

5905-549

8/15/2012

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D C 20460

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

Mr Bill Washburn
Helena Chemical Company
225 Schilling Boulevard Suite 200
Collierville TN 38017

AUG 15 2012

Subject Label Amendment to remove RUP classification
Product Name HARDBALL
EPA Reg No 5905 549
Application dated March 13 2012
Decision Number 462706

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

One copy of the label stamped Accepted is enclosed for your records Products shipped after 18 months from the date on this notice or the next printing of the label, whichever occurs first, must bear the new revised label Amended labeling will supersede all previously accepted ones

Per 40 CFR 156 10(6) submit one copy of your final printed labeling before you release the product for shipment If you have questions or concerns regarding this letter please contact Beth Benbow at (703) 347 8072 or email at benbow.bethany@epa.gov

Sincerely

A handwritten signature in black ink, appearing to read "Kathryn V. Montague".

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

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ACCEPTED
 AUG 15 2012
 Under the Federal Insecticide, Fungicide and Rodenticide Act
 as amended for a pesticide
 entered under
 Reg No. 5905-549

HardBall

ACTIVE INGREDIENT

2,4-Dichlorophenoxyacetic Acid

OTHER INGREDIENTS

TOTAL

19.6%
 80.4%
 100.0%

Equivalent to 19.6% 2,4-D Acid or 1.74 lb/gal
 Isomer specific by AOAC Method 6 D01.5 (12th Ed.)
 Patent No. 5,877,112
 Other Patents Pending

**KEEP OUT OF REACH OF CHILDREN
 DANGER PELIGRO**

**Si usted no entiende la etiqueta busque a alguien para que se la explique a usted en detalle
 (If you do not understand the label find someone to explain it to you)**

FIRST AID	
IF IN EYES	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes Remove contact lenses if present after the first 5 minutes then continue rinsing eye Call a poison control center or doctor immediately for advice
IF SWALLOWED	<ul style="list-style-type: none"> Call a poison control center or doctor immediately for advice Have person sip a glass of water Do not induce vomiting unless instructed to do so by poison control center or doctor Do not give anything by mouth to an unconscious or convulsing person
IF INHALED	<ul style="list-style-type: none"> Move victim to fresh air If person is not breathing call 911 or an ambulance then give artificial respiration preferably mouth to mouth if possible Call a poison control center or doctor immediately for further treatment advice
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> Take off contaminated clothing Rinse immediately with plenty of water for 15-20 minutes Call a poison control center or doctor for treatment advice
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency assistance call toll free 1-800-424-9300 (ChemTrec)	
NOTE TO PHYSICIAN Probable mucosal damage may contraindicate the use of gastric lavage. Causes irreversible eye damage	

See Additional Precautions and Use Directions on Inside Panels

EPA REG NO 5905 549
 EPA EST NO First Letters of Product Batch Code
 Indicate Producing Establishment 5905 AR 1=WA •
 5905 GA 1=CG • 5905 IA 1=DI • 5905 CA 1=KC

SN 1206/1008
 NET CONTENTS

**MANUFACTURED FOR
 HELENA CHEMICAL COMPANY
 225 SCHILLING BOULEVARD SUITE 300
 COLLIERVILLE TENNESSEE 38017**

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER – PELIGRO

Corrosive Causes irreversible eye damage Harmful if swallowed Harmful if inhaled Do not get in eyes or on clothing
Avoid breathing spray mist or vapor Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant are made of barrier laminate nitrile rubber neoprene rubber or viton 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 and socks
- face shield or goggles
- chemical resistant gloves when applying with any handheld equipment mixing or loading cleaning up spills or equipment or otherwise exposed to the concentrate and
- Chemical resistant apron when mixing or loading cleaning up spills or equipment or otherwise exposed to the concentrate

See engineering controls for additional requirements

User Safety 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

Users should remove clothing/PPE immediately if pesticide gets inside Then wash thoroughly and put on clean clothing If pesticide gets on skin wash immediately with soap and water

Users should 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

For terrestrial uses This product may be toxic to fish and aquatic invertebrates Do not apply directly to water to areas where surface water is present or to intertidal areas below the mean high water mark except as noted on appropriate labels 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

Aquatic Weed Control Fish breathe dissolved oxygen in the water and decaying weeds also use oxygen. When treating continuous dense weed masses, it may be appropriate to treat only part of the infestation at a time. For example, apply the product in lanes separated by untreated strips that can be treated after vegetation in treated lanes has disintegrated. During the growing season, weeds decompose in a 2 to 3 week period following treatment. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Waters having limited and less dense weed infestations may not require partial treatments.

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 non-target plant areas. Avoid contamination of irrigation or domestic water supplies. 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.

Use an agriculturally accepted drift retardant designed to increase droplet size.

CHEMIGATION PROHIBITION

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

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 48 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 made of any water proof material
- 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

USE REQUIREMENTS FOR PASTURES PERENNIAL GRASSLANDS RANGELAND FALLOW LAND AND NONCROP AREAS Do not enter treated areas until spray has dried

TURF USE REQUIREMENTS Do not allow persons (other than applicator) or pets on treated area during application Do not enter treated areas until spray has dried NOTE For application to turf being grown for sale or other commercial use as sod or for commercial seed production or for research purposes follow AGRICULTURAL USE REQUIREMENTS on this label

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling

SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g. wind direction wind speed temperature relative humidity) and method of application (e.g. ground aerial airblast) can influence pesticide drift The applicator must evaluate all factors and make appropriate adjustments when applying this product

Droplet Size

When applying sprays that contain 2 4 D as the sole active ingredient or when applying sprays that contain 2 4 D mixed with active ingredients that require a Coarse or coarser spray apply only as a Coarse or coarser spray (ASAE standard 572) or volume mean diameter of 385 microns or greater for spinning atomizer nozzles

When applying sprays that contain 2 4 D mixed with other active ingredients that require a Medium or more fine spray apply only as a Medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles

Wind Speed

Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on target deposition and there are not sensitive areas (including but not limited to residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swath unsprayed at the downwind edge of the treated field.

Temperature Inversions

If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

Susceptible Plants

Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use, or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

Other State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

Equipment

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

Additional requirements for aerial applications

The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights of way applications.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

Additional requirements for ground boom application

Do not apply with a nozzle height greater than 4 feet above the crop canopy.

STORAGE AND DISPOSAL

Do not contaminate water food or feed by storage or disposal

PESTICIDE STORAGE Do not store below temperature of 0°F If frozen warm to 40°F and re dissolve 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 Do not store under conditions which might adversely affect the container or its ability to function properly

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

PRODUCT INFORMATION

Local conditions crop varieties and application method may affect performance of this product User should consult local extension service agricultural experiment station or university weed specialists and state regulatory agencies for recommendations in your area

Best results are obtained when product is applied to young succulent weeds that are actively growing Application rates lower than specified will not be satisfactory on susceptible annual weeds For perennial weeds and conditions such as the very dry areas of the western states where control is difficult the higher listed rates should be used When product is used for weed control in crops the growth stage of the crop must be considered Some plants and weeds especially woody varieties are hard to control and may require repeat applications Application rates should be 1 to 5 gallons of total spray by air or 5 to 25 gallons by ground equipment unless otherwise directed In either case use the same amount of **HardBall** per acre **HardBall** should not be allowed to come into contact with desirable susceptible plants such as beans cotton fruit trees grapes legumes ornamentals peas tomatoes and other vegetables **HardBall** should not be used in greenhouses If stored below freezing it may be necessary to warm product to 40°F and agitate before using This does not affect the efficacy of the product Spray equipment used to apply **HardBall** or other products containing 2 4 D should not be used for any other purpose until thoroughly cleaned with a suitable chemical cleaner

WEEDS CONTROLLED

HardBall will control or partially control the following as well as many other noxious plants susceptible to 2 4 D

Alders	Alligatorweed
American Lotus	Arrowhead
Artichoke	Austrian Fieldcress
Biden	Bittersweet
Bittercress smallflower	Black eyed Susan
Bitterweed	Bitter wintercress
Blessed Thistle	Blue lettuce
Blue Thistle	Blueweed Texas
Box elder	Broomweed common
Buckhorn	Bull nettle
Bull Thistle	Bulrush
Burdock common	Bur ragweed
Buttercup smallflowered	Burhead
Carpetweed	Carolina geranium
Chickweed	Catnip
Chicory	Cinquefoil common & rough
Cockle	Cocklebur common

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Coffebean	Coffeeweed
Creeping jenny	Cornflower
Croton (Texas woolly)	Curly indigo
Dandelion	Devil s Claw
	<i>Proboscidea louisianica</i>
Dogfennel (mayweed)	Duckweed
Evening primrose common	Elderberry
Fanweed	Evening primrose cutleaf
Fleabane	Fixweed
Florida Pusley	Figwort
Four o clock	Goosefoot
Frenchweed	Galinsoga (elderberry hairy)
Goatsbeard	Gumweed
Hemp	Healall
Henbit	Horsetail
Honeysuckle	Indian Mallow
Indigo	Jewelweed
Jerusalem artichoke	Klamathweed
Jimsonweed	Lambsquarters common
Ladysthumb	Marijuana
Loco Bigbend	Mallow (Venice dwarf little)
Marestail	Marshelder
Mexican weed	Milk vetch
Morningglory (annual common iv woolly)	Mousetail
Mustards (except blue) prior to bolting	Nutgrass
Parrotfeather	Parsnip
Pennywort	Pennycress (fanweed)
Plantains	Pepperweeds (except perennial)
Peppergrass	Poison ivy
Pokeweed	Poorjoe
Poverty weed	Primrose
Prickly lettuce	Puncture vine
Purslane common	Quickweed
Radish	Redstem
Ragweeds (common giant)	Rush
Rough fleabane	Sicklepod
Shepherdspurse	Sowthistle (annual spiny)
Sneezeweed bitter	Spatterdock
Spanish Needles	Speedwell
Stinging Nettles	St John s Wort
Stinkweed	Sumacs
Sunflower	Tanweed
Sweetclover (annual)	Velvetleaf
Tarweed	Venicemallow
Thistles	Virginia copperleaf
Toadflax	Water hyacinth

Tumbleweed	Water plantain
Vetches except hairy	Water primrose
Virginia creeper	Water shield
Water lily	Wild lettuce
Wild carrot	Wild parsnip
Wild hemp	Wild rape
Wild mustard	Wild strawberry
Wild radish	Willow
Wild sweet potato	Wormwood

Witchweed	Yellow rocket
Yellow goatsbeard	
Yellow starthistle	

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

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

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
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MIXING INSTRUCTIONS

HardBall is a macro 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 Wipe Out®.

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 **HardBall**. Continue agitation while adding balance of water and during spray operations. NOTE: In water, this product forms a macro 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 **HardBall**. 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 **HardBall**. Fill clean spray tank about 1/2 to 2/3 full with an oil approved for agricultural use (diesel oil, fuel oil, stove oil, etc.). 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 **HardBall**. 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 non-emulsified 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 non-emulsified 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. **HardBall** is absorbed sufficiently within 1 hour after application to provide adequate weed control.

Ground Broadcast Spray: Unless otherwise specified in the appropriate crop or non-crop 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 solution per acre, while certain high volume non-crop 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 is 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 non crop directions apply in 1 to 5 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 wind stream Mechanical flagging or GPS (Global Positioning Systems) is 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

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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 HardBall IS SPECIFICALLY DISCLAIMED BY HELENA CHEMICAL COMPANY**

Glyphosate Tank Mixes

HardBall + Glyphosate (various formulations) may be used on all approved crops use sites and use patterns approved on both labels. **HardBall** should be used at the rate of 1.53 pints in combination with the appropriate rate of Glyphosate per acre to provide best control of weed pest species. Consult the Glyphosate label to determine proper rate of Glyphosate to be used in combination with **HardBall**.

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.

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 PROCEEDING 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.

ASPARAGUS

CROP STAGE	APPLICATION RATE/ACRE	DIRECTIONS/TIMING
After cutting	8.92 pints (1.75 – 2.0 lbs acid equivalent)	Apply on actively growing weeds

RESTRICTIONS AND LIMITATIONS FOR USE ON ASPARAGUS

- PHI Do not harvest within 3 days of application
- Max application rate/acre 9.2 pints (2.0 lbs acid equivalent)
- Max seasonal rate 2.3 gals (4.0 lbs acid equivalent per acre)
- Do not exceed two applications per crop cycle
- Do not apply within 30 days of previous application

LOW BUSH BLUEBERRIES

CROP STAGE	APPLICATION RATE/ACRE	DIRECTIONS/TIMING
Postemergence	Wiper solution containing 0.14 to 0.17 pints (2.24 to 2.72 ounces) (0.030375 lbs /gallon (3.645 g/l) acid eq)	Make directed wipe or spot applications when tips are above the crop
Postharvest	Solution containing 7.510 lb acid equivalent per 10 gallons of oil	Make directed application to cut hardwoods in row middles in summer or fall after harvest

RESTRICTIONS AND LIMITATIONS FOR USE ON LOW BUSH BLUEBERRIES

Postemergence

- Limited to one postemergence application per year
- Maximum of 2.72 ounces (0.375 lbs acid equivalent)
-
- Avoid herbicide contact with blueberry foliage
- Apply only in the nonbearing year

Postharvest

- Limited to one post harvest application per crop cycle
- Max of 1.0 lb ae/gallon spray solution per application
- For spot or directed wipe treatment only
- Apply only in non bearing years

HIGH BUSH BLUEBERRIES

CROP STAGE	APPLICATION RATE/ACRE	DIRECTIONS/TIMING
Postemergence	3 5 4 0 pints	Make directed or shielded application in the spring
Postharvest	3 5 4 0 pints	Make directed application to row middles in summer or fall after harvest

RESTRICTIONS AND LIMITATIONS FOR USE ON HIGH BUSH BLUEBERRIES

Postemergence and Postharvest

- PHI Do not harvest within 30 days of application
- Limited to two (2) applications per year
- Maximum rate 102 ounces (1 4 lbs acid equivalent) per acre per application

**CEREAL GRAINS
(Spring Wheat and Triticale)**

WEEDS IN CROPS	AMOUNT OF HARDBALL PER ACRE	DIRECTIONS FOR USE
<p>Not underseeded with legumes</p> <p>Onset of Tillering Stage Postemergence Annual and biennial broadleaf weeds</p> <p>Perennial broadleaf weeds</p>	1 1 75 pints	Apply after grain is well tillered (usually about 4 to 8 inches high) Do not spray grain in the boot to dough stage 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 The onset of tillering stage is defined as grain having 1 or more tillers as well as 3 or more leaves
<p>Full Tillering Stage Postemergence Annual and biennial broadleaf weeds</p> <p>Perennial broadleaf weeds</p>	1 3 25 pints	For these applications full tillering stage is defined as grain that has 3 or more tillers and the flag leaf should not be visible Apply after grain is 8 inches tall Do not spray grain in boot to dough stage Do not spray alfalfa or sweet clover unless the infestation is severe and injury to these legumes can be tolerated
<p>Emergency Weed Control in Triticale Wheat Perennial broadleaf weeds</p>	4 5	To control difficult weed problems in certain areas such as under dry conditions especially in Western areas higher rates up to 4 5 pints per acre may be needed 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 or from boot to dough stage

* 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 Hardball to grain in the seedling stage

RESTRICTIONS AND LIMITATIONS FOR USE ON SPRING WHEAT & TRITICALE

- For aerial application on grain apply **HardBall** in 3 to 10 gallons of water per acre
- For ground application a minimum of 10 to 15 gallons of water per acre is needed for proper spray coverage
- Do not permit dairy animals or meat animals being finished for slaughter to forage treated grain fields within 2 weeks after treatment
- Do not feed treated straw to livestock if an emergency treatment as described above is applied
- **Postemergence**
 - Limited to one application per crop cycle
 - Maximum of 92 ounces per acre per application
- **Preharvest**
 - Limited to one application per crop cycle
 - Maximum of 36 ounces per acre per application
- Preharvest interval (PHI) is 14 days
- Limited to 1 gallon per acre per crop cycle

WINTER WHEAT BARLEY AND RYE

WEEDS IN CROPS	AMOUNT OF HARDBALL PER ACRE	DIRECTIONS FOR USE
Not underseeded with legumes Onset of Tillering Stage Postemergence Annual and biennial broadleaf weeds Perennial broadleaf weeds	1 3 25 pints	Apply after grain is well tillered (usually about 4 to 8 inches high) Do not spray grain in the boot to dough stage 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 The onset of tillering stage is defined as grain having 1 or more tillers as well as 3 or more leaves
Full Tillering Stage Postemergence Annual and biennial broadleaf weeds Perennial broadleaf weeds	1 3 25 pints	For these applications full tillering stage is defined as grain that has 3 or more tillers and the flag leaf should not be visible (usually 4 to 8 inches tall) Do not spray grain in boot to dough stage Do not spray alfalfa or sweet clover unless the infestation is severe and injury to these legumes can be tolerated
Emergency Weed Control in Triticale Wheat Perennial broadleaf weeds	4 5 pints	To control difficult weed problems in certain areas such as under dry conditions especially in Western areas higher rates up to 4 5 pints per acre may be needed 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 or from boot to dough stage

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 Hardball to grain in the seedling stage

RESTRICTIONS AND LIMITATIONS FOR USE ON CEREAL GRAINS

- For aerial application on grain apply HardBall in 3 to 10 gallons of water per acre
- For ground application a minimum of 10 to 15 gallons of water per acre is needed for proper spray coverage
- Do not permit dairy animals or meat animals being finished for slaughter to forage treated grain fields within 2 weeks after treatment
- Do not feed treated straw to livestock if an emergency treatment as described above is applied
- **Postemergence**
 - Limited to one application per crop cycle
 - Maximum of 5.68 pints per acre per application
- **Preharvest**
 - Limited to one application per crop cycle
 - Maximum of 36 ounces per acre per application
- Preharvest interval (PHI) is 14 days
- Limited to 1 gallon per acre per crop cycle

**CEREAL GRAINS (Not Underseeded with a Legume)
(OATS)**

WEEDS IN CROPS	AMOUNT OF HARDBALL PER ACRE* (Average Conditions)	DIRECTIONS FOR USE
Spring Planted Oats Full Tillering Stage Postemergence Annual and biennial Broadleaf weeds Perennial broadleaf weeds	1 pint	Apply in sufficient water to give good coverage. Apply after the fully tillered stage except during the boot to dough stage. Note Oats are less tolerant to 2,4-D than wheat or barley and more likely to be injured. Grains should have 3 or more tillers and the flag leaf should not be visible. Oats are less tolerant to HardBall 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.
Fall Planted Oats	1.325 pints	Apply after full tillering but before early boot stage. Some difficult weeds may require higher rates per acre for maximum control but injury may result. Do not spray during or immediately following cold weather. Note Oats are less tolerant to 2,4-D than wheat or barley and more likely to be injured.
Pre Harvest	2 pints	Apply with recommended amount of water per acre when grains are in the hard dough stage to control large weeds that may interfere with harvest. Best results will be obtained when soil moisture is sufficient to cause succulent weed growth. Addition of a nonionic surfactant such as INDUCE® OR DYNE AMIC® usually improves weed control.

If band treatment is used base the dosage rate on the actual area sprayed

RESTRICTIONS AND LIMITATIONS FOR USE ON OATS (Not Underseeded with a Legume)

- The higher rates increase the risk of grain injury and should be used only where the weed control problem justifies the grain damage risk
- Apply **HardBall** in sufficient water for adequate coverage
- Do not permit dairy animals or meat animals being finished for slaughter to forage treated grain fields within 2 weeks after treatment
- Do not feed treated straw to livestock
- **Postemergence**
 - Limited to one application per crop cycle
 - Maximum of 92 ounces per acre per application
- **Preharvest**
 - Limited to one application per crop cycle
 - Maximum of 36 ounces per acre per application
- Preharvest interval (PHI) is 14 days
- Limited to 1 gallon per acre per crop cycle

Livestock Feeding Restrictions Do not permit dairy animals or meat animals being finished for slaughter to forage or graze treated grain fields within 2 weeks after treatment Do not feed treated straw to livestock if an emergency and/or preharvest treatment are applied

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 concentrations will reduce the hazard of foliage burn

Tank Mixtures HardBall 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

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

Suggested 3 way tank mixes include

- HardBall + Bromoxynil or Dicamba or Diuron or Metribuzin + Ally®**
- HardBall + Bromoxynil or Dicamba or Diuron or Metribuzin + Amber®**
- HardBall + Bromoxynil or Dicamba or Diuron or Metribuzin + Canvas®**
- HardBall + Bromoxynil or Dicamba or Diuron or Metribuzin + Express®**

- HardBall + Bromoxynil or Dicamba or Diuron or Metribuzin + Finesse®
- HardBall + Bromoxynil or Dicamba or Diuron or Metribuzin + Glean®
- HardBall + Bromoxynil or Dicamba or Diuron or Metribuzin + Harmony® Extra
- HardBall + Bromoxynil or Dicamba or Diuron or Metribuzin + Peak®
- HardBall + Diuron + Metribuzin
- HardBall + Diuron + Dicamba
- HardBall + Diuron + Bromoxynil
- HardBall + Dicamba + Metribuzin
- HardBall + Dicamba + Bromoxynil
- HardBall + 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 that may be treated

CORN (Field AND Pop)

WEEDS IN CROPS	AMOUNT OF HARDBALL PER ACRE	DIRECTIONS FOR USE
Corn (Field and Pop) Preplant Fine and medium texture soils having 1% or more organic matter For coarse textured soils with 2% or more organic matter	1 4 5 pints 1 3 0 pints	To control emerged broadleaf weed seedlings or existing cover crops prior to planting corn apply 7 to 14 days before planting Use high rate for less susceptible weeds or cover crops such as alfalfa
Preemergence Fine and medium texture soils having 1% or more organic matter For coarse textured soils with 2% or more organic matter	1 4 5 1 pint*	Apply 3 to 5 days after planting but before corn emerges Liquid fertilizers and agriculturally approved surfactants may be added *Due to the lower rate partial weed control may result on coarse soils
Postemergence Annual broadleaf weeds Early Postemergence (from spike to 4 leaf stage or up to 8 inches) Perennial broadleaf weeds Late Postemergence (corn is 8 36 inches tall before tasseling) Preharvest	½ pint to 2 25 pints 1 3 to 2 25 pints 2 to 6 75 pints	Apply when weeds are small and corn is less than 8 inches tall (to top of canopy) Many types of adjuvants will increase risk of crop injury Where an adjuvant is required because of tank mixing with another herbicide use the lowest recommended concentration of a nonionic surfactant such as INDUCE® (often at 0 25% vol /vol or less) to minimize such risk Corn may be brittle and subject to breaking by wind and/or cultivation especially in the 2 weeks following application Avoid spraying just after corn leaves unfold When corn is 8 36 inches tall use drop

		<p>nozzles and keep spray off foliage Treat perennial weeds when they are in the bud to bloom stage 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 Lowest rates may not provide adequate weed control unless used in a tank mix with another registered herbicide</p> <p>After the hard dough (or denting) stage when silks have turned brown apply the appropriate rate 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</p>
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RESTRICTIONS AND LIMITATIONS FOR USE ON Corn (Field and Pop)

- Corn (Field and Pop)
 - Preharvest Interval (PHI) is 7 days
 - Do not use treated crop as fodder for 7 days following application
 - Do not apply on fine or coarse textured soils (silt & clay loams) with less than 1% organic matter or on coarse textured soils (sand sandy loam loamy sand) with less than 2% organic matter
 - Maximum Use rate per acre per crop cycle is 1.75 gallons
 - Preplant or Preemergence
 - Limited to one application per crop cycle
 - Maximum of 4.5 pints per acre per application
 - Do not apply preemergence if a preplant application of this product was made
 - Postemergence
 - Limited to one application per crop cycle
 - Maximum of 2.25 pints per acre per application
 - Do not spray corn in the tassel to dough stage
 - Do not apply with liquid fertilizer or oil
 - Postemergence application should not follow a preplant or preemergence application by less than 3 weeks
 - Preharvest
 - Limited to one application per crop cycle
 - Maximum of 6.75 pints/acre per preharvest application

CORN (Sweet)

WEEDS IN CROPS	AMOUNT OF HARDBALL PER ACRE	DIRECTIONS FOR USE
<p>Corn (Sweet) Preplant Fine and medium texture soils having 1% or more organic matter</p> <p>For coarse textured soils with 2% or more organic matter</p>	<p>1 4 5 pints</p> <p>1 3 0 pints</p>	<p>To control emerged broadleaf weed seedlings or existing cover crops prior to planting corn apply 7 to 14 days before planting Use high rate for less susceptible weeds or cover crops such as alfalfa</p>
<p>Preemergence Fine and medium texture soils having 1% or more organic matter</p> <p>For coarse textured soils with 2% or more organic matter</p>	<p>1 4 5</p> <p>1 pint</p>	<p>Apply 3 to 5 days after planting but before corn emerges Liquid fertilizers and agriculturally approved surfactants may be added</p> <p>*Due to the lower rate partial weed control may result on coarse soils</p>
<p>Postemergence Annual broadleaf weeds Early Postemergence (from spike to 4 leaf stage or up to 8 inches)</p> <p>Perennial broadleaf weeds Late Postemergence (corn is 8 36 inches tall before tasseling)</p>	<p>2 25 pints</p> <p>1 3 to 2 25 pints</p>	<p>Apply when weeds are small and corn is less than 8 inches tall (to top of canopy) Many types of adjuvants will increase risk of crop injury Where an adjuvant is required because of tank mixing with another herbicide use the lowest recommended concentration of a nonionic surfactant such as INDUCE® (often at 0 25% vol /vol or less) to minimize such risk Corn may be brittle and subject to breaking by wind and/or cultivation especially in the 2 weeks following application Avoid spraying just after corn leaves unfold</p> <p>When corn is 8 36 inches tall use drop nozzles and keep spray off foliage Treat perennial weeds when they are in the bud to bloom stage 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 Lowest rates may not provide adequate weed control unless used in a tank mix with another registered herbicide</p>

RESTRICTIONS AND LIMITATIONS FOR USE ON Corn (Sweet)

- 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
 - Do not apply on fine or coarse textured soils (silt & clay loams) with less than 1% organic matter or on coarse textured soils (sand sandy loam loamy sand) with less than 2% organic matter
 - Maximum Use rate per acre per crop cycle is 110 ounces
 - Preplant or Preemergence
 - Limited to one application per crop cycle
 - Maximum of 4.5 pints per acre per application
 - Do not apply preemergence if a preplant application of this product was made
 - Postemergence
 - Limited to one application per crop cycle
 - Maximum of 2.25 pints per acre per application
 - Do not spray corn in the tassel to dough stage
 - Do not apply with liquid fertilizer or oil
 - Postemergence application should not follow a preplant or preemergence application by less than 3 weeks

CRANBERRIES

CROP STAGE	APPLICATION RATE/ACRE	DIRECTIONS/TIMING
Dormant	1.6 – 2.25 gallons	Make broadcast application in the dormant season
Postemergence	3.5 – 5.5 pints	Make directed wipe or spot applications when weed tops are above crop

RESTRICTIONS AND LIMITATIONS FOR USE ON CRANBERRIES

- **PHI** Do not harvest within 30 days of application
- **Dormant** Make only one dormant application per crop cycle
- **Max Dormant rate** 2.25 gallons (4 lbs acid equivalent) per acre in the dormant season
- **Postemergence** Limited to (2) two applications per crop cycle
- **Maximum Postemergence rate** 5.5 pints (1.2 lbs ae/acre per postemergence application)

FILBERTS

CROP STAGE	APPLICATION RATE/ACRE	DIRECTIONS/TIMING
For sucker control	3 4 5 pints	For control of suckers spray to wet leaves and stems of suckers that are 6 to 8 inches in height during April through August

RESTRICTIONS AND LIMITATIONS FOR USE ON FILBERTS

- **PHI** Do not harvest nuts within 45 days of application
- **Minimum** Allow at least 30 days between applications
- Limited to 4 applications per year
- **Maximum Use Rate** 4 5 pints per 100 gallons of spray solution per application

GRAPES

CROP STAGE	APPLICATION RATE/ACRE	DIRECTIONS/TIMING
Apply after shatter following bloom and before grape shoots reach the ground or during dormant season	4 5 – 6 25 pints	Applications to at least 3 year old established vineyard Use hooded boom sprayer or equivalent to direct coarse spray to weeds and minimize potential contact with grape foliage shoots or stems

RESTRICTIONS AND LIMITATIONS FOR USE IN GRAPES

- For use only in California
- The preharvest interval (PHI) is 100 days
- Limited to 1 application per crop cycle
- Maximum of 100 ounces (1 36 lbs ae/acre) per application

NOTE Do not use more than 1 36 lbs acid equivalent per season Do not apply to grape foliage shoots or stems

FALLOW LAND AND CROP STUBBLE

Fallow land or land idle between crops may be subject to unwanted weed growth For control of many annual broadleaf species apply at the rate of 1 0 – 4 0 pints per acre To aid in suppressing certain perennial or biennial broadleaf weeds (including cotton regrowth) this product may be applied at the rate of 2 25 – 8 0 pints per acre 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

HardBall 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

- Plant only labeled crops within 29 days following application
- Limited to 2 applications per year
- Maximum of 1.15 gallons (2.0 lbs ae/acre) per application
- Minimum of 30 days between applications

GRASS PASTURES

To control many emerged broadleaf weeds apply 1.0 – 4.0 pints **HardBall** per acre. Addition of a nonionic surfactant such as INDUCE® or DYNE AMIC® usually improves weed control. Preferred timing is in the 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 3.5 – 8.0 pints per acre. Several seasons of spring plus fall treatments may be necessary to control certain perennials.

For susceptible annual and biennial broadleaf weeds Use 1.0 lbs ae per acre per application

For moderately susceptible biennial and perennial broadleaf weeds Use 1 – 2 lbs ae per acre per application

For difficult to control weeds and wood plants Use 2 lbs ae per acre per application

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. Reseeding is not recommended for at least 30 days following application. Addition of a surfactant may increase the risk of injury to newly seeded grasses.

Livestock Feeding Restrictions Do not graze dairy animals on treated areas within 7 days after application. Do not graze meat animals on treated areas within 3 days before slaughter. Do not cut treated grass for hay within 30 days of application.

RESTRICTIONS AND LIMITATIONS GRASS PASTURES

- Plant only labeled crops within 29 days following application
- Limited to 2 applications per year
- Maximum of 1.15 gallon (2 lbs ae)/acre per application
- Minimum of 30 days between applications
- Do not cut forage for hay within 7 days of application
- If grass is to be cut for hay Agricultural Use Requirements for the Worker Protection Standard are applicable

GRASS SEED CROPS

To control many emerged broadleaf weeds apply 1.0 – 3.25 pints per acre. Use on established stands of cool season grass seed crops such as bentgrass, bluegrass, fine fescue, tall fescues, orchard grass, annual ryegrass, and perennial ryegrass. 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 4.5 pints per acre. Refer to Plant Response and Livestock Feeding Restrictions under **GRASS PASTURES** section above.

- Do not apply more than 2 applications per year
- The maximum individual application rate is 2 lbs ae per acre per application
- The retreatment interval is 21 days

HOPS

WEEDS IN CROPS	AMOUNT OF HARDBALL PER ACRE	DIRECTIONS FOR USE
Annual broadleaf weeds	1 2 pints	Make directed applications to the row middles

RESTRICTIONS AND LIMITATIONS HOPS

- Limited to three (3) applications per crop cycle
- Maximum of 36 ounces per acre per application
- Maximum of 110 ounces per acre per crop cycle
- Minimum of 30 days between applications
- Preharvest Interval (PHI) is 28 days after 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

For the control of many broadleaf weeds and small woody plants applications may be as broadcast sprays small areas or spot treatments Regardless of the method of application use adequate spray volume for full coverage of weeds Preferred application timing is in the early spring when sufficient weeds have emerged and are still small an actively growing and before weeds are too mature

Summer applications to older drought-stressed weeds are less effective However weeds and small woody plants are more susceptible again in the fall when cooler wetter conditions support active growth before a killing frost

Postemergence (annual and perennial weeds)

- Limited to 2 applications per year
- Maximum of 4 5 quarts (2 0 lbs) ae/acre per application
- Minimum of 30 days between applications

Note 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 Do not make repeat applications within 30 days of the previous application Apply no more than 4 5 quarts (2 0 lbs acid equivalent) per acre per use season

Postemergence (woody plants)

- Limited to 1 application per year
- Maximum of 2 25 gallons (4 0 lbs) ae/acre per year

Applications to non cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use or for commercial seed production or for research purposes

Postemergence Control of Annual and Perennial Weeds Apply 0 5 1 gallon of **HardBall** to emerged weeds For best results treat when weeds are young and actively growing

Postemergence Control of Woody Plants Apply 0 5 – 2 gallons of **HardBall** to trees and brush when foliage is fully expanded and plants are actively growing

Special Uses

On rights of way Up to 2.25 gallons (4.0 lbs acid equivalent) can be applied in a single application. This includes electrical power lines, communication lines, pipelines, highways, and railroads that intersect wooded areas or stands of trees, brush, and woody plants. Usage under this section is not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

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

Do not apply more than 1.5 lbs ae per acre per application. The maximal seasonal application rate is 3.0 lbs ae per acre, excluding spot treatments. The maximum number of broadcast applications per treatment site is 2 per year. 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.

Cool Season Grasses To control many emerged broadleaf weeds in cool season turfgrasses such as tall fescue, bluegrass, or perennial ryegrass, apply 1.0 – 1.75 quarts per acre (0.75 – 1.28 fluid ounces 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 favor 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.

RANGELAND PASTURES AND PERENNIAL GRASSLANDS NOT IN AGRICULTURAL PRODUCTION

HardBall can be used to control or suppress a number of susceptible broadleaf weeds in rangeland or perennial grasslands that are set aside from agricultural use, such as in the Conservation Reserve Program (CRP) or similar government programs. Consult program rules to determine whether grass and hay may be used. For best results, 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.

RESTRICTIONS AND LIMITATIONS

Postemergence

For susceptible annual and biennial broadleaf weeds Use 4.5 pints (1.0 lbs ae/acre per application)
For moderately susceptible biennial and perennial broadleaf weeds 2.25 - 4.5 quarts (1.0 lb to 2 lbs ae/acre per application)
For difficult to control weeds and woody plants Use 4.5 quarts (2.0 lbs ae/acre) per application

- Limited to 2 applications per year
- Maximum of 2.0 lbs ae/acre per application
- Minimum of 30 days between applications
- If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable
- The preharvest interval (PHI) is 7 days (cut forage for hay)
- For program lands, such as Conservation Reserve Program, consult 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 to legumes, bent grass, 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 can be made at least 30 days prior to seeding. Newly seeded stands should only be treated after they are all well established (more than 5 true leaves) or injury may occur. Apply 1.0 – 4.0 pints per acre when weeds are small and actively growing. 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. Apply 2.25 – 3.25 pints per acre for annual weeds and up to 4.5 pints per acre for biennial or perennial weeds. Treat biennial weeds when they are in the seedling to rosette stage and before flower stalks become apparent. Treat perennial weeds in the bud to bloom stage. For brush species in rangeland, apply up to 4.5 quarts per acre in an oil spray (see Mixing Instructions). Another option is to add 1 gallon of oil per acre to a **HardBall** water spray (see Mixing Instructions). Repeat applications in the same or subsequent year may be needed to control brush species.

Livestock Feeding Restrictions Do not graze dairy animals on treated areas within 6 days of application. Do not graze meat animals within 3 days of slaughter. Treated grass cut for hay should not be cut within 30 days of application. For government program grasslands, follow program grazing restrictions if more restrictive than those stated above.

PISTACHIOS FILBERTS POME FRUITS STONE FRUITS AND TREE NUT ORCHARDS

HardBall is comprised of a 2,4-D acid formulation that may be used in low volume ground application equipment. The product is used in directed applications to control broadleaf weeds in established pistachio, pome fruits, stone fruits, and tree nut plantings and orchards. **HardBall** is to be applied as a broadcast treatment in the row middles of established trees as well as a band application to control many broadleaf weeds in the tree rows and the orchard floor.

Note Established and transplanted stock must be at least (1) one year old and in good growing conditions.

APPLICATION METHOD

The precise and uniform application of **HardBall** is essential to obtain satisfactory economic control while minimizing the potential injury to the trees. Avoid direct contact with the fruit, foliage, lower limbs, stems, tree trunks, and any exposed roots.

It is best to use a fixed boom with flat fan nozzles at not more than 25 psi. For small concentrated infestations, small areas, individual weeds, or as a follow up application, spot treating is recommended with hand held nozzle sprayer. Do not apply **HardBall** when conditions favorable to drift are present.

APPLICATION TIMING

Most annuals will be best controlled when they are actively growing either in the spring or fall. Most biennials are best controlled when they are in the seedling to rosette stage. Sequential applications may have to be utilized to obtain the best results. Perennials that are either in the early bud to bloom stage or during fall regrowth have the best chance of being controlled at this time.

TANK MIXTURES

For improved broadleaf control, **HardBall** may be applied in combination with other approved products. The combination must be used in accordance to the most restrictive label limitations of the product in the tank mix. Both products must be labeled for the site of application. Dosages of the tank mix must not cause either product to exceed the tolerance established for that active ingredient on the use site to be applied on. All applications of the tank mix must be in accordance with Federal, State, and local use limitations.

IRRIGATION RESTRICTIONS

Hardball is not to be applied to sandy or shallow soils or to dry soils without vegetation in Pistachio, Pome Fruit, Stone Fruit, or Tree Nut Orchards. Best results with **HardBall** can be obtained when the product is applied 1-2 days following irrigation.

Do not apply the product immediately prior to irrigation or irrigate immediately following an application

DO NOT APPLY HardBall THROUGH ANY TYPE OF IRRIGATION SYSTEM DOSAGE RATES FOR BROADLEAF WEED CONTROL

The following dosage rate listed are for broadcast applications The proper amount of **HardBall** to be used in banded or row applications must be determined by using the following formula

$$\text{Dosage Rate per Treated Acre} = \frac{\text{Spray Band Width} \times \text{Broadcast rate per Acre}}{\text{Tree Row Width}}$$

Recommended Spray Volumes Generally 1 – 10 gallons per acre is sufficient but in many cases 10 – 25 gallons may be needed to obtain adequate coverage

Note Do not graze or feed cover crops from treated orchards to livestock

PISTACHIOS

CROP STAGE	APPLICATION RATE/ACRE	DIRECTIONS/TIMING
Orchard Floor Broadcast	0.6 – 1.5 gallons	Most annuals will be best controlled when they are actively growing either in the spring or fall. Most biennials are best controlled when they are in the seedling to rosette stage. Sequential applications may have to be utilized to obtain the best results. Perennials that are either in the early bud to bloom stage or during fall regrowth have the best chance of being controlled at this time.

RESTRICTIONS AND LIMITATIONS PISTACHIOS

- Limited to 2 applications per year
- Maximum of 4.5 quarts (2.0 lbs) ae/acre per application
- Minimum of 30 days between applications
- PHI (Pre Harvest Interval) 60 days
- Do not cut orchard floor forage for hay within 7 days of application

POME FRUITS (Apples and Pears)

CROP STAGE	APPLICATION RATE HardBall	DIRECTIONS/TIMING
Orchard Floor Broadcast	0.6 – 1.5 gallons per acre	Apply broadcast for the control of unwanted vegetation on the orchard floors. It is important to avoid contact with the fruit, fruit foliage, and tree trunks, lower limbs, and exposed brace roots. Two applications 75 days apart are permitted.

RESTRICTIONS AND LIMITATIONS POME FRUITS

Postemergence

- Limited to 2 applications per year
- Maximum of 4.5 quarts (2.0 lbs) ae/acre per application
- Minimum of 75 days between applications
- Do not cut orchard floor forage for hay within 7 days of application
- PHI (Pre Harvest Interval) 14 days

STONE FRUITS (Cherries, Peaches, Plums)

CROP STAGE	APPLICATION RATE HardBall	DIRECTIONS/TIMING
Orchard Floor Broadcast	0.6 – 1.15 gallons per acre	Apply at the broadcast rate of per application for the control of unwanted vegetation on the orchard floors. It is important to avoid contact with the fruit foliage, tree trunks, lower limbs and exposed brace roots. Two applications 75 days apart are permitted per year.

RESTRICTIONS AND LIMITATIONS STONE FRUITS

Postemergence

- Limited to 2 applications per year
- Maximum of 4.5 quarts (2.0 lbs) ae/acre per application
- Minimum of 75 days between applications
- Do not cut orchard floor forage for hay within 7 days of application
- PHI (Pre Harvest Interval) 40 days

POTATOES (Fresh Market Only)

CROP STAGE	APPLICATION RATE	DIRECTIONS/TIMING
Postemergence	3.25 – 5.0 ounces per acre (Max rate 0.07 lbs acid equivalent per acre)	Make first application when potatoes are in pre bud stage (about 7 to 10 inches) and make a second application 10 to 14 days later.

RESTRICTIONS AND LIMITATIONS POTATOES

Postemergence

- PHI (Pre Harvest Interval) Do not harvest within 45 days of application
- Maximum rate 0.07 lbs acid equivalent per acre per application
- Limited to 2 applications per year
- Retreatment Interval Minimum of 10 days between applications

RICE

WEEDS IN CROPS	AMOUNT OF HardBall PER ACRE	DIRECTIONS FOR USE
Preplant	1 – 2.25 quarts	Apply HardBall 2-4 weeks prior to planting
Postemergent	1 – 3.25 quarts	Apply in the late tillering stage of development at the time of first joint development (first to second green ring) usually 6 to 9 weeks after emergence

Preplant

- Limited to one preplant application per crop cycle
- Maximum of 4.5 pints (1.0 lb ae/acre) per preplant application

Postemergence

- Limited to one postemergence application per crop cycle
- Maximum of 1.5 lbs ae/acre per postemergence application

Note Do not apply after panicle initiation after rice internodes exceed 1/2 inch at early seedling early panicle boot flowering or early heading growth stages Do not harvest within 60 days of application Maximum allowable use rate per acre per season is 1.5 pounds acid equivalent Use 2 or more gallons of spray solution per acre 2.4 D can injure some rice varieties Before spraying consult local Extension Service or University specialists for appropriate rates and timing of sprays

WILD RICE

(For use in Minnesota Only)

CROP STAGE	MAXIMUM APPLICATION RATE/ACRE	DIRECTIONS/TIMING
Postemergence paddies	10 – 12 ounces	For use only on wild rice grown commercially Apply to rice in the 1 to 2 aerial leaf through early tillering stage Do not spray after wild rice has reached the boot stage For best coverage apply 4 to 10 gallons total spray solution per acre

RESTRICTIONS AND LIMITATIONS FOR USE ON WILD RICE

- PHI Do not harvest within 60 days of application
- Limited to one (1) Application per crop cycle
- Max seasonal rate Apply no more than 18 ounces (0.25 lb acid equivalent) per acre use season
- Use 2 or more gallons of spray solution per acre

SORGHUM (Milo Grain)

WEEDS IN CROPS	AMOUNT OF HardBall PER ACRE	DIRECTIONS FOR USE
Postemergence	½ 4 5 pints	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 Do not treat during the boot flowering or early dough stages Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following applications
Over the top Application	½ 2 25 pints	When crop is 6 to 8 inches tall use as an over the top broadcast spray by ground or air

RESTRICTIONS AND LIMITATIONS SORGHUM (Milo)

- Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following application
- PHI Do not harvest within 30 days of application
- Limited to one (1) Application per crop cycle
- Max seasonal rate Apply no more than 4 5 pints (1 0 lb acid equivalent) per acre use season
- Use 2 or more gallons of spray solution per acre

SORGHUM – SUDAN GRASS HYBRIDS (Forage Crop Only)

WEEDS IN CROPS	AMOUNT OF HardBall PER ACRE	DIRECTIONS FOR USE
Postemergence	1 – 4 5 pints	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 16 to 35 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 LIMITATION Sorghum Sudan Grass Hybrids (Forage Crop Only)

- Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following application
- PHI Do not harvest within 30 days of application
- Limited to one (1) application per crop cycle
- Max seasonal rate Apply no more than 4.5 pints (1.0 lb acid equivalent) per acre use season
- Use 2 or more gallons of spray solution per acre

SOYBEANS (Preplant Only)

WEEDS IN CROP	AMOUNT OF HardBall PER ACRE	DIRECTIONS FOR USE
Preplant only	2 to 2.5 pints	Apply not less than 30 days prior to planting soybeans when weeds are small and actively growing Use the higher rate on larger weeds and when perennials are present Limited to two (2) applications
	4.5 pints	Apply not less than 30 days prior to planting soybeans when weeds are actively growing Limited to one (1) application
		<p>In addition to those weeds found on the GENERAL WEED LIST HardBall will suppress or control the following broadleaf weeds frequently encountered in reduced tillage soybean production systems alfalfa bullnettle smallflowered bittercress Carolina geranium smallflowered buttercup common and rough cinquefoil red clover* horseweed or mare's tail mousetail wild mustard field pennycress cutleaf evening primrose common purslane speedwell velvetleaf and Virginia copperleaf* These weeds are only partially controlled</p> <p>Apply no more than 2.0 pints of HardBall in one season prior to planting soybeans 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</p> <p>If desired HardBall may be applied pre plant to soybeans in tank mixtures</p>

		<p>with other herbicides such as Poast® Poast Plus® Roundup® Roundup D Pak® Honcho® Gramoxone Extra® Prowl® Pursuit Plus® Scepter® Scepter 70 DC Squadron® and others that are registered for pre plant soybean use</p> <p>NOTE Unacceptable injury to soybeans planted in fields previously treated with HardBall may occur and the extent of injury will depend on weather and agronomic factors such as the amount of weed vegetation and previous crop residue present that may be in effect between the time of application and the emergence of the soybean plant</p>
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RESTRICTIONS AND LIMITATIONS FOR USE IN SOYBEANS (PRE PLANT)

Preplant

- **Preplant for Two (2) applications per crop cycle**
 - Limited to 2 preplant applications per crop cycle
 - Maximum of 36 ounces per acre per preplant application
 - Apply not less than 15 days prior to planting soybeans

- **Preplant for Single (1) application per crop cycle**
 - Limited to 1 preplant application per crop cycle
 - Maximum of 72 ounces per acre per preplant application
 - Apply not less than 30 days prior to planting soybeans

- Do not apply **HardBall** when weather conditions such as temperature air inversions or wind favor drift from treated areas to susceptible plants
- Do not apply **HardBall** prior to planting soybeans if you are not prepared to accept the results of soybean injury including possible loss of stand and yield
- Do not replant fields treated with **HardBall** 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 **HardBall** as poor control may result
- Do not cut for feed treated hay forage or fodder or graze treated soybeans to livestock
- Do not apply **HardBall** pre plant to soybeans in fields having a coarse textured soil where the percent organic matter is <1.0%
- 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

STRAWBERRIES

CROP STAGE	APPLICATION RATE/ACRE	DIRECTIONS/TIMING
Dormant or after last picking	6.675 pints	Apply to established plantings when strawberries have gone into dormancy or soon after the last picking

RESTRICTIONS AND LIMITATIONS FOR USE IN STRAWBERRIES

Limited to 1 application per crop cycle

Maximum seasonal rate 110 ounces (1.5 lbs ae/acre) per acre per application

State Restrictions Do not apply in California or Florida

SUGARCANE

WEEDS IN CROPS	AMOUNT OF HardBall PER ACRE	DIRECTIONS FOR USE
Preemergence	4 to 8 pints	Apply as a preemergent spray before canes appear for control of emerged weeds
Postemergence	8 to 9.2 pints	Apply after cane emerges through canopy closure. Consult local Agricultural Experiment or Extension Service Weed Specialists on specific use of this product

RESTRICTIONS AND LIMITATIONS

Preemergence

- Limited to one application per crop cycle
- Maximum of 2.0 lbs ae/acre per application

Postemergence

- Limited to one application per crop cycle
- Maximum of 2.0 lbs ae/acre per application
- Do not harvest cane prior to crop maturity

Maximum per Crop Cycle

- Do not apply more than 4 lbs ae/acre per crop cycle
- Always use more than 2 gallons of spray solution per acre

SOD FARMS

HardBall is intended for use on Sod Farms to provide selective control of certain broadleaf weeds in cool season and warm season turfgrass established for commercial sod production. Apply **HardBall** to actively growing broadleaf weeds. Follow up may be required for dense infestations of perennial and biennial weeds. For best results do not mow turf 1 to 2 days before or after application. Turf watering should be delayed until two days after application. Do not apply to newly seeded areas until grass is well established and has been mowed at least twice.

Reseeding Grass areas Do not reseed until at least 30 days after application of **HardBall**. Seeding a small area and observing response is recommended before a large scale seeding is accomplished.

Application Rates

HardBall application rates and spray volumes will vary with the growth stage and population of broadleaf weeds to be controlled. In general the smaller the weed the lower use of the listed rate range will provide satisfactory control. The larger the weed the population and environmental conditions will require the higher end of the rate range to achieve satisfactory control especially for many of the perennial broadleaf weeds.

Rate For Sod Farms		
Species	Amount of Product Pints/Acre	Spray Volume Gallons/Acre
Cool Season Turf		
Kentucky Bluegrass	2 to 3.5	20 to 100
Perennial Ryegrass	2 to 3.5	20 to 100
Fescue spp	2 to 3.5	20 to 100
Creeping Bentgrass	1.5	20 to 100
Warm Season Turf		
Centipede grass	1.5 to 2.5	20 to 100
Common Bermudagrass	1.5 to 2.5	20 to 100
Hybrid Bermudagrass	1.5 to 2.5	20 to 100
Bahiagrass	1.5 to 2.5	20 to 100
Zoysiagrass	1.5 to 2.5	

Precautions and Limitations for SOD FARMS

- Limited to two (2) applications per year
- Maximum of 4.5 quarts (2 lbs ae) per acre per application
- Retreatment interval is 21 days
- Do not apply this **HardBall** to any variety of St Augustine grass. Do not use **HardBall** on carpet grass, Dichondra or where desirable clovers are present.
- Do not apply this product through any type of irrigation system.
- Avoid drift or spray mist onto vegetables, flowers, ornamental plants, shrubs, trees, and other desirable plants. Do not pour spray solution or rinse near any desirable plants.
- Do not apply **HardBall** immediately before rainfall or irrigation. Do not water the turfgrass for 24 hours after application.
- Application to Bermuda grass can be during dormancy or when actively growing. Do not apply during periods of semi dormancy or transition.

FOREST MANAGEMENT (INCLUDING SITE PREP, FOREST ROADSIDES, BRUSH CONTROL, ESTABLISHED CONIFER RELEASE)

For the general control of annual, biennial and perennial broadleaf weeds and brush: Apply to emerged weeds and brush. For best results, treat when weeds and brush are young and actively growing. For broadcast applications, apply no more than 2.25 gallons (4.0 lbs acid equivalent) per acre per 12 months.

Broadcast application

Limited to 1 broadcast application per year

Maximum of 2.25 gallons (4.0 lbs ae)/acre per broadcast application

Basal spray Cut Surface – Stumps and Frill
 Limit of one basal spray or cut surface application per year
 Maximum of 4.5 gallons (8.0 lbs ae) per 100 gallons of spray solution

Injection
 Limit to one injection application per year
 Maximum of 2 ml of 4.0 lbs ae formulation per injection site

For specific use site applications and restrictions see the appropriate site specific instructions as follows

Forest Site Preparation

Bud break Spray For control of alder susceptible broadleaf weeds and susceptible woody plants before planting forest seedlings apply up to 2.0 gallons per acre in a minimum of 10 gallons spray mixture per acre. Apply as an oil spray (see Mixing Instructions) 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.

ANNUAL BIENNIAL PERENNIAL BROADLEAF WEEDS AND GENERAL BRUSH CONTROL

Foliage Spray To control seedlings and susceptible woody plants before planting forest apply up to 2.0 gallons 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 Mixing Instructions). For best results apply after alder foliage has reached full size.

TREE AND BRUSH CONTROL (i.e. alder, ash, aspen, birch, black gum, cherry, elm, oak, sweet gum, tulip poplar, willow and others)

Basal Spray Treatment Mix 2.4 gallons of **HardBall** per 100 gallons of diluent (may contain oil). Apply directly to base and root collar of all stems until the spray begins to accumulate at the ground line. Also wetting stems with this mixture may aid control.

Cut Surface Stumps Mix 2.4 gallons of **HardBall** per 100 gallons of diluent (may contain oil). Apply as soon as possible after curing trees. Thoroughly soak the entire stump with 2.4 D mixture. Also treat exposed roots and bark.

Frill Mix 2.4 gallons of **HardBall** per 100 gallons of diluent (may contain oil). Make frills with an axe or other tool that can cut overlapping v shaped notches through the bark in a continuous ring around the base of the tree. Treat freshly cut frills with as much **HardBall** mixture as they will hold.

Injection Make injections as near to the root collar as possible using one injection per inch of trunk dbh (4 1/2 feet) for resistant species such as hickory. Injections should overlap. For best results injections should be made during the growing season (May 15th through October 15th in many areas). The injection bit must penetrate the bark. Apply 2.4 ml of **HardBall** per injection site.

Conifer Release To control alder susceptible broadleaf weeds and susceptible woody plants in young conifer stands apply up to 1 gallon per acre in a minimum of 10 gallons spray mixture per acre. 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.

To control tanoak madrone ceanothus canyon live oak and manzanita and to release Douglas fir hemlock Sitka spruce or grand fir apply up to 1.5 gallons 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 Mixing Instructions). 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. For dormant applications in late winter or early spring for control of susceptible woody species such as alder willow poplars cherry vine maple ceanothus tanoak madrone and manzanita apply up to 1.5 gallons 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 Mixing Instructions). Do not use in plantations where pine and larch are among the desired crop species.

To control hazel brush in the Lake states apply up to 1.0 gallon 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).

After conifer species such as white pine ponderosa pine jack pine red pine black spruce white spruce red spruce and balsam fir cease growth and harden off and brush is still actively growing in late summer apply up to 1.5 gallons per acre in a minimum of 10 gallons spray mixture per acre. Apply as a water spray to control certain competing hardwoods such as alder aspen birch hazel and willow. However if possible injury cannot be tolerated do not use since this treatment may cause conifer injury.

Forest Roadsides To control susceptible broadleaf weeds and woody plants on forest roadsides apply 0.5 - 1.5 gallons 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 Mixing Instructions). Apply when sufficient foliage is present for absorption.

Established Conifers (including Christmas trees)

Directed Spray or Spot Spray To control susceptible broadleaf weeds mix up to 1.0 gallon per 100 gallons of water and apply to emerged weeds in the spring with ground equipment. Avoid contacting conifer foliage with spray or drift as injury may result. For brush mix 2.0 gallons per 100 gallons of water. Thoroughly spray brush in full foliage but avoid contacting conifer foliage with spray or drift. Do not apply more than the equivalent of 2.0 gallons per acre.

Over the Top Broadcast Application To control susceptible broadleaf weeds apply 0.5 gallons per acre in a minimum of 10 gallons spray mixture per acre. To decrease the potential for injury to firs apply only before bud break 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.

AQUATIC WEED CONTROL

Notice to Applicators Before application coordination and approval of local and state authorities may be required either by letter of agreement or issuance of special permits for such use.

Ground or Surface Application Do not apply when wind speeds are at or above 10 mph.

Air Application Do not apply when wind speeds are at or above 5 mph. The restrictions do not apply to subsurface applications used in weed control programs.

**DITCH BANK APPLICATION
RESTRICTIONS AND LIMITATIONS WEED AND BRUSH ON IRRIGATION CANAL DITCHBANKS**

- **Postemergence**
 - Limited to 2 applications per season
 - Maximum of 1 15 gallons (2 lb ae) per acre per application
 - Maximum of 2 25 gallons (4 lb ae) per acre per season
 - Minimum of 30 days between applications
- **Spot treatment permitted**
- Do not use on small canals with a flow rate less than 10 cubic feet per second (CFS) where water will be used for drinking purposes CFS may be estimated by using the formula below The approximate velocity needed for the calculation can be determined by observing the length of time that it takes a floating object to travel a defined distance Divide the distance (ft) by the time (sec) to estimate velocity (ft per sec) Repeat 3 times and use the average to calculate CFS

Average Width (ft) x Average Depth (ft) x Average Velocity (ft per sec) = CFS

- **Note For ditchbank weeds**
 - Do not allow boom spray to be directed onto water surface
 - Do not spray across stream to opposite bank
- When spraying shoreline weeds allow no more than 2 foot overspray onto water with an average of less than one foot overspray to prevent introduction of greater than negligible amounts of chemical into the water

Use power sprayers operated with a boom or spray gun mounted on a boat tractor or truck Thorough wetting of foliage is essential for maximum control Use 100 to 400 GPA of spray mixture Special precautions such as the use of low pressure large nozzles and thickening agents should be taken to avoid spray drift in areas of sensitive crops For DIRECTASPRA™ operation use with 1 pint of drift control agent in 50 to 100 gallons of water For other applications follow the drift control agent label for mixing directions

FOR AQUATIC WEEDS IN LAKES PONDS RESERVOIRS MARSHES BAYOUS DRAINAGE DITCHES CANALS AND RIVERS AND STREAMS THAT ARE QUIESCENT OR SLOW MOVING INCLUDING PROGRAMS OF THE TENNESSEE VALLEY AUTHORITY Use 1 5 gallons of **HardBall** per acre foot For best results apply in spring or early summer A second treatment may be needed when weeds show signs of recovery but no later than September in most areas Spray to wet foliage thoroughly Application should be made when leaves are fully developed above water line and plants are actively growing Apply to attain a concentration of 2 to 4 ppm

EMERGENT AND FLOATING WEEDS

Surface Application Apply 2 3 gallons per acre in a minimum spray volume of 5 gallons mix per acre

Air Application Use drift control spray equipment or thickening agents mixed into the spray solution Apply 2 3 gallons per acre through standard boom systems with a minimum of 5 gallons of spray mix per acre For MICROFOIL® drift control spray systems apply in 12 15 gallons spray mix per acre

- Maximum of 2 3 gallons (4 0 lbs ae)/surface acre per application
- Limited to 2 applications per season
- Minimum of 21 days between applications
- Spot treatments are permitted

Apply to emergent aquatic weeds in ponds lakes reservoirs marshes bayous drainage ditches non irrigation canals rivers and streams that are quiescent or slow moving Coordination and approval of local and state authorities may be required either by letter of agreement or issuance of special permits for aquatic applications

Water Use

1 Water for irrigation or sprays

A If treated water is intended to be used only for crops or non crop areas that are labeled for direct treatment with 2 4 D such as pastures turf or cereal grains the treated water may be used to irrigate and/or mix sprays for these sites at anytime after the 2 4 D aquatic application

B Due to potential phytotoxicity considerations the following restrictions are applicable If treated water is intended to be used to irrigate or mix sprays for plants grown in commercial nurseries and greenhouses and other plants or crops that are not labeled for direct treatment with 2 4 D the water must not be used unless one of the following restrictions has been observed

- i** A setback distance from functional water intake(s) of ≥ 600 ft was used for the application or
- ii** A waiting period of 7 days from the time of application has elapsed or
- iii** An approved assay indicates that the 2 4 D concentration is 100 ppb (0.1 ppm) or less at the water intake Wait at least 3 days after application before initial sampling at water intake

2 Drinking water (potable water)

A Consult with appropriate state or local water authorities before applying this product to public waters State or local agencies may require permits The potable water use restrictions on this label are to ensure that consumption of water by the public is allowed only when the concentration of 2 4 D in the water is less than the MCL (Maximum Contaminant Level) of 70 ppb Applicators should consider the unique characteristics of the treated waters to assure that 2 4 D concentrations in potable water do not exceed 70 ppb at the time of consumption

B For floating and emergent weed applications the drinking water setback distance from functioning potable water intakes is ≥ 600 ft

C If no setback distance of ≥ 600 ft is used for the application applicators or the authorizing organization must provide a drinking water notification prior to a 2 4 D application to the party responsible for a public water supply or to individual private water users Notification to the party responsible for a public water supply or to individual private water users must be done in a manner to assure that the party is aware of a water use restrictions when this product is applied to potable water

The following is an example of an example of notification via posting but other methods of notification which convey the above restrictions may be used and may be required in some cases under state or local law or as a condition of a permit

Example Posting notification should be located every 250 feet including the shoreline of the treated area and up to 250 feet of shoreline past the application site to include immediate public access points Posting must include the day and time of application Posting may be removed if analysis of a sample collected at the intake 3 or more days following application shows that the concentration in the water is less than 70 ppb (100 ppb for irrigation or sprays) or after 7 days following application whichever occurs first

Text of notification Wait 7 days before diverting functioning surface water intakes from the treated aquatic site to use as drinking water irrigation or sprays unless water at functioning drinking water intakes is tested at least 3 days after application and is demonstrated by assay to contain not more than 70 ppb 2 4 D (100 ppb for irrigation or sprays)
Application Date _____ Time _____

D Following each application of this product treated water must not be used for drinking water unless one of the following restrictions has been observed

- I A setback distance from functional water intake(s) of ≥ 600 ft was used for the application or
- II A waiting period of at least 7 days from the time of application has elapsed or
- III An approved assay indicates that the 2 4 D concentration is 70 ppb (0 07 ppm) or less at the water intake
Sampling for drinking water analysis should occur no sooner than 3 days after 2 4 D application Analysis of samples must be completed by a laboratory that is certified under the Safe Drinking Water Act to perform drinking water analysis using a currently approved version of analytical Method Number 515 555 other methods for 2 4 D as may be listed in Title 40CFR Part 141 24 or Method Number 4015 (immunoassay of 2 4 D) from U S EPA Test Methods for Evaluating Solid Waste SW 846

E Note Existing potable water intakes that are no longer in use such as those replaced by a connection to municipal water system or a potable water well are not considered to be functioning potable water intakes

F Drinking water setback distances do not apply to terrestrial applications of 2 4 D adjacent to water bodies with potable water intakes

3 Except as stated above there are no restrictions on using water from treated areas for swimming fishing watering livestock or domestic purposes

SUBMERGED AQUATIC WEEDS

Subsurface Application Apply 2 5 – 6 2 gallons per acre foot as a concentrate directly into the water through boat mounted distribution systems

Maximum of 10 8 lbs ae/per acre foot per application

Limited to 2 applications per season

Apply to aquatic weeds in ponds lakes reservoirs marshes bayous drainage ditches non irrigation canals rivers and streams that are quiescent or slow moving

Do not apply within 21 days of previous application

When treating moving bodies of water applications must be made while traveling upstream to prevent concentration of 2 4 D downstream from the application

Coordination and approval of local and state authorities may be required either by letter of agreement or issuance of special permits for such use

Surface Area	Average Depth	For typical conditions – 2 ppm 2 4 D ae/acre foot	For difficult conditions* 4ppm 2 4 D ae/acre
1 acre	1 ft	5 4 lbs	10 8 lbs
	2 ft	10 8 lbs	21 6 lbs
	3 ft	16 2 lbs	32 4 lbs
	4 ft	21 6 lbs	43 2 lbs
	5 ft	27 0 lbs	54 0 lbs

Examples include spot treatment of pioneer colonies of Eurasian Water Milfoil and certain difficult to control aquatic species

Water Use

1 Water for irrigation or sprays

A If treated water is intended to be used only for crops or non crop areas that are labeled for direct treatment with 2 4 D such as pastures turf or cereal grains the treated water may be used to irrigate and/or mix sprays for these sites at anytime after the 2 4 D aquatic application

B Due to potential phytotoxicity and/or residue considerations the following restrictions are applicable
If treated water is intended to be used to irrigate or mix sprays for unlabeled crops non crop areas or other plants not labeled for direct treatment with 2 4 D the water must not be used unless one of the following restrictions has been observed

- i A setback distance described in the Drinking Water Setback Table was used for the application or
- ii A waiting period of 21 days from the time of application has elapsed or
- iii An approved assay indicates that the 2 4 D concentration is 100 ppb (0 1 ppm) or less at the water intake See Table 3 for the waiting period after application but before taking the initial sampling at water intake

2 Drinking water (potable water)

A Consult with appropriate state or local water authorities before applying this product to public waters State or local agencies may require permits

The potable water use restrictions on this label are to ensure that consumption of water by the public is allowed only when the concentration of 2 4 D in the water is less than the MCL (Maximum Contaminant Level) of 70 ppb Applicators should consider the unique characteristics of the treated waters to assure that 2 4 D concentrations in potable water do not exceed 70 ppb at the time of consumption

B For submersed weed applications the drinking water setback distances from functioning potable water intakes are provided in Table 2 Drinking Water Setback Distance (below)

C If no setback distance from the Drinking Water Setback Table (Table 2) is to be used for the application applicators or the authorizing organization must provide a drinking water notification and an advisory to shut off all potable water intakes prior to a 2 4 D application Notification to the party responsible for a public water supply or to individual private water users must be done in a manner to assure that the party is aware of the water use restrictions when this product is applied to potable water The following is an example of an example of notification via posting but other methods of notification which convey the above restrictions may be used and may be required in some cases under state or local law or as a condition of a permit

Example

Posting notification should be located every 250 feet including the shoreline of the treated area and up to 250 feet of shoreline past the application site to include immediate public access points Posting should include the day and time of application Posting may be removed if analysis of a sample collected at the intake no sooner than stated in Table 3 (below) shows that the concentration in the water is less than 70 ppb (100 ppb for irrigation or sprays) or after 21 days following application whichever occurs first

Text of notification Wait 21 days before diverting functioning surface water intakes from the treated aquatic site to use as drinking water irrigation or sprays unless water at functioning drinking water intakes is tested no sooner than (insert days from Table 3) and is demonstrated by assay to contain not more than 70 ppb 2 4 D (100 ppb for irrigation or sprays)
Application Date _____ Time _____

D Following each application of this product treated water must not be used for drinking water unless one of the following restrictions has been observed

- i A setback distance described in the Drinking Water Setback Distance Table was used for the application or
- ii A waiting period of at least 21 days from the time of application has elapsed or
- iii An approved assay indicates that the 2,4-D concentration is 70 ppb (0.07 ppm) or less at the water intake. Sampling for drinking water analysis should occur no sooner than stated in Table 3. Analysis of samples must be completed by a laboratory that is certified under The Safe Drinking Water Act to perform drinking water analysis using a currently approved version of analytical Method Number 515.555 or other methods for 2,4-D as may be listed in Title 40 CFR Part 141.24 or Method Number 4015 (immunoassay of 2,4-D) from U.S. EPA Test Methods for Evaluating Solid Waste SW 846.

E Note Existing potable water intakes that are no longer in use such as those replaced by a connection to a municipal water system or a potable water well are not considered to be functioning potable water intakes

F Drinking water setback distances do not apply to terrestrial applications of 2,4-D adjacent to water bodies with potable water intakes

3 Except as stated above there are no restrictions on using water from treated areas for swimming, fishing, watering livestock or domestic purposes

Table 2 Drinking Water Setback Distance for Submersed Weed Applications			
Application Rate and Minimum Setback Distance (feet) from Functioning Potable Water Intake			
1 ppm*	2ppm	3ppm	4ppm
600	1200	1800	2400
ppm acid equivalent target water concentration			

Table 3 Sampling for Drinking Water Analysis After 2,4-D Application for Submersed Weed Applications			
Minimum Days After Application Before Initial Water Sampling at the Functioning Potable Water Intake			
1 ppm	2ppm	3ppm	4ppm
5	10	10	14
ppm acid equivalent target water concentration			

WATER HYACINTH (*Eichornia crassipe*) For control of actively growing plants with surface and air applications use 4 - 8 pints per acre. **Spray the weed mass only**. Use 8 pints when plants are matured or when the weed mass is dense.

WATER MILFOIL (*Myriophyllum spicatum*) For Eurasian Water Milfoil in programs conducted by the Tennessee Valley Authority (TVA) in dams and reservoirs of the TVA system. **HardBall** will control Water Milfoil with surface, subsurface and air applications.

To control water milfoil when less than 5 gallons of concentrate per acre is specified, dilute the concentrate with water to apply a minimum of 5 gallons of spray mix per acre. Do not treat within 1/2 mile of potable water intakes. Shoreline areas should be treated by sub-surface injection applied by boat to avoid aerial drift. Do not apply when weather conditions favor drift from target area.

Restrictions and Limitations for Aquatic Use

Do not exceed 4.0 lbs acid equivalent per surface acre per application. Do not reapply less than 3 weeks after prior application. Do not apply within 1,500 feet of active potable water intakes.

Fish breathe dissolved oxygen in the water and a water/oxygen ratio must be maintained. Decaying weeds use up oxygen. When treating continuous dense weed masses, it may be appropriate to treat only part of the infestation at a time. For example, apply **HardBall** in lanes separated by untreated strips that can be treated after vegetation in treated lanes has disintegrated. During the growing season, weeds decompose in a 2 to 3 week period following treatment. Waters having limited and less dense weed infestations may not require partial treatments. Other local factors such as water exchange and sediment load can also influence the dissolved oxygen level.

To avoid fish kill from decaying plant material, do not treat more than one half the lake or pond at one time. For large bodies of weed infested waters, leave buffer strips of at least 100 feet wide and delay treatment of these strips for 4 to 5 weeks or until the dead vegetation has decomposed.

Water Use Instructions

Unless an approved assay indicates that the 2,4-D concentration is 100 ppb (0.1 ppm) or less, or only growing crops and non-crop areas labeled for direct treatment with 2,4-D will be effected, do not use water from treated areas for:

1. Irrigating plants (especially cotton, grapes, and tomatoes)
2. Mixing sprays for agricultural or ornamental plants

Unless an approved assay indicates the 2,4-D concentration is 70 ppb (0.07 ppm) or less, do not use water from treated areas for potable water (drinking water).

Except as stated above, there are no restrictions on using water from treated areas for fishing, watering livestock, or domestic purposes.

**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 should 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. To the extent consistent with applicable law, 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 consistent with applicable 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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45/96

BASE LABEL LANGUAGE



HardBall

ACTIVE INGREDIENT

2,4-Dichlorophenoxyacetic Acid

19.6%

INERT INGREDIENTS

80.4%

TOTAL

100.0%

Equivalent to 19.6% 2,4-D Acid or 1.74 lb/gal

Isomer specific by AOAC Method 6 D01.5 (12th Ed.)

Patent No. 5,877,112

Other Patents Pending

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

Si usted no entiende la etiqueta busque a alguien para que se la explique a usted en detalle

(If you do not understand the label find someone to explain it to you)

FIRST AID	
IF IN EYES	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes • Remove contact lenses if present after the first 5 minutes then continue rinsing eye • Call a poison control center or doctor immediately for advice
IF SWALLOWED	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for advice • Have person sip a glass of water • Do not induce vomiting unless instructed to do so by poison control center or doctor • Do not give anything by mouth to an unconscious or convulsing person
IF INHALED	<ul style="list-style-type: none"> • Move victim to fresh air • If person is not breathing call 911 or an ambulance then give artificial respiration preferably mouth to mouth if possible • Call a poison control center or doctor immediately for further treatment advice
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> • Take off contaminated clothing • Rinse immediately with plenty of water for 15-20 minutes • Call a poison control center or doctor for treatment advice
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency assistance call toll free 1-800-424-9300 (ChemTrec)	
NOTE TO PHYSICIAN Probable mucosal damage may contraindicate the use of gastric lavage. Causes irreversible eye damage	

See Additional Precautions and Use Directions on Inside Panels

EPA REG NO 5905 549

SN 1206/1008

EPA EST NO First Letters of Product Batch Code

NET CONTENTS

Indicate Producing Establishment 5905 AR 1=WA •

5905 GA 1=CG • 5905 IA 1=DI • 5905 CA 1=KC

MANUFACTURED FOR

HELENA CHEMICAL COMPANY

225 SCHILLING BOULEVARD SUITE 300

COLLIERVILLE TENNESSEE 38017

96/96

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER – PELIGRO

Corrosive Causes irreversible eye damage Harmful if swallowed Harmful if inhaled Do not get in eyes or on clothing Avoid breathing spray mist or vapor Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling

STORAGE AND DISPOSAL

Do not contaminate water food or feed by storage or disposal

PESTICIDE STORAGE Do not store below temperature of 0 F If frozen warm to 40 F and re dissolve 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 Do not store under conditions which might adversely affect the container or its ability to function properly

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 / 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 / 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 / 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 / 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