19713-650 6·12·2013 1/34

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Washington, D.C. 20460

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

June 12, 2013

Luz Chan
Drexel Chemical Company
P.O. Box 13327
Memphis, TN 38113-0327

Subject: Notification per PR Notice 98-10
Drexel De-Amine 4
EPA Reg. No. 19713-650
Application Dated May 27, 2013

Dear Ms. Chan:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the subject product. The Registration Division (RD) has conducted a review of this request and finds that the action falls within the scope of PRN 98-10. The label submitted with the application has been date-stamped "Notification" and will be placed in our records.

If you have any questions, please contact Mindy Ondish at (703)605-0723 or at ondish.mindy@epa.gov.

Sincerely,

Mindy Ondish, for

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

Please read instructions on reverse before comple form. Form Approved. B No. 2070-0060. Approval expires 2-28-95

EPA

United States
Environmental Protection Agency
Washington, DC 20460

- [ ] Registration
- [ ] Amendment
- [x] Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
19713-650	Kathryn Montague	[x] None [ ] Restricted
4. Company/Product (Name)	**PM#**	
DREXEL DE-AMINE 4	23/Herbicide Branch	

5. Name and Address of Applicant *(Include ZIP Code)*

Drexel Chemical Company
P.O. Box 13327
Memphis, TN 38113-0327

[ ] *Check if this is a new address*

6. Expedited Reveiw. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:

EPA Reg. No. _____

Product Name _____

Section - II

- [ ] Amendment - Explain below.
- [ ] Resubmission in response to Agency letter dated _____
- [x] Notification - Explain below.
- [x] Final printed labels in repsonse to Agency letter dated NOTIFICATION
- [ ] "Me Too" Application.
- [ ] Other - Explain below.

JUN 12 2013

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Submission of revised label. Details are in the cover letter accompanying this submission.

This notification is consistent with the provisions of PR Notice 98-10 and EPA Regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the Confidential Statement of Formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under Sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
[ ] Yes [ ] No	[ ] Yes [ ] No	[ ] Yes [ ] No	[ ] Metal [ ] Plastic [ ] Glass [ ] Paper [ ] Other (Specify) _____
* ***Certification must be submitted***	If "Yes" Unit Packaging wgt. / No. per container	If "Yes" Package wgt / No. per container	

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
[ ] Label [ ] Container		[ ]

6. Manner in Which Label is Affixed to Product [ ] Lithograph [ ] Paper glued [ ] Stenciled [ ] Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Luz G Chan	Registration Manager	(901) 774-4370

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowlingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received (Stamped)

2. Signature	3. Title
Luz G. Chan	Registration Manager
4. Typed Name	**5. Date**
Luz G Chan	May 27, 2013

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Drexel Chemical Company

May 27, 2013

Document Processing Desk **(NOTIF)**
OPP(7504P), U.S. EPA
Rm S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202

Re: Submission of Revised Label by Notification per PR Notice 98-10
DREXEL DE-AMINE 4 (EPA Reg. No. 19713-650)

Sir/Madam:

Herewith, please find:

1. Completed EPA Form 8570-1

2. Two copies of the label with the following changes:

- On page 2, under "User Safety Recommendations", the statement "Wash the outside of gloves before removing." was added.
- On page 3, under "Mixing and Loading", the 1st and 2nd sentences were corrected to read "Most cases of groundwater contamination.....and disposal *sites. Exercise precautions when handling 2,4-D pesticides at such sites to prevent contamination of ground water supplies.*
- On page 4, the referenced website under "Use Restrictions", was corrected by adding "htm."
- On page 6, the name of the table was changed to "Rate Conversion Table for Spot Treatment" just how it is referenced in the tables on pages 17, 20, and 22.
- On page 7, in the table for Perennials, the 2nd listing for "Artichoke, Jerusalem" was deleted.
- On page 10, the typo on the first sentence under the Specific Use Instructions was corrected, now to read "Use high rate....development, or *under less* favorable growth conditions."
- On pages 27 and 29, the redundant words in the sentence were deleted, now to read "The following is an example of *a notification via posting*, but other methods....."

The above changes are highlighted for easy reference.

If you have questions/clarification regarding this submission, I can be reached at (901) 774-4370 or e-mail lchan@drexchem.com.

Thank you.

Respectfully yours,
DREXEL CHEMICAL COMPANY
Luz G. Chan
Luz G Chan
Registration Manager

1700 Channel Avenue • Post Office Box 13327 • Memphis, Tennessee 38113-0327
Phone: (901) 774-4370 • Fax: (901) 774-4666 • E-Mail: info@drexchem.com • www.DrexChem.com
SINCE1972

4/34

GROUP 4 HERBICIDE

NOTIFICATION

JUN 1 2 2013

Drexel

De-Amine 4

Contains Dimethylamine Salt of 2,4-D

For selective control of many broadleaved weeds in various sites listed on the label.

ACTIVE INGREDIENT:	
2,4-Dichlorophenoxyacetic acid, dimethylamine salt*	47.5%
OTHER INGREDIENTS:	52.5%
TOTAL:	100.0%

*2,4-Dichlorophenoxyacetic acid equivalent – 39.5%; 3.8 lbs. per gallon. Isomer specific by AOAC Method No. 978.05.

KEEP OUT OF REACH OF CHILDREN
DANGER / PELIGRO

Si usted no intiende a la etiqueta, busque a alguien pars que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See First Aid Below

EPA Reg. No. 19713-650
EPA Est. No. 19713-XX-XXX **Net Content:** _____

FIRST AID
If In Eyes: • Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If Swallowed: • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If on Skin or Clothing: • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
If Inhaled: • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information on this pesticide product (including health concerns, medical emergencies or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378.
Note to Physician: This product is a phenoxy type of herbicide. There is no specific antidote. Base all treatments on observed signs and symptoms of distress in the patient. Probable mucosal damage may contraindicate the use of gastric lavage.

650SP-0013*

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

DANGER: Corrosive. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes or on clothing. Avoid breathing vapor or spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are made of any waterproof material. If you want more options, follow the instructions for Category A on an EPA chemical-resistance category selection chart.

All mixers, loaders, flaggers, other applicators and handlers must wear: Long-sleeved shirt and long pants, shoes plus socks, chemical-resistant gloves, protective eyewear (goggles, safety glasses or face shield), 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.

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. After each day of use, clothing or PPE must not be reused until it has been cleaned.

ENGINEERING CONTROLS

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.

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: 1) Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. 2) 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. 3) Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas and nontarget plants. Do not contaminate water when disposing of equipment washwaters 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.

Do not contaminate water used for irrigation or domestic purposes (except as directed on this label) especially in areas where Cotton, Grapes, Tomatoes or other susceptible plants are grown.

Do not treat irrigation ditches in areas where water will be used to overhead (sprinkler) irrigate susceptible crops especially Cotton, Grapes, Tobacco, and Tomatoes.

Do not apply this product directly to, or permit to drift onto Cotton, Flowers, Fruit trees, Grapes, Okra, Tomatoes, Vegetables or other desirable plants which are susceptible to 2,4-D. Do not apply near susceptible plants since very small quantities of 2,4-D will cause severe injury during the growing or dormant periods. Crops contacted by sprays or spray drift of this product may be killed or suffer significant stand loss with extensive quality and yield reduction.

Mixing and Loading: Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Exercise precautions when handling 2,4-D pesticides at such sites to prevent contamination of ground water 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.

WEED RESISTANCE MANAGEMENT

GROUP	4	HERBICIDE

This product is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 4 herbicides. Weed species with acquired resistance to Group 4 may eventually dominate the weed population if Group 4 herbicides are used repeatedly in the same field or in successive years as primary method of control for targeted species. This may result in partial or total loss of control of those species by this product or other Group 4 herbicides.

To delay herbicide resistance, consider:

- Avoiding the consecutive use of this product or other target site of action Group 4 herbicides that have a similar target site of action on the same weed species.
- Using tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive IPM program.
- Monitoring treated weed populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all directions for use carefully before applying.

Do not apply this product in a way that will contact workers or other person, 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 (WPS), 40 CFR Part 170. This standard contains the requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers or 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 in the WPS.

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 WPS and that involves contact with anything that has been treated such as plants, soil, or water is: Coveralls, shoes plus socks, chemical-resistant gloves made of any waterproof material, and 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 (WPS) 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.

Entry Restrictions for Non-WPS Uses: When this product is applied in the rangeland and established pastures not harvested for hay or seed; non-cropland areas, when tree injection method only in forest sites, and when applied in aquatic areas, do not enter or allow people (other than applicator) or pets on treatment area during application. Do not enter treated areas until sprays have dried.

USE INFORMATION

DE-AMINE 4 is a herbicide that contains 2,4-D dimethylamine salt active ingredient. It is intended for selective control of many broadleaf weeds in the various sites listed on this label.

Apply this product as a water or oil-water spray during warm weather when target weeds or woody plants are actively growing. Application under drought conditions will often give poor results. Use low spray pressure to minimize drift. Generally, the lower dosages specified on this label will be satisfactory for young, succulent growth of susceptible weed species. For less susceptible species and under conditions where control is more difficult, use the higher specified rates. Deep-rooted perennials such as Canada thistle and field bindweed and many woody plants usually require repeated applications for satisfactory control. Consult your State Agricultural Experiment stations or Extension Service Weed Specialist for recommendations from this label that best fit local conditions.

USE PRECAUTIONS

- Excessive amounts of 2,4-D in the soil may inhibit seed germination and plant growth temporarily.

USE RESTRICTIONS

- DO NOT apply this product through any type of irrigation system.
- Use of this product in certain portions of California, Oregon, and Washington is subject to the January 22, 2004 Order for injunctive relief in Washington Toxics Coalition *et. al.* v. EPA, C01-0132C, (W.D. W.A.). For further information, please refer to EPA website: http://www.epa.gov/espp/litstatus/wtc/index.htm.

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 a 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 non-target species, non-target 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, fruit trees, 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 may 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.

Aerial Application
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.

Ground Boom Application
Groundboom: Do not apply with a nozzle height greater than 4 feet above the crop canopy.
Handguns and Boomless Nozzles: Applications for rights-of-way vegetation management are best applied with specialized nozzles delivering a coarse or very coarse spray volume.

MIXING

Mix this product only with water, unless otherwise directed on this label. Add about half the water to the mixing tank, then, add this product with agitation, and finally the rest of the water with continuing agitation.
Note: Adding oil, wetting agent, or other surfactant to the spray mixture may increase effectiveness on weeds, but also may reduce selectivity to crops resulting in crop damage.

Tank Mixing:
When tank mixing, read and follow the label of each tank mix product used for precautionary statements, directions for use, weeds controlled, and geographic and other restrictions. Use in accordance with the most restrictive of label limitations and precautions. No label dosages should be exceeded. Do not tank mix this product with any product containing a label prohibition against tank mixing with 2,4-D.

Tank Mix Compatibility Testing:
A jar test is recommended prior to tank mixing to ensure compatibility of this product and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately one-half hour. If the mixture balls-up, forms flakes, sludges, jells, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

Mixing With Liquid Fertilizer:
This product may be combined with liquid nitrogen fertilizer suitable for foliar application to accomplish broadleaf weed control and fertilization of corn, small grains or pastures in a single operation. Use this productin accordance with directions for these crops provided in this label. Use liquid fertilizer at rates specified by the supplier or Extension Service Specialist.
Test for mixing compatibility as describe above before mixing in spray tank. A compatibility aid such as Mix™, Unite or Compex may be needed in some situations. Compatibility is best with liquid fertilizer solutions containing only nitrogen. Mixing with N-P-K solutions may not be satisfactory, even with the addition of a compatibility aid. Premixing 1 part this product with up to 4 parts water may help in situations when mixing difficulty occurs. Fill the tank about half full with the liquid fertilizer, then add the required amount of this product with agitation. Maintain agitation and complete filling the tank with liquid fertilizer. Apply immediately and continue agitation in spray tank during application. Do not store the spray mixture. Application during very cold weather (near freezing) is not advisable.

SPRAYER CLEAN-OUT

To avoid injury to desirable plants, equipment used to apply this product should be thoroughly cleaned before re-use or applying other chemicals.
1. Rinse and flush application equipment thoroughly after use at least three times with water. Dispose of all rinse water by application to treatment area or apply to non-cropland area away from water supplies.
2. During the second rinse, add 1 quart of household ammonia for every 25 gallons of water. Circulate the

solution through the entire system so that all internal surfaces are contacted (15 to 20 minutes). Let the solution stand for several hours, preferably overnight.
3. Flush the solution out of the spray tank through the boom.
4. Rinse the system twice with clean water, recirculating and draining each time.
5. Remove nozzles and screens and clean separately.
6. If equipment is to be used to apply another pesticide or agricultural chemical to a 2,4-D susceptible crop, additional steps may be required to remove all traces of 2,4-D, including cleaning of disassembled parts and replacement of hoses or other fittings that may contain absorbed 2,4-D.

APPLICATION

Apply with calibrated air or ground equipment using sufficient spray volume to provide adequate coverage of target weeds or as otherwise directed in specific use directions. For broadcast application, use a spray volume of 1 or more gallons per acre by air and 5 or more gallons per acre for ground equipment unless otherwise specified. Where states have regulations which specify minimum spray volumes, they should be observed. In general, spray volume should be increased as crop canopy, height and weed density increase in order to obtain adequate spray coverage.

RANGE OF RATES AND APPLICATION TIMING

Generally, the lower dosages given will be satisfactory for young, succulent growth of sensitive weed species. For less sensitive species and under conditions where control is more difficult, the higher dosages will be needed. Apply this product during warm weather when weeds are young and actively growing.

SPOT TREATMENT

To prevent misapplication, spot treatments should be applied with a calibrated boom or with hand sprayers using a fixed spray volume per 1,000 sq ft as indicated below.

Hand-Held Sprayers: Hand-held sprayers may be used for spot applications of this product. Care should be taken to apply the spray uniformly and at a rate equivalent to a broadcast application. Application rates in the table are based on the application rate for an area of 1,000 sq ft. Mix the amount of this product corresponding to the desired broadcast rate in 1 to 3 gallons of spray. To calculate the amount of this product required for larger areas, multiply the table value (ft. oz. or ml) by the thousands of square feet to be treated. An area of 1000 sq. ft. is approximately 10.5 X 10.5 yards (strides) in size.

Rate Conversion Table for Spot Treatment

Broadcast Rate (Pint/Acre)							
0.5	0.66	0.75	1	2	3	4	8
Equivalent Amount of This Product per 1000 sq. ft. (fl. oz.)							
1/5 (5.5 mL)	1/4 (7.3 mL)	1/3 (8.3 mL)	3/8 (11 mL)	3/4 (22 mL)	1 (33 mL)	1.5 (44 mL)	3 (88 mL)

Conversion factor: 1 fl. oz. = 29.6 (30 mL)

BAND APPLICATION

This product may be applied as a band treatment. Use the formula below to determine the appropriate rate and volume per treated acre.

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

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

WEEDS CONTROLLED

ANNUALS OR BIENNIALS		
Beggarticks*	Kochia	Ragweed, common
Bittercress, small-flowered	Lambsquarters, common	Ragweed, giant
Bitterweed	Lettuce, prickly*	Rape, wild
Broomweed, common*	Lettuce, wild	Rocket, yellow
Burdock, common	Lupines	Salsify, common*
Buttercup, small-flowered*	Mallow, little*	Salsify, western*
Carpetweed	Mallow, Venice*	Shepherdspurse
Cinquefoil, common	Marshelder	Sicklepod
Cinquefoil, rough	Morningglory, annual	Smartweed (annual species)*
Cocklebur, common	Morningglory, ivy	Sneezeweed, bitter
Coffeeweed	Morningglory, woolly	Sowthistle, annual
Copperleaf, Virginia	Mousetail	Sowthistle, spiny
Croton, Texas	Mustards (except blue mustard)	Spanishneedles
Croton, woolly	Parsnip, wild	Sunflower
Flixweed	Pennycress, field	Sweetclover
Galinsoga	Pepperweed*	Tansymustard
Geranium, Carolina	Pigweed (*Amaranthus* spp.)*	Thistle, bull
Hemp, wild	Poorjoe	Thistle, musk*
Horseweed, (marestail)	Primrose, common	Thistle, Russian (tumbleweed)*
Jewelweed	Purslane, common	Velvetleaf
Jimsonweed	Pusley, Florida	Vetch
Knotweed*	Radish, wild	

*These weeds are only partially controlled and may require repeated applications and/or use of higher specified rates of this product even under ideal conditions of application.

PERENNIALS		
Alfalfa*	Coffeeweed	Loco, bigbend
Artichoke, Jerusalem*	Cress, hoary*	Nettles (including stinging)*
Aster, many-flower*	Dandelion	Onion, wild*
Austrian fieldcress*	Docks*	Pennywort
Bindweed (hedge, field, European)*	Dogbanes*	Plantains
Blue lettuce	Evening primrose, cutleaf	Ragwort, tansy*
Blueweed, Texas	Garlic, wild*	Sowthistle, perennial
Broomweed	Goldenrod	Thistle, Canada*
Bullnettle *	Hawkweed, orange*	Vervains*
Carrot, wild*	Healal	Waterplantain
Catnip	Ironweed, western	Wormwood
Chicory	Ivy, ground*	
Clover, red*		

*These weeds are only partially controlled and may require repeated applications and/or use of higher specified rates of this product even under ideal conditions of application.

OTHERS			
Alder	Devil's claw *(Proboscidea louisianica)*	Orange hawkweed*	Sunflower
Alligator weed	Duckweed	Parrot feather	Tanweed
American lotus	Elderberry	Poison hemlock	Tarweed
Biden	Frenchweed	Poison ivy	Toadflax
Bittersweet	Goatsbeard	Pokeweed	Tumbleweed
Bitter wintercress	Goosefoot	Povertyweed	Virginia creeper
Blackeyed Susan	Gumweed	Puncture vine	Water hyacinth
Blessed thistle	Henbit	Purslane	Water lily
Boxelder	Hoary cress*	Rush	Water primrose
Buckhorn	Horsetail	Sagebrush	Water shield
Bulrush	Honeysuckle	Salt cedar*	Wild strawberry
Bur ragweed	Indigo	Sheperdspurse	Wild sweet potato
Chickweed	Indian mallow	Southern wild rose	Willow
Cockle	Locoweed	Spatterdock	Witchweed
Common waterplantain	Marijuana	St. Johnswort	Wormseed
Creeping Jenny	Mexican weed	Stinkweed	Yellow rocket
Curly indigo	Nut sedge	Sumac	

*May require repeated application and/or use of the higher specified label rate of this product even under ideal conditions.

USE SITES

ASPARAGUS

Time of Application	This Product (pt./A)	Specific Use Instructions
Spring	3 to 4	Apply this product in the Spring on actively growing weeds in 50 to 60 gallons of water per acre by ground or in 12 gallons of water per acre by air. Refer to the *"WEEDS CONTOLLED"* section of this label for list of weeds. If spears are present, apply this product immediately after cutting. Spears contacted by the spray may be malformed and off-flavored. If spears are malformed by spray, cut immediately and discard. Only apply as postharvest spray using drop nozzles to avoid spraying the fern.

Use Restrictions:

- Do not apply more than 4.2 pints of this product (2 lbs. a.e.) per acre per application.
- Do not make more than 2 applications per crop cycle.
- Allow at least 1 month between applications.
- Do not harvest within 3 days of application.

CEREAL GRAINS (Barley Millet, Triticale, Rye, Wheat)

Target Weeds	This Product (pt./A)	Specific Use Instructions
Not Underseeded With Legumes Postemergence • Annual and Biennial broadleaved weeds • Perennial broadleaved weeds	 0.5 to 1.3* 1 to 2.6*	Apply after grain is well-tillered (usually about 4 to 8 inches high). Do not spray grain in the boot to dough stage.
Underseeded With Legumes	0.25 to 0.5*	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.
Emergency Weed Control: Triticale, Wheat Perennial broadleaved weeds	2.6	Apply when weeds are approaching bud stage after the grain dough stage. Do not spray during the boot to dough stage. The 2.6 pints per acre per application can produce injury to Wheat. Balance the severity of the weed problem against the possibility of crop damage. Where perennial weeds are scattered, make spot treatment to minimize the extent of crop injury.
*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 this product to grain in the seedling stage.		

Tank Mixtures:

This product can be used in combination with Ally™, Harmony Extra™, Express™, Finesse™, in spring and winter wheat and barley to control resistant weeds such as Kochia and Russian thistle. Read and follow all directions and precautions on this label and on the label of each product added to the spray mixture. Follow the most restrictive labeling.

Use Precautions:
- For aerial application on grain, apply this product in 3 to 10 gallons of water per acre.
- For ground application, apply in a minimum of 10 to 15 gallons of water per acre for proper spray coverage.

Use Restrictions:
- Do not harvest within 14 days of application.
- Postemergence: Maximum of 2.6 pints (1.25 lbs. a.e.) per acre per application. Limit to 1 postemergence application per crop cycle.
- Preharvest: Maximum of 1 pint (0.5 lb. a.e.) per acre per application. Limit to 1 preharvest application per crop cycle.
- Limit to 3.6 pints product (1.75 lbs. a.e.) per acre per crop cycle.

CEREAL GRAINS (Oats*) - Not Underseeded With Legume

Crop	This Product (pt./A)	Specific Use Instructions
Spring Planted Oats	0.5 to 2	Apply in sufficient water to give good coverage. Apply after fully tillered except during the boot to dough stage.
Fall Planted Oats	1 to 1.5	Apply after full tillering but before early boot stage. Some difficult weeds may require higher application rates per acre for maximum control, but injury may result. Do not spray during or immediately following cold weather.
Preharvest	1	Apply 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.
*Oats are less tolerant to 2,4-D than Wheat or Barley and more likely to be injured.		

Use Precautions:
- The higher rates increase the risk of grain injury. Use only where weed control justifies grain damage risk.

Use Restrictions:
- Do not harvest within 14 days of application.
- Postemergence: Maximum of 2.6 pints (1.25 lbs. a.e.) per acre per application. Limit to 1 postemergence application per crop cycle.
- Preharvest: Maximum of 1 pint (0.5 lb. a.e.) per acre per application. Limit to 1 preharvest application per crop cycle.
- Limit to 3.6 pints product (1.75 lbs. a.e.) per acre per crop cycle.

CORN (Field, Pop, Sweet)

Time of Application / Growth Stage	This Product (pt./A)	Specific Use Instructions
Field corn, Popcorn, Sweet corn: • Preplant (Burndown) • Pre-emergence and Reduced tillage	1 to 2 2	Use high rate in rate range for less susceptible weed or cover crops, weeds in advanced stages of development, or under less favorable growth conditions. **Preplant:** Apply 7 to 14 days before planting corn to control emerged broadleaf weed seedling or exiting cover crops. **Pre-emergence:** Apply any time after planting but before corn emerges to control broadleaf weed seedlings or existing cover crops. The seed furrow must be completely closed at application or severe crop injury may result.
Field corn, Popcorn, Sweet corn: Postemergence Annual broadleaved weeds • Crop up to 8 inches tall • Crop 8 inches tall to tasseling (directed spray only) Perennial broadleaved weeds	 0.5 to 1 1 1	Apply when weeds are small and corn is less than 8 inches tall (to top of crop canopy). If corn is more than 8 inches tall, use drop nozzles and directed sprays to keep spray off foliage. Treat perennial weeds when they are in bud to bloom stage. **Do not apply from tasseling to hard dough stage.**
Field corn, Popcorn: Preharvest	Up to 3	Apply after corn is in hard dough (or denting) stage. Do not apply preharvest to sweet corn.

Use Precautions:

- Do not apply preplant or pre-emergence to light sandy soils.
- Corn hybrids vary in tolerance to 2,4-D. Some are easily injured. Apply only to varieties known to be tolerant to 2,4-D. Consult the seed company or your Agricultural Experiment Station or Extension Service Weed Specialist for this information.
- Corn treated with 2,4-D may exhibit stem brittleness for 8 to10 days following application. During this period, the crop is more susceptible to stem breakage from cultivation or wind.

Use Restrictions (Field Corn and Popcorn):

- Do not harvest within 7 days of application.
- Do not use treated crop as fodder for 7 days following application.
- Do not apply more than 6.3 pints of this product (3 lbs. a.e.) per acre per crop cycle.
- Preplant or Pre-emergence: Do not apply more than 2.1 pints of this product (1 lb. a.e.) per acre per application. Limit to 1 preplant or 1 pre-emergence application.
- Postemergence: Do not apply more than 1 pint of this product (0.5 lb. a.e.) per acre per application. Limit to 1 postemergence application per crop cycle.
- Preharvest: Do not apply more than 3.1 pints of this product (1.5 lbs. a.e.) per acre per application. Limit to 1 preharvest application per crop cycle.

Use Restrictions (Sweet Corn):

- Do not apply within 45 days of harvest of Corn.
- Do not use treated crop as fodder for 7 days following application.
- Minimum of 21 days between applications.
- Do not apply more than 3.1 pints of this product (1.5 lbs. a.e.) per acre per crop cycle.
- Preplant or Pre-emergence: Do not apply more than 2.1 pints of this product (1 lb. a.e.) per acre per application. Limit to 1 preplant or pre-emergence application per crop cycle.
- Postemergence: Do not apply more than 1 pint of this product (0.5 lb. a.e.) per acre per application. Limit to 1 postemergence application per use season.

FALLOW LAND* AND CROP STUBBLE

Target Weeds	This Product (pt./A)	Specific Use Instructions
Annual broadleaved weeds	1 to 2	Use a lower rate in the rate range when weeds are small (2 to 3 inches tall) and actively growing. Use a higher in the rate range when weeds are larger and under less favorable growth conditions.
Biennial broadleaved weeds	2 to 4	Apply when musk thistles or other biennial species are in the seedling to rosette stage and before development of flower stalks. The lower rate can be used in the Spring during the rosette stage. Use the highest rate in the Fall or after flower stalks have developed.
Perennial broadleaved weeds	2 to 4	Apply when perennial weeds are in bud to early bloom stage or while in good vegetative growth.
Wild garlic and Onion in crop stubble	4	Apply to new regrowth of wild garlic or onion which occurs in the Fall after harvest of small grains, corn or grain sorghum.

*Fallow land is idle land, postharvest to crops or between crops.

Use Precautions:

- For best weed control results, do not cultivate for at least 2 weeks after application or until top growth is dead.

Use Restrictions:

- Plant only labeled crops within 29 days following application.
- Minimum of 30 days between applications.
- Do not apply more than 4.2 pints of this product (2 lbs. a.e.) per acre per application.
- Limit to 2 applications per year.

Planting in Treated Areas

Labeled Crops: Within 29 days after an application of this product, plant only those crops listed on this or other registered 2,4-D labels. Follow more stringent limitations, if any, provided in directions for specific crops. Labeled crops may be at risk of crop injury or loss if planted soon after application, especially during the first 14 days. When weighing this risk, consider the degradation factors described below.

Other Crops: All other crops may be planted 30 or more days after 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 breakdown 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 or information about susceptible crops and typical conditions in your area.

FILBERTS

Target	This Product (pt./A)	Specific Use Instructions
Suckers	1.5 to 2	Apply in 100 gallons of water per acre. Use nozzles with large orifice nozzles and low tank pressure. Spray to the point of runoff when suckers are 6 to 9 inches tall. Apply when needed from April through August.

Use Restrictions:
- Do not apply within 45 days of harvest.
- Allow at least 30 days between applications.
- Do not make more than 4 applications per year.
- Do not apply more than 2.1 pints of this product (1 lb. a.e.) per 100 gallons of spray solution per application.

HOPS

Time of Application / Target Weed	This Product (pt./A)	Specific Use Instructions
Postemergence: Annual broadleaved weeds	1	Direct application to the row middles.

Use Restrictions:
- Do not apply within 28 days of harvest.
- Allow at least 30 days between applications.
- Do not make more than 3 applications per crop cycle.
- Do not apply more than 1 pint of this product (0.5 lb. a.e.) per acre per application.
- Do not apply more than 3.1 pints of this product (1.5 lbs. a.e.) per acre per crop cyle.

ORCHARD FLOORS (Pome Fruits*, Stone Fruits, Tree Nuts*** and Pistachios)**

Time of Application / Target Weeds	This Product (pt./A)	Specific Use Instructions
Postemergence: • Annual and Biennial weeds • Perennial weeds	 1 to 2 Up to 4	For application to orchard floors, use coarse, low pressure sprays and sufficient water for thorough coverage of weeds. Apply to annual weeds when small and actively growing. Apply to perennial weeds from bud to bloom stage.

*Pome fruits including Apples, Crabapples, Loquat, Mayhaw, Oriental pear, Pears, Quince

**Stone fruits including Apricot, Chickasaw plum, Damson plum, Fresh prunes, Japanese plums, Nectarines, Peaches, Plums, Plumcot, Sweet cherry, Tart Cherry

***Tree nuts including Almonds, Beech nut, Black walnut, Brazil nut, Butternut, Cashew, chestnut, Chinquapin, English walnut, Hickory nut, Macadamia nut (bush nut), Pecan. (Excludes Filberts. For use on Filberts, see *"FILBERTS"* section.)

Use Precautions:
- To avoid tree injury, do not allow spray drift to contact foliage, fruit, stems, trunks or trees or exposed roots.
- Do not apply when orchards are blooming.
- Do not make orchard floor applications in areas with light sandy soils.
- Avoid application immediately before irrigation and withhold irrigation for 2 days before and 3 days after application.
- Newly established trees or young orchards are more susceptible to 2,4-D injury. Apply only to orchards that have been established for at least one year and are in vigorous growth condition.

Use Restrictions:

- Pome Fruits: Allow at least 75 days between applications. Do not apply within 14 days of harvest.
  Stone Fruits: Allow at least 75 days between applications. Do not apply within 40 days of harvest.
  Tree Nuts and Pistachios: Allow at least 30 days between applications. Do not apply within 60 days of harvest.
- Do not apply more than 4.2 pints of this product (2 lbs. a.e.) per acre per application.
- Do not cut orchard floor forage or hay within 7 days after last application;
- Do not make more than 2 applications per year.
- Do not apply more than a total of 8.4 pints of this product (4 lbs. a.e.) per acre per use season.

RICE (Not for Use in California)

Time of Application	This Product (pt./A)	Specific Use Instructions
Preplant	1 to 2	Apply 2 to 4 weeks before planting rice to control emerged broadleaf weeds.
Postemergence	1 to 2*	Apply when rice is in late tillering stage and at the time of first joint development (first to second green ring).
*Up to 3 pints of this product (1.5 lbs. a.e.) per acre may be applied postemergence for difficult weed control situations. However, there is greater risk of crop injury at rates greater than 2 pints per acre. Use such rates only when the need for weed control justifies additional risk to the crop.		

Use Precautions:

- Do not apply at early seedling stage or after rice internodes exceed one-half inch or panicle initiation.
- Some rice varieties under certain conditions or stages of growth may be injured by 2,4-D. Before applying, consult local university or agricultural extension service specialists regarding for local treatment recommendations for various rice varieties.

Use Restrictions:

- Do not apply within 60 days of harvest.
- Preplant: Do not apply more than 2.1 pints of this product (1 lb. a.e.) per acre per application. Do not apply more than 1 preplant application per crop cyle.
- Postemergence: Do not apply more than 3.1 pints of this product (1.5 lb. a.e.) per acre per application. Do not apply more than 1 postemergence application per crop cycle.
- Do not apply more than 3.1 pints of this product (1.5 lbs. a.e.) per acre per crop cycle.

SORGHUM [Grain Sorghum (Milo) and Forage Sorghum]

Time of Application / Growth Stage	This Product (pt./A)	Specific Use Instructions
Postemergence - Directed Spray Only: • Crop 6 to 8" tall • Crop 8 to 18" tall	 0.5 to 1 0.75 to 1	Apply when sorghum is 6 to 15 inches tall. If sorghum is more than 8 inches tall (to top of crop canopy), use drop nozzles and apply as a directed spray to keep spray off foliage.

Use Precautions:

- Temporary crop injury can be expected under conditions of high soil moisture and high air temperatures. If it is necessary to apply this product under these conditions, use no more that 0.66 pint of this product per acre.
- Do not apply during boot, or later stages of growth.
- Sorghum hybrids vary in tolerance to 2,4-D. Some are easily injured. Apply only to varieties known to be tolerant to 2,4-D. Consult the seed company or your agricultural experiment station or extension service weed specialist for this information.

Use Restrictions:
- Do not apply within 30 days of harvest of Sorghum.
- Do not permit meat or dairy animals to consume treated crop as fodder or forage within 30 days following application.
- Do not apply more than 1 postemergence application per crop cycle.
- Do not apply more than a total of 2.1 pints of this product (1 lb. a.e.) per crop cycle.

SOYBEANS

Time of Application	This Product (pt./A)	Specific Use Instructions
Preplant burndown	0.75 to 1	Apply no less than 15 days before planting soybeans when weeds are small and actively growing. Use the higher rate on larger weeds and when perennial weeds are present. See *"Use Precautions and Restrictions"* below.
	1 to 2	Apply not less than 30 days before planting soybeans when weeds are small and actively growing. Use the higher rate on larger weeds and when perennial weeds are present. See *"Use Precautions and Restrictions"* below.

Tank Mixture:
This product may be applied preplant to soybeans in tank mixtures with other herbicides such as Imitator® Plus, Quik-Quat™, Honcho®, Poast®, Poast Plus®, Prowl®, Pursuit Plus®, Scepter®, Scepter Plus®, Squadron® and others that are registered for preplant use in soybeans.
Crop oil concentrates, agricultural surfactants and fluid fertilizers approved for use on growing crops may be added to spray mixtures of this product to increase the herbicidal effectiveness on certain weeds.
Read and follow all directions and precautions on this label and on the label of each product added to the spray mixture. Follow the most restrictive labeling. Refer to the *"MIXING"* section of this label for tank mixing instructions and compatibility testing.

Use Precautions:
- Unacceptable injury to soybeans planted in treated fields may occur. Whether or not soybean injury occurs and the extent of such injury will depend on weather (temperature and rainfall) from herbicide application until soybean emergence and agronomic factor; such as the amount of weed vegetation and previous crop residue present at the time of application. Injury is more likely under cool rainy conditions and where there is less weed vegetation and crop residue present.
- Do not disturb treated soil through tillage between application and planting of soybeans.
- Do not use on sandy soils with less than 1% organic matter.
- In treated fields, plant soybean seed as deep as practical, but not less than 1 inch deep. Adjust the planter, if necessary, to ensure that planted seed is adequately covered.
- **Do not preplant apply this product in soybeans unless you are prepared to accept the results of soybean injury, including possible stand loss and/or yield reduction.**
- During the growing season following application, do not replant treated fields with crops other than those labeled for use with this product.

Use Restrictions:
- Do not apply more than 2.1 pints of this product (1 lb. a.e.) per acre per crop cycle.
- One (1) or 2 preplant applications are allowed per crop cycle. If a single preplant application is made, do not apply more than 2.1 pints of this product (1 lb. a.e.) per acre per application. Apply no less than 30 days prior to planting soybeans. If 2 preplant applications are made, do not apply more than 1 pint of this product (0.5 lb. a.e) per acre per application. Apply no less than 15 days prior to planting Soybeans.

STRAWBERRIES (Established Plantings Only)

Time of Application	This Product (pt./A)	Specific Use Instructions
Early spring	2 to 3	Not for use in California or Florida. Apply in the early Spring on established strawberry plantings when strawberries are dormant or immediately after the last picking in 25 to 50 gallons of water per acre. Do not apply unless possible injury to strawberry crop is acceptable. Follow recommendations of State Extension Horticultural Specialist in your area.

Use Restrictions:

- Do not apply more than 1 application per crop cycle.
- Do not apply more than 3.1 pints of this product (1.5 lbs. a.e.) per acre per application.

SUGARCANE

Time of Application	This Product (pt./A)	Specific Use Instructions
Pre-emergence Postemergence	2 to 4	Consult your agricultural experiment station or extension service weed specialist for local recommendations. **Pre-emergence:** Apply before cane emerges to actively growing weeds. **Postemergence:** Apply after cane emerges through canopy closure. Use higher rate for perennial weeds and difficult-to-control species.

Use Restrictions:

- Do not harvest cane prior to maturity.
- Pre-emergence: Do not apply more than 4.2 pints of this product (2 lbs. a.e.) per acre per application. Limit to 1 pre-emergence application per crop cycle.
- Postemergence: Do not apply more than 4.2 pints of this product (2 lbs. a.e.) per acre per application. Limit to 1 postemergence application per crop cycle.
- Do not apply more than a total of 8.4 pints of this product (4 lbs. a.e.) per acre per use season.

SUGARCANE (HI Only)

Time of Application	This Product (pt./A)	Specific Use Instructions
Pre-emergence Postemergence	1 to 3	If used in the islands of Maui and Kauai, the general wind restriction is raised to 20 mph. When applying in winds in excess of 15 mph, the following requirements are in effect: **Aerial Application:** • No application shall be made within a distance of 1000 feet of sensitive areas such as Nature Preserves, Wildlife Refuges, Parks, Lakes, Reservoirs, Rivers, Streams, Non-irrigation Canals, Natural Ponds, Estuaries, Wetlands, Intertidal Areas, Ecologically Significant Grasslands, homes, public or private buildings, or fields with crops other than sugarcane whenever these sensitive areas are downwind from the spray areas and subject to possible spray drift. In instances where these sensitive areas are upwind from the spray area, the minimum restricted distance shall be 300 feet. • Apply only as a coarse or coarser spray (ASAE standard 572 or a volume mean diameter of 385 microns). • Use a spray drift retardant and/or other measures known to control drift. **Ground Broadcast Applications:** • Apply by ground boom with nozzle height no more than 2 feet above ground (pre-emergence) or crop canopy (post emergent broadcast) applications or, for directed sprays, no more than 1 foot above the ground, or 1.25 ft (15 inches) for better spray patterns without boom levelers on uneven terrain. • Apply only as a coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns. • Use spray drift retardants and/or other measures known to control drift. **Applications techniques to reduce off-site drift include,** but are not limited to, the use of hooded or shielded sprayers or other means to reduce drift.

Use Restrictions:

- Do not harvest cane prior to crop maturity.
- Do not apply more than 8.4 pints of this product (4 lbs. a.e.) per acre per year.
- Limit to 1 preemergence application per crop cycle. Do not apply more than 4.2 pints of this product (2 lbs. a.e.) per acre per application.
- Postemergence: Do not apply more than 4.2 pints of this product (2 lbs. a.e.) per acre per application. Lay-by application can be made but crop damage may occur in some sugarcane varieties,

WILD RICE (MN Only)

Target Weed	This Product (pt./A)	Specific Use Instructions
Common waterplantain	0.5	For use in Minnesota only on wild rice grown in commercial paddies. Broadcast in 4 to 10 gallons of total spray when wild rice is in 1 to 2 aerial leaf to early tillering state and after waterplantain has emerged from the water and before wild rice has reached the boot stage. Do not spray after wild rice has reached the boot stage.

Use Precautions:

- Do not apply to wild rice growing in lakes or streams.
- Do not use water drained out of wild rice paddies to irrigate other crops.

- In order to protect federally listed endangered species, Minnesota Dept. of Agriculture has a program to pre-notify landowners where pesticide applications may affect federally listed endangered or threatened species.

Use Restrictions:
- Do not apply within 60 days of harvest.
- Do not make more than 1 application per crop cycle.
- Do not apply more than 0.5 pint of this product (0.25 lb. a.e.) per acre per application.

FORESTRY USES
Forest Site Preparation, Forest Roadsides, Brush Control, Established Conifer Release (Including Christmas Trees and Reforestation Areas)

When this product is applied by tree injection, follow re-entry requirements given in the *"NON-AGRICULTURAL USE REQUIREMENTS"* section of this label.

Site / Application Method	This Product (pt./A)	Specific Use Instructions
Annual weeds Biennial broadleaved weeds Perennial broadleaved weeds Susceptible woody plants	2 to 4 4 to 8 4 to 8 4 to 8	Apply when weeds are small and growing actively before the bud stage. Apply when biennial and perennial species are in the seedling to rosette stage and before flower stalks appear. For difficult to control perennial broadleaf weeds and woody species, use up to 1 gallon of this product and 1 to 4 quarts of Garlon® 3A herbicide per acre. For conifer release, make application in early Spring before budbreak of conifers when weeds are small and actively growing.
Spot Treatment: Broadleaved weeds	See *"Specific Use Instructions"*	To control broadleaved weeds in small areas with a hand-held sprayer, use an application rate equivalent to the specified broadcast rate. Spray to thoroughly wet all foliage. Mix 1.28 fl. ozs. per gallon of spray solution and apply through pump-up or backpack sprayer. A non-ionic surfactant may be added to improve coverage. Refer to *"Rate Conversion Table for Spot Treatment"* and instructions for *"Spot Treatment"* in the *"APPLICATION"* section of this label.
Poplar/Cottonwood Trees Grown for Pulp: Broadleaved weeds	0.5 to 3	Apply using wick applicators or conventional ground sprayers (except for irrigation systems). Do not allow this product to contact leaves or green bark of the tree. Apply in sufficient water for uniform coverage to or after planting. Application during warm weather is preferred. Apply when weeds are actively growing, preferably before bud stage. Repeat application may be necessary for less susceptible weeds. Reapply as needed. This product may be tank mixed with Accord® to broaden weed control. A spreader such as Induce® may be added to improve efficacy. Read and follow all directions and precautions on this label and on the label of each product added to the spray mixture. Follow the most restrictive labeling. **Tree Injection:** This product may also be used as tree injection to control unwanted trees in poplar/cottonwood trees grown for pulp. Refer to the *"TREE INJECTION"* section below for use directions.

(Continued)

(Continuation)

Site / Application Method	This Product	Specific Use Instructions
Conifer Release: Species such as Balsam fir, Pines (Jack, Ponderosa, Red, White) Spruce (Black, White)	3 to 6 pts. per acre	To control competing hardwood species such as Alder, Aspen, Birch, Hazel, and Willow, apply from mid- to late summer when growth of conifer trees has hardened off and woody plants are still actively growing. Apply with ground or air equipment, using sufficient spray volume to ensure complete coverage. Because this treatment may cause occasional conifer injury, do not apply if such injury cannot be tolerated.
Directed Spray: Conifer plantations including Pines	8 pts. per 100 gals.	Apply when brush or weeds are actively growing by directing the spray so as to avoid contact with conifer foliage and injurious amounts of spray. Apply in oil, oil-water, or water carrier in a spray volume of 10 to 100 gallons per acre.
Basal Spray (May also be used in Rangeland, Pastures, and Noncropland)	16 pts. per acre or 2.6 fl. ozs. per gal. of water	Thoroughly wet the base and root collar of all stems until the spray begins to accumulate around the root collar at the ground line. Wetting stems with the mixture may also aid in control.
Surface of Cut Stumps		Apply as soon as possible after cutting trees. Thoroughly soak the entire stump with the 2,4-D mixture including cut surface, bark and exposed roots.
Frill and Girdle		Cut frills (overlapping V-shaped notches cut downward through the bark in a continuous ring around the base of the tree) using an axe or other suitable tool. Treat freshly cut frills with as much of the 2,4-D mixture as they will hold.
Tree Injection	1 to 2 mL per injection site	To control unwanted hardwood trees as Alder, Aspen, Birch, Blackgum, Cherry, Elm, Hickory, Oak, Sweetgum, and Tulip poplar in forests and other noncrop areas, apply by injecting 1 ml of this product, undiluted, per inch of trunk diameter at breast height (DBH) as measured approximately 4.5 feet above the ground. Make injections as close to the root collar as possible and the injection bit must penetrate the inner bark. Applications may be made throughout the year, but for best results apply between May 15 and October 15. For hard to control species such as Ash, Maple, and Dogwood, use 2 mL of this product, undiluted, per injection site or double the number of 1 mL injections. Do not treat Maples during the Spring sap flow. **Note:** No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.

Use Precautions:

- Do not allow sprays to contact conifer shoot growth (current year's new growth) or injury may occur.
- Do not apply to nursery seed beds.
- For conifer release, do not use on plantations where Pine or Larch are among the desired species.

Use Restrictions:

- For broadcast applications, do not apply more than a total of 8.4 pints of this product (4 lbs. a.e.) per acre per year. Limit to 1 broadcast application per year.
- For basal spray, cut surface stumps, and frill applications, do not apply more than 16.8 pints of this product (8 lbs. a.e.) per 100 gallons of spray solution. Limit to 1 basal spray or cut surface application.
- For tree injection, do not apply more than 2 mL of this product per injection site. Limit to 1 injection application per year.

WEED CONTROL IN HYBRID POPLAR TREES, COTTONWOOD TREES AND WILLOW TREES GROWN AS BIOENERGY CROPS

Follow re-entry requirements given in the *"NON-AGRICULTURAL USE REQUIREMENTS"* section of this label.

Target Weeds	This Product (pt./A)	Specific Use Instructions
Broadleaved weeds	0.5 to 4	Apply when weeds are actively growing preferably before bud stage. Application during warm weather is preferred. Repeat treatments may be necessary for less susceptible weeds. Reapply as needed. For hybrid poplar, cottonwood and willow, apply prior to or after planting. By ground, use 0.5 to 3 pints of this product per acre in minimum 10 gallons of water per acre for broadcast application. For wick type applicators, use 1 to 4 pints per acre. Crop injury may result if wick, wick solution or spray solution contact leaves or green bark of crop trees. Do not spray immediately before irrigation. Withhold above-ground irrigation for 3 days after application. **Tank Mixture:** This product may be tank mixed with Credit 41 Herbicide to provide broader spectrum of weed control. Read and follow all directions and precautions on this label and on the label of the product added to the spray mixture. Follow the most restrictive labeling.

Use Precautions:

- Exercise extreme care to avoid contact of spray solution, spray drift, or mist with tree foliage, green bark of trunks, stems or exposed roots of poplar, cottonwood and willow trees. Contact of this product can result in serious damage. Even when using extreme care in application of this product, injury to these trees from this herbicide may occur. DO NOT use this product if you are not prepared to accept some degree of crop injury.
- Treated plantings are not for human or animal consumption.
- Do not use in or near greenhouses.
- Do not apply by air or through any type of irrigation system.

Use Restrictions:

- Limit to 1 broadcast application per year.
- Do not apply more than 4.2 pints of this product (2 lbs. a.e.) per acre per application.
- Minimum of 30 days between applications.
- Do not use treated vegetation for forage or hay or allow livestock to graze treated fields.

Rangeland, Established Grass Pastures (Including Perennial Grasslands not in Agricultural Production such as Conservation Reserve Program [CRP] Acres)

When this product is applied to rangeland and established pastures not harvested for hay or seed, and when applied by tree injection, follow re-entry requirements given in the *"NON-AGRICULTURAL USE REQUIREMENTS"* section of this label.

Target / Application Method	This Product (pt./A)	Specific Use Instructions
Annual broadleaved weeds Biennial broadleaved weeds Perennial broadleaved weeds	2* 2 to 4* 2 to 4*	For best results, apply when weeds are small and when growing actively before the bud stage. Apply when musk thistles or other biennial species are in the seedling to rosette stage and before flower stalks appear. Refer to the *"WEEDS CONTROLLED"* section of this label for a listing of susceptible weeds and weed species that may only be partially controlled and require repeat applications and/or use of higher specified rates, even under ideal conditions of application. *In CRP areas, the rates may be reduced to 0.5 to 1 pint per acre to control annual broadleaved weeds in young grasses and 0.5 to 2 pints per acre to control annual broadleaved weeds in established grasses. Do not apply to young grasses with fewer than 6 leaves or prior to tillering as excessive injury may occur.
Spot treatment to control broadleaved weeds	See *"Specific Use Instructions"*	To control broadleaved weeds in small areas with a hand-held sprayer, use an application rate equivalent to the specified broadcast rate. Spray to thoroughly wet all foliage. Mix 1.28 fl. ozs. per gallon of spray solution and apply through pump up or backpack sprayer. A non-ionic surfactant may be added to improve coverage. Refer to *"Rate Conversion Table for Spot Treatment"* and instructions for *"Spot Treatment"* in the *"APPLICATION"* section of this label.
Tree Injection Application	1 to 2 mL per injection site	See *"Tree Injection"* under the *"FORESTRY USES"* section for instructions.
Wild garlic and Wild onion	4	Make 3 applications (Fall-Spring-Fall or Spring-Fall-Spring) starting in late Fall or early Spring.
Broadleaved weed control in newly sprigged coastal Bermudagrass	2 to 4	Applications may be made either pre-emergence or postemergence. Follow the above specific use directions for annual, biennial and perennial broadleaved weed control.
Sand shinnery oak Sand sagebrush	2	**Sand shinnery oak:** Apply by aircraft between May 15 and June 15. **Sand sagebrush:** Apply by ground or aircraft when foliage is fully expanded and plants are actively growing. Use a 1:4 oil-water emulsion as carrier and a spray volume of 3 to 5 gallons per acre.
Big sagebrush Rabbitbrush	4	Apply by ground or aircraft when foliage is fully expanded and plants are actively growing. Use a 1:4 oil-water emulsion as carrier and a spray volume of 3 to 5 gallons per acre. Retreatment may be needed.
Buckbrush, Chamise, Coastal sage, Coyotebrush, Chaparral species, Manzanita	4	Apply by ground or aircraft when foliage is fully expanded and plants are actively growing. Use water or 1:4 oil-water emulsion as carrier and a spray volume of 5 to 10 gallons per acre. Retreatment may be needed.
Southern Wild Rose: Broadcast application Spot treatment	 Up to 4 1.28 fl. ozs. per gal. of spray solution	**Broadcast:** Apply in a spray volume of 5 or more gallons per acre by aircraft or 10 or more gallons per acre by ground equipment. **Spot treatment:** Apply when foliage is well developed. Thorough coverage is required. Mix 1.28 fl. ozs. per gallon of spray solution. Apply through pump up or backpack sprayer. Add a non-ionic surfactant to improve coverage. Two or more treatments may be required.

(continued)

(continued)

Target / Application Method	This Product (pt./A)	Specific Use Instructions
Basal spray	16 pts. per 100 gals. or 2.5 fl. ozs. per gal. of water	Thoroughly wet the base and root collar of all stems until the spray begins to accumulate around the root collar at the ground line. Wetting stems with the mixture may also aid in control.
Surface of Cut Stumps		Apply as soon as possible after cutting trees. Thoroughly soak the entire stump with the 2,4-D mixture including cut surface, bark and exposed roots.
Frill and Girdle		Cut frills (overlapping V-shaped notches cut downward through the bark in a continuous ring around the base of the tree) using an axe or other suitable tool. Treat freshly cut frills with as much of the 2,4-D mixture as they will hold.

Use Precautions:

- For program lands such as Conservation Reserve Program (CRP), 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.
- For annual, biennial and perennial broadleaved weeds control in CRP areas, use at least 2 gallons of water per acre by air and 5 gallons of water per acre by ground.
- Do not use on Bentgrass, Alfalfa, Clover, or other legumes.
- Do not use on newly seeded areas until grass is well established.
- Do not use from early boot to milk stage where grass seed production is desired.

Use Restrictions:

- If grass if to be cut for hay, the Agricultural Use Requirements for the Worker Protection Standard are applicable.
- Do not cut forage for hay within 7 days of application.
- Do not graze dairy cattle in treated areas for 7 days after application.
- Minimum of 30 days between applications.
- For susceptible annual and biennial broadleaved weeds, do not apply more than 2 pints of this product (1 lb. a.e.) per acre per application.
- For moderately susceptible biennial, perennial broadleaved weeds, use 2.1 to 4.2 pints of this product (1 to 2 lbs. a.e.) per acre per application.
- For difficult to control weeds and woody plants, use 4.2 pints of this product (2 lbs. a.e.) per acre per application.
- For spot treatment, use 4.2 pints of this product (2 lbs. a.e.) per acre per application.
- Do not make more than 2 applications per year.

WEED CONTROL IN GIANT MISCANTHUS, GIANT REEDGRASS, SWITCHGRASS, AND OTHER NONFOOD GRASS BIOENERGY CROPS

Follow re-entry requirements given in the *"NON-AGRICULTURAL USE REQUIREMENTS"* section of this label.

Target Weeds	This Product (pt./A)	Specific Use Instructions
Broadleaved weeds	0.5 to 4	Apply 0.5 to 2 pints of this product per acre to seedling grasses in minimum 10 gallons of water by ground or in minimum 2 gallons of water by air. Use the rate of 1 to 4 pints per acre when grasses are well established. Do not spray immediately before irrigation. Withhold above-ground irrigation for 3 days after application.

Use Precautions:

- Do not apply through any type of irrigation system.
- Treated plantings are not for human or animal consumption.

Use Restrictions:
- Do not use treated grass for forage or hay or allow livestock to graze treated fields.
- Limit to 2 broadcast applications per year.
- Do not apply within 30 days of last application.
- Do not apply more than 4.2 pints of this product (2 lbs. a.e.) per acre per application.

NONCROPLAND
(Fencerows, Hedgerows, Roadsides, Drainage Ditches, Rights-of Way, Utility Power Lines, Railroads, Airports, and Industrial Sites)

When this product is used in noncropland, follow re-entry requirements given in the *"NON-AGRICULTURAL USE REQUIREMENTS"* section of this label.

Site / Application Method	This Product (pt./A)	Specific Use Instructions
Annual broadleaved weeds Biennial broadleaved weeds Perennial broadleaved weeds Susceptible woody plants	2 to 4 4 to 8 4 to 8 4 to 8	Apply when annual weeds are small and actively growing before the bud stage. Biennial and perennial weeds should be at the rosette to bud stage but not flowering at the time of application. For difficult to control perennial broadleaved weeds and woody species, tank mix up to 1 gallon of this product with 1 to 4 quarts of Garlon 3A herbicide per acre. **For ground application:** (High volume) apply a total of 100 to 400 gal per acre; (low volume) apply a total of 10 to 100 gal per acre. **For helicopter:** Apply a total of 5 to 30 gal per acre spray volume.
Spot treatment to control broadleaved weeds	See *"Specific Use Instructions"*	To control broadleaved weeds in small areas with a hand-held sprayer, use an application rate equivalent to the specified broadcast rate. Spray to thoroughly wet all foliage. Mix 1.28 fl. ozs. per gallon of spray solution and apply through pump up or backpack sprayer. A non-ionic surfactant may be added to improve coverage. Refer to *"Rate Conversion Table for Spot Treatment"* and instructions for *"Spot Treatment"* in the *"APPLICATION"* section of this label.
Tree Injection Application	1 to 2 mL per injection site	See *"Tree Injection"* under the *"FORESTRY USES"* section for instructions.
Southern Wild Rose: Broadcast application Spot treatment	 Up to 4 1.28 fl. ozs. per gal. of spray solution	**Broadcast:** Apply in a spray volume of 5 or more gallons per acre by aircraft or 10 or more gallons per acre by ground equipment. **Spot treatment:** Apply when foliage is well developed. Thorough coverage is required. Mix 1.28 fl. ozs. per gallon of spray solution. Apply through pump up or backpack sprayer. Add a non-ionic surfactant to improve coverage. Two or more treatments may be required.

Use Precautions:
- Do not apply to newly seeded areas until grass is well established.
- Bentgrass, St Augustine, clover, legumes and dichondra may be severely injured or killed by this treatment.

Use Restrictions:
- Applications to noncropland 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.
- Annual and perennial broadleaved weeds: Do not apply more than 4.2 pints of this product (2 lbs. a.e.) per acre per application. Do not make more than 2 applications per season. Do not reapply to a treated area within 30 days of a previous application.
- Woody plants: Do not apply more than a total of 8.4 pints of this product (4 lbs. a.e.) per acre per year. Do not make more than 1 application per year.

GRASSES GROWN FOR SEED OR SOD FARMS

When this product is used in grasses grown for seed or sod, follow the PPE and re-entry requirements in the *"AGRICULTURAL USE REQUIREMENTS"* section of this label.

Site / Time of Application	This Product (pt./A)	Specific Use Instructions
Grasses Grown for Seed (Postemergence): Seedling grass (5-leaf stage or later) Well-established grasses	 0.75 to 1 1 to 4	Apply when weeds are small and actively growing. For best results, apply when soil moisture is adequate for active weed growth. Do not apply to newly seeded grasses until well established (5-leaf stage or later). Use a maximum of 1 pint of this product per acre. Cool season grasses are tolerant to higher rates. Do not apply to grass in the early boot through milk stage if seed production is desired. When grass is well established, higher rates of up to 4 pints per acre may be applied to control of hard-to-kill annual or perennial weeds.
Sod farms (Postemergence)	0.5 to 4	Deep-rooted perennials such as Bindweed and Canada thistle may require repeat applications. Avoid mowing sod farms for 1 to 2 days before or after application. Delay irrigation until the day following application.

Use Precautions:
- Do not use on creeping grasses such as Bent except for spot treatment.
- Do not use on injury-sensitive southern grasses such as St. Augustinegrass.
- Do not use on Dichondra or other herbaceous ground covers. Legumes may be damaged or killed.
- Reseeding: Delay reseeding at least 30 days following application. Preferably, with Spring application, reseed in the Fall and with Fall application, reseed in the Spring.

Use Restrictions:
- Do not apply more than 4.2 pints of this product (2 lbs. a.e.) per acre per application.
- Minimum of 21 days between applications.
- Do not make more than 2 applications per year (excluding spot treatments).

ORNAMENTAL TURF (Includes Lawns, Golf Courses, Cemeteries, Parks, Airfields, Roadsides, Vacant Lots, Drainage Ditch Banks)

When this product is used in ornamental turf, follow the PPE and re-entry requirements in the *"NON-AGRICULTURAL USE REQUIREMENTS"* section of this label.

Site / Application Method	This Product (pt./A)	Specific Use Instructions
Postemergence: Seedling grass (5-leaf stage or later) Well-established grasses Biennial broadleaved weeds Perennial broadleaved weeds	 0.75 to 1 2 to 3 3 3	Apply when weeds are small and actively growing. For best results, apply when soil moisture is adequate for active weed growth. Deep-rooted perennial weeds such as bindweed and Canada thistle may require repeat applications. Do not apply to newly seeded grasses until well established (5-leaf stage or later). Use a maximum of 1 pint of this product per acre. Cool season grasses are tolerant of higher rates.

Use Precautions:

- Do not use on creeping grasses such as Bent except for spot treatment.
- Do not use on injury-sensitive southern grasses such as St. Augustinegrass.
- Do not use on Dichondra or other herbaceous ground covers. Legumes may be damaged or killed.
- Reseeding: Delay reseeding at least 30 days following application. Preferably, with Spring application, reseed in the Fall and with Fall application, reseed in the Spring.

Use Restrictions:

- Do not apply more than 3.1 pints of this product (1.5 lbs. a.e.) per acre per application.
- Do not apply more than 6.3 pints of this product (3 lbs. a.e.) per acre per year (excluding spot treatments).
- Do not make more than 2 broadcast applications per year (excludes spot treatments).

AQUATIC USES

CONTROL OF WEEDS AND BRUSH ON BANKS OF IRRIGATION CANALS AND DITCHES

Target Plants	This Product (pt./A)	Specific Use Instructions
Annual weeds Biennial and Perennial broadleaved weeds, Susceptible woody plants	2 to 4 4	Use 2 gallons or more of spray solution per acre. Apply using low pressure spray (10 to 40 psi) in a spray volume of 20 to 100 gallons per acre using power operated spray equipment. Apply when wind speed is low, 5 mph or less. Apply working upstream to avoid accidental concentration of spray into water. Cross-stream spraying to opposite banks is not permitted and avoid boom spraying over water surface. When spraying shoreline weeds, allow no more than a 2 foot overspray onto water surface with an average of less than 1 foot of overspray to prevent significant water contamination. Apply when weeds are small and growing actively before the bud stage. Apply when biennial and perennial species are in the seedling to rosette stage and before flower stalks appear. For hard-to-control weeds, a repeat application after 30 days at the same rate may be needed. For woody species and patches of perennial weeds, mix 1 gallon of this product in 64 to 150 gallons of total spray. Wet foliage by applying about 3 to 4 gallons of spray per 1,000 sq. ft. (10.5 X 10.5 steps).

Use Restrictions:

- Limited to 2 applications per season.
- Do not apply within 30 days of first application.
- Do not apply more than 4.2 pints of this product (2 lbs. a.e.) per acre per application.
- Do not apply more than a total of 8.4 pints of this product (4 lbs. a.e.) per acre per use season.
- Spot treatment is 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. persec.). Repeat 3 times and use the average to calculate CFS.

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

For Ditchbank Weeds:

- Do not allow boom spray to be directed onto water surface.
- Do not spray cross-stream to opposite bank.

For Shoreline Weeds:

- Boom spraying onto water surface must be held to a minimum.
- Allow no more than 2 foot overspray onto water with an average of less than 1 foot overspray to prevent introduction of greater than negligible amounts of chemical into the water.

CONTROL OF AQUATIC WEEDS IN PONDS, LAKES, RESERVOIRS, MARSHES, BAYOUS, DRAINAGE DITCHES, CANALS, RIVERS AND STREAMS THAT ARE QUIESCENT OR SLOW MOVING INCLUDING PROGRAMS OF THE TENNESSEE VALLEY AUTHORITY

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

Target Weeds	Rate Per Acre (Pints)	Specific Use Instructions
Floating and Emergent Aquatic Weeds	2.5 to 8	Apply when leaves are fully developed above waterline and are actively growing. Spray to wet foliage thoroughly. Contact your State Department or Game and Fish Commission for assistance in determining the best time and rate of application under your local conditions. Perennial and other hard-to-control weeds may require repeat applications for adequate control.
Water hyacinth (*E. crassipes*)	4 to 8	Apply on actively growing plants by surface and air applications. Spray the weed mass only. Use 8 pints when Water hyacinth plants are mature and when weed mass is dense. Repeat application as necessary to kill regrowth and plants missed in previous operation. Surface Application: Use power operated sprayers with boom or spray gun mounted on boat, tractor or truck. Thorough wetting of foliage is essential for maximum control. Use 100 to 400 gallons of spray mixture per acre. Take special precautions such as use of low pressure, large nozzles and spray thickening agents to avoid spray drift to susceptible crops. Follow label directions for use of any drift control agent. For Directaspra™ operation, use this product with 1 pint of drift control agent in 50 to 100 gallons of water. For other applications, follow the label of the drift control agent for mixing directions. **Aerial Application:** Use drift control spray equipment or thickening agent mixed in the spray mixture. Apply 8 pints of this product per acre using standard boom systems using a minimum spray volume of 5 gallons per acre. For Microfoil® drift control spray systems, apply this product in a total spray volume of 12 to15 gallons per acre.
Use Restrictions: • Do not use more than 8.4 pints of this product (4 lbs. a.e.) per surface acre per application. • Do not make more than 2 applications per season. • Minimum of 21 days between applications. • Spot treatments are permitted.		

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. 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. 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, turfgrass 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 a 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 days or more 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 no 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 $\geq$ 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 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.

Target Weeds / Treatment Site	Application Rate per Acre	Specific Use Instructions
Submerged Aquatic Weeds including Eurasian Water Milfoil *(Myriophyllum spicatum)* in Ponds, Lakes, Reservoirs, Marshes, Bayous, Drainage ditches, Canals, Rivers and Streams that are Quiescent or Slow moving including Programs of the Tennessee Valley Authority	2.8 gals. (10.8 lbs. a.e)	• **Application Timing:** For best results, apply in Spring or early summer when aquatic weeds appear. Check for weed growth in areas heavily infested the previous year. A second application may be needed when weeds show signs of recovery, but no later than mid-August in most areas. • **Subsurface Application:** Apply this product, undiluted, directly to the water through a boat mounted distribution system. Shoreline areas should be treated by subsurface injection application by boat to avoid aerial drift. • **Surface Application:** Use power operated boat mounted boom sprayer. If rate is less than 5 gallons per acre, dilute to a minimum spray volume of 5 gallons per surface acre. • **Aerial Application:** Use drift control spray equipment or thickening agents mixed with sprays to reduce drift. Apply through standard boom systems in a minimum spray volume of 5 gallons per surface acre. For Microfoil drift control spray systems, apply this product in a total spray volume of 12 to 15 gallons per acre. • Apply to attain a concentration of 2 to 4 ppm (see *"Table 1"* below).

Table 1. Amount of 2,4-D to Apply for a Target Subsurface Concentration

Surface Area	Average Depth (ft.)	For Typical Conditions - 2 ppm 2,4-D lbs. a.e./Acre-foot	For Difficult Conditions* - 4 ppm 2,4-D lbs. a.e./Acre-foot
1 acre	1	5.4	10.8
	2	10.8	21.6
	3	16.2	32.4
	4	21.6	43.2
	5	27.0	54
*Examples include spot treatment of pioneer colonies of Eurasian Water milfoil and certain difficult to control aquatic species.			

Use Restrictions:

- Maximum application rate is 2.8 gallons of this product (10.8 lbs. a.e.) per acre-foot per application.
- Do not make more than 2 applications per season.
- 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.

Fish breathe oxygen in the water and a water-oxygen ratio must be maintained. Decaying weeds use up oxygen, but during the period when applications should be made, the weed mass is fairly sparse and the weed decomposition rate is slow enough that the water-oxygen ratio is not disturbed by treating the entire area at one time. If treatments must be applied later in the season when the weed mass is dense and repeat treatments are needed, apply product in lanes, leaving buffer strips which can then be treated when vegetation in treated lanes has disintegrated. During the growing season, weeds decompose in a 2 to 3 week period following treatment.

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, turfgrass 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).

i. 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 a 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 no more than 70 ppb 2,4-D (100 ppb for irrigation or sprays).

Application Date: _____ Time: _____

C. 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, 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.

Table 2. Drinking Water Setback Distance for Submersed Weed Applications

Application Rate and Minimum Setback Distance (feet) From Functioning Potable Water

1 ppm*	2 ppm*	3 ppm*	4 ppm*
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*	2 ppm*	3 ppm*	4 ppm*
5	10	10	14
*ppm acid equivalent target water concentration			

STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed by storage or disposal.

PESTICIDE STORAGE: Keep container tightly closed when not in use. If exposed to subfreezing temperatures, the product should be warmed up to at least 40°F and mixed thoroughly before using.

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 Container (rigid material; less than 5 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container 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 one-fourth 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. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (rigid material; 5 gallons up to < 250 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth 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. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Refillable Container (≥ 250 gallons & Bulk): Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. 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% 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.

WARRANTY – CONDITIONS OF SALE

Our directions for use of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically directed, and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with the directions given herewith. To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with the directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

Manufactured By:

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