per acre broadcast application. The dosage rate required is dependent on the growth stage of annual bluegrass at time of application. Follow the dosage rate and timing instructions given below:

Annual Bluegrass Growth Stage	Kerb 50-W Lb per Acre ¹ Broadcast Application
Preemergence or early postemergence	1 – 2 ²
Postemergence - early tillering to heading	1.5 - 2
Postemergence - seed forming stages	2 - 3

¹ One acre equals 43,560 sq. ft.

² Use the higher rate when longer preemergence residual control is desired.

Removal of Perennial Rye Grass from Warm Season Grasses

Kerb 50-W will remove postemergent perennial rye grass from warm season grasses during the spring to control the transition from cool season overseed to warm season grasses. Kerb 50-W works slowly to control mature perennial rye grass. After an application of Kerb 50-W, perennial rye grass will gradually die over a 4- to 6-week period. The length of this transition is dependent upon environmental factors such as temperature, rainfall and mowing height of the turf.

Dosage and Timing

For removal of perennial rye grass from warm season grasses, Kerb 50-W may be applied at a rate of 1 to 2 lb of product (0.5 to 1 lb active ingredient) per broadcast acre. It is best to apply Kerb 50-W to warm season grasses at 50% greenup. Application of Kerb 50-W to dormant warm season grasses can slow greenup.

Application

Mix the specified amount of Kerb 50-W in clean water and apply uniformly with a low pressure ground sprayer in 20 to 50 gallons of water per acre or 0.5 to 1 gallon of water per 1000 sq ft. The sprayer should be equipped with flat fan nozzles, spaced to provide uniform distribution without skips or excessive overlapping of spray patterns.

Important Note: Avoid spraying on fairways, hillsides, or approaches that may drain onto bentgrass greens or to areas overseeded with sensitive cool season grasses. Do not make an application of a wetting agent for the purpose of frost protection or soil penetration to greens or tees 14 days prior to or after a Kerb 50-W application as injury may result.

Moisture Requirements

Kerb 50-W acts mainly through root absorption in sensitive weed species. If no rainfall occurs within a day or so of the application, a light overhead irrigation should be made to move the chemical into the weed root zone. Avoid heavy irrigations of more than 1 inch to reduce the possibility of excess washing or leaching of the chemical from the area of application.

Kerb Deactivation for Overseeding

Where it is desirable to reseed sooner than 90 days following the application of Kerb 50-W, an application of an activated charcoal such as Gro-Safe, is needed. Apply the activated charcoal at the rate of 10 lb per 1000 sq ft. Allow at least 14 days between the application of Kerb 50-W and the application of charcoal for control of emerged annual bluegrass. Reseed no sooner than 7 days following charcoal application.

Grasses Turf or Seed Crop - Specific Use Restrictions

- This product may be used on non-residential seeded, sodded, or sprigged turf or turf grown for seed that is well established. Use of this product on turf that has been weakened by weather-, pest-, disease- chemical-, or mechanical-related stress may increase the chances of turf injury.
- This product should only be applied to turf areas that are composed of the following turfgrass species:
 - Bermudagrass (Cynodon dactylon)
 - Centipedegrass (Eremochloa ophiuroides)
 - St. Augustinegrass (Stenotaphrum secundatum)
 - Zoysiagrass (Zoysia japonica)
- Avoid spraying on hill sides, fairways, or approaches that may drain onto bentgrass greens or to areas overseeded with sensitive cool season grasses. Do not make an application of a wetting agent for the purpose of frost protection or soil penetration to greens or tees 14 days prior to or after a Kerb 50-W application as injury may result.
- Do not apply Kerb 50-W herbicide to areas that are to be overseeded with susceptible cool season grasses within 90 days of treatment unless deactivation is planned.
- Do not apply Kerb 50-W to dichondra, perennial bluegrass, annual and perennial ryegrasses, fescues and bentgrasses.
- Do not graze treated areas and do not feed clippings to livestock.
- Do not apply more than 1.5 lb/acre active ingredient (3 lb/acre of Kerb 50-W) or make more than one application of Kerb 50-W per season.

Blackberry/Boysenberry/Raspberry

(Oregon and Washington Only)

General Information

Kerb 50-W is a selective herbicide recommended for fall and winter applications to established blackberries, boysenberries and raspberries for both preemergence and postemergence control of certain winter annual and perennial grasses.

Dosage

Kerb 50-W may be applied at the rate of 2 to 6 lb of product (1 to 3 lb active ingredient) per acre broadcast application. The rate will depend on the weed species present and the soil texture of the site being treated. Follow the weed control instructions listed in the chart below:

Lb of Kerb 50-W Per Broadcast Acre ¹					
Weeds Controlled	Dependable Rainfall or Overhead Irrigation ²	Comments			
bluegrass, annual	2-4	Use low rates on light			
quackgrass	4-6	to medium soils and high			
ryegrass, perennial	4-6	rates on heavy soils			

Dosage rates specified are in pounds of Kerb 50-W per acre broadcast application. Reduce rates accordingly for banded applications.

² For effective weed control, rainfall or overhead irrigation is essential following the application of Kerb 50-W.

Crop Tolerance

Established cane fruit are tolerant to specified rates of Kerb 50-W. Newly transplanted blackberries, boysenberries and raspberries should be well rooted and transplanted for at least 3 months prior to the application of Kerb 50-W.

Timing and Application

Apply Kerb 50-W only during the fall or winter months. For optimum results, apply Kerb 50-W during November or December. Do not make applications when the ground is frozen. Mix the specified amount of Kerb 50-W in clean water and apply uniformly with a low pressure ground sprayer in 20 to 50 gallons of water per acre.

Blackberry/Boysenberry/Raspberry - Specific Use Restrictions

 Do not apply more than 3 lb/acre active ingredient (6 lb/acre of Kerb 50-W) or make more than one application of Kerb 50-W per season.

Blueberry

General Information

Kerb 50-W is a selective herbicide recommended for fall and winter applications to established blueberries for both preemergence and postemergence control of winter annual and perennial grasses and chickweed and preemergence control of certain broadleaf weeds.

Dosage Instructions

Kerb 50-W may be applied at the rate of 2 to 4 lb of product (1 to 2 lb active ingredient) per acre broadcast application. The rate will depend on the weed species present. Follow the weed control recommendations listed in the chart below:

	Lb Kerb 50-W Per Acre ¹
· · ·	Dependable Rainfall or
Weeds Controlled	Overhead Irrigation ²

bluegrass, annual brome, downy (cheatgrass) chickweed oat, wild sorrel, red (from seed)	2
bentgrass bluegrass, Kentucky fescue, tall orchardgrass quackgrass ryegrass, perennial velvetgrass	4

Dosage rates specified are in ib of Kerb 50-W per acre broadcast application. Reduce rates accordingly for banded applications.

² For effective weed control, rainfall or overhead irrigation is essential following the application of Kerb 50-W.

Crop Tolerance

Established blueberry plants are tolerant to specified rates of Kerb 50-W. Do not apply Kerb 50-W to newly transplanted blueberries until roots are well established.

Timing and Application

Apply Kerb 50-W in a single application during the fall or early winter months, but prior to soil freeze-up and snow cover. Optimum herbicidal activity occurs when applications are made under cool temperature conditions (55°°F or less) and are followed by rainfall or overhead irrigation.

Mix the specified amount of Kerb 50-W in clean water and apply uniformly with a low pressure ground sprayer in 20 to 50 gallons of water per acre.

Blueberry - Specific Use Restrictions

 Do not apply more than 2 lb/acre active ingredient (4 lb/acre Kerb 50-W) or make more than one application of Kerb 50-W per year.

Conservation Reserve Program Established Grass Stands

Winter Annual Grass Control in Established Grass Stands Enrolled in the Conservation Reserve Program (CRP) (Idaho, Oregon and Washington Only)

General Information

Kerb 50-W is a selective herbicide for the control or suppression of certain winter annual grasses in established grass stands on land that is currently enrolled in the USDA's Conservation Reserve Program (CRP). The use of Kerb 50-W under this label is restricted to those CRP acres that have an acceptable stand of grass (of species specified on this label) that has been established for a minimum of 1 year. Kerb 50-W is a soil active herbicide that is absorbed through the roots. To achieve good weed control, sufficient soil moisture from rain or melting snow is required following treatment to move Kerb 50-W into the root zone of susceptible generating weeds.

Weeds Controlled (Suppression)

Kerb 50-W will provide preemergence and postemergence control (or suppression) of the following weeds when used according to labeled directions:

bluegrass, bulbous brome, downy goatgrass, jointed rye, cereal

Dosage

Apply Kerb 50-W in a single application at a rate of 0.4 lb (0.2 lb active ingredient) per acre.

Timing

To achieve optimum herbicidal activity, apply Kerb 50-W between mid-October and mid-December. Applications made outside these dates could result in poor weed control.

Application

Mix the specified amount of Kerb 50-W in clean water and apply uniformly in a broadcast application. For ground application Kerb 50-W should be applied in 10 to 20 gallons of water per acre with a conventional low pressure herbicide sprayer. For aerial applications apply in a coarse droplet spray at 5 to 10 gallons per acre. Accurately calibrate spray equipment before each use.

Grass Species Tolerance

The following grass species have shown satisfactory [†] tolerance to Kerb 50-W when used as specified:

fescue, tall foxtail, creeping orchardgrass wheatgrass, crested wheatgrass, intermediate wheatgrass, slender wheatgrass, tall wheatgrass, western

[†]Slight growth suppression of these grass species may occur in the spring following the Kerb 50-W application.

CRP Established Grass Stands - Specific Use Restrictions

- In accordance with the provisions of the Conservation Reserve Program, any CRP acres (including those acres treated with Kerb 50-W) cannot be grazed or the hay cut for feed.
- Refer to the Rotation Crop Planting Information section of this label for any plantback restrictions not covered under the CRP agreement.
- Do not apply more than 0.2 lb/acre active ingredient (0.4 lb/acre Kerb 50-W) or make more than one application of Kerb 50-W per year.

Conservation Reserve Program Fallow Land

Fallow Land to Be Rotated to Grass Cover Crops for Use in the Conservation Reserve Program (CRP) (Idaho, Oregon and Washington Only)

General Information

- Kerb 50-W is a selective herbicide for use on fallow land to control certain winter annual grasses and volunteer grains.
- Use of Kerb 50-W is restricted to summer fallow land that will be planted back the following year to grass cover crops for soil erosion or other conservation purposes.
- Use rates and plant-back restrictions for Kerb 50-W must be strictly followed or severe injury to the following rotation crops may occur.
- Kerb 50-W is a soil active herbicide that is absorbed through weed roots. In order to achieve good weed control, sufficient soil moisture from rain, melting snow or irrigation is required following treatment to move Kerb 50-W into the soil to the weed root zone.

 Do not use any tillage in the fall prior to or after the application of Kerb 50-W to fallow land since weed control will be reduced.

Weeds Controlled

Kerb 50-W will provide preemergence and postemergence control of the following weeds when used according to labeled directions:

barley, volunteer bluegrass, bulbous brome, downy (cheatgrass) goatgrass, jointed rye, volunteer wheat, volunteer

Dosage Rate and Timing

Apply Kerb 50-W in a single application at a rate of 0.5 to 1 lb (0.25 to 0.50 lb active ingredient) per acre. For optimum weed control, apply Kerb 50-W between mid-October and mid-December, prior to soil freeze-up. Applications made outside these dates could result in poor weed control.

Application

Mix the specified amount of Kerb 50-W in clean water and apply uniformly in a broadcast application. For ground application Kerb 50-W should be applied in 10 to 20 gallons of water per acre with a conventional low-pressure herbicide sprayer equipped with flat fan nozzles. For aerial applications apply in a coarse droplet spray at 5 to 10 gallons per acre. Spray equipment should be carefully calibrated before each use.

Rotational Crops

All grass species recommended for use as a cover crop in the Conservation Reserve Program can be planted back to fallow land treated with Kerb 50-W provided that the planting date occurs after August 15 of the year following the Kerb 50-W application.

CRP - Fallow Land - Specific Use Restrictions

- Do not plant any grass species back to fallow land treated with Kerb 50-W until after August 15 of the year following the Kerb 50-W application.
- Do not use any tillage in the fall prior to or after the application of Kerb 50-W.
- Do not apply more than 0.5 lb/acre active ingredient (1.0 lb/acre Kerb 50-W) or make more one application of Kerb 50-W per year.

Fallow Land

General Information

- Kerb 50-W is a selective herbicide for use on fallowland to control certain winter annual grasses and volunteer grains.
- Use of Kerb 50-W is restricted to summer fallowland that will be planted back the following year.
- Kerb 50-W is a soil active herbicide that is absorbed through weed roots. In order to achieve good weed control, sufficient soil moisture from rain, melting snow or irrigation is required following treatment to move Kerb 50-W into the soil to the weed root zone.
- Do not use any fall tillage prior to or after the application of Kerb 50-W to fallow land, since weed control will be reduced. To ensure best weed control results with Kerb 50-W, use a straw spreader when combining to eliminate chaff rows.

Weeds Controlled

Kerb 50-W will provide preemergence and postemergence control of the following weeds when used according to label directions:

barley, volunteer bluegrass, bulbous brome, downy (cheatgrass) goatgrass, jointed rye, volunteer wheat, volunteer

Dosage and Timing

Apply Kerb 50-W in a single application at a rate of 0.5 to 1 lb (0.25 to 0.50 lb active ingredient) per acre. For optimum weed control, apply Kerb 50-W between **mid-September and mid-December**, prior to soil freeze-up. Applications made outside these dates could result in poor weed control.

Application

Mix the specified amount of Kerb 50-W in clean water and apply uniformly in a broadcast application. For ground application Kerb 50-W should be applied in 10 to 20 gallons of water per acre with a conventional low pressure herbicide sprayer equipped with flat fan nozzles. For aerial applications apply in a coarse droplet spray at 5 to 10 gallons per acre. Spray equipment should be carefully calibrated before each use.

Rotation Crops

See Rotational Crop Planting Information.

Tank-Mixture with Glean Herbicide for Fallow Land

For control or suppression of certain broadleaf weeds not controlled by Kerb 50-W in fallow land areas, Glean herbicide may be tank mixed with Kerb 50-W. See the label for Glean herbicide for list of weeds controlled.

Dosage

Use Kerb 50-W at the rate of 0.5 to 0.75 lb (0.25 to 0.38 lb active ingredient) per acre tank mixed with Glean herbicide at the application rate specifiedd on the Glean label for reduced tillage fallow weed control.

Important: Before applying a tank mixture of Kerb 50-W and Glean herbicides on fallow land areas, read and observe all label directions for each product. Use rates and plant back restrictions must be strictly followed to avoid severe injury to the following small grain crops. In interpreting product labels for tank mixtures, the most restrictive situations must apply.

For crop rotation flexibility, do not use Glean herbicide on all your fallow acreage.

Fallow Land - Specific Use Restrictions

- Do not use any fall tillage prior to or after the application of Kerb 50-W.
- Do not apply more than 0.5 lb/acre active ingredient (1.0 lb/acre Kerb 50-W) or make more than one application of Kerb 50-W per year.
- See Rotation Crop Planting Information.

Alfalfa, Clover, Birdsfoot Trefoil, Crown Vetch and Sainfoin Grown for Forage and Seed

General Information

Kerb 50-W is a selective herbicide recommended for fall or winter applications to alfalfa, clover, birdsfoot trefoil, crown vetch and sainfoin for both preemergence and postemergence control of susceptible winter annual and perennial grasses and for preemergence control of certain broadleaf weeds.

Dosage

Kerb 50-W may be applied at the rate of 1 to 4 lb of product (0.5 to 2 lb active ingredient) per broadcast acre application. The required rate will depend on the weed species present as well as the type of irrigation used or the dependability of rainfall following application. The effective rate will be higher in low rainfall areas or where furrow irrigation is used than in areas of dependable rainfall or where overhead irrigation is practiced. Follow the weed control instructions given in the chart below for fall or winter applications of Kerb 50-W:

Lb Kerb 50-W Per Broadcast Acre				
	Dependable Rainfall	Low Rainfall		
	or	or		
Weeds Controlled	Overhead Irrigation	Furrow Irrigation		
Apply preemergence or	1 - 1.5	1.5 – 2		
postemergence to these weeds:				
barley, foxtail				
bluegrass, annual	•	· · ·		
brome, downy (cheatgrass)				
chickweed				
grain, volunteer		<i>.</i>		
oat, wild				
ryegrass, Italian				
bluegrass, Kentucky	1.5 – 2	2 - 3		
orchardgrass	1			
ryegrass, perennial	·			
quackgrass	2-3	3-4		
Apply preemergence only to these	1.5 – 2	2 - 3		
weeds:				
sorrel, red (from seed)				
mustard, wild	3	4		
radish, wild				
rocket, London				
shepherdspurse				

Note: For control of spring germinating cheatgrass and dodder, refer to specific instructions under Spring Use Directions for Established Alfalfa.

Timing and Application

Apply Kerb 50-W during the fall or winter months. Optimum herbicidal activity occurs when applications are made under cool temperature conditions (55°to 60°F) and are followed by rainfall or overhead irrigation. Applications should always be made **before soil freeze-up**.

Applications may be made postemergence to established, actively growing or dormant forage legumes or to new plantings after the legume has reached the trifoliate leaf stage. In established forage legume stands, applications should be made after the last cutting when the weather and soil temperatures are cool. In fall seeded forage legumes, applications should be made after legumes have reached the trifoliate leaf stage. In spring-seeded forage legumes, applications of Kerb 50-W should be made the following fall or early winter to control winter annual and perennial grasses. Do not use Kerb 50-W as a preplant or preemergence treatment or before the trifoliate leaf stage of the legume has developed in new plantings as injury to the legume stand may result. Remove or disperse trash, crop residues and ashes before treatment.

Mix the specified amount of Kerb 50-W in clean water and apply uniformly with a ground sprayer at 20 to 50 gallons per acre. Use a conventional herbicide sprayer equipped with flat fan nozzles at 40 to 60 psi.

Rotation Crops

Where rotation crops are to follow within one year of the Kerb 50-W treatment to alfalfa, clover, birdsfoot trefoil, crown vetch or sainfoin, follow the directions given in the General Information section of this label under Rotation Crop Planting Information.

Specific Use Restrictions - Alfalfa, Clover, Birdsfoot Trefoil, Crown Vetch and Sainfoin

- Do not use more than 2 lb/acre active ingredient (4 lb/acre Kerb 50-W) per year.
- Do not harvest alfalfa seed within 50 days after application.
- Do not graze or harvest for forage or dehydration within the following intervals after application:

Alfalfa - below 3 lb /acre Kerb 50-W (west of Mississippi River)	25 days
Alfalfa -3 to 4 lb /acre Kerb 50-W (west of Mississippi River)	45 days
Clover, birdsfoot trefoil, crown vetch, sainfoin (entire U.S.) and alfalfa - Up to 4 lb /acre Kerb 50-W (East of Mississippi River)	120 days

Spring Use Directions for Established Alfalfa Dodder Control in Alfalfa Seed Crops

Only In California, Idaho, Nevada, Oregon, Utah and Washington

General Information

For effective control Kerb 50-W must be moved into the soil either by rainfall or irrigation before the germination of dodder. Preferably, irrigation should be made within 1 to 3 days following the Kerb 50-W application, but can be delayed up to 2 weeks if necessary provided that irrigation precedes dodder germination. If irrigation of the field treated with Kerb 50-W must be delayed, a light mechanical incorporation (maximum 1-inch depth) should follow the Kerb 50-W application and the field irrigated within 2 weeks.

When using flood type or overhead sprinkler irrigation systems the amount of irrigation following the Kerb 50-W application should not exceed one inch of water. Excess irrigation following the Kerb 50-W application and prior to germination of dodder may decrease the effectiveness of Kerb 50-W.

Dosage and Timing

For effective control, Kerb 50-W must be applied before dodder germinates. Follow directions given below depending on method of irrigation used:

Furrow Irrigation: Apply Kerb 50-W at the rate of 3 to 4 lb of product (1.5 to 2 lb active ingredient) per acre. Incorporate lightly at time of application and irrigate within seven days.

Flood Irrigation: Apply Kerb 50-W at the rate of 3 lb of product (1.5 lb active ingredient) per acre. Flood field with 0.5 to 1.0 inch of water within 1 to 3 days after application.

Overhead Sprinkler Irrigation: Use same directions as given above for flood irrigation. Excessive amounts of irrigation water following Kerb 50-W application may adversely affect the herbicidal activity.

(SPRING APPLICATIONS)

Cheatgrass Control in Established Alfalfa (Spring Applications)

Dosage and Timing

Spring application of Kerb 50-W will control cheatgrass if application is made when cheatgrass has recently germinated or expected to germinate. Apply Kerb 50-W as a broadcast application at the rate of 1.5 to 2 lb of product (0.75 to 1 lb active ingredient) per acre.

Lettuce/Endive/Escarole/Radicchio Greens

General Information

Kerb 50-W is a selective herbicide for the control of certain annual grasses and broadleaf weeds in direct seeded or transplanted lettuce, endive, escarole and radicchio greens.

Weeds Controlled

Kerb 50-W is effective at 2 to 4 lb of product (1 to 2 lb active ingredient) per treated acre for the preemergence control of the following weeds:

Grasses

barley, foxtail barley, volunteer barnyardgrass bluegrass, annual brome, downy (cheatgrass) canarygrass crabgrass foxtail, yellow goosegrass lovegrass oats, volunteer panicum, fall ryegrass, Italian rye, volunteer wheat, volunteer

Broadleaf Weeds

carpetweed chickweed, common goosefoot, nettleleaf henbit knotweed lambsquarters, common morningglory, annual mustard, wild nettle, burning nightshade, black nightshade, hairy purslane, common rocket, London shepherdspurse smartweed, pale tomato, volunteer

Dosage

Kerb 50-W may be applied at the rate of 2 to 4 lb of product (1 to 2 lb active ingredient) per acre broadcast application. The dosage rate required is dependent on soil texture and method of irrigation. At

rates specified on this label, Kerb 50-W may not be applied for weed control on highly organic (peat and muck) soils.

For lettuce, endive, escarole and radicchio greens, follow the dosage instructions listed in chart below:

Lb Kerb 50-W Per Broadcast Acre ¹				
Weeds	Dependable Rainfall or Overhead Irrigation	Less Dependable Rainfall or Furrow Irrigation	Soil Texture Group ²	
susceptible annual grasses	2 - 3 (surface application)	3 - 4 (soil incorporation)	coarse and medium textured soils	
broadleaf weeds	3 - 4 (surface application)	4 (soil incorporation)	fine textured soils	

¹ Reduce dosage rate accordingly for banded applications.

² Soil Texture Group

Coarse: sand, loamy sand, sandy loam

Medium: loam, silt loam, silt, sandy clay loam

Fine: silty clay loam, clay loam, sandy clay, silty clay, clay

Crop Tolerance

Most varieties of lettuce are highly tolerant of the specified rates of Kerb 50-W. Do not use more than 3 lb Kerb 50-W on val temp, grande verde and prima verde varieties of crisp lettuce, or on endive, escarole and radicchio greens.

Timing and Application

Kerb 50-W can be applied either pre-plant, post-plant or postemergence to lettuce, endive, escarole or radicchio greens in banded, bed-topped or broadcast applications. Most applications will be made preemergence to the crop just before or after planting and preemergence to the weeds. Applications can be made before or after thinning of head lettuce but should be made prior to weed emergence. Do not apply Kerb 50-W as a postemergence application in leaf lettuce. Do not apply Kerb 50-W herbicide to lettuce within 55 days of harvest and do not make more than one application to each crop of lettuce, endive, escarole or radicchio greens.

Mix the specified amount of Kerb 50-W in clean water and apply uniformly with a ground sprayer in 20 to 50 gallons of water per treated acre. Reduce dosage and volume accordingly for banded treatments. Use a standard low pressure sprayer equipped with flat fan nozzles that provide uniform spray distribution.

Application Moisture Requirements

Kerb 50-W acts mainly through root absorption, therefore it is necessary to move Kerb 50-W into the root zone of germinating weeds to provide effective control. This can be accomplished by overhead sprinkler irrigation, by rainfall or by shallow mechanical incorporation.

Sprinkler Irrigation

Kerb 50-W can be applied to the soil surface without mechanical incorporation after planting or transplanting if overhead irrigation is used. An initial irrigation of 1 to 2 inches should promptly follow the application of Kerb 50-W, especially in hot weather.

Applications Dependent on Natural Rainfall

In areas of dependable natural rainfall, Kerb 50-Ws can be applied as a surface treatment preemergence to the weeds. Applications to direct seeded or transplanted lettuce, endive, escarole or radicchio greens are most successful when followed by 1/2 to 1 inch of rainfall within two to three days after application.

Furrow Irrigation -Mechanical Incorporation

Where rainfall is not dependable or supplementary overhead irrigation is not used, shallow pre-plant incorporation is recommended. PTO-driven incorporators or rolling cultivators that thoroughly mix Kerb 50-W into the top 2 inches of soil are suggested.

Incorporation should be simultaneous or immediately after application of Kerb 50-W, especially in hot weather. Irrigation should be started as soon as possible.

Where furrow irrigation is used, spray application and mechanical incorporation should be made after beds have been formed. Kerb 50-W will not be as effective if disced in prior to bed shaping. Hoeing, thinning or shallow cultivation of soil treated with Kerb 50-W will not destroy its herbicidal activity.

Temperature

Kerb 50-W is not highly volatile, but it may degrade rather quickly if left exposed on the soil surface in warm weather. If applied when air temperatures exceed 85°F it should be shallow incorporated or watered into the soil as soon as possible, preferably within 1 or 2 days.

Rotation Crops

Follow the directions given in the General Information section of this label under Rotation Crop Planting Information.

Lettuce/Endive/Escarole/Radicchio Greens - Specific Use Restrictions

- Do not apply Kerb 50-W to lettuce, endive, escarole, radicchio varieties that will be harvested less than 55 days after treatment.
- Do not apply more than one application of Kerb 50-W to each crop of lettuce, endive, escarole or radicchio greens.
- Do not apply Kerb 50-W postemergence to leaf lettuce.
- Do not apply more than 2 lb/acre active ingredient (4 lb/acre Kerb 50-W) per acre.

Rhubarb

(Oregon and Washington Only)

General Information

Kerb 50-W is a selective herbicide recommended for fall and winter applications to established rhubarb for both preemergence and postemergence control of winter annual and perennial grasses and chickweed and preemergence control of certain broadleaf weeds.

Dosage

Kerb 50-W may be applied at the rate of 2 to 4 lb of product (1 to 2 lb active ingredient) per acre broadcast application. The rate will depend on the weed species present. Follow the weed control instructions listed in the chart below:

Weeds Controlled	lb Kerb 50-W Per Acre ¹ Dependable Rainfall or Overhead Irrigation ²
bluegrass, annual brome, downy (cheatgrass) chickweed oat, wild sorrel, red (from seed)	2

bentgrass ³	4
bluegrass, Kentucky	
fescue, tall ³	,
orchardgrass ³	
quackgrass	
ryegrass, perennial	
velvetgrass ³	

- ¹ Dosage rates specified are in pounds of Kerb 50-W per acre broadcast application. Reduce rates accordingly for banded applications.
- ² For effective weed control, rainfall or overhead irrigation is essential following the application of Kerb 50-W.
- ³ Kerb 50-W at the rate of 4 lb product per acre may only provide partial control to these weeds.

Crop Tolerance

Established rhubarb plants, in a dormant growth condition, are tolerant to specified rates of Kerb 50-W. Do not apply Kerb 50-W to newly transplanted rhubarb or to rhubarb during the active growing stage.

Timing and Application

Apply Kerb 50-W in a single application during the fall or winter months as a broadcast surface application to dormant rhubarb. Optimum herbicidal activity occurs when applications are made after soil temperatures drop to 55°F or less and are followed by rainfall or overhead irrigation. Applications must be made prior to soil freeze up and snow cover.

Mix the specified amount of Kerb 50-W in clean water and apply uniformly with a low-pressure ground sprayer in 20 to 50 gallons of water per acre.

Rhubarb - Specific Use Restrictions

- Do not apply Kerb 50-W to rhubarb within 38 days of harvest.
- Use of Kerb 50-W in rhubarb is restricted to Oregon and Washington only.
- Do not apply more than 2 lb/acre active ingredient (4 lb/acre Kerb 50-W) or make more than one application per year.

Apple, Apricot, Cherry, Nectarine, Peach, Pear, Plum, Prune and Grape Plantings

General Information

Kerb 50-W is a selective herbicide for use in directed spray applications for the control of winter annual and perennial grasses and certain broadleaf weeds in non-bearing and bearing apples, apricots, cherries, nectarines, peaches, pears, plums, prunes and grape plantings.

Weed Control

Kerb 50-W is effective at 2 to 8 lb of product (1 to 4 lb active ingredient) per treated acre for the preemergence and postemergence control of susceptible winter annual and perennial grasses and chickweed and for preemergence control only of other broadleaf weeds listed on this label. Refer to chart in dosage rate section below for specific weeds controlled.

Dosage and Timing

Kerb 50-W may be applied in a single, directed application to labeled fruit trees and grape plantings at dosage rates of 2 to 8 lb of product (1 to 4 lb active ingredient) per treated acre. Application of Kerb 50-W should be in the fall, after the fruit is harvested, but prior to soil freeze-up.

The dosage rate required for effective weed control will depend on the weed species present and the soil texture of the area being treated. Follow the specific rate instructions given in the chart below for the use of Kerb 50-W in labeled fruit trees and grapes:

· · · · · · · · · · · · · · · · · · ·	Lb Kerb 50-W Per Acre Dependable Rainfall or Overhead Irrigation Soil Texture Group ¹			
Weeds Controlled	Coarse	Medium	Fine	
bluegrass, annual brome, downy (cheatgrass) chickweed grain, volunteer oat, wild ryegrass, Italian sorrel, red (from seed)	2	3	4	
bluegrass, Kentucky fescue, tall orchardgrass quackgrass ryegrass, perennial	3 - 4	4-6	6 - 8	

Soil Texture Group:

Coarse: sand, loamy sand, sandy loam **Medium**: loam, silt loam, silt, sandy clay loam **Fine**: silty clay loam, clay loam, sandy clay, silty clay, clay.

Application

Mix the specified amount of Kerb 50-W in clean water and apply uniformly in 40 to 50 gallons of water per acre. Use of a low pressure ground sprayer equipped with a breakaway boom and flat fan or off-center (OC) nozzles is recommended. Kerb 50-W should be directed to the soil and the base of trees and vines.

Note: Dosage instructions listed on this label are for surface broadcast application. For banded treatments, the amount of Kerb 50-W used per acre should be reduced according to the following formula:

Width (in inches)		Rate per		Amount Needed per Acre
Row Width (in inches)	Х	Acre Broadcast	=	for Band Application

Kerb 50-W may not be soil incorporated.

Crop Tolerance

When used according to label directions, established non-bearing or bearing fruit trees and grapes listed on this label are very tolerant to Kerb 50-W. Kerb 50-W may not be applied to seedling trees or vines less than 1 year old or to fall transplanted stock transplanted less than 1 year or to spring transplanted stock transplanted less than 6 months.

Cultural Considerations

Kerb 50-W acts mainly through root absorption in sensitive weed species. Dependable rainfall or overhead irrigation is essential following the application for effective weed control. Trash-free areas create ideal conditions for rapid movement of Kerb 50-W into the weed root zone following rain or irrigation. Clean cultivation before application is preferable but not necessary.

To obtain optimum weed control in areas not clean cultivated, the area to be treated should be free of surface litter (dead or decaying weeds, leaves, mowing clippings, etc.) If area to be treated is under a mixed grass or weed sod, it should be mowed and the clippings removed.

Apple, Apricot, Cherry, Nectarine, Peach, Pear, Plum, Prune and Grape Plantings -Specific Use Restrictions

- Do not feed or allow livestock to graze areas treated with Kerb 50-W.
- Do not apply more than 4 lb/acre active ingredient (8 lb/acre of Kerb 50-W) to labeled fruit trees or grapes or make more than one application per year.

Winter Peas

Winter Annual Weed Control In Winter Peas (Idaho, Oregon and Washington Only

General Information

Kerb 50-W is a selective herbicide for the control of certain winter annual grasses and broadleaf weeds in winter peas (*Pisum sativum* var. arvense).

Grasses

barley, volunteer brome, downy oat, volunteer oat, wild ryegrass, Italian wheat, volunteer

Broadleaf Weeds

chickweed, common chickweed, mouse-ear henbit¹ ¹ Preemergence control only

Dosage

Apply Kerb 50-W in a single, broadcast application at the rate of 1.5 to 3 lb product (0.75 to 1.5 lb active) per treated acre. For grass weeds greater than three inches in height use the higher rate.

Timing

Apply Kerb 50-W from mid-fall to early winter (November to January) early postemergence to the peas. Peas should be in the second node stage of growth (two to three inches in size) at time of application.

Application

Mix the specified amount of Kerb 50-W in clean water and apply uniformly with a ground sprayer in 20 to 50 gallons of water per treated acre. Use a conventional herbicide sprayer equipped with flat fan nozzles that provide uniform spray distribution. Do not feed treated vines to livestock or allow animals to graze on treated areas.

Winter Peas - Specific Use Restrictions

- Do not feed treated vines to livestock or allow animals to graze on treated areas.
- Do not apply more than 1.5 lb/acre active ingredient (3 lb/acre Kerb 50-W) or make more than one application per year.

Woody Ornamentals, Nursery Stock of Ornamentals, Christmas Trees

General Information

Kerb 50-W is a selective herbicide recommended for fall applications to established woody ornamentals, nursery stock of ornamentals and Christmas trees for the control of winter annual and perennial grasses and certain broadleaf weeds.

Crop Tolerance

At specified rates of Kerb 50-W the following trees and shrubs are tolerant to topical applications made in the fall:

arborvitae	firethorn	mountain ash
ash	flowering cherry	mountain laurel
azalea	flowering crabapple	oak
barberry	flowering quince	Ohio buckeye
basswood	forsythia	pine
beech	ginkgo	poplar /
birch	hawthorn	privet
boxwood	hemlock	rhododendron
bradford pear	holly	spirea
cedar	honey locust	spruce
cotoneaster	juniper	sweetgum
dogwood	lilac	sycamore
douglas fir	linden	tuliptree
eastern redbud	London plane	viburnum
elm	magnolia	walnut
euonymus	maple	willow
fir	mock orange	yew ′

Kerb 50-W may be used on established trees and woody ornamentals. Kerb 50-W may not be used on seedling trees or shrubs less than one year old or to fall transplanted stock transplanted less than one year or to spring transplanted stock transplanted less than six months.

Weed Control

Kerb 50-W may be applied in fall applications at the rate of 2 to 4 lb of product (1 to 2 lb active ingredient) per broadcast acre for the preemergence and postemergence control of susceptible winter annual and perennial grasses and chickweed and for preemergence control only of other broadleaf weeds listed on this label. Refer to chart in Dosage and Timing section below for specific weeds controlled.

Dosage and Timing

Kerb 50-W may be applied in a single, fall application, either directed or topically applied, to woody ornamentals, nursery stock of ornamentals or Christmas trees at the rate of 2 to 4 lb of product (1 to 2 lb active ingredient) per broadcast acre. Apply Kerb 50-W in the fall prior to leaf drop and soil freeze-up. For control of winter annual or perennial grasses or chickweed, applications can be made either preemergence or postemergence to the weeds. For control of other labeled broadleaf weeds, preemergence applications must be used to achieve control.

The dosage rate required will depend on the weed species present in the area to be treated. Follow the weed control instructions given in the chart below:

Weeds Controlled	Lb Kerb 50-W Per Acre Broadcast Application
barley, foxtail	2 .
bluegrass, annual	
brome, downy (cheatgrass)	
chickweed	
grain, volunteer	
ryegrass, Italian	· · ·
sorrel, red (from seed)	
mustard, wild	3
rocket, London	
shepherdspurse	· · · · · · · · · · · · · · · · · · ·

bluegrass, Kentucky	4
orchardgrass	
quackgrass	
ryegrass, perennial	

Application

Mix the specified amount of Kerb 50-W in clean water and apply uniformly in 20 to 50 gallons per acre. Use a low pressure ground sprayer equipped with flat fan nozzles spaced to provide uniform distribution. Dosage recommendations listed on this label are for surface broadcast application. For banded treatments down the row, the amount of Kerb 50-W used per acre should be reduced according to the following formula:

Band Width (in inches)		Rate per		An
Row Width (in inches)	Х	Acre Broadcast	=	for

Amount Needed per Acre for Band Application

Kerb 50-W must not be soil incorporated.

Note: Most ornamental turf grass species and ground covers are sensitive to Kerb 50-W. Care should be exercised to avoid contact of Kerb 50-W with these plants from either direct application, spray drift or from applications to areas that may drain onto established ornamental turf and ground cover.

Soil and Moisture Requirements

Kerb 50-W is most active in coarse to medium textured soils of low organic matter and is relatively inactive in peat or muck soils or mineral soils high in organic matter content at rates recommended in this label. Herbicidal activity is best in soils containing less than 4 percent organic matter. Use in soils of higher organic matter content may result in inconsistent or incomplete weed control.

Kerb 50-W acts mainly through root absorption in sensitive weed species. Dependable rainfall or overhead irrigation is essential following application for effective weed control.

Woody Ornamentals, Nursery Stock of Ornamentals/ Christmas Trees - Specific Use Restrictions

- Apply Kerb 50-W in the fall prior to soil freeze-up.
- Do not soil incorporate Kerb 50-W.
- Do not harvest plants for food or feed for at least one year after treatment.
- Do not apply more than 2 lb/acre active ingredient (4 lb/acre Kerb 50-W) or make more than one application per year.

ATTENTION: This product contains propyzamide (pronamide) a chemical known to the State of California to cause cancer.

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