 <p>U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505C) 401 "M" St., S.W. Washington, D.C. 20460</p> <p>NOTICE OF PESTICIDE: <u>  X  </u> Registration <u>      </u> Reregistration (under FIFRA, as amended)</p>	EPA Reg. Number: 5905-549	Date of Issuance: FEB 23 2004
	Term of Issuance: Conditional	
	Name of Pesticide Product: Hardball	
Name and Address of Registrant (include ZIP Code): Helena Chemical Co. 225 Schilling Boulevard, Suite 300 Collierville, TN 38017		
<p><b>Note:</b> Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.</p> <p>On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.</p> <p>Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.</p> <p>This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:</p> <ol style="list-style-type: none"> <li>1. Submit and/or cite all data required for registration/reregistration of your product when the Agency requires all registrants of similar products to submit data.</li> <li>2. Make the following label changes listed below before you release the product for shipment: <ol style="list-style-type: none"> <li>a. Add the phrase, "EPA Reg. No. 5905-549".</li> <li>b. If all the precautional statements cannot appear on the front panel, add a referral statement similar to the following: <p style="margin-left: 40px;">See side panel for additional precautionary statements.</p> </li> </ol> </li> </ol>		
Signature of Approving Official:  151		Date: FEB 23 2004

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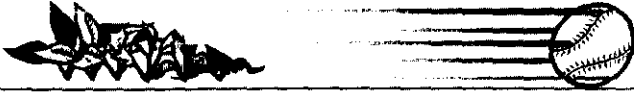
If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

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

Joanne I. Miller  
Product Manager (23)  
Herbicide Branch  
Registration Division (7505C)

Enclosure

# 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.)

**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.)

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

## DANGER – PELIGRO

Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Harmful if swallowed. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

### FIRST AID

**IF IN EYES:** • Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.  
• Call a poison control center or doctor immediately for advice.

**IF ON SKIN OR CLOTHING:** • Take off contaminated clothing.  
• Rinse immediately with plenty of water for 15-20 minutes.  
• Call a poison control center or doctor for treatment advice.

**IF SWALLOWED:**

- 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:** • 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.

### HOT LINE 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.

EPA REG. NO. 5905-

NET CONTENTS:

EPA EST. NO.

### MANUFACTURED BY

HELENA CHEMICAL COMPANY

225 SCHILLING BOULEVARD, SUITE 300

COLLIERVILLE, TENNESSEE 38017

### PERSONAL PROTECTIVE EQUIPMENT

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

#### Applicators and other handlers must wear:

- Long-Sleeved shirt and long pants
- Chemical-resistant gloves, such as Barrier Laminate, Nitrile Rubber, Neoprene Rubber, or Viton.
- Shoes plus socks
- Protective Eyewear
- Chemical-resistant apron when cleaning equipment, mixing or loading.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. After each day of use, clothing or PPE must not be re-used until it has been cleaned.

If this container contains over 1 gallon and less than 5 gallons, mixers and loaders who do not use a mechanical system (probe and pump) to transfer the contents of this container must wear coveralls or a chemical-resistant apron in addition to the other required PPE.

If this container contains 5 gallons or more in capacity, do not open pour. A mechanical system (such as a probe and pump or spigot) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### Engineering Control Statements

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

### USER SAFETY RECOMMENDATIONS

Users should:

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

### ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from target area. Spray equipment used in applying this product should be thoroughly cleaned before using for any other purpose. Use repeated flushing with soap and warm water or suitable chemical cleaner. It is best to use a separate sprayer for application of insecticides and fungicides. Do not contaminate water by cleaning of equipment or disposal of washwaters.

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and non-target plants.

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. At high temperatures (about 85° or higher), vapors from this product may injure susceptible plants growing nearby such as cotton, grapes, tobacco, fruit trees, legumes, vegetables, and ornamentals. Avoid applications in the vicinity of susceptible plants or when winds are blowing toward nearby susceptible plants or when temperature inversions are expected. Avoid direct application or spray drift to susceptible plants since very small quantities of this

herbicide can cause severe injury in the growing or dormant period. Plants contacted may be killed or suffer significant injury resulting in grade or yield losses. Do not apply in greenhouses.

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

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

### CHEMIGATION PROHIBITION

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

### DIRECTIONS FOR USE

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

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

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and

greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 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 such as Barrier Laminate, Nitrile Rubber, Neoprene Rubber, or Viton
- Shoes plus socks
- Protective Eyewear

**NON-AGRICULTURAL USE REQUIREMENTS**

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

**USE REQUIREMENTS FOR PASTURES, PERENNIAL GRASSLANDS, RANGELAND, FALLOW LAND AND NONCROP AREAS:** Do not enter treated areas until spray has dried. For early entry to treated areas, wear eye protection, chemical-resistant gloves, long-sleeved shirt, long pants, shoes and socks.

**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.

**STORAGE AND DISPOSAL**

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

**STORAGE:** Do not store below temperature of 0°F. If frozen, warm to 40°F and 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.

**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:**

**Metal:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Plastic:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Returnable-Refillable Container (Drum):** After use, return the container to the point of purchase or designated locations. This container must only be filled with **HARDBALL™**. **DO NOT RE-USE 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. If the container is not being refilled, return to the point of purchase.

**GENERAL 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 recommended 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 recommended 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° and agitate before using. This does

not affect the efficiency 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:

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

- Bull thistle
- Chamise
- Corn gromwell
- Dandelion
- Dogbanes
- Ground ivy
- Henbit
- Knotweed
- Manzanita
- Nettles
- Prickly lettuce
- Russian thistle
- Sagebrush (big, sand)
- Sand shinnery oak
- Smartweed, Pennsylvania
- Vervains
- Western ironweed
- Wild garlic

- Canada thistle
- Clover, red
- Coyotebrush
- Docks
- Goldenrod
- Hawkweed
- Hoary cress
- Many-flowered aster
- Musk thistle
- Peppergrass
- Rabbitbrush
- Sage, coastal
- Salsify (western, common)
- Smartweed, annual
- Tansy ragwort
- Vetch, hairy
- 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

**MIXING INSTRUCTIONS**

**HARDBALL™** is a micro-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 an micro-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

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

- |                             |             |
|-----------------------------|-------------|
| Alfalfa                     | Beggarticks |
| Bindweeds (hedge, European) | Buckbrush   |

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) systems are suggested to obtain more uniform application.

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

**TANK MIXES**

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

**COMPATIBILITY**

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

**PLANTING IN TREATED AREAS**

**Labeled Crops:** Within 29 days following an application of this product, plant only those crops named as use sites on this or other registered 2,4-D labels. Follow more specific

limitations, if any, provided in the directions for individual crops. Labeled crops may be at risk for crop injury or loss when planted soon after application, especially in the first 14 days. Degradation factors described below should be considered in weighing this risk.

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

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

#### **APPLICATIONS**

**READ ALL PRECEDING GENERAL SECTIONS OF LABEL AND WARRANTY BEFORE USE.**

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

#### **SOD FARMS**

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

**Cool Season Grasses:** To control many emerged broadleaf weeds in cool season turfgrasses such as tall fescue, bluegrass, or perennial ryegrass, apply 1.0- 3.25 pints per acre. Apply when weeds are small and actively growing under good moisture conditions. Do not use on centipede, carpetgrass, St. Augustine, bentgrass, or Dichondra turf, or where desirable clovers are present.

#### **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 control of many broadleaf weeds and small woody plants, apply 1.0 - 4.25 quarts per acre. Use the high rate for woody plants. Applications may be as broadcast sprays, small area sprays, or spot treatments. For small areas or spot spraying, use 0.5 pints per gallon of water and spray weeds to runoff. 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 when weeds are small and actively growing, but before weeds are too mature. Summer applications to older, drought-stressed weeds are less effective. However, weeds are more susceptible again in the fall when cooler, wetter conditions support active growth before a killing frost.

For fall treatment of mature weeds or perennial weed regrowth, use up to 2.25 quarts per acre. Several seasons of spring plus fall treatments may be necessary to control certain perennials. Use of oil sprays or the addition of spray adjuvants improves weed control, but also increases the risk of damage to desirable ground covers.

**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.

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

Refer to "Turf Use Requirements" in the "Non-Agricultural Use Requirements" section. 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 to 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.

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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. 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.

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EPA Label Date  
FEB 23 2004

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended for the pesticide registered under EPA Reg. No.

5905-549

The exclusive remedy against the Company for any cause of action relating to the handling or use of this product shall be limited to, at Helena Chemical Company's election, one of the following:

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

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