



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

JUL 19 1999

REGISTERED MAIL

William T. Lynch
Rohm and Haas Company
100 Independence Mall West
Philadelphia, PA 19106-2399

Subject: Kerb 50W Herbicide
Registration Number 707-159
Your labeling dated June 16, 1999

Dear Dr. Lynch:

The label amendment referred to above, submitted in connection with registration pursuant to section 3(c)(7)(B) of the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable, provided that you adhere to the following requirements:

1. In the ROTATIONAL CROP PLANTING INFORMATION section, use **bold type** for the following text to emphasize these use restrictions:

Further, rotational crops are restricted to artichokes, apples, apricots, cherries, nectarines, peaches, pears, plums, prunes, or grapes in fields previously planted with these crops and treated with more than 4.0 pounds of KERB 50-W (2.0 lb ai.) per planted acre.¹

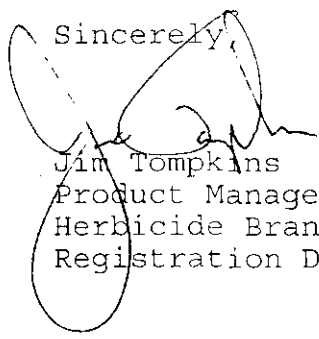
In fields planted with blackberries, boysenberries, or raspberries and treated with more than 4.0 pounds of KERB 50-W per planted acre, rotational crops are restricted to these crops and artichokes, apples, apricots, cherries, nectarines, peaches, pears, plums, prunes, or grapes.

2. Due to the significance of these label changes, all KERB 50-W **product released for shipment after 30 days** from the date of receipt of this letter must bear this labeling.
3. Submit one copy of your final printed labeling before you release the product for shipment.

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

A stamped copy of the label is enclosed for your records.


If you have any questions about this letter, please contact Tobi Colvin-Snyder at 703-305-7801.

Sincerely,

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

8116-M15d1
6/17/99

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.

| | |
|---|--|
| <p>KERB® 50-W</p> <p>SELECTIVE HERBICIDE IN WATER-SOLUBLE POUCHES</p> |  PHILADELPHIA, PA 19106 Tel: (215) 592-3000 |
|---|--|

ACTIVE INGREDIENT

Pronamide

3,5-dichloro-N-(1,1-dimethyl-2-propynyl benzamide).....51.0%

INERT INGREDIENTS49.0%

TOTAL 100.0%

EPA REG. NO. 707-159

ACCEPTED
with COMMENTS
in EPA Letter Dated

FOR USE ON:

- ARTICHOKE (GLOBE) • BERMUDAGRASS (ORNAMENTAL)
- BLACKBERRY/BOYSENBERRY/RASPBERRY • BLUEBERRY
- CRP ESTABLISHED GRASS STANDS • CRP FALLOWLAND • FALLOWLAND
- ALFALFA, CLOVER, BIRDSFOOT TREEFOIL, CROWN VETCH, SAINFOIN
- LETTUCE/ENDIVE/ESCAROLE/RADICCHIO GREENS
- RHUBARB
- APPLE, APRICOT, CHERRY, GRAPE, NECTARINE, PEACH, PEAR, PLUM, PRUNE
- WINTER PEAS
- WOODY ORNAMENTALS, NURSERY STOCK OF ORNAMENTALS, CHRISTMAS TREES

JUL 19 1999
Under the Federal Insecticide,
Fungicide, and Herbicide Act
as amended, for the pesticide
registered under EPA Reg. No.
707-159

NOTICE: Before using this product, read the entire Precautionary Statements, Conditions of Sale and Warranty, Directions for Use, Use Restrictions and Storage and Disposal Instructions. If the Conditions of Sale and Warranty are not acceptable, return the product unopened within thirty days of purchase to the place of purchase.

KEEP OUT OF REACH OF CHILDREN

CAUTION

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Call a physician or Poison Control Center. Drink one or two glasses of water and induce vomiting by touching back of throat with finger. If person is unconscious, do not give anything by mouth and do not induce vomiting.

IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention if irritation persists.

IF IN EYES: Flush eyes with plenty of water. Call a physician if irritation persists.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

NET CONTENTS: 3 LBS. (1.36 KG.) [3 X 1 LB. WATER-SOLUBLE POUCHES]

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

Clothing which has been drenched or heavily contaminated should be disposed of in accordance with state or local regulations.

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 closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standards(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.

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 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.

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 REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

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

CONDITIONS OF SALE AND WARRANTY

Rohm and Haas warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. **ROHM AND HAAS MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES EITHER OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE.** Handling, storage and use of the product by Buyer or User are beyond the control of Rohm and Haas and Seller. Risks such as crop injury, ineffectiveness or other unintended consequences resulting from, but not limited to, weather or soil conditions, presence of other materials, disease, pests, drift to other crops or property or failure to follow label directions will be assumed by the Buyer or User. **IN NO CASE WILL ROHM AND HAAS OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS 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.

GENERAL INFORMATION

KERB 50-W selective herbicide is formulated as a wettable powder containing 50% active ingredient packaged in a one-pound water-soluble pouch.

It 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 which provides important instructions for the safe and effective application of the product.

WEED SPECTRUM

KERB 50-W herbicide is recommended 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 | <i>Hordeum jubatum</i> |
| BARLEY, VOLUNTEER | <i>Hordeum vulgare</i> |
| BENTGRASS | <i>Agrostis species</i> |
| BLUEGRASS, ANNUAL | <i>Poa annua</i> |
| BLUEGRASS, BULBOUS | <i>Poa bulbosa</i> |
| BLUEGRASS, KENTUCKY | <i>Poa pratensis</i> |
| BROME, DOWNY (CHEATGRASS) | <i>Bromus tectorum</i> |
| CHICKWEED, COMMON | <i>Stellaria media</i> |
| CHICKWEED, MOUSE-EAR | <i>Cerastium vulgatum</i> |
| FESCUE, TALL | <i>Festuca arundinaceae</i> |
| GOATGRASS, JOINTED | <i>Aegilops cylindrica</i> |
| OAT, VOLUNTEER | <i>Avena sativa</i> |
| OAT, WILD | <i>Avena fatua</i> |
| ORCHARDGRASS | <i>Dactylis glomerata</i> |
| QUACKGRASS | <i>Agropyron repens</i> |
| RYE, VOLUNTEER | <i>Secale cereale</i> |
| RYEGRASS, ITALIAN | <i>Lolium multiflorum</i> |
| RYEGRASS, PERENNIAL | <i>Lolium perenne</i> |
| VELVETGRASS | <i>Holcus lanatus</i> |
| WHEAT, VOLUNTEER | <i>Triticum aestivum</i> |

WEEDS CONTROLLED ONLY PREEMERGENCE

| | |
|-----------------------------|--------------------------------|
| BARNYARDGRASS | <i>Echinochloa crus-galli</i> |
| CANARYGRASS | <i>Phalaris canariensis</i> |
| CARPETWEED | <i>Mollugo verticillata</i> |
| CRABGRASS, LARGE | <i>Digitaria sanguinalis</i> |
| DODDER, FIELD | <i>Cuscuta campestris</i> |
| FOXTAIL, YELLOW | <i>Setaria lutescens</i> |
| GOOSEFOOT, NETTLELEAF | <i>Chenopodium murale</i> |
| GOOSEGRASS | <i>Eleusine indica</i> |
| HENBIT | <i>Lamium amplexicaule</i> |
| KNOTWEED, PROSTRATE | <i>Polygonum aviculare</i> |
| LAMBSQUARTERS, COMMON | <i>Chenopodium album</i> |
| LOVEGRASS | <i>Eragrostis diffusa</i> |
| MALLOW, LITTLE (CHEESEWEED) | <i>Malva parviflora</i> |
| MORNINGGLORY, ANNUAL | <i>Ipomoea purpurea</i> |
| MUSTARD, WILD | <i>Brassica kaber</i> |
| NETTLE, BURNING | <i>Urtica urens</i> |
| NIGHTSHADE, BLACK | <i>Solanum nigrum</i> |
| NIGHTSHADE, HAIRY | <i>Solanum sarachoides</i> |
| PANICUM, FALL | <i>Panicum dichotomiflorum</i> |
| PURSLANE, COMMON | <i>Portulaca oleracea</i> |
| RADISH, WILD | <i>Raphanus sativus</i> |
| ROCKET, LONDON | <i>Sisymbrium irio</i> |
| SHEPHERDSPURSE | <i>Capsella bursa-pastoris</i> |
| SMARTWEED, PALE | <i>Polygonum lapathifolium</i> |
| SORREL, RED (from seed) | <i>Rumex acetosella</i> |
| TOMATO, VOLUNTEER | <i>Solanum esculentum</i> |

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

$$\frac{\text{Band Width (in.)}}{\text{Row Width}} \times \text{Rate per Acre Broadcast} = \text{Amount Needed per Acre for Band Application}$$

TIMING AND APPLICATION

Unless specific directions are given under the crop to be treated, KERB 50-W herbicide should be applied in the fall or early winter, when temperatures do not exceed 55°F, BUT PRIOR TO SOIL FREEZE-UP. Best weed control results when KERB 50-W herbicide 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.

KERB 50-W herbicide should be thoroughly mixed in clean water at the recommended concentration and applied 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

KERB 50-W herbicide 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 herbicide 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 herbicide 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 recommended 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 herbicide into the root zone of germinating weeds. Under field conditions, KERB 50-W herbicide 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 herbicide may degrade rather quickly if left exposed on the soil surface in warm weather. If KERB 50-W herbicide is applied when air temperatures exceed 85°F, it 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 herbicide 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 herbicide:

NOTE: "Crops not listed in Crop Groups A, B, C, D (below) must not be planted back sooner than 365 days after the last KERB 50-W herbicide application regardless of the rate of KERB 50-W used."

Further, rotational crops are restricted to artichokes, apples, apricots, cherries, nectarines, peaches, pears, plums, prunes or grapes in fields previously planted with these crops and treated with more than 4.0 pounds of KERB 50-W (2.0 lb. ai), per planted acre ¹.

In fields planted with blackberries, boysenberries or raspberries and treated with more than 4.0 pounds of KERB 50-W per planted acre, rotational crops are restricted to these crops and artichokes, apples, apricots, cherries, nectarines, peaches, pears, plums, prunes or grapes

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

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

Where rotation crops are to follow within 365 days of the KERB 50-W herbicide treatment, the following rotational plan applies:

Waiting Period in Days Before Planting the Crops Indicated²

| Amount of KERB 50-W Applied/Planted Acre ¹ | Group A | Group B | Group C | Group D |
|---|---------|---------|---------|---------|
| 1.0 lb. | 0 | 90 | 90 | 180 |
| 2.0 lbs. | 0 | 90 | 120 | 180 |
| 3.0 lbs. | 0 | 120 | 180 | 180 |
| 4.0 lbs. | 0 | 150 | 210 | 180 |

¹ Planted Acre refers to Acreage planted. KERB at 4.0 pounds of product per treated acre on two 5-inch treated bands (40 inch centers) is the equivalent of one pound KERB 50-W per planted acre. KERB at 4.0 pounds of product as a broadcast treatment (total acreage sprayed) is the equivalent of 4.0 pounds of KERB 50-W per planted acre.

² Crop Group A — Artichokes
 Crop Group B — Beans, cotton, carrots, celery
 Crop Group C — Broccoli, cabbage, cauliflower, cucurbits, spinach, sugarbeets, onion, tomatoes
 Crop Group D — Lettuce, endive, escarole, radicchio

**•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 herbicide is effective at 4.0 to 8.0 pounds of product (2.0 to 4.0 pounds 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, HAIRY
- OAT, VOLUNTEER
- OAT, WILD
- RYEGRASS, ITALIAN
- WHEAT, VOLUNTEER

| KERB 50-W Rate (Per Broadcast Acre)* | | | | |
|--|---|---|---|---|
| Crop | Weeds | Dependable Rainfall or Overhead Irrigation | Less Dependable Rainfall or Furrow Irrigation | Comments |
| Globe Artichokes (established ratoon) | Susceptible annual grasses, volunteer grains and broadleaf weeds | 4.0 lbs. | Not recommended | Sandy soils, sandy loams and silt loams |
| | | 8.0 lbs. | Not recommended | Silt, silty clay loams, clay loams and clay soils |
| Globe Artichokes (newly transplanted crowns) | Susceptible annual grasses, volunteer grains and broadleaf weeds | 4.0 lbs. | Not recommended | All soil types except peat and muck soils |

*Dosage recommendations 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:

$$\frac{\text{Band Width (in.)}}{\text{Row Width}} \times \text{Rate per Acre Broadcast} = \text{Amount Needed per Acre for Band Application}$$

DOSAGE AND TIMING RECOMMENDATIONS

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. Application timing of KERB 50-W should be 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 4.0 to 8.0 pounds 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. KERB 50-W should be applied preemergence to the weeds and banded over the crop row at the rate of 4.0 pounds of product per broadcast acre. Do not use higher rates of KERB 50-W than 4.0 pounds 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 herbicide may be applied by aircraft or ground sprayer for preemergence control of susceptible grasses and broadleaf weeds in established ratoon artichokes or transplanted artichoke crowns.

Aerial — Mix the recommended 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 recommended amount of KERB 50-W herbicide 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 herbicide 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 herbicide.

EFFECT OF SOIL TYPE

KERB 50-W is not recommended for use on highly organic or muck soils because herbicidal activity is lowered significantly in these soils. Follow dosage rates suggested in the dosage recommendations 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 4.0 pounds 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 8.0 pounds of KERB 50-W herbicide to established artichokes or more than 4.0 pounds to newly transplanted artichokes per acre broadcast application.
- Do not make more than one application to the artichoke row in one season.
- Do not harvest artichokes within 60 days of final application.
- Do not make more than 2 applications (one to the artichoke row and one to the untreated soil between the rows) per season.

•BERMUDAGRASS (ORNAMENTAL)

GROWN FOR TURF OR SEED

GENERAL INFORMATION

KERB 50-W is a selective herbicide recommended for the preemergence and postemergence control of annual bluegrass (*Poa annua*) in ornamental bermudagrass (*Cynodon dactylon*) turf or bermudagrass grown for seed.

WEED CONTROL

KERB 50-W herbicide will control annual bluegrass from pregermination and seedling stages through tillering, heading and seed formation. KERB 50-W herbicide 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 bermudagrass turf or seed crops, moisture is necessary to move KERB 50-W herbicide in the weed root zone. Refer to the Moisture Requirements section of this label for details.

DOSAGE AND TIMING

KERB 50-W herbicide is recommended at the rate of 1.0 to 3.0 pounds of product (0.5 to 1.5 pounds 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 recommendations given below:

| Annual Bluegrass Growth Stage | KERB 50-W Lbs. per Acre** - Broadcast Application |
|--|---|
| Preemergence or early postemergence | 1.0 - 2.0* |
| Postemergence — early tillering to heading | 1.5 - 2.0 |
| Postemergence — seed forming stages | 2.0 - 3.0 |

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

**One acre equals 43,560 sq. ft.

APPLICATION

Mix the recommended amount of KERB 50-W herbicide 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.

NOTE: Avoid spraying on 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.

MOISTURE REQUIREMENTS

KERB 50-W herbicide 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 50-W DEACTIVATION FOR OVERSEEDING

Where it is desirable to reseed sooner than 90 days following the application of KERB 50-W herbicide, an application of an activated charcoal such as Gro-Safe®, is needed. Apply the activated charcoal at the rate of 10 pounds per 1000 square feet. Allow at least 14 days between the KERB 50-W application and the charcoal application for control of emerged annual bluegrass. Reseed no sooner than seven days following charcoal application.

BERMUDAGRASS (ORNAMENTAL) TURF OR SEED CROP — SPECIFIC USE RESTRICTIONS

- 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 diondra, 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 one application of KERB 50-W herbicide per season and do not apply KERB 50-W at rates higher than 3.0 pounds product (1.5 pounds active ingredient) per acre.

•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 herbicide is recommended at the rate of 2.0 to 6.0 pounds of product (1.0 to 3.0 pounds 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 recommendations listed in the chart below:

| Pounds of KERB 50-W Per Acre ¹ | | |
|---|---|--|
| Weeds Controlled | Dependable Rainfall or Overhead Irrigation ² | Comments |
| BLUEGRASS, ANNUAL | 2.0 - 4.0 | Use low rates on light to medium soils and high rates on heavy soils |
| QUACKGRASS | 4.0 - 6.0 | |
| RYEGRASS, PERENNIAL | 4.0 - 6.0 | |

- 1 Dosage rates recommended 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 canefruit are tolerant to recommended rates of KERB 50-W herbicide. 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 herbicide.

TIMING AND APPLICATION

Apply KERB 50-W herbicide 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 recommended 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 make more than one application of KERB 50-W herbicide per year and do not apply KERB 50-W at rates higher than 6.0 pounds product (3.0 pounds active ingredient) per acre.

•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 RECOMMENDATIONS

KERB 50-W herbicide is recommended at the rate of 2.0 to 4.0 pounds of product (1.0 to 2.0 pounds 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:

| Weeds Controlled | Pounds KERB 50-W Per Acre ¹ Dependable Rainfall or Overhead Irrigation ² |
|--|--|
| BLUEGRASS, ANNUAL BROME. DOWNY (CHEATGRASS) CHICKWEED OAT, WILD SORREL, RED (from seed) | 2.0 |
| BENTGRASS BLUEGRASS, KENTUCKY FESCUE, TALL ORCHARDGRASS QUACKGRASS RYEGRASS, PERENNIAL VELVETGRASS | 4.0 |

¹ Dosage rates recommended 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 blueberry plants are tolerant to recommended rates of KERB 50-W herbicide. Do not apply KERB 50-W to newly transplanted blueberries until roots are well established.

TIMING AND APPLICATION

Apply KERB 50-W herbicide 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 recommended 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 make more than one application of KERB 50-W herbicide per year and do not apply KERB 50-W at rates higher than 4.0 pounds product (2.0 pounds active ingredient) per acre.

**•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 herbicide 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 herbicide 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 herbicide in a single application at a rate of 0.4 lb. (0.2 pound active ingredient) per acre.

TIMING

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

APPLICATION

Mix the recommended amount of KERB 50-W herbicide 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 recommended:

- 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 one application of KERB 50-W herbicide per year and do not apply KERB 50-W at rates higher than 0.4 pounds of product (0.2 pounds active ingredient) per acre.

•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 the product 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 should 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 herbicide to fallow land since weed control will be reduced.

WEEDS CONTROLLED

KERB 50-W herbicide 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 herbicide in a single application at a rate of 0.5 to 1.0 pound (0.25 to 0.50 pound active ingredient) per acre. For optimum weed control, apply KERB 50-W herbicide 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 recommended amount of KERB 50-W herbicide in clean water and apply uniformly in a broadcast application. For ground application KERB 50-W herbicide 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 herbicide 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 herbicide 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 herbicide.
- Do not apply more than one application of KERB 50-W herbicide per year and do not apply KERB 50-W at rates higher than 1.0 pounds of product (0.5 pounds active ingredient) per acre.

•FALLOW LAND

GENERAL INFORMATION

KERB 50-W herbicide is a selective herbicide for use on fallow land to control certain winter annual grasses and volunteer grains.

Use of the product is restricted to summer fallow land which 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 herbicide into the soil to the weed root zone.

Do not use any fall tillage prior to or after the application of KERB 50-W herbicide 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 herbicide 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 herbicide in a single application at a rate of 0.5 to 1.0 pound (0.25 to 0.50 pound active ingredient) per acre. For optimum weed control, apply KERB 50-W herbicide 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 recommended amount of KERB 50-W herbicide in clean water and apply uniformly in a broadcast application. For ground application KERB 50-W herbicide 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 herbicide in fallow land areas, Glean herbicide may be tank mixed with KERB 50-W. See Glean label for list of weeds claimed.

DOSAGE

Use KERB 50-W herbicide at the rate of 0.5 to 0.75 pound (0.25 to 0.38 lb. active ingredient) per acre tank mixed with Glean herbicide at the dosage rate recommended 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 should be strictly followed or severe injury to the following small grain crops may occur. 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 herbicide.
- Do not apply more than one application of KERB 50-W herbicide per year and do not apply KERB 50-W at rates higher than 1.0 pounds of product (0.5 pounds active ingredient) per acre.
- 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 herbicide is recommended at the rate of 1.0 to 4.0 pounds of product (0.5 to 2.0 pounds 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 recommendations given in the chart below for fall or winter applications of KERB 50-W herbicide:

| 2 Pounds KERB 50-W Per Acre Broadcast Application | | |
|--|--|---|
| Weeds Controlled | Dependable Rainfall or Overhead Irrigation | Low Rainfall or Furrow Irrigation |
| Apply Preemergence or Postemergence to These Weeds: BARLEY, FOXTAIL BLUEGRASS, ANNUAL BROME, DOWNY (CHEATGRASS) CHICKWEED GRAIN, VOLUNTEER OAT, WILD RYEGRASS, ITALIAN | 1.0-1.5 | 1.5-2.0 |
| BLUEGRASS, KENTUCKY ORCHARDGRASS RYEGRASS, PERENNIAL | 1.5-2.0 | 2.0-3.0 |
| QUACKGRASS | 2.0-3.0 | 3.0-4.0 |
| Apply Preemergence Only to These Weeds: SORREL, RED (from Seed) | 1.5-2.0 | 2.0-3.0 |
| MUSTARD, WILD RADISH, WILD ROCKET, LONDON SHEPHERDSPURSE | 3.0 | 4.0 |

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

TIMING AND APPLICATION

KERB 50-W herbicide should be applied 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 are recommended 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 herbicide should be made the following fall or early winter to control winter annual and perennial grasses. Do not use KERB 50-W herbicide 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 recommended amount of KERB 50-W herbicide 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 herbicide 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 4.0 pounds KERB 50-W herbicide per acre per season.
- Do not graze or harvest for forage or dehydration within the following intervals after application:

| | |
|---|------------|
| Alfalfa — below 3.0 pounds KERB 50-W/A (West of Mississippi River) | — 25 days |
| Alfalfa — 3.0 to 4.0 pounds KERB 50-W/A (West of Mississippi River) | — 45 days |
| Clover, birdsfoot trefoil, crown vetch, sainfoin (entire U.S.) and alfalfa (East of Mississippi River) up to 4.0 pounds KERB 50-W/A. | — 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 herbicide 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 herbicide must be delayed, a light mechanical incorporation (maximum 1 inch depth) should follow the KERB 50-W application and the field irrigated within two 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 herbicide.

DOSAGE AND TIMING

For effective control, KERB 50-W herbicide 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 3.0 to 4.0 pounds of product (1.5 to 2.0 pounds 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 3.0 pounds of product (1.5 pounds 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 herbicide application may adversely affect the herbicidal activity.

**CHEATGRASS CONTROL IN ESTABLISHED ALFALFA
(SPRING APPLICATIONS)**

DOSAGE AND TIMING

Spring application of KERB 50-W herbicide will control cheatgrass if application is made when cheatgrass has recently germinated or expected to germinate. KERB 50-W herbicide should be applied as a broadcast application at the rate of 1.5 to 2.0 pounds of product (0.75 to 1.0 pound active ingredient) per acre.

•LETTUCE/ENDIVE/ESCAROLE/RADICCHIO GREENS

GENERAL INFORMATION

KERB 50-W herbicide 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 herbicide is effective at 2.0 to 4.0 pounds of product (1.0 to 2.0 pounds 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 herbicide is recommended at the rate of 2.0 to 4.0 pounds of product (1.0 to 2.0 pounds active ingredient) per acre broadcast application. The dosage rate required is dependent on soil texture and method of irrigation. At rates recommended on this label, KERB 50-W is not recommended for weed control on highly organic (peat and muck) soils. For lettuce, endive, escarole and radicchio greens follow the dosage recommendations listed in chart below:

**Pounds KERB 50-W Per Acre
Broadcast Application¹**

| Weeds | Dependable Rainfall or Overhead Irrigation | Less Dependable Rainfall or Furrow Irrigation | Soil Texture Group² |
|----------------------------|---|--|---|
| Susceptible annual grasses | 2.0 - 3.0 (Surface application) | 3.0 - 4.0 (Soil incorporation) | Coarse and medium textured soils |
| Broadleaf weeds | 3.0 - 4.0 (Surface application) | 4.0 (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 recommended rates of KERB 50-W herbicide. Do not use more than 3 pounds 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 herbicide 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 herbicide 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 recommended amount of KERB 50-W herbicide 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 herbicide acts mainly through root absorption, therefore it is necessary to move KERB 50-W herbicide 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 herbicide 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 herbicide, especially in hot weather.

Applications Dependent on Natural Rainfall

In areas of dependable natural rainfall, KERB 50-W herbicides 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 herbicide into the top 2 inches of soil are suggested.

Incorporation should be simultaneous or immediately after application of KERB 50-W herbicide, 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 herbicide will not be as effective if disced in prior to bed shaping.

Hoing, thinning or shallow cultivation of soil treated with KERB 50-W herbicide will not destroy its herbicidal activity.

TEMPERATURE

KERB 50-W herbicide 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 herbicide 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 herbicide to each crop of lettuce, endive, escarole or radicchio greens.
- Do not apply KERB 50-W herbicide postemergence to leaf lettuce.
- Do not apply KERB 50-W herbicide at rates higher than 4.0 pounds of product (2.0 pounds active ingredient) 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 herbicide is recommended at the rate of 2.0 to 4.0 pounds of product (1.0 to 2.0 pounds 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:

| Weeds Controlled | Pounds KERB 50-W Per Acre ¹ Dependable Rainfall or Overhead Irrigation ² |
|--|--|
| BLUEGRASS, ANNUAL BROME. DOWNY (CHEATGRASS) CHICKWEED OAT, WILD SORREL, RED (from seed) | 2.0 |
| BENTGRASS ³ BLUEGRASS, KENTUCKY FESCUE, TALL ³ ORCHARDGRASS ³ QUACKGRASS RYEGRASS, PERENNIAL VELVETGRASS ³ | 4.0 |

¹ Dosage rates recommended 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 4.0 pounds product per acre may only provide partial control to these weeds.

CROP TOLERANCE

Established rhubarb plants, in a dormant growth condition, are tolerant to recommended rates of KERB 50-W herbicide. 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 herbicide 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 recommended 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 herbicide to rhubarb within 38 days of harvest.
- Use of KERB 50-W in rhubarb is restricted to Oregon and Washington only.
- Do not make more than one application of KERB 50-W herbicide per year to rhubarb and do not apply KERB 50-W at rates higher than 4.0 pounds product (2.0 pounds active ingredient) per acre.

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 herbicide is effective at 2.0 to 8.0 pounds of product (1.0 to 4.0 pounds 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 herbicide is recommended in a single, directed application to labeled fruit trees and grape plantings at dosage rates of 2.0 to 8.0 pounds of product (1.0 to 4.0 pounds 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 recommendations given in the chart below for the use of KERB 50-W herbicide in labeled fruit trees and grapes:

Pounds KERB 50-W Per Acre

| Weeds Controlled | Dependable Rainfall or Overhead Irrigation | | |
|--|---|---------|---------|
| | Soil Texture Group* | | |
| | Coarse | Medium | Fine |
| BLUEGRASS, ANNUAL BROME, DOWNY (CHEATGRASS) CHICKWEED GRAIN, VOLUNTEER OAT, WILD RYEGRASS, ITALIAN SORREL, RED (from seed) | 2.0 | 3.0 | 4.0 |
| BLUEGRASS, KENTUCKY FESCUE, TALL ORCHARDGRASS QUACKGRASS RYEGRASS, PERENNIAL | 3.0-4.0 | 4.0-6.0 | 6.0-8.0 |

*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 recommended amount of KERB 50-W herbicide 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 recommendations 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:

$$\frac{\text{Band Width (in.)}}{\text{Row Width}} \times \text{Rate per Acre Broadcast} = \text{Amount Needed per Acre for Band Application}$$

KERB 50-W herbicide should not be soil incorporated.

CROP TOLERANCE

When used as recommended, established non-bearing or bearing fruit trees and grapes listed on this label are very tolerant to KERB 50-W herbicide. KERB 50-W herbicide should 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 herbicide 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 herbicide 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 herbicide.
- Do not apply KERB 50-W herbicide to labeled fruit trees or grapes at rates higher than 8.0 pounds product (4.0 pounds active ingredient) per acre and make only one application per season.

•WINTER PEAS

WINTER ANNUAL WEED CONTROL IN WINTER PEAS (IDAHO, OREGON AND WASHINGTON ONLY)

GENERAL INFORMATION

KERB 50-W herbicide 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
*HENBIT

*Preemergence control only

DOSAGE

Apply KERB 50-W herbicide in a single, broadcast application at the rate of 1.5 to 3.0 pounds 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 recommended amount of KERB 50-W herbicide 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 make more than one application of KERB 50-W herbicide per year.
- Do not apply KERB 50-W herbicide at rates higher than 3.0 pounds of product (1.5 pounds active ingredient) per acre.

**• 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 recommended rates of KERB 50-W herbicide 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 | GINKO | 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 herbicide should be used on established trees and woody ornamentals. KERB 50-W herbicide is not recommended for use 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 herbicide is effective in fall applications at the rate of 2.0 to 4.0 pounds of product (1.0 to 2.0 pounds 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 herbicide is recommended in a single, fall application, either directed or topically applied, to woody ornamentals, nursery stock of ornamentals or Christmas trees at the rate of 2.0 to 4.0 pounds of product (1.0 to 2.0 pounds active ingredient) per broadcast acre. Application of KERB 50-W herbicide should be made 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 recommendations given in the chart below:

| Weeds Controlled | Pounds KERB 50-W Per Acre Broadcast Application |
|--|---|
| BARLEY, FOXTAIL BLUEGRASS, ANNUAL BROME. DOWNY (CHEATGRASS) CHICKWEED GRAIN, VOLUNTEER RYEGRASS, ITALIAN SORREL, RED (from seed) | 2.0 |
| MUSTARD, WILD ROCKET, LONDON SHEPHERDSPURSE | 3.0 |
| BLUEGRASS, KENTUCKY ORCHARDGRASS QUACKGRASS RYEGRASS, PERENNIAL | 4.0 |

APPLICATION

Mix the recommended amount of KERB 50-W herbicide 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:

$$\frac{\text{Band Width (in.)}}{\text{Row Width}} \times \text{Rate per Acre Broadcast} = \text{Amount Needed per Acre for Band Application}$$

KERB 50-W herbicide should 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 herbicide 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 herbicide 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 herbicide 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 herbicide in the fall prior to soil freeze-up.
- Do not soil incorporate KERB 50-W herbicide.
- Do not harvest plants for food or feed for at least one year after treatment.
- Do not make more than one application of KERB 50-W herbicide per year and do not apply KERB 50-W at rates higher than 4.0 pounds of product (2.0 lbs. ai) per acre.

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 — See Precautionary Statements.

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

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