

5905-529

11/21/2012

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Washington, D C 20460

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

Bill Washburn
Helena Chemical Company
225 Schilling Blvd , Suite 300
Collierville, TN 38017

NOV 21 2012

Subject Label amendment to perform label maintenance and clean up
Barrage HF
EPA Reg No 5905-529
Application Dated August 22, 2012

Dear Mr Washburn

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable

A stamped copy of your label is enclosed for your records This label supersedes all previously accepted labels You must submit one (1) copy of the final printed label before you release the product for shipment Products shipped after eighteen (18) months from the date of this letter must bear the new revised label If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA §6(e) Your release for shipment of the product constitutes acceptance of these conditions

If you have any questions, please contact Grant Rowland at (703) 347-0254 or at Rowland Grant@epa.gov

Sincerely,

Kathryn Montague
Product Manager 23
Herbicide Branch
Registration Division (7505P)

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

CAUTION

Harmful if absorbed through skin Causes moderate eye irritation Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals

PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are listed below If you want more options follow the instructions for category F on an EPA chemical resistance category selection chart

All mixers, loaders, applicators, flaggers, and other handlers must wear

- Long-Sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves such as Barrier Laminate Nitrile Rubber Neoprene Rubber or Viton
- Chemical-resistant apron when applying postharvest dips or sprays to citrus mixing or loading cleaning up spills or equipment or otherwise exposed to the concentrate

See ENGINEERING CONTROLS for additional requirements

Follow manufacturer s instructions for cleaning/maintaining PPE If no such instructions for washables exist use detergent and hot water Keep and wash PPE separately from other laundry

ENGINEERING CONTROL STATEMENTS

Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides (40 CFR 170 240(d)(6))

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

This product may be toxic to fish and aquatic invertebrates Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas Do not contaminate water when disposing of equipment wash waters or rinsate

This chemical has properties and characteristics associated with chemicals detected in groundwater The use of this chemical in areas where soils are permeable particularly where the water table is shallow may result in groundwater contamination Application around a cistern or well may result in contamination of drinking water or groundwater

Groundwater Contamination *Most cases of groundwater contamination involving phenoxy herbicides such as 2 4 D have been associated with mixing/loading and disposal sites Caution should be exercised when handling 2 4-D pesticides at such sites to prevent contamination of groundwater supplies Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination*

This product may cause injury to desirable plants by contacting foliage stems or roots Use care in all applications to avoid surface water or soil transport to nontarget plant areas Avoid contamination of irrigation or domestic water supplies Although this product is a low volatile formulation at high temperatures (about 85 degrees or higher) vapors from this product may injure susceptible plants growing nearby such as cotton grapes tobacco fruit trees legumes vegetables and ornamentals Avoid applications in the vicinity of susceptible plants or when winds are blowing toward nearby susceptible plants or when temperature inversions are expected Avoid direct application or spray drift to susceptible plants since very small quantities of this herbicide can cause severe injury in the growing or dormant period Plants contacted may be killed or suffer significant injury resulting in grade or yield losses Do not apply in greenhouses

The following steps may be helpful in reducing possible spray drift from ground or aerial applications

- 1 keep the spray discharge as near to the target as possible while getting good coverage
- 2 increase the volume of spray mixture per acre

- 3 use low spraying pressures (as measured at the nozzle tips)
- 4 use nozzles which produce coarse spray droplets while still providing adequate weed coverage
- 5 limit applications when wind is blowing toward nearby susceptible crops or valuable plants
- 6 make applications when wind velocity is more favorable for on-target deposition - a general guide for application would be a) wind velocity of 0-2 mph may indicate a temperature inversion which can permit drift b) wind velocity of 3-7 mph usually indicates good conditions but check wind direction relative to nearby susceptible crops always allowing for wind shift c) wind velocity 7-10 mph is acceptable if wind direction is favorable and no susceptible crops are in the vicinity always allowing for wind shift d) wind velocity of 10-15 mph is usually not desirable except in areas of stronger prevailing winds when direction is favorable and no susceptible crops are in the vicinity always allowing for wind shift an agriculturally accepted drift retardant is suggested and e) if wind velocity is over 15 mph do not spray
- 7 properly maintain and calibrate all spray equipment
- 8 for aerial applications use an effective spray boom length that is no more than 75% of the wingspan or rotor diameter and
- 9 use an agriculturally accepted drift retardant designed to increase droplet size

CHEMIGATION PROHIBITION

Do not apply this product through any type of irrigation system

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

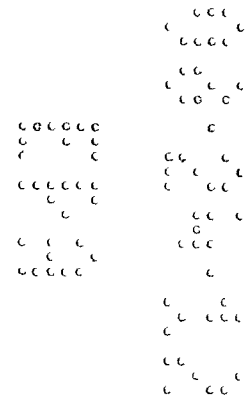
Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated such as plants soil or water is

- Coveralls
- Chemical-resistant gloves such as Barrier Laminate Nitrile Rubber Neoprene Rubber or Viton
- Shoes plus socks
- Protective Eyewear

NON-AGRICULTURAL USE REQUIREMENTS

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



STORAGE AND DISPOSAL

PROHIBITIONS Do not contaminate water food or feed by storage or disposal Do not store under conditions which might adversely affect the container or its ability to function properly

STORAGE Do not store below temperature of 0° F If frozen warm to 40°F and redissolve before using by rolling or shaking container This product can be stored in an unheated building Store in a safe manner Store in original container only Keep container tightly closed when not in use Reduce stacking height where local conditions can affect package strength

PESTICIDE DISPOSAL Pesticide wastes are toxic Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law and may contaminate groundwater If these wastes cannot be disposed of by use according to label instructions contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance

CONTAINER DISPOSAL

NONREFILLABLE METAL CONTAINER (EQUAL TO OR LESS THAN 5 GALLONS) Do not reuse or refill this container Triple rinse container (or equivalent) promptly after emptying Triple rinse as follows Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip Fill the container ¼ full with water and recap Shake for 10 seconds Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal Drain for 10 seconds after the flow begins to drip Repeat this procedure two more times Offer for recycling if available or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities

NONREFILLABLE METAL CONTAINER (GREATER THAN 5 GALLONS) Do not reuse or refill this container Triple rinse container (or equivalent) promptly after emptying Triple rinse as follows Empty the remaining contents into application equipment or a mix tank Fill the container ¼ full with water Replace and tighten closures Tip container on its side and roll it back and forth ensuring at least one complete revolution for 30 seconds Stand the container on its end and tip it back and forth several times Turn the container over onto its other end and tip it back and forth several times Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal Repeat this procedure two more times Offer for recycling if available or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities

NONREFILLABLE PLASTIC CONTAINER (EQUAL TO OR LESS THAN 5 GALLONS) Do not reuse or refill this container Triple rinse container (or equivalent) promptly after emptying Triple rinse as follows Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip Fill the container ¼ full with water and recap Shake for 10 seconds Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal Drain for 10 seconds after the flow begins to drip Repeat this procedure two more times Offer for recycling if available or puncture and dispose of in a sanitary landfill or incineration if allowed by state and local authorities by burning If burned stay out of smoke

NONREFILLABLE PLASTIC CONTAINER (GREATER THAN 5 GALLONS) Do not reuse or refill this container Triple rinse container (or equivalent) promptly after emptying Triple rinse as follows Empty the remaining contents into application equipment or a mix tank Fill the container ¼ full with water Replace and tighten closures Tip container on its side and roll it back and forth ensuring at least one complete revolution for 30 seconds Stand the container on its end and tip it back and forth several times Turn the container over onto its other end and tip it back and forth several times Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal Repeat this procedure two more times Offer for recycling if available or puncture and dispose of in a sanitary landfill or incineration if allowed by state and local authorities by burning If burned stay out of smoke

REFILLABLE CONTAINER Refill this container with pesticide only Do not reuse this container for any other purpose Prior to refilling inspect thoroughly for damage such as cracks punctures abrasions and damaged or worn out threads on closure devices Do not refill or transport damaged or leaking containers Check for leaks after refilling and before transportation Cleaning the container before final disposal is the responsibility of the person disposing of the container Cleaning before refilling is the responsibility of the refiller To clean the container before final disposal empty the remaining contents from this container into application equipment or mix tank Fill the container about 10 percent full with water Agitate vigorously or recirculate water with the pump for 2 minutes Pour or pump rinsate into application equipment or rinsate collection system Repeat this rinsing procedure two more times If the container is not being refilled return to the point of purchase or designated location

Artichoke	Marestail (Horseweed)
Bitter wintercress	Marshelder
Bittercress smallflowered	Mexican weed
Blue lettuce	Milk vetch
Blue Thistle	Morningglory (annual common ivy woolly)
Blueweed Texas	Mousetail
Boxelder	Mustards (except blue) prior to bolting
Broomweed common	Nutgrass
Buckhorn	Pennywort
Bull nettle	Pepperweeds (except perennial)
Bur ragweed	Plantains
Burdock common	Poison ivy
Burhead	Pokeweed
Buttercup smallflowered	Poorjoe
Carolina geranium	Proverty weed
Carpetweed	Puncture vine
Catnip	Purslane common
Chickweed	Quickweed
Chicory	Ragweeds (common giant)
Cinquefoil common & rough	Redstem
Cocklebur common	Rough fleabane
Coffeeweed	Shepherdspurse
Cornflower	Sicklepod
Creeping jenny	Sneezeweed bitter
Croton (Texas woolly)	Sowthistle (annual spiny)
Curly indigo	Spanishneedles
Devil s claw Proboscidea louisianica	Speedwell
Dogfennel (mayweed)	Stinkweed
Elderberry	Sumacs
Evening primrose common	Sunflower
Evening primrose cutleaf	Sweetclover (annual)
Fanweed	Tumbleweed
Figwort	Velvetleaf
Four o clock	Vetches except hairy
Galinsoga (elderberry hairy)	Virginia copperleaf
Goatsbeard	Virginia creeper
Healall	Wild hemp
Hemp	Wild lettuce
Hoary Cress	Wild mustard
Honeysuckle	Wild parsnip
Indigo	Wild radish
Ironweed	Wild rape
Jerusalem artichoke	Wild sweet potato
Jewelweed	Willow
Jimsonweed	Witchweed
Klamathweed	Wormwood
Ladysthumb	Yellow goatsbeard
Lambsquarters common	Yellow rocket
Loco Bigbend	Yellow starthistle
Mallow (Venice dwarf little)	

Weeds Partially Controlled (Higher rates and/or repeated applications may be needed)

Alfalfa	Musk thistle
Beggarticks	Nettles
Bindweeds (hedge European)	Peppergrass
Buckbrush	Prickly lettuce
Canada thistle	Rabbitbrush
Chamise	Russian thistle
Clover red	Sage coastal
Corn gromwell	Sagebrush (big sand)
Coyotebrush	Salsify (western common)
Dandelion	Sand shinnery oak
Docks	Smartweed annual
Dogbanes	Smartweed Pennsylvania
Goldenrod	Tansyragwort
Ground ivy	Vervains
Hawkweed	Vetch hairy
Henbit	Western ironweed
Hoary cress	Wild carrot
Knotweed	Wild garlic
Many flowered aster	Wild onion
Manzanita	

Weeds Partially Controlled And For Which Locally Resistant Biotypes May Occur

Pigweed

Weeds Suppressed When Another Labeled Herbicide Is Also Applied

*Bindweed (field)
Russian knapweed*

MIXING INSTRUCTIONS

BARRAGE® HF is an emulsifiable concentrate formulation intended for dilution in water for many applications. For certain specified applications liquid fertilizer or oil may replace part or all of the water as diluent.

If dry flowable (DF) wettable powder (WP) or flowable (F) tank mix products are to be used these should generally be added to the spray tank first. Refer to the mixing directions on the labels of the tank mix products.

For best results thoroughly clean sprayer immediately after use by flushing system with water and heavy duty detergent such as Wipeout®.

Water Spray To prepare a water spray mixture fill clean spray tank about 1/2 to 2/3 full with clean water. With agitation turned on add the required amount of **BARRAGE® HF**. Continue agitation while adding balance of water and during spray operations. NOTE In water this product forms an emulsion and can separate upon prolonged standing. If spray mixture is allowed to stand agitate again to assure uniformity.

Liquid Fertilizer Spray Due to increased risk of crop foliage burn with fertilizer use only as recommended on this label or supplemental labeling distributed for **BARRAGE® HF**. Use fertilizer rate recommended locally. Fill clean spray tank about 1/2 to 2/3 full with liquid nitrogen fertilizer (UAN or urea) solution. Add required amount of product with vigorous agitation running. Continue agitation while adding balance of liquid fertilizer and during spray operations. Application should be made immediately. Overnight storage of mixture is not recommended. Application during very cold (near freezing) temperatures is not advisable because of the likelihood of crop injury. This product is formulated to be compatible with most liquid nitrogen solutions however due to variability in fertilizers users may wish to perform a jar compatibility test before large scale mixing.

Oil Spray Use only as recommended on this label or supplemental labeling distributed for **BARRAGE® HF**. Fill clean spray tank about 1/2 to 2/3 full with diesel oil fuel oil stove oil or other suitable oil. Add required amount of product with agitation turned on. Continue agitation while adding balance of oil. The resulting mixture is a solution and will generally remain uniform without agitation once mixed. However agitation is suggested if available. Do not allow any water to get into the spray mixture to avoid formation of an invert emulsion (mayonnaise consistency).

Water Spray With Oil Use only as recommended on this label or supplemental labeling distributed for **BARRAGE® HF**. Where a combination of water and oil diluent is recommended the use of emulsifiable crop oil or crop oil concentrate is suggested since mild agitation will be sufficient. Mix in the sequence of water product and oil. If diesel or other nonemulsified oils listed above under Oil Spray are desired for use with water add no more than 1 quart of such oil per 1 gallon of water and agitate vigorously until tank is emptied. If possible premix nonemulsified oil with this product and add this premix to a mostly filled spray tank with agitation on. Follow these procedures carefully to avoid formation of an invert emulsion (mayonnaise consistency).

APPLICATION PROCEDURES

Use calibrated spray equipment for all types of applications to assure applying the recommended amount of spray mixture per acre. Use sufficient spray volume within the ranges specified to obtain good coverage of weeds. **BARRAGE® HF** is absorbed sufficiently within 1 hour after application to provide adequate weed control.

Ground Broadcast Spray Unless otherwise specified in the appropriate crop or noncrop directions apply in 5 or more gallons of spray solution per acre. Use enough spray volume to provide uniform coverage of weeds taking into account the amount of vegetation present and the type of application equipment to be used. As crop canopy and weed density increase a higher spray volume may be needed for equivalent coverage and weed control. Typical crop applications utilize 10 to 50 gallons of spray per acre while certain high volume noncrop applications may utilize more than 100 gallons per acre. Use coarse sprays to minimize potential spray drift. Do not apply with hollow cone nozzles or other nozzles that produce fine spray droplets. Boom spraying with flat fan or low volume nozzles are generally most suitable for ground broadcast applications.

Ground Band Spray Determine band equivalents to broadcast rates and volumes by the following formulas

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Band rate per acre}$$

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast volume per acre} = \text{Band volume per acre}$$

Aerial Broadcast Spray Unless otherwise specified in the appropriate crop or noncrop directions apply in 1 to 10 gallons of spray solution per acre. For best coverage and weed control as well as reduced potential for spray drift a minimum of 3 gallons per acre is suggested. Avoid using nozzles or nozzle configurations that generate fine droplets. One configuration usually found to be suitable includes straight stream nozzles (such as disk with no swirl plate) directed straight back along the windstream. Mechanical flagging or GPS (Global Positioning Systems) systems are suggested to obtain more uniform application.

With fixed-wing or helicopter application an exactly even swath deposition may not be achieved and consequently crop injury or pesticide nonperformance may result wholly or in part. Do not apply by air during periods of thermal inversion. Avoid application if potential for drift is excessive and/or susceptible crops are growing in the vicinity.

TANK MIXES

Unless otherwise prohibited on this label or the label of an intended tank mix product this product may be applied in combination with any herbicide registered for the same crop timing and method of application. Observe the most restrictive label statements of various tank mix products used. **LIABILITY FOR CROP INJURY RESULTING FROM A TANK MIXTURE NOT SPECIFIED ON THIS LABEL OR SUPPLEMENTAL LABELING DISTRIBUTED FOR BARRAGE® HF IS SPECIFICALLY DISCLAIMED BY HELENA CHEMICAL COMPANY**

COMPATIBILITY

Before full-scale mixing of this product with other herbicides fertilizer solutions and adjuvants it is advisable to determine the compatibility of the proposed mixture. Use proportionate quantities of each ingredient and mix in a small container. Always mix one product thoroughly with the diluent before adding another product. If no incompatibility is evident after 30 minutes the mixture is generally compatible for spraying.

PLANTING IN TREATED AREAS

Labeled Crops Within 29 days following an application of this product plant only those crops named as use sites on this or other registered 2,4-D labels. Follow more specific limitations if any provided in the directions for individual crops. Labeled crops may be at risk for crop injury or loss when planted soon after application especially in the first 14 days. Degradation factors described below should be considered in weighing this risk.

Other Crops All other crops may be planted 30 or more days following an application without concern for illegal residues in the planted crop. However, under certain conditions, there may be a risk of injury to susceptible crops. Degradation factors described below should be considered in weighing this risk. Under normal conditions, any crop may be planted without risk of injury if at least 90 days of soil temperatures above freezing have elapsed since application.

PLANTBACK RESTRICTIONS					
Crop	Corn	Sorghum	Small Grains	Soybeans	All Other Crops
Days Following Last Application	7 - 14	29	29	7* 15**	30***
* Maximum of 13.6 ounces (0.5 lb a e) / acre per preplant application					
** Maximum of 27 ounces (1 lb a e) /acre per preplant application					
*** 30 days for residue tolerance under normal conditions any crop may be planted without risk of injury after 90 days					

Degradation Factors When planting into treated areas, the risk of crop injury is less if lower rates of product were applied and conditions following application have included warm, moist soil conditions that favor rapid degradation of 2,4-D. Risk is greater if higher rates of product were applied and soil temperatures have been cold and/or soils have been excessively wet or dry in the days following application. Consult your local Agricultural Extension Service for information about susceptible crops and typical soil conditions in your area.

APPLICATIONS
Read all preceding general sections of label and Warranty before use.

Unless otherwise specified, applications may be made by ground or air equipment. Ground applications may provide more thorough coverage and better weed control. For selective postemergent weed control in crops, do not add oil surfactant, fertilizer, or other additives unless specifically recommended on this label or supplemental labeling.

CORN (Field and Pop)

Weeds in Crops	Amount of Barrage® HF per Acre	Directions for Use
Preplant	6 to 19 ounces	To control existing broadleaf weed seedlings or burn down susceptible cover crops prior to planting, apply from 7 to 14 days before planting. To control grasses and certain other problem weeds, it may be desirable to use a tank mixture with other herbicides. Liquid fertilizers and agriculturally approved surfactants may be added. Observe the most restrictive label statements of various tank mix products used.
Preemergence	6 to 16 ounces	To control small broadleaf weeds, apply after planting but before corn emerges. Liquid fertilizers and agriculturally approved surfactants may be added. Do not apply preemergence if a preplant application of this product was made.
Early Postemergence	3 to 10 ounces	To control small broadleaf weeds, apply broadcast from spike to 4-leaf stage of crop or up to 8 inches tall, whichever comes first. Avoid spraying just after corn leaves unfold. Postemergence application should not follow a preplant or preemergence application by less than 3 weeks.
Late Postemergence	5 to 10 ounces	Typical timing for this application is when most broadleaf weeds are no more than 4 to 6 inches tall and corn is between 8 and 16 inches tall. The timing can extend until corn is 36 inches tall or to tasseling, whichever comes first, but weeds usually become too large and hard to control. Perennial weeds should be in the bud to bloom stage for best results. Apply as a directed spray using drop nozzles to keep spray off crop foliage. Do not apply from tasseling to hard dough stage.
Preharvest	13 to 26 ounces	After the hard dough (or denting) stage when silks have turned brown, apply 13 to 26 fluid ounces per acre to suppress perennial weeds such as hemp dogbane or field bindweed and many tall weeds such as cocklebur, pigweed, and sunflower that interfere with harvest. Weed seed production will also be suppressed if application is prior to the flowering stage of weeds. The high rate is recommended under dry conditions.
Postharvest	13 to 26 ounces	Following the harvest of corn, perennial or biennial weeds produce new fall growth. To aid in suppressing these weeds before a hard freeze, product may be applied at the rate of 13 to 26 fluid ounces per acre either alone or in a combination with other registered herbicides such as certain formulations of dicamba and picloram. See Planting in Treated Areas section. If products to be tank mixed have more restrictive limitations, these limitations should be followed.

RESTRICTIONS AND LIMITATIONS FOR USE ON CORN (Field and Pop)

- Preharvest interval (PHI) is 7 days
- Do not use treated crop as fodder for 7 days following application
- Maximum Use rate per acre per crop cycle is 82 ounces
 - Preplant or Preemergence
 - Limited to one preplant or preemergent application per crop cycle
 - Maximum of 27 ounces per acre per application
 - Postemergence
 - Limited to one postemergent application per crop cycle
 - Maximum of 13.6 ounces per acre per application
 - Due to the lower rate partial weed control may result in coarse soils
 - Preharvest
 - Limited to one Preharvest application per crop cycle
 - Maximum of 40 ounces per acre per application

CORN (Sweet)

Weeds in Crops	Amount of Barrage® HF per Acre	Directions for Use
Preplant	6 to 19 ounces	To control existing broadleaf weed seedlings or burn down susceptible cover crops prior to planting apply from 7 to 14 days before planting. To control grasses and certain other problem weeds it may be desirable to use a tank mixture with other herbicides. Liquid fertilizers and agriculturally approved surfactants may be added. Observe the most restrictive label statements of various tank mix products used.
Preemergence	6 to 16 ounces	To control small broadleaf weeds apply after planting but before corn emerges. Liquid fertilizers and agriculturally approved surfactants may be added. Do not apply preemergence if a preplant application of this product was made.
Early Postemergence	3 to 10 ounces	To control small broadleaf weeds apply broadcast from spike to 4-leaf stage of crop or up to 8 inches tall whichever comes first. Avoid spraying just after corn leaves unfold. Postemergence application should not follow a preplant or preemergence application by less than 3 weeks.
Late Postemergence	5 to 10 ounces	Typical timing for this application is when most broadleaf weeds are no more than 4 to 6 inches tall and corn is between 8 and 16 inches tall. The timing can extend until corn is 36 inches tall or to tasseling whichever comes first but weeds usually become too large and hard to control. Perennial weeds should be in the bud to bloom stage for best results. Apply as a directed spray using drop nozzles to keep spray off crop foliage. Do not apply from tasseling to hard dough stage.

RESTRICTIONS AND LIMITATIONS FOR USE ON CORN (Sweet)

- Preharvest interval (PHI) is 45 days
- Do not use treated crop as fodder for 7 days following application
- Minimum of 21 days between applications
- Maximum Use rate per acre per crop cycle is 41 ounces
 - Preplant or Preemergence
 - Limited to one preplant or preemergent application per crop cycle
 - Maximum of 27 ounces per acre per application
 - Postemergence
 - Limited to one postemergent application per crop cycle
 - Maximum of 13.6 ounces per acre per application
 - Due to the lower rate partial weed control may result in coarse soils

SORGHUM (Milo Grain)

Weeds in Crops	Amount of Barrage® HF per Acre	Directions for Use
Postemergence	When crop is 6 to 8 inches tall use as an over the top broadcast spray by ground or air at 3 to 10 fluid ounces per acre. When crop reaches 8 to 13.6 inches tall use as a directed spray using drop nozzles with application by ground only at 5 to 10 fluid ounces per acre.	To control small broadleaf weeds apply when sorghum is 6 to 15 inches tall to top of canopy. If sorghum is taller than 8 inches to top of canopy use drop nozzles to keep spray off crop foliage. The lowest rates may not provide adequate weed control unless used in a tank mixture with another registered herbicide. Highest rates may increase risk of injury.

RESTRICTIONS AND LIMITATIONS FOR USE ON SORGHUM (Milo)

- Preharvest interval (PHI) is 30 days
- Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following application
 - Postemergence
 - Limited to one application per crop cycle
 - Maximum of 13.6 ounces per acre per application
- Do not treat during the boot flowering or early dough stages

SORGHUM SUDAN GRASS HYBRIDS (Forage Crop Only)

Weeds in Crops	Amount of Barrage® HF per Acre	Directions for Use
Postemergence	6 to 13 ounces	To control small broadleaf weeds apply when sorghum sudan has at least 6 leaves is well established and is 5 to 10 inches tall at the rate of 6 to 13 fluid ounces per acre Do not treat crop over 10 inches tall through maturity Plant Response Even when sprayed at the proper stage some crop injury is likely including reduced seed production If risk of crop injury is unacceptable do not use this product The lower rate may reduce the risk of crop injury but will result in reduced weed control

RESTRICTIONS AND LIMITATIONS FOR USE ON SORGHUM SUDAN GRASS HYBRIDS (Forage Crop Only)

- Preharvest interval (PHI) is 30 days
- Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following application
 - Postemergence
 - Limited to one application per crop cycle
 - Maximum of 13.6 ounces per acre per application
- Do not treat during the boot flowering or early dough stages

SMALL GRAINS (Wheat, Oats, Barley, Rye) NOT UNDERSEEDED WITH A LEGUME

Weeds in Crops	Amount of Barrage® HF per Acre	Directions for Use
Not underseeded with legumes Postemergence Annual and biennial broadleaf weeds	6 to 10 fl oz	Spring Wheat Onset of Tillering Stage Apply when grain has 1 or more tillers as well as 3 or more leaves Grains are generally tolerant of these treatments but risk of crop injury is greater than at full tillering stage Do not make application if the risk of injury is unacceptable Do not apply from boot to dough stage
Perennial broadleaf weeds	6 to 13 fl oz	Winter Wheat Barley Millet and Rye Full Tillering Stage Apply when grain has 3 or more tillers and the flag leaf is not visible Emergency Weed Control To control difficult weed problems in certain areas such as under dry conditions especially in Western areas higher rates increase the risk of crop injury The severity of the weed problem should be balanced against the possibility of crop injury Do not apply before the tiller stage nor from boot to dough stage
	6 fl oz	Spring Seeded Oats Full Tillering Stage Apply when grains have 3 or more tillers and the flag leaf is not visible Oats are less tolerant to BARRAGE® HF than wheat or barley and present a greater risk of crop injury The severity of the weed problem should be balanced against the possibility of crop injury Larger weeds and hard to kill weeds may be poorly controlled especially under dry conditions Do not apply before the tiller stage nor from boot to dough stage
	6 13 fl oz	Fall Seeded Oats (Southern) Grown for Grain Apply after full tillering but prior to joints forming in the stem Do not apply until after full tillering or from jointing to dough stage Oats are less tolerant to BARRAGE® HF than wheat or barley and present a greater risk of crop injury The severity of the weed problem should be balanced against the possibility of crop injury especially at higher rates Avoid spraying during or immediately following cold weather

*Use the lower rate if small annual and biennial weeds are the major problem Use the higher rate if perennial weeds or annual and biennial weeds are present which are in the hard to kill categories as determined by local experience The higher rates increase the risk of grain injury and should be used only where the weed control problem justifies the grain damage risk Do not apply BARRAGE® HF to grain in the seedling stage

RESTRICTIONS AND LIMITATIONS FOR USE ON SMALL GRAINS (Wheat, Oats, Barley, Millet, Rye)

- Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following application
- Postemergence
 - Limited to one postemergent application per crop cycle
 - Maximum of 34 ounces per acre per application
- Preharvest
 - Limited to one Preharvest application per crop cycle
 - Maximum of 13.6 ounces per acre per application
- Preharvest interval (PHI) is 14 days
- Limited to 48 ounces per acre per crop cycle

Liquid Nitrogen Fertilizers At full tiller product may be combined with liquid nitrogen fertilizers suitable for foliar application to small grains. Refer to Mixing Instructions section of this label for further information. Fertilizers can increase foliage contact burn of herbicides. Reducing the fertilizer rate and concentration will reduce the hazard of foliage burn.

Tank Mixtures BARRAGE® HF may be tank mixed with other herbicides for control of certain weeds in small grains. Use tank mix directions appearing on the labels of the specific herbicides when tank mixing with this product. Observe all precautions and limitations on labeling of product used in a particular tank mix.

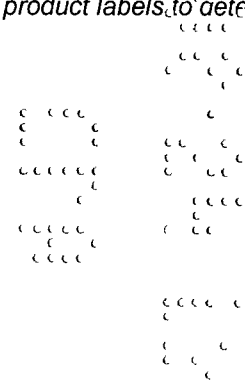
Suggested 2-way tank mix combinations are listed below

- BARRAGE® HF + Ally® (Use on Wheat & Barley only)
- BARRAGE® HF + Amber® (Use on Wheat & Barley only)
- BARRAGE® HF + Canvas® (Use on Wheat & Barley only)
- BARRAGE® HF + Express® (Use on Wheat & Barley only)
- BARRAGE® HF + Finesse® (Use on Wheat & Barley only)
- BARRAGE® HF + Glean® (Use on Wheat Oats & Barley only)
- BARRAGE® HF + Harmony Extra® (Use on Wheat Oats & Barley only)
- BARRAGE® HF + Peak® (Use on Wheat Oats Barley & Rye)
- BARRAGE® HF + Bromoxynil (Use on Wheat Oats Barley & Rye)
- BARRAGE® HF + Dicamba (Use on Wheat Oats & Barley only)
- BARRAGE® HF + Diuron (Use on Wheat Oats & Barley only)
- BARRAGE® HF + Metribuzin (Use on Wheat & Barley only)

*Suggested 3-way tank mixes include

- BARRAGE® HF + Bromoxynil or Dicamba or Diuron or Metribuzin + Ally
- BARRAGE® HF + Bromoxynil or Dicamba or Diuron or Metribuzin + Amber
- BARRAGE® HF + Bromoxynil or Dicamba or Diuron or Metribuzin + Canvas
- BARRAGE® HF + Bromoxynil or Dicamba or Diuron or Metribuzin + Express
- BARRAGE® HF + Bromoxynil or Dicamba or Diuron or Metribuzin + Finesse
- BARRAGE® HF + Bromoxynil or Dicamba or Diuron or Metribuzin + Glean
- BARRAGE® HF + Bromoxynil or Dicamba or Diuron or Metribuzin + Harmony Extra
- BARRAGE® HF + Bromoxynil or Dicamba or Diuron or Metribuzin + Peak
- BARRAGE® HF + Diuron + Metribuzin
- BARRAGE® HF + Diuron + Dicamba
- BARRAGE® HF + Diuron + Bromoxynil
- BARRAGE® HF + Dicamba + Metribuzin
- BARRAGE® HF + Dicamba + Bromoxynil
- BARRAGE® HF + Metribuzin + Bromoxynil

*Refer to the previous section (Suggested 2 way tank mix combinations) and the registered product labels to determine the specific small grain crops which may be treated



FALLOW LAND

Weeds in Crop	Amount of BARRAGE® HF per acre	Directions for Use
Annual broadleaf weeds	6.13 fl oz	Fallowland or land idle between crops may be subject to unwanted weed growth
Perennial and biennial broadleaf weeds	12.20 fl oz	To aid in suppressing certain perennial or biennial broadleaf weeds (including cotton regrowth) this product may be applied either alone or in combination with other registered herbicides such as dicamba or picloram. Use the high rate on older plants, drought stressed plants or for hard to kill species. See Planting in Treated Areas section. Follow more restrictive limitations for tank mix products used. BARRAGE® HF may be used to kill fall alfalfa stands in preparation for spring planting of row crops under conservation tillage. The treated alfalfa crop cannot be grazed, fed to livestock or cut for hay.

RESTRICTIONS AND LIMITATIONS FOR USE IN FALLOWLAND

- Only labeled crops can be planted within 29 days of application
- Limited to 2 applications per year
- Maximum of 54 ounces per acre per application
- Minimum of 30 days between applications

SOYBEANS (PREPLANT ONLY)

Weeds in Crop	Amount of BARRAGE® HF per acre	Directions for Use
Pre plant burndown (before 7 days of planting)	1/2 to 2/3 pint	For use in crop residue management systems. For best weed control, apply to postemergent weeds when small, actively growing and free of stress caused by extremes in climatic conditions, disease or insect damage. The response of individual weed species is variable. Consult your local county agent or state Agricultural Extension Service or crop consultant for advice. Use the higher rate on larger weeds when perennials are present.
Pre plant burndown (before 15 days of planting)	2/3 to 1 1/3 pint	Apply in 2 or more gallons of water per acre in aerial equipment and 10 or more gallons of water per acre in ground equipment. After applying, plant soybean seed as deep as practical or at least 1 1/2 to 2 inches deep. Adjust the planter press wheel if necessary to ensure that planted seed is completely covered. If desired, this product may be applied preplant to soybeans in tank mixtures with other herbicides such as Poast®, Poast® Plus, Roundup®, Roundup® D Pak, Honcho®, Gramoxone® Extra, Prowl®, Pursuit Plus, Scepter® 70DG, Squadron®, and others that are registered for preplant soybean use. Compatible crop oil concentrates, agricultural surfactants, and fluid fertilizers approved for use on growing crops may increase the herbicidal effectiveness of 2,4-D on certain weeds and may be added to the spray tank. Read and follow all directions and precautions on this label and on all labels of adjuvants or fertilizers mixed with this product. NOTE: Unacceptable injury to soybeans planted in treated fields may occur. Whether or not soybean injury occurs and the extent of the injury will depend on weather (temperature and rainfall) from herbicide application until soybean emergence and agronomic factors such as the amount of weed vegetation and previous crop residue present. Injury is more likely under cool, rainy conditions and where there is less weed vegetation and crop residue present.

USE RESTRICTIONS AND LIMITATIONS FOR USE IN SOYBEANS (Preplant)

- Preplant
 - Preplant for two (2) applications per crop cycle
 - Limited to 2 preplant applications per crop cycle
 - Maximum of 13.6 ounces per acre per preplant application
 - Apply not less than 7 days prior to planting soybeans
 - Preplant for Single (1) application per crop cycle
 - Limited to 1 preplant application per crop cycle
 - Maximum of 27 ounces per acre per preplant application
 - Apply not less than 15 days prior to planting soybeans
- Do not apply BARRAGE HF when weather conditions such as temperature, air inversions, or wind favor drift from treated areas to susceptible plants.
- Do not apply BARRAGE HF prior to planting soybeans if you are not prepared to accept the results of soybean injury, including the possible loss of stand and yield.
- Do not replant fields treated with BARRAGE HF in the same growing season with crops other than those labeled for 2,4-D pre-plant use.
- Do not mow or cultivate weeds prior to treating with BARRAGE HF as poor control may result.

- Do not cut for feed treated hay forage or fodder or graze treated soybeans to livestock
- Do not apply **BARRAGE HF** pre-plant to soybeans in fields having a coarse-textured soil where the percent organic matter is less than 1 0%
- Only one application of **BARRAGE HF** may be made prior to planting soybeans per growing season
- Do not feed treated hay forage or fodder Livestock should be restricted from feeding/grazing of treated cover crops
- Not currently registered for use in California

GRASS PASTURES

Weeds in Crop	Amount of BARRAGE® HF per acre	Directions for Use
Annual broadleaf weeds	6 to 19 ounces	Apply early spring when sufficient weeds have emerged and when weeds are small and actively growing but before weeds are too mature Summer applications to older drought stressed weeds are less effective However weeds are more susceptible again in the fall when cooler wetter conditions support active growth before a killing frost For fall treatment of mature weeds or perennial weed regrowth use up to 26 fluid ounces per acre Several seasons of spring plus fall treatments may be necessary to control certain perennials Addition of a nonionic surfactant such as Induce® or Dyne Amic® usually improves weed control
Biennial and perennial broadleaf weeds	26 ounces	

RESTRICTIONS AND LIMITATIONS FOR USE IN PASTURES AND RANGELANDS

- Do not graze (dairy) cattle in treated areas for 7 days after application
- Do not cut forage for hay within 30 days of application
- Do not permit dairy animals or meat animals being finished for slaughter to forage treated fields within 3 days of slaughter
- Postemergence
 - Limited to 2 applications per year
 - Maximum of 108 ounces per acre per year
 - Minimum of 30 days between applications
 - If grass is to be cut for hay agricultural use requirements for the worker protection standards are applicable
 - For program lands such as the Conservation Reserve Program consult the program rules to determine whether grass or hay may be used The more restrictive requirements of the program rules or this label must be followed

Plant Response Injury may result to bent grass other warm season or southern grasses and alfalfa clover or other legumes Do not use if this risk of injury is unacceptable Clovers may recover from early spring applications If grass seed production is desired do not apply when grass is in boot to milk stage or after heading begins Do not apply to newly seeded areas until grass is well established

GRASS SEED CROPS

Weeds in Crop	Amount of BARRAGE® HF per acre	Directions for Use
Cool season grass seed crops such as bentgrass bluegrass fine fescue tall fescues orchard grass annual ryegrass and perennial ryegrass	6 19 fl oz	Apply to established stands in spring from tiller to early boot stage New spring seedlings may be treat with the lower rate after grass seedlings have at least 5 leaves Perennial weed regrowth may be treated in the fall Make applications in the spring from the tiller to early boot stage Do not spray in boot stage New spring seedlings may be treated after the grasses have more than 5 true leaves On established stands that have had the seed crop removed perennial weed regrowth may be treated in the fall at up to 26 fluid ounces per acre

RESTRICTIONS AND LIMITATIONS FOR USE ON GRASS SEED CROPS

- Do not graze dairy animals on treated areas for 7 days after application
- Do not cut forage for hay within 30 days of application
- Do not graze meat animals on treated fields within 3 days of slaughter
 - Limited to 2 applications per year
 - Maximum of 54 ounces per acre per application
 - Minimum of 21 days between applications

SOD FARMS

For best results do not mow turf 1 to 2 days before or after application Turf watering should be delayed until the day after applicati Do not apply to newly seeded areas until grass is well established and has been mowed several times A period of about 30 days after application is usually a sufficient interval before reseeding Seeding a small area and observing response is recommended before large scale seeding

RESTRICTIONS AND LIMITATIONS FOR USE ON SOD FARMS

- Limited to 2 applications per year
- Maximum of 54 ounces per acre per application
- Minimum of 21 days between applications

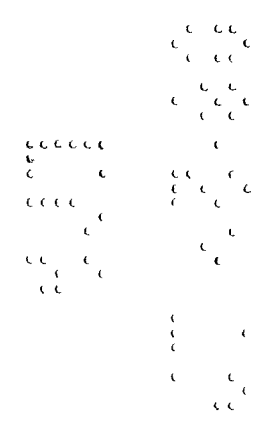
Cool Season Grasses To control many emerged broadleaf weeds in cool season turfgrasses such as tall fescue bluegrass or perennial ryegrass apply 6 to 19 fluid ounces per acre Apply when weeds are small and actively growing under good moisture conditions Do not use on centipede carpetgrass St Augustine bentgrass or Dichondra turf or where desirable clovers are present

RANGELAND PASTURES AND PERENNIAL GRASSLANDS NOT IN AGRICULTURAL PRODUCTION

Turf maturity	Amount of BARRAGE® HF per acre	Directions for Use
Newly seeded pastures	6 to 13 ounces	Apply when broadleaf weeds are small Adequate moisture is needed for best grass tolerance and weed control Addition of a nonionic surfactant such as Induce® or Dyne Amic® usually improves weed control
Established stands	13 to 19 ounces per acre and up to 26 ounces per acre for biennial or perennial weeds	Injury to legumes bentgrass and other warm season grasses is likely to occur Grasses may be discolored following treatment If grass seed production is desired do not apply when grass is in boot to milk stage or after heading begins New Stands Preseeding applications should be made at least 30 days prior to seeding Newly seeded stands should only be treated after they are well established (more than 5 true leaves) or injury may occur Addition of a surfactant may increase the risk of injury at this stage of growth Established Stands For optimum results weeds must be actively growing Treat biennial when they are in the seedling to rosette stage and before flower stalks become apparent Treat perennial weeds in the bud to bloom stage Repeat applications in the same or subsequent year may be needed to control brush species

RESTRICTIONS AND LIMITATIONS FOR USE IN PASTURES AND GRASSLANDS NOT IN AGRICULTURAL PRODUCTION

- Do not graze (dairy) cattle in treated areas for 7 days after application
- Do not cut forage for hay within 30 days of application
- Do not permit dairy animals or meat animals being finished for slaughter to forage treated fields within 3 days of slaughter
- Treated grass cut for hay should not be cut within 30 days of application
- Postemergence
 - Limited to 2 applications per year
 - Maximum of 108 ounces per acre per year
 - Minimum of 30 days between applications
 - If grass is to be cut for hay agricultural use requirements for the worker protection standards are applicable
 - For program lands such as the Conservation Reserve Program consult the program rules to determine whether grass or hay may be used The more restrictive requirements of the program rules or this label must be followed



FOREST MANAGEMENT

Forest Site Preparation

Weeds in Crop	Amount of BARRAGE® HF per acre	Directions for Use
Alder Susceptible broadleaf weeds and Susceptible Woody Plants	Up to 96 fl oz per acre in a minimum of 10 gallons spray mixture per acre Up to 51 fl oz per acre in a minimum of 10 gallons spray mixture per acre	Budbreak Spray Apply as an oil spray (see <i>Mixing Instructions</i>) after alder buds break but before foliage is 1/4 full size. A water spray including 2 to 4 quarts per acre of diesel oil fuel oil stove oil or crop oil concentrate may also be used. Foliage Spray To control alder and susceptible woody plants before planting forest seedlings apply up to 96 fluid ounces per acre in a minimum of 10 gallons spray mixture per acre. If desired apply as a water spray including up to 1 quart of diesel oil fuel oil stove oil or crop oil concentrate per gallon of water (see <i>Mixing Instructions</i>). For best results apply after alder foliage has reached full size. Conifer Release This spring foliage treatment should be applied as a water spray when 3/4 of the brush foliage has full size leaves and before new conifer growth reaches 2 inches in length. Such stages usually occur between early May and mid June but application timing should be based on growth stages of brush and conifers. Application may cause leader deformation and other conifer injury but trees should overcome it during the next growing season.
Tanoak madrone ceanothus canyon live oak and Manzanita and to release Douglas fir hemlock Sitka spruce and grand fir	Up to 77 fluid ounces per acre in a minimum of 10 gallons spray mixture per acre	This spring foliage treatment should be applied as a water spray including if desired up to 1 quart of diesel oil fuel oil stove oil or crop oil concentrate per gallon of water (see <i>Mixing Instructions</i>). Make application before new growth on Douglas fir is 2 inches long. To release ponderosa pine from the same species treat before new pine growth begins in the spring. Addition of oil or oil concentrate may cause unacceptable injury to pines.
Susceptible woody species such as alder willow poplars cherry vine maple ceanothus tanoak madrone and manzanita	Up to 77 fluid ounces per acre in a minimum of 10 gallons spray mixture per acre	This dormant treatment should be applied in diesel oil fuel oil stove oil or other suitable diluent such as water plus crop oil concentrate (see <i>Mixing Instructions</i>). Do not use in plantations where pine and larch are among the desired crop species.
Hazel brush in the Lake states	Up to 51 fluid ounces per acre in a minimum of 10 gallons spray mixture per acre	Apply as a water spray when new shoot growth of hazel is complete (usually mid July)
Conifer species such as white pine ponderosa pine jack pine red pine black spruce white spruce red spruce and balsam fir	Up to 74 fluid ounces per acre in a minimum of 10 gallons spray mixture per acre	Apply after growth has ceased and hardened off and brush is still actively growing in late summer. If possible injury cannot be tolerated do not use since this treatment may cause conifer injury.
Competing hardwoods such as alder aspen birch hazel and willow		
Susceptible broadleaf weeds and woody plants on forest roadsides	26 to 77 fluid ounces per acre in a minimum of 10 gallons spray mixture per acre	Apply as a water spray and if desired include up to 3 quarts per acre of diesel oil fuel oil stove oil or crop oil concentrate (see <i>Mixing Instructions</i>). Apply when sufficient foliage is present for absorption.
Susceptible broadleaf weeds	Up to 51 fluid ounces per 100 gallons of water 96 fluid ounces per 100 gallons of water	ESTABLISHED CONIFERS (including Christmas trees) Directed Spray or Spot Spray Apply to emerged weeds in the spring with ground equipment. Avoid contacting conifer foliage with spray or drift as injury may result. For brush thoroughly spray brush in full foliage but avoid contacting conifer foliage with spray or drift. Do not apply more than the equivalent of 96 fluid ounces per acre.
Susceptible broadleaf weeds	26 fluid ounces per acre in a minimum of 10 gallons spray mixture per acre	Over the Top Broadcast Application To decrease the potential for injury to firs apply only before budbreak in the spring and/or after complete bud set and hardening in the late summer or fall. Avoid treatment during the year of intended harvest.

RESTRICTIONS AND LIMITATIONS FOR USE IN FOREST MANAGEMENT

- Limit 1 broadcast application per year
- Maximum of 109 ounces per acre per broadcast application

ROADSIDES, MEDIANS, HIGHWAY, RAILROAD, UTILITY AND PIPELINE RIGHTS OF WAY, VACANT LOTS, AROUND UTILITY INSTALLATIONS, TRANSFORMERS, PUMP HOUSES, AND BUILDINGS, STORAGE AREAS, FENCES, GUARDRAILS, LUMBER YARDS, INDUSTRIAL SITES, AIRPORTS, TANK FARMS, FARMSTEADS, AND SIMILAR NONCROP AREAS

Weeds in Crop	Amount of BARRAGE® HF per acre	Directions for Use
<i>Annual broadleaf weeds</i>	13 to 51 ounces	<i>Apply in early spring when sufficient weeds have emerged and when weeds are small and actively growing but before weeds are too mature Summer applications to older drought stressed weeds are less effective However weeds are more susceptible again in the fall when cooler wetter conditions support active growth before a killing frost</i>
<i>Biennial and perennial broadleaf weeds</i>	26 ounces	<p><i>Use the high rate for woody plants Applications may be as broadcast sprays small area sprays or spot treatments For small areas or spot spraying use 3 fluid ounces per gallon of water and spray weeds to runoff Regardless of the method of application use adequate spray volume for full coverage of weeds</i></p> <p><i>Several seasons of spring plus fall treatments may be necessary to control certain perennials Use of oil sprays or the addition of spray adjuvants improves weed control but also increases the risk of damage to desirable ground covers</i></p>

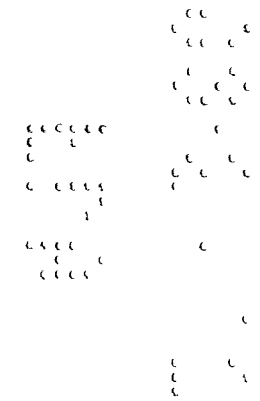
RESTRICTIONS AND LIMITATIONS FOR USE ON ROADSIDES, MEDIANS, HIGHWAY, RAILROAD, UTILITY AND PIPELINE RIGHTS OF WAY, VACANT LOTS, AROUND UTILITY INSTALLATIONS, TRANSFORMERS, PUMP HOUSES, AND BUILDINGS, STORAGE AREAS, FENCES, GUARDRAILS, LUMBER YARDS, INDUSTRIAL SITES, AIRPORTS, TANK FARMS, FARMSTEADS, AND SIMILAR NONCROP AREAS

- *Postemergence (annual and perennial weeds)*
 - *Limited to 2 applications per year*
 - *Maximum of 54 ounces per acre per application*
 - *Minimum of 30 days between applications*
- *Postemergence (woody plants)*
 - *Limited to 1 application per year*
 - *Maximum of 108 ounces per acre per year*
- *Do not graze dairy animals for 7 days following application*
- *Use sufficient spray volume for thorough and uniform coverage*
- *Applications to non-cropland areas are not applicable for treatment of commercial timber or other plants being grown for sale or other commercial use or for commercial seed production or for research purposes*

SPOT TREATMENT IN NON CROP AREAS

Mix 2 to 3 fluid ounces of BARRAGE® HF in 3 gallons of water Wet all weeds and stems thoroughly For best results treat when weeds are actively growing

Plant Response *Bent grass other warm season or southern grasses alfalfa clover or other legumes may be killed or injured Do not apply when grass is in boot to milk stage or after heading begins if grass production is desired Do not apply to newly seeded areas until grass is well established Reseeding is not recommended for at least 30 days following application*



19/19

ORNAMENTAL AND RECREATIONAL TURFGRASSES, LAWNS, GOLF COURSES (Fairways, Aprons, Tees, and Roughs), PARKS AND CEMETERIES

Weeds in Crop	Amount of BARRAGE® HF per acre	Directions for Use
Annual broadleaf weeds Biennial and perennial broadleaf weeds	13 to 19 ounces	<p>Use sufficient spray volume for thorough and uniform coverage For best results do not mow turf 1 to 2 days before or after application Turf watering should be delayed for at least 1 hour after application Avoid contacting desirable trees shrubs flowers or vegetables since plant injury may result Do not apply to newly seeded areas until grass is well established and has been mowed several times A period of about 30 days after application is usually a sufficient interval before reseeding grasses (or other plants) Seeding a small area and observing response is recommended before large scale seeding</p> <p>For Cool Season Grasses To control many emerged broadleaf weeds in cool season turfgrasses such as tall fescue bluegrass or perennial ryegrass apply 16 to 32 fluid ounces per acre (0.38 to 0.75 ounce per 1 000 square feet) Preferred application timing for broadcast treatment is in the early spring when small weeds have emerged and are actively growing under good moisture conditions For very weedy turf a follow up broadcast or spot application may be needed from 2 to 4 weeks later Summer applications are typically spot treatments of individual weeds that have emerged after a spring broadcast treatment In the fall when cooler wetter conditions factor active weed growth broadcast application may be appropriate for very weedy turf such as an area that had no spring broadcast treatment Do not use on centipede carpetgrass St Augustine bentgrass or Dichondra turf or where desirable clovers are present</p>

RESTRICTIONS AND LIMITATIONS ON ORNAMENTAL AND RECREATIONAL TURFGRASSES, LAWNS, GOLF COURSES (Fairways, Aprons, Tees, and Roughs) PARKS AND CEMETERIES

- Postemergence (annual and perennial weeds)
 - Limited to 2 applications per year
 - Maximum of 41 ounces per acre per application
 - The maximum seasonal rate is 82 ounces per acre
- Do not allow people (other than the applicator) or pets on treatment area during application
- Do not enter treatment areas until sprays have dried

CONDITIONS OF SALE - LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES

Read the Conditions of Sale - Warranty and Limitations of Liability and Remedies before using this product If the terms are not acceptable, return the product unopened, and the full purchase price will be refunded

The directions on this label are believed to be reliable and must be followed carefully Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions or the failure to follow the label directions or good application practices all of which are beyond the control of Helena Chemical Company (the Company) or seller In addition failure to follow label directions may cause injury to crops animals man or the environment The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company The Company makes no other warranties or representations of any kind express or implied concerning the product including no implied warranty of merchantability or fitness for any particular purpose and no such warranty shall be implied by law

To the extent consistent with applicable law the exclusive remedy against the Company for any cause of action relating to the handling or use of this product shall be limited to at Helena Chemical Company's election one of the following

- 1 Refund of the purchase price paid by buyer or user for product bought or
- 2 Replacement of the product used

To the extent allowed by law the Company shall not be liable and any and all claims against the Company are waived for special indirect incidental or consequential damages or expense of any nature including but not limited to loss of profits or income The Company and the seller offer this product and the buyer and user accept it subject to the foregoing conditions of sale and limitation of warranty liability and remedies

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