OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

April 14, 2025

Mary Beth Endres
marybeth.endres@innvictis.com
LIBERTY CROP PROTECTION, LLC
1880 FALL RIVER DRIVE, SUITE 100
Loveland CO, 80538

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment - Label update per PRN 2017-1 and 2017-2 and adding new uses.
Product Name: LIBERTY 2,4-D AMINE 4
Admin Number: 89168-7
EPA Receipt Date: 05/10/2021
Action Case Number: 00473760

Dear Mary Beth Endres:

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

This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this product for shipment with the new labeling. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR § 152.3.

Should you wish to add/retain a reference to your company’s website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to the EPA’s Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

If you have questions, please contact Andrés Garzón via email at garzonmoreno.andres@epa.gov.

Sincerely,

Kable Bo Davis

Kable Bo Davis, Senior Advisor
HB, RD
Office of Pesticide Programs

2,4-D	GROUP	4	HERBICIDE

LIBERTY 2,4-D AMINE 4

CONTAINS DIMETHYLAMINE SALT OF 2,4-D
FOR CONTROL OF MANY BROADLEAF WEEDS IN ASPARAGUS, BLUEBERRY,CEREAL GRAINS (WHEAT, BARLEY, MILLET, OATS AND RYE), CORN (FIELD CORN, POPCORN AND SWEET CORN), CRANBERRY,FALLOWLAND AND CROP STUBBLE, ORCHARD FLOOR (APPLE, PEAR, STONE FRUIT AND NUT), RICE, SORGHUM, SOYBEANS (Preplant Burndown Only), STRAWBERRIES, SUGARCANE, FORESTS, RANGELAND AND ESTABLISHED GRASS PASTURES (Including Conservation Reserve Programs (CRP) Acres), IN NON-CROP AREAS INCLUDING LAWNS, ORNAMENTAL TURF, DRAINAGE DITCHBANKS, FENCE ROWS, RIGHTS-OF-WAY. ALSO FOR AQUATIC WEED CONTROL, CONTROL OF TREES BY INJECTION, AND TANK MIXES.

ACTIVE INGREDIENT:	**% BY WT.**
2,4-Dichiorophenoxyacetic acid, dimethylamine salt*	47.2**%**
INERT INGREDIENTS:	52.8**%**
TOTAL:	100.0%

*2,4-dichiorophenoxyacetic acid equivalent 39.2% by weight or 3.8 pounds per gallon

KEEP OUT OF REACH OF CHILDREN

DANGER / PELIGRO

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

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300.

[SEE INSIDE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS.]
[See inside booklet for additional Precautionary Statements and Directions for Use.]

FIRST AID	
IF IN EYES:	⎫ Hold eye open and rinse slowly and gently with water for 15-20 minutes. ⎫ Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. ⎫ Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING:	⎫ Take off contaminated clothing. ⎫ Rinse skin immediately with plenty of water for 15-20 minutes ⎫ Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	⎫ Call a poison control center or doctor immediately for 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 INHALED:	⎫ Move person to fresh air. ⎫ If person is not breathing, call 911 or an ambulance, then give the person artificial respiration, preferably mouth-to-mouth, if possible. ⎫ Call a poison control center or doctor for further treatment advice.
NOTE TO PHYSICIAN	
Probable mucosal damage may contraindicate the use of gastric lavage.	
HOTLINE NUMBER	

ACCEPTED
04/14/2025
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 89168-7

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC) at **1-800-858-7378** or your poison control center at **1-800-222-1222**.
For Chemical Spill, Leak, Fire or Exposure, call CHEMTREC **800-424-9300.**

EPA Reg. No.: 89168-7 **EPA Est. No.: _____**

Net Contents: ____ Gal. (____L)

Manufactured For:
LIBERTY CROP PROTECTION, LLC
1880 Fall River Drive, Suite 100
Loveland, CO 80538 051021

[Start of inside label booklet]

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER

Corrosive. Causes irreversible eye damage. Harmful if swallowed, inhaled or absorbed through the skin. **DO NOT** get in eyes, on skin, or on clothing. Avoid breathing vapor or spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All mixers, loader, applicator, flaggers, and other handlers must wear:

- Eye protection (goggles, face shield or safety glasses)
- Long-sleeved shirt and long pants
- Shoes plus socks, plus
- Chemical-resistant gloves (except for applicators using groundboom equipment, pilots and flaggers), made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyethylene, Polyvinyl Chloride (PVC) ≥ 14 mils or Viton® ≥ 14 mils
- 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 Statements

When handlers use enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protections 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)].

For containers of 5 gallons or more: A mechanical system (such as probe and pump or spigot) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

This product 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 area below the mean high water mark. Drift or runoff may be hazardous to aquatic organisms in water adjacent to treated areas, and non-target plants. **DO NOT** contaminate water when disposing of equipment wash waters or rinsate.

Groundwater Advisory
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.

For aquatic uses: Fish breathe dissolved oxygen in the water and decaying weeds also use oxygen. For aquatic uses: 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.

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. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing and 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.

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 persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

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

- Coveralls
- 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 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.

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DO NOT enter or allow people (or pets) to enter the treated area until sprays have dried.

PRODUCT INFORMATION

LIBERTY 2,4-D AMINE 4 is intended for selective control of many broadleaf weeds in certain crops (cereal grains, corn, grain sorghum, soybeans and sugarcane), orchard boors (pome fruit, including apples and pears, stone fruit, nut orchards and pistachios), fallow cropland, forests, grass pastures, rangeland, Conservation Reserve Program acres, ornamental turf (including turf grown for sod or seed), non-cropland and aquatic areas.

Apply LIBERTY 2,4-D AMINE 4 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 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 higher specified rates. Deep-rooted perennial weeds 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 Specialists for recommendations from this label that best fit local conditions.

Restrictions

- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** use in or near a greenhouse.
- **DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.
- **DO NOT** contaminate water used for irrigation or domestic purposes (except as specifically listed on this label) especially in areas where grapes, cotton, 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 grapes, tomatoes, tobacco, and cotton.
- **DO NOT** apply this product directly to, or permit to drift onto cotton, okra, grapes, tomatoes, fruit trees, vegetables, flowers or other desirable crop or ornamental plants which are susceptible to 2,4-D herbicide. **DO NOT** apply near susceptible plants since very small quantities of the 2,4-D will cause severe injury during the growing or dormant periods. Crops contacted by this product sprays or spray drift may be killed or suffer significant stand loss with extensive quality and yield reduction.

RESISTANCE-MANAGEMENT RECOMMENDATIONS

2,4-D Amine, the active ingredient in 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. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

Weed Management

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of this product or other Group 4 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in the field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout before and after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants

mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.

- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact LIBERTY CROP PROTECTION, LLC at 844-425-8488.

Management of Resistant Biotypes

Since the occurrence of resistant weeds cannot be determined until after product use and scientific confirmation, manufacturer is not responsible for any losses that may result from the failure of this product to control resistant weed biotypes.

The following good agronomic practices are recommended to reduce the spread of resistant biotypes:

- If a naturally occurring resistant biotype is present in your application site, this product should be tank mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.
- Scout treated application site after herbicide applications and control escaping weeds including resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving fields known to contain resistant biotypes.
- Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to this Mode of Actions have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of actions for each target weed.

Integrated Pest (Weed) Management

This product may be integrated into an overall weed pest management strategy whenever the use of an herbicide is required. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

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 nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swath unsprayed at the downwind edge of the treated field.

Temperature Inversions

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

Susceptible Plants

DO NOT apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, 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

DO NOT apply with a nozzle height greater than 4 feet above the crop canopy.

MIXING

Mix LIBERTY 2,4-D AMINE 4 only with water, unless otherwise directed on this label. Add about half the water to the mixing tank, then add the LIBERTY 2,4-D AMINE 4 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: This product can be tank mixed with other herbicides registered for the same use and timing. **DO NOT** tank mix this product with any product containing a label prohibition against tank mixing with 2,4-D. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

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 1/2 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 Nitrogen 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 LIBERTY 2,4-D AMINE 4 in accordance with directions for these crops provided in this label. Use liquid fertilizer at rates recommended by the supplier or Extension Service Specialist. Test for mixing compatibility as describe above before mixing in spray tank. A compatibility 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. Pre-mixing 1 part LIBERTY 2,4-D AMINE 4 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 LIBERTY 2,4-D AMINE 4 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 qt of household ammonia for every 25 gallons of water. Circulate the
3. solution through the entire system so that all internal surfaces are contacted (15-20 min). Let the solution stand for several hours, preferably overnight.
4. Flush the solution out of the spray tank through the boom.
5. Rinse the system twice with clean water, recirculating and draining each time.
6. Remove nozzles and screens and clean separately.
7. If equipment is to be used to apply another pesticide or agricultural chemical to a 2,4-D susceptible
8. 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 3 or more gallons per acre by air and 10 or more gallons per acre for ground equipment. 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. **DO NOT apply less than 3 gallons total spray volume per acre.**

Rate Ranges 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 LIBERTY 2,4-D AMINE 4 during warm weather when weeds are young and actively growing.

Small Quantity Dilution Table
To spray small areas use the following dilution table.

If Dosage on Label Shows Following Rate Per Acre	Use this Amount for each Gallon of Water Per 1,000 Square Feet
2 pints (1 quart)	0.72 fluid ounces (4.3 teaspoons)
4 pints (2 quarts)	1.4 fluid ounces (2.8 Tablespoons)
6 pints (3 quarts)	2.2 fluid ounces (4.4 Tablespoons)

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

Hand-Held Sprayers: Hand-held sprayers may be used for spot applications of LIBERTY 2,4-D AMINE 4. 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 square feet. Mix the amount of LIBERTY 2,4-D AMINE 4 (fl oz or ml) corresponding to the desired broadcast rate in 1 to 3 gallons of spray. To calculate the amount of LIBERTY 2,4-D AMINE 4 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 square feet is approximately 10.5 X 10.5 yards (strides) in size.

Rate Conversion Table for Spot Treatment

Label Broadcast Rate (pints per acre)							
1/2	**2/3**	**3/4**	**1**	**2**	**3**	**4**	**8**
Equivalent Amount of LIBERTY 2,4-D AMINE 4 per 1000 sq ft							
1/5 fl oz [1] (5.5 ml)	1/4 fl oz (7.3 ml)	1/3 fl oz (8.3 ml)	3/8 fl oz (11 ml)	3/4 fl oz (22 ml)	1 fl oz (33 ml)	1 1/2 fl oz (44 ml)	3 fl oz (88 ml)

[1] Conversion factors: 1 fluid ounce = 29.6 (30) ml

Band Application: LIBERTY 2,4-D AMINE 4 may be applied as a band treatment. Use the formulas 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

Annual or Biennial Weeds

Beggarticks [1]
Bittercress, smallflowered [3]
bitterweed
broomweed, common [1]
burdock, common
buttercup, smallflowered [1, 3]
carpetweed
cinquefoil, common [3]
cinquefoil, rough [3]
cocklebur, common
coffeeweed
copperleaf, Virginia [1, 3]
croton, Texas
croton, woolly
flixweed
galinsoga
geranium, Carolina [3]
hemp, wild
horseweed, (marestail) [3]
jewelweed
jimsonweed
knotweed [1]
kochia
lambsquarters, common
lettuce, prickly [1]
lettuce, wild
lupines
mallow, little [1]
mallow, Venice [1]
marshelder
morningglory, annual
morningglory, ivy
morningglory, woolly
Mousetail [3]
mustards (except blue mustard)
parsnip, wild
Pennycress, field
Pepperweed [1]
pigweeds (Amaranthus spp.) [2]
poorjoe
primrose, common
purslane, common [3]
pusley, Florida
radish, wild
ragweed, common
ragweed, giant
rape, wild
rocket, yellow
salsify, common [1]
salsify, western [1]
shepherdspurse
sicklepod
smartweed (annual species) [1]
sneezeweed, bitter
sowthistle, annual
sowthistle, spiny
spanishneedles
sunflower
sweetclover
sansymustard
thistle, bull
thistle, musk [1]
thistle, Russian (tumbleweed) [1]
velvetleaf
vervains [1]
vetches

Perennial Weeds

alfalfa [1, 3]
artichoke, Jerusalem [1]
garlic, wild [1]
goldenrod [1]

aster, many-flower [1]
Austrian fieldcress [1]
bindweed (hedge, field and European) [1]
blue lettuce
blueweed, Texas
broomweed
bullnettle [1, 3]
carrot, wild [1]
catnip
chicory
clover, red [1, 3]
coffeeweed
cress, hoary [1]
dandelion [1]
docks [1]
dogbanes [1]
eveningprimrose, cutleaf [3]
hawkweed, orange [1]
healal
ironweed, western [1]
ivy, ground [1]
loco, bigbend
nettles (including stinging) [1]
onion, wild [1]
pennywort
plantains
ragwort, tansy [1]
sowthistle, perennial
speedwell
spotted catsear
thistle, Canada [1]
vervains [1]
waterplantain
wormwood

1 These species may require repeat applications and/or use of the higher specified rate even under ideal conditions for application.
2 Control of pigweeds in the High Plains area of Texas and Oklahoma may not be satisfactory with this product
3 This product may not be used to control this weed species in the State of California.

CROP SPECIFIC USE DIRECTIONS

ASPARAGUS

Application Timing	Liberty 2,4-D Amine 4 (pt/acre)	Specific Use Directions
Annual, biennial and perennial broadleaf weeds	3 – 4	Apply in the spring on actively growing weeds. **Aerial Application:** Apply in 12 gallons of water per acre. **Ground Application:** Apply in 50 to 60 gallons of water per acre. Post harvest spraying should e only by ground application using drop nozzles to avoid spraying the fern. If asparagus spears are present, tret immediately after cutting. Spears contacted by the spray may be malformed and off-flavored. If spears rare malformed by spray, cut immediately and discard.

Restrictions

- **DO NOT** apply more than 4 pints (2.0 lb ae) per acre per application.
- **DO NOT** apply more than 8.0 pints (4.0 lb ae) per acre per year.
- Limited to 2 applications per year.
- Minimum of 30 days between applications.
- **Preharvest Interval (PHI): DO NOT** harvest within 30 days of application.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 4.0 pounds ae per acre per year.

APPLES, PEARS, STONE FRUIT AND NUT ORCHARDS (Except Filberts)
(ORCHARD FLOORS)

Application Timing	2,4-D Amine 4 (pt/acre)	Specific Use Directions
Postemergence		For application to orchard floors, use coarse, low pressure sprays and sufficient water for thorough coverage of weeds.
Annual and biennial weeds	1 - 2	Apply to annual weeds when small and actively growing.
Perennial weeds	up to 4	Apply to perennial weeds from bud to bloom stage.
		Because newly established trees or young orchards are more susceptible to 2,4-D injury, apply only to orchards that are at least one year ole and well-established as indicated by vigorous plant grown.

Precautions

- **DO NOT** apply to bare ground as injury may result.
- **DO NOT** allow spray to drift onto or contact foliage, fruit, stems, trunks of trees or exposed roots as injury may result.

Restrictions:

- **Preharvest Intervals (PHI):**
  - **Apples and Pears: DO NOT** harvest for 14 days after application.
  - **Stone Fruit: DO NOT** harvest for 40 days after application.
  - **Nut Orchards and Pistachios: DO NOT** harvest for 60 days after application.
- **DO NOT** graze or feed over crops from treated orchards.
- **DO NOT** cut forage or hay within 7 days after application.
- **DO NOT** apply when orchards are blooming.
- **DO NOT** make orchard floor applications in areas with light sandy soils.
- **DO NOT** apply immediately before irrigation and withhold irrigation for 2 days before and for 3 days after treatment.
- **DO NOT** apply to newly established or young orchards. Trees must be at least 1 year old and in vigorous condition.
- For apples, pears and stone fruits, allow at least 75 days between applications.
- For tree nuts, allow at least 30 days between applications.
- **DO NOT** apply more than 4.2 pints (2.0 lb ae) per acre per application.
- **DO NOT** apply more than 8.0 pints (4.0 lb ae) per acre per year.
- **DO NOT** make more than 2 applications per year.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 4.0 pounds ae per acre per year.

FILBERTS
(Orchard Floor)

Weeds in Crop	2,4-D Amine 4 (pt/acre)	Specific Use Directions
Annual Broadleaf weeds	2.1	Apply a maximum of 2.1 pints (1.0 lb ae) in 100 gallons of spray solution per acre.
Sucker Control	1 1/2 - 2	Apply in 100 gallons of water per acre with 8.0 fluid ounces of a nonionic surfactant. Spray to run-off when suckers are 6 to 9 inches tall. Spray when needed, from April through August.
		Use large orifice nozzles and low tank pressure (20 to 30

		psi) to product large droplet size.

Precautions

- **DO NOT** apply to bare ground as injury may result.
- **DO NOT** allow spray to drift onto or contact foliage, fruit, stems, trunks of trees or exposed roots as injury may result.

Restrictions

- **DO NOT** use on light sandy soil.
- **DO NOT** apply immediately before irrigation and withhold irrigation for 2 days before and for 3 days after treatment.
- **DO NOT** apply to newly established or young orchards. Trees must be at least 1 year old and in vigorous condition.
- **DO NOT** apply during bloom.
- **DO NOT** graze or feed cover crops from treated orchards.
- **DO NOT** apply more than 2.1 pints (1.0 lbs. ae) per acre per application.
- **DO NOT** make more than 4 applications per year.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 1.0 pounds of ae per acre per year.
- **Preharvest Interval (PHI): DO NOT** harvest filberts with 45 days of application.
- Allow at least 30 days between applications.
- **DO NOT** cut orchard floor forage for hay within 7 days of application.

BLUEBERRIES
High Bush Berries (Vegetative Strips between Rows)
[For use only in the state of MA, NJ, OR, WA and WI]

Application Timing	2,4-D Amine 4 (pt/acre)	Specific Use Directions
First Application – Spring If necessary, second application – After Harvest	3	**Broadleaf weeds (Broadleaf dock, Canada thistle, Dandelion, Spotted catsear)** Apply 3 pints of this product in 50 gallons of water per acre using ground equipment only. The first application should be made in the spring as a direct, shielded spray to the vegetative strip between blueberry rows, avoiding contact with the blueberry plant foliage. If necessary, a second application of this product at 3 pints in 50 gallons of water per acre may be made after harvest to control regrowth of broadleaf weeds.

Precautions

- Injury to crops from this herbicide may occur. If you are not prepared to accept some degree of crop injury **DO NOT** use this product on blueberries.
- For optimum herbicide performance, mowing between rows for at least 7 days before or after the application is not advised.
- Soil residue of this product may temporarily inhibit seed germination and plant growth.

Restrictions

- **Pre-Harvest Interval (PHI):** 30 days.
- **DO NOT** exceed 3.0 pints (1.4 lb ae) per acre per application.
- **DO NOT** exceed 6.0 pints (2.8 lb ae) per acre per year.
- Limited to 2 application per year.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 2.8 pounds of ae per acre per year.

- **DO NOT** apply through any type of irrigation system.
- **DO NOT** apply by aerial application.
- **DO NOT** apply in or near greenhouses.
- **DO NOT** apply if the temperature is 65 degrees or higher, to avoid injury to blueberry plants.
- **DO NOT** allow pesticide to drip or touch blueberry plants in the growing or dormant period. Plants contacted by this product may be killed or suffer significant injury resulting in grade or yield loss.

CEREAL GRAINS
(Wheat, Barley, Intermediate Wheatgrass, Millet, Oats, Rye, Triticale and Teff [**])

Application Timing	Liberty 2,4-D Amine 4 (pt/acre)	Specific Use Directions
Barley, Rye, Triticale, Wheat, Millet, and Teff[**] **Not underseeded with legumes** **Postemergence** Annual and biennial broadleaf weeds Perennial broadleaf weeds	 1/2 – 2 1 – 2*	Apply after crop is fully tillered (usually 4 to 8 inches tall), but before boot stage of growth and weeds are small. **DO NOT apply before tillering or from early boot through the milk stage of growth.** **Aerial application:** apply this product in 3 to 10 gallons of water per acre **Ground application:** apply this product in minimum of 10 to 15 gallons of water per acre.
Oats **Not underseeded with legumes** **Postemergence** Spring Seeded Fall Seeded Southern	 1/2 3/4 – 1 1/2	Apply after crop is fully tillered (usually 4 to 8 inches tall), but before boot stage of growth and weeds are small. **DO NOT apply before tillering or from early boot through the milk stage of growth.** **DO NOT apply during or immediately following cold weather.** **Aerial application:** apply this product in 3 to 10 gallons of water per acre **Ground application:** apply this product in minimum of 10 to 15 gallons of water per acre.
Intermediate Wheatgrass **Not underseeded with legumes** **Postemergence** Spring application on Fall plantings	 1/2 – 2*	Application must be made in the spring after tillering (usually 4 to 8 inches tall), but before the boot stage of growth. **DO NOT apply before tillering or from boot through milk stage of growth.** **Aerial application:** apply this product in 3 to 10 gallons of water per acre **Ground application:** apply this product in minimum of 10 to 15 gallons of water per acre.
Barley, Rye, Triticale, Wheat, Millet, Intermediate Wheatgrass, Oats, and Teff[**] **Underseeded with legumes**	1/4 – 1/2	Apply after grain is 8 inches tall, but before early boot stage of growth. **DO NOT apply before tillering or from early boot through the milk stage of growth.** **DO NOT** spray alfalfa or sweet clover unless the infestation is severe and injury to these legumes can be tolerated. **Aerial application:** apply this product in 3 to 10 gallons of water per acre **Ground application:** apply this product in minimum

		of 10 to 15 gallons of water per acre.
Emergency weed control in Triticale, Wheat Perennial broadleaf weeds	2.6	Apply when weeds are approaching bud stage, after the grain dough stage. **DO NOT apply before tillering or from early boot through the milk stage of growth** The 2.6 pints per acre application can produce injury to wheat. Balance the severity of your weed problem against the possibility of crop damage. Where perennial weeds are scattered, spot treatment is suggested to minimize the extent of crop injury. **Aerial application:** apply this product in 3 to 10 gallons of water per acre **Ground application:** apply this product in minimum of 10 to 15 gallons of water per acre.
Barley, Rye, Triticale, Wheat, Millet, Oats, and Teff[**] Preharvest application	1	Apply using air or ground equipment to control weeds that could interfere with harvest, or to suppress perennial weeds. Apply when grain is in dough stage. **DO NOT apply from early boot through the milk stage of growth.** Limit to one preharvest application per crop cycle. Maximum of 1 pint (0.5 lb ae) per acre per application. **Aerial application:** apply this product in 3 to 10 gallons of water per acre **Ground application:** apply this product in minimum of 10 to 15 gallons of water per acre.
*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 sed only where the weed control problem justifies the grain damage risk. **DO NOT** apply this product to grain in the seedling stage. [**Not for use on Teff in California]		

Restrictions:

- **DO NOT** feed treated straw to livestock if an emergency treatment as described above is applied.
- **Preharvest interval (PHI): DO NOT** harvest for grain for 14 days after application or allow grazing or harvest as forage within 7 days after application.
- **DO NOT** make more than 1 postemergence application per year.
- **DO NOT** make more than 1 preharvest application per year to listed cereal grains except intermediate wheat grass.
- **DO NOT** make preharvest application to intermediate wheatgrass.
- **Preharvest:**
  - **DO NOT** apply more than 1 pint (0.5 lb ae) per acre per application for listed cereal grains except intermediate wheatgrass.
  - **DO NOT** make preharvest application to intermediate wheatgrass.
- **Postemergence:**
  - **DO NOT** apply more than 2.6 pints (1.25 lb ae) per acre per application for all listed cereal grains except intermediate wheat grass.
  - **DO NOT** apply more than 2.0 pints (1.0 lb ae) per acre per application to intermediate wheatgrass.
- **DO NOT** apply more than 3.6 pints (1.75 lb ae) per acre per year to listed cereal grains except intermediate wheatgrass.
- **DO NOT** apply more than 2 pints (1.0 lb ae) per acre per year to intermediate wheatgrass.

- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 1.75 pounds ae per acre per year for listed cereal grains except intermediate wheat grass.
- For intermediate wheat grass, **DO NOT** exceed a combined total of 1 pound ae per acre per year.

CORN (FIELD CORN, POPCORN AND SWEET CORN)

Application Timing/ Stage of Growth	Liberty 2,4-D Amine 4 (pt/acre)	Specific Use Directions
Preplant (Burndown)	1 to 2	Use high rate in rate range for less susceptible weed or cover crops, weeds in advanced stages of development, or unless favorable growth conditions. **Preplant:** Apply 7 to 14 days before planting corn to control emerged broadleaf weed seedling or exiting cover crops. **Preemergence:** Apply any time after planting, but before corn emerges to control broadleaf weed seedlings or existing cover crops. **Note:** Limited to 1 application per crop cycle.
Preemergence (Field corn, popcorn, and sweet corn)	2	
Postemergence (Field corn, popcorn, and sweet corn) **Annual broadleaf weeds** Crop up to 8 inches tall Crop 8 inches tall to tasseling (directed spray only) **Perennial broadleaf weeds**	 1/2 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.** **Note:** Limited to 1 application per crop cycle.
Preharvest (Field corn and popcorn only)	up to 3	Apply after corn is in hard dough (or denting) stage. **DO NOT** apply preharvest to sweet corn. **Note:** Limited to 1 application per crop cycle.

Precautions:

- Preplant or preemergence applications to light sandy soils is not recommended.
- 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 to 10 days following application. During this period, the crop is more susceptible to stem breakage from cultivation or wind.

Restrictions (Field Corn and Popcorn):

- **Preharvest interval (PHI): DO NOT** harvest for grain or fodder within 7 days after application.
- **DO NOT** use treated crop as fodder for 7 days following application.
- **DO NOT** apply more than 6.0 pints (3 lb ae) per acre per year.
- Limited to 1 preplant or preemergence application, 1 postemergence application and 1 pre-harvest application.
    - **Preplant or Premeergence: DO NOT** apply more than 2 pints (1.0 lb ai) per acre.
    - **Postemergence: DO NOT** apply more than 1 pint (0.5 lb ae) per acre.
    - **Preharvest: DO NOT** apply more than 3 pints (1.5 lb ae) per acre.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 3.0 pounds ae per acre per year for field corn and popcorn.

Restrictions (Sweet Corn):

- **Preharvest interval (PHI): DO NOT** harvest ears within 45 days after application.
- **DO NOT** use treated crop as fodder for 7 days following application.

- **DO NOT** make a postemergence application any less than 21 days after a prior application.
- **DO NOT** apply more than 3.0 pints (1.5 lb ae) per acre per year.
- Limited to 1 preplant or preemergence application and 1 postemergence application per year.
  - **Preplant or Premeergence: DO NOT** apply more than 2 pints (1.0 lb ai) per acre.
  - **Postemergence: DO NOT** apply more than 1 pint (0.5 lb ae) per acre.
- Minimum of 21 days between applications.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 1.5 pounds ae per acre per year for sweet corn.

CRANBERRIES
For Control of Tall Weeds in Cranberry Bogs
[For use only in the states of MA, NJ, OR, WA and WI]

Application Timing	Liberty 2,4-D Amine 4 (pt/acre)	Specific Use Directions
Best results when used in late June and July	2.4	**For Control of Tall Weeds in Cranberry Bogs** Apply with a wooden frame or similar device, shaped like a hockey stick, with its lower member wrapped with several thicknesses of Turkish toweling (or other suitable material). Apply by soaking the toweling in one part of this product to two parts water. Then with swabbed portion of the stick horizontal, wave left and right above the cranberry vines, wiping small quantities of the herbicide onto tall weeds above the crop level.

Precaution
- Injury to crops from this herbicide may occur. If you are not prepared to accept some degree of crop injury **DO NOT** use this product on cranberries.

Restrictions
- **Pre-Harvest Interval (PHI):** 30 days
- Limited to 2 application per year.
- **DO NOT** apply more than 2.4 pints (1.2 lb ae) per acre per application.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 1.2 pounds ae per acre per year.
- **DO NOT** apply through any type of irrigation system.
- **DO NOT** apply by aerial application.
- **DO NOT** allow pesticide to drip or touch cranberry vines.

GRAPE VINEYARDS
For use in [CA], [OR], and [WA]

Use on Grape vineyards established for at least 3 years to control Canada Thistle, Field Bindweed (Morning Glory), and other 2,4-D susceptible broadleaf weeds.

Application Timing	Liberty 2,4-D Amine 4 (pt/acre)	Specific Use Directions
Apply when weeds are in the bud to early bloom stage and growing vigorously. Apply after shatter following bloom and before grape shoots reach the ground or during dormant season.	1.8 – 2.7	Dilute in 10 to 100 gallons of water to treat one acre of ground to be sprayed. For band or spot treatment, calculate rates according to the actual portion of acre treated. Use a hooded boom and low pressure flooding nozzles to deliver coarse droplets.

Precaution

- Grapes are extremely sensitive to 2,4-D. Use a direct application so no 2,4-D contacts grape leaves and young shoots or stems.

Restrictions

- **Preharvest Interval (PHI):** 100 days.
- **DO NOT** apply more than 2.7 pints (1.36 lb ae) per acre per application.
- Limited to 1 application per year.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 1.36 pounds of ae per acre per year.

HOPS

Application Timing	Liberty 2,4-D Amine 4 (pt/acre)	Specific Use Directions
Postemergence	1	Make directed applications to the row middles. Make up to 3 applications at 30-day intervals with the last application before harvest. Hop foliage, especially new growth, is susceptible to this product. Take care to avoid spray or drift outside target area. The use of shielded or hooded sprayers, coarse sprays and low pressure (30 psi or less) will minimize contact with foliage and plant injury.

Restrictions

- **DO NOT** apply more than 1 pint (0.5 lb ae) per acre per application.
- **DO NOT** apply more than 3 pints (1.5 lb ae) per acre per year.
- Limited to 3 applications per year.
- Minimum of 30 days between applications.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 1.5 pounds of ae per acre per year.
- **Preharvest Interval (PHI): DO NOT** harvest within 28 days of application.

RED POTATOES
(Only for Use on Red Potatoes Intended for Fresh Market)

Application Timing	Liberty 2,4-D Amine 4 (per acre)	Specific Use Directions
Postemergence	2.35 fl. oz.	Properly timed applications of this product generally enhance red color, aid in storage retention of red color, improve skin appearance, increase tuber set, and improve tuber size uniformity (fewer jumbos). Crop response may vary depending on variety, stress factors, and local conditions. Varieties with naturally dark red color generally benefit less from treatment. Make first application when potatoes are in the pre-bud stage (about 7 to 10 inches high) and make a second application about 10 to 14 days later.

Precaution

- Consult with Agricultural Extension Service and other qualified crop advisors for local recommendations.

Restrictions

- **Preharvest Interval (PHI):** 45 days.
- **DO NOT** apply more than 2.35 fluid ounces (0.07 lb ae) per acre per application.
- Limited to 2 postemergence application per crop cycle.
- Minimum of 10 days between applications.
- Apply 2.35 fluid ounces of this product per acre in 5 to 25 gallons of water using ground or aerial equipment. The specific spray volume selected should be sufficient for good coverage of plants.

RICE
(Not for Use in California)

Application Timing	2,4-D Amine 4 (pt/acre)	Specific Use Directions
Preplant	1 to 2	Apply four or more weeks prior to planting rice.
Postemergence	1 – 2 1/2	Apply when rice is in the late tillering stage of development at the time of first joint development. **DO NOT** apply after panicle initiation, after rice internodes exceed one-half inch, at early seedling, early panicle, boot or heading stages. Consult local university or Agricultural Extension Service specialists for more specific information on rates and timing of application. Application rates of 2 1/2 pints per acre may be applied to handle difficult weed control problems. However, **DO NOT** use the 2 1/2 pints per acre rate unless possible crop injury is acceptable.

Restrictions

- **DO NOT** apply more than a total of 2 1/2 pints per acre of this product to rice per growing season.
- **DO NOT** use on rice in California without an approved Supplemental Label allowing the use.
- **Preharvest Interval (PHI): DO NOT** harvest within 60 days of application.
- **Preplant:** Limited to 1 preplant application per crop cycle. Maximum of 2 pints (1.0 lb ae) per acre per application.
- **Postemergence:** Limited to 1 postemergence application per crop cycle. Maximum of 3 pints (1.5 lb ae) per acre per postemergence application.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 1.5 pounds of ae per acre per year.

WILD RICE
(For Use in Minnesota Only)

Weeds in Crop	2,4-D Amine 4 (pt/acre)	Specific Use Directions
Common water plantain	1/2	Broadcast in 4 to 10 gallons total spray volume. Apply after water plantain has emerged from the water and when wild rice is in the 1 to 2 aerial leaf to early tillering stage. **DO NOT spray after wild rice has reached to boot stage.**

Restrictions

- For use only on wild rice grown in commercial paddies.
- **DO NOT** apply to wild rice growing in lakes, rivers or streams.
- Water that is drained out of wild rice paddies is not to be used to irrigate other crops. In order to protect federally listed endangered or threatened species, the Minnesota Department of Agriculture has a program to pre-notify landowners where pesticide applications may affect federally listed endangered or threatened species.

- **DO NOT** apply more than 1/2 pint (0.25 lb ae) per acre per application.
- Limited to 1 application per year.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 0.25 pounds of ae per acre per year.
- **Preharvest Interval (PHI): DO NOT** harvest within 60 days of application.

SORGHUM
Grain Sorghum (Milo) and Forage Sorghum

Application Timing/ Stage of growth	2,4-D Amine 4 (pt/acre)	Specific Use Directions
Postemergence[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.
Crop 6 – 8 inches tall	1/2 to 1 1/2	
Crop 8 – 15 inches tall (directed spray only)	3/4 to 1 1/2	

Precautions
- Temporary crop injury can be expected under conditions of high soil moisture and high air temperatures. If it is necessary to apply LIBERTY 2,4-D AMINE 4 under these conditions, use no more than 2/3 pint per acre.
- 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.

Restrictions:
- **Preharvest Interval (PHI): DO NOT** harvest grain for 30 days after application.
- **DO NOT** forage or feed fodder for 7 days following application.
- **DO NOT** permit meat or dairy animals to consume treated crop as fodder or forage within 30 days after application.
- **DO NOT** apply during boot, flowering or dough stage.
- **DO NOT** use with oil or other adjuvants.
- **DO NOT** apply more than 1.5 pints (1.0 lb ae) per acre per application.
- Limited to 1 application per year.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 1.0 pounds of ae per acre per year.

SOYBEANS (PREPLANT BURNDOWN ONLY)
[(Not for Use in California)]

Application Timing	Liberty 2,4-D Amine 4 (pt/acre)	Specific Use Directions
Preplant (Burndown)	3/4 to 1	Apply not less than 15 days before planting soybeans, when weeds are small and actively growing. Use the higher rate on larger weeds and when perennials are present.
	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 perennials are present.
Apply not more than 2.0 pints per acre of this product prior to planting soybeans. After applying, plant soybean seed as deep as practical or at least 1.5 to 2 inches deep. Adjust the planter press wheel, if necessary, to ensure that planted seed is completely covered. Crop oil concentrates, agricultural surfactants and fluid fertilizers approved for use on growing crops may be added to spray mixtures of LIBERTY 2,4-D AMINE 4 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. Refer to the “Mixing" section for instructions for tank mixing and compatibility testing.
If desired, this product may be applied preplant to soybeans in a tank mixture with other herbicides registered for the same use and timing.

Precautions

- Unacceptable injury to soybeans planted in fields previously treated with this product may occur and the extent of injury will depend on weather and agronomic factors such as the amount of weed vegetation and previous crop residue present that may be in effect between the time of application and the emergence of the soybean plant.

Restrictions

- **DO NOT** apply this product when weather conditions such as temperature, air inversions, or wind favor drift from treated areas to susceptible plants.
- **DO NOT** apply this product prior to planting soybeans if you are not prepared to accept the results of soybean injury including possible loss of stand and yield.
- **DO NOT** replant fields treated with this product in the same growing season with crops other than those labeled for 2,4-D pre-plant use.
- **DO NOT** mow or cultivate weeds prior to treating with this product as poor control may result.
- **DO NOT** apply this product pre-plant to soybeans in fields having a coarse-textured soil where the percent organic matter is <1.0%.
- Only one application of this product may be made prior to planting soybeans per growing season.
- **Pre-plant (2 application option):**
  - **DO NOT** apply more than 1 pint (0.5 lb ae) per acre per application.
  - **DO NOT** apply more than 2 pints (1.0 lb ae) per acre per year.
  - **DO NOT** apply within 15 days of planting soybeans.
- **Pre-plant (1 application option):**
  - **DO NOT** apply more than 2 pints (1.0 lb ae) per acre per year.
  - **DO NOT** apply within 30 days of planting soybeans.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 1.0 pounds of ae per acre per year.

STRAWBERRIES (Established Planting Only)
Not Use in California or Florida

Application Timing	2,4-D Amine 4 (pt/acre)	Specific Use Directions
Established Strawberries Only Apply in early spring when strawberries are dormant or immediately after the last picking.	2 - 3	Apply in 25 to 50 gallons of water per acre.

Restrictions

- Apply only in established strawberry plantings.
- Apply in early spring when strawberries are dormant or immediately after the last picking.
- **DO NOT** apply more than 3 pints (1.5 l. ae) per acre per application.
- Limited to 1 application per crop cycle.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 1.5 pounds of ae per acre per year.

SUGARCANE
[Not for Use in California]

Application Timing	Liberty 2,4-D Amine 4 (pt/acre)	Specific Use Directions
Preemergence **Postemergence**	2 to 4	Consult your agricultural experiment station or extension service weed specialist local recommendations. **Preemergence:** 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.

Restrictions

- **DO NOT** harvest cane prior to maturity.
- **Preemergence:**
  - **DO NOT** apply more than 4 pints (2.0 lb ae) per acre per application.
  - Limited to 1 application per year.
- **Postemergence**:
  - **DO NOT** apply more than 4 pints (2.0 lb ae) per acre per application.
  - Limited to 1 application per year.
- **DO NOT** apply more than 8 pints (4.0 lb ae) per acre per year.

FALLOW LAND AND CROP STUBBLE

Fallowland is idle land, postharvest to crops or between crops.

Type of Weeds	2,4-D Amine 4 (pt/acre)	Specific Use Directions
Annual broadleaf 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 broadleaf 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 broadleaf 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.

Precautions

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

Restrictions:

- **Preharvest interval (PHI): DO NOT** cut forage for hay within 7 days of application.
- **DO NOT** apply within 30 days of a previous application.
- Plant only labeled crops within 29 days following application.
- **DO NOT** apply more than 4.0 pint (2.0 lb ae) per acre per application.
- **DO NOT** apply more than 8 pints (4.0 lb ae) per acre per year.
- Limited to 2 applications per year.

- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 4.0 pounds of ae per acre 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. Degradation factors described below should be considered in weighing this risk.

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.

CONSERVATION RESERVE PROGRAM AREAS
Including Perennial Grasslands Not in Agricultural Production

Weeds	2,4-D Amine 4 (pt/acre)	Specific Use Directions
Annual broadleaf weeds In young grasses In established grasses	 1/2 – 1 1/2 - 2	Apply to actively growing annual broadleaf weeds. Use 1/2 to 1 pint when weeds are small; use higher rates on older weeds. **DO NOT** apply to young grasses with fewer than 6 leaves or prior to tillering, as excessive injury may result. **DO NOT** apply more than 1 pint until grasses are well established as excessive injury may result.
Biennial and perennial broadleaf weeds In established grasses	 2 - 4	Treat when biennial weeds are in the seedling to rosette stage and before flower stalks become apparent. Treat perennial weeds in the bud to bloom stage. Apply to actively growing weeds.

Restrictions

- Use at least 2 gallons of water per acre by air and 5 gallons of water per acre by ground.
- **DO NOT** apply to grasses in the boot to dough stage if grass seed production is desired.
- **DO NOT** cut forage for hay within 7 days of application.
- **Postemergence:**
  - For susceptible annual and biennial broadleaf weeds, **DO NOT** apply more than 2 pints (1.0 lb ae) per acre per application.
  - For moderately susceptible biennial and perennial broadleaf weeds and for difficult to control weeds and woody plants, **DO NOT** apply more than 4 pints (2.0 lb ae) per acre per application.
  - Spot treatments **DO NOT** apply more than 4 pints (2.0 lbs. ae) per acre.
  - **DO NOT** apply more than 8 pints (4.0 lbs. ae) per acre per year.
  - Maximum of 2 applications per year.
  - Minimum of 30 days between applications.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 4.0 pounds of ae per acre per year.
- If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable.

- For program lands, such as Conservation Reserve Program, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed.

RANGELAND, ESTABLISHED GRASS PASTURES AND GRASS CUT FOR HAY

Treatment Site Method of Application	2,4-D Amine 4 (pt/acre)	Specific Use Directions
Annual broadleaf weeds	2	For best results, apply when weeds are small and 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 for a listing of susceptible weed species and weeds that may be only partially controlled and require repeat applications and/or use of higher specified rates, even under ideal conditions of application.
Biennial and perennial broadleaf weeds	2 to 4	
Spot Treatment to control broadleaf weeds	See instructions for "Spot Treatment"	**Note:** To control broadleaf weeds in small areas with a hand sprayer, use an application rate equivalent to the broadcast rate specified for this treatment site and spray to thoroughly wet all foliage. See rate conversion table and instructions for "Spot Treatment" and use of hand-held sprayers under "Application".
Tree Injection Application		See instructions for tree injection application in "Forestry Uses" section.
Wild garlic and wild onion	4	Make three applications (fall-spring-fall or spring-fall- spring) starting in late fall or early spring.
Broadleaf weed control in newly sprigged coastal bermudagrass	2 to 4	Applications may be made either preemergence or postemergence. Follow "Specific Use Directions" for annual, biennial and perennial broadleaf weed control, above.
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.
Chamise, manzanita, buckbrush, coastal sage, coyotebrush, and chaparral species.	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 gal/100 gal of spray	**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. Use 1 gallon of LIBERTY 2,4-D AMINE 4 plus 4 to 8 fluid ounces of an agricultural surfactant per 100 gallons of water. Two or treatments may be required.

Restrictions

- **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.
- **DO NOT** cut forage for hay within 7 days of application.
- **Postemergence:**
  - For susceptible annual and biennial broadleaf weeds, **DO NOT** apply more than 2 pints (1.0 lb ae) per acre per application.
  - For moderately susceptible biennial and perennial broadleaf weeds and for difficult to control weeds and woody plants, **DO NOT** apply more than 4 pints (2.0 lb ae) per acre per application.
  - Spot treatments **DO NOT** apply more than 4 pints (2.0 lb ae) per acre.
  - **DO NOT** apply more than 8 pints (4.0 lb ae) per acre per year.
  - Maximum of 2 applications per year.
  - Minimum of 30 days between applications.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 4.0 pounds ae per acre per year.
- If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable.
- For program lands, such as Conservation Reserve Program, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed.

GRASSES GROWN FOR SEED OR SOD

Treatment Site (Application Timing)	Liberty 2,4-D Amine 4 (pt/acre)	Specific Use Directions
Annual and perennial boarder weeds	2 - 4	Apply to established stands in spring from tiller to early boot stage. **DO NOT spray in boot stage.** New spring seedings may be treated with the lower rate after grass seedlings have at least 5 leaves. Perennial weed regrowth may be treated in the fall.
Grasses Grown for Seed (Postemergence Use) Seedling grass (five-leaf stage or later) Well-established grasses	 3/4 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 (five-leaf stage or later) and then use a maximum of 1 pint per acre. Cool season grasses are tolerant of 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 for control of hard-to kill annual or perennial weeds. Deep-rooted perennials such as bindweed and Canada thistle may require repeat
Sod Farms (Postemergence)	1/2 - 4	

		applications. Avoid mowing sod farms for 1 to 2 days before or after application. Delay irrigation until the day following application.

Restrictions:

- **DO NOT** use on creeping grasses such as bent except as a 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.
- **DO NOT** graze or cut forage for hay within 7 days after application.
- **DO NOT** apply more than 4 pints (2.0 lb ae) per acre per application.
- Limited to 2 applications per year.
- Minimum of 21 days between applications.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 4.0 pounds ae per acre per year.

ORNAMENTAL TURF (Excluding Grasses Grown for Seed or Sod Farms)
(Includes Lawns, Golf Courses, Cemeteries and Parks, Airfields, Roadsides, Vacant Lots, Drainage Ditch Banks)

Treatment Site (Application Timing)	Liberty 2,4-D Amine 4 (pt/acre)	Specific Use Directions
Postemergence		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 (five-leaf stage or later) and then use a maximum of 1 pint per acre. Cool season grasses are tolerant of higher rates.
Seedling grass (five-leaf stage or later)	3/4 to 1	
Well-established grasses	2 to 3	
Biennial and perennial broadleaf weeds	3	

Precautions

- Bentgrass, clover, legumes and dichondra may be injured by this treatment.

Restrictions:

- **DO NOT** use on creeping grasses such as bent except as a spot treatment.
- **DO NOT** use on injury-sensitive southern grasses such as St. Augustinegrass.
- **DO NOT** reapply within 21 days of a previous application.
- **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.
- **DO NOT** apply more than 2 broadcast applications per year per treatment site (does not include spot treatments).
- **DO NOT** apply more than 3 pints (1.5 lb ae) per acre per application.
- **DO NOT** apply more than 6 pints (3.0 lb ae) per acre per year.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 3.0 pounds ae per acre per year.

NON-CROPLAND AREAS
Such as fencerows, hedgerows, roadsides, drainage ditches, rights-of way, utility power lines, railroads, airports, and other non-crop areas

Treatment Site Method of Application	Liberty 2,4-D Amine 4 (pt/acre)	Specific Use Directions
Annual broadleaf weeds	2 to 4	Apply when annual weeds are small and growing actively before the bud stage. Biennial and perennial weeds should be rosette to bud stage, but not flowering at the time of application. For difficult to control perennial broadleaf weeds and woody species, tank mix up to 1 gallon LIBERTY 2,4-D AMINE 4 plus labeled rate of Triclopyr per acre. **For ground application:** (High volume) apply a total of 100 to 400 gallons per acre; (low volume) apply a total of 10 to 100 gallons per acre. **For helicopter:** Apply a total of 5 to 30 gallons per acre spray volume.
Biennial and perennial broadleaf weeds and susceptible woody plants	4 to 8	
Spot Treatment to control broadleaf weeds	See Instructions for "Spot Treatment"	**Note:** To control broadleaf weeds in small areas with a hand sprayer, use an application rate equivalent to the broadcast rate specified for this treatment site and spray to thoroughly wet all foliage. See rate conversion table and instructions "Spot Treatment" and use of hand-held sprayers under 'Application".
Tree Injection Application		See instructions for tree injection application in "Forestry Uses' section.
Southern wild rose Broadcast application Spot treatment	up to 4-8 1 gal/100 gal of spray	**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. Use 1 gallon of LIBERTY 2,4-D AMINE 4 plus 4 to 8 fluid ounces of an agricultural surfactant per 100 gallons of water. Two or more treatments may be required.

Precautions

- Bentgrass, St Augustine, clover, legumes and dichondra may be severely injured or killed by this treatment.

Restrictions:

- **DO NOT** apply to newly seeded areas until grass is well established.
- **DO NOT** use on susceptible southern grasses such as St. Augustine.
- Use 2 or more gallons of spray solution per acre.
- **DO NOT** harvest forage or hay from treated areas for 7 days after application.
- **DO NOT** apply more than 8 pints (4.0 lb ae) per acre per year.
- **Annual, biennial and perennial broadleaf weeds:**
  - Limited to 2 applications per year.
  - **DO NOT** apply more than 4 pints (2.0 lb ae) per acre per application.
  - Minimum 30 days between applications.
- **Woody Plants:**
  - Limited to 1 application per year.
  - **DO NOT** apply more than 8 pints (4.0 lb ae) per acre per application.

- Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.
- When tank mixing with products that contain 2,4-D, **DO NOT** exceed a combined total of 4.0 pounds ae per acre per year.

FORESTRY USES

Forest Site Preparation, Forest Roadsides, Brush Control, Poplar/Cottonwood for Pulp, Established Conifer Release (Including Christmas Trees and Reforestation Areas)

Treatment Site Method of Application	Liberty 2,4-D Amine 4 (per acre)	Specific Use Directions
Annual Weeds	2 to 4 pt	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 LIBERTY 2,4-D AMINE 4 and labeled rate of Triclopyr per acre. For conifer release, make application in early spring before budbreak of conifers when weeds are small and actively growing.
Biennial and perennial broadleaf weeds and susceptible woody plants	4 to 8 pt	
Spot Treatment to control broadleaf weeds	See Instructions for "Spot Treatment"	**Note:** To control broadleaf weeds in small areas with a hand sprayer, use an application rate equivalent to the specific broadleaf rate and spray to thoroughly wet all foliage. See rate conversion table and instructions for "Spot Treatment" and use of hand-held sprayers under "Application".
Poplar/Cottonwood trees grown for pulp Broadleaf weed control	1/2 - 3	Applied through wick applicators or conventional ground sprayers. (Excluding irrigation systems) **DO NOT** allow this product to contact leaves or green bark of the tree. Apply in enough water to provide uniform coverage prior to or after planting of Poplar/Cottonwood trees. Application during warm weather is preferred. Apply when weeds are actively growing, preferably before bud stage. Repeat treatment may be necessary for less susceptible weeds; re-apply as needed. glyphosate may be mixed with this product to increase weed control. Follow both labels to determine correct rates. Two quarts or more of a spreader - activator per 100 gallons of spray solution may be added to improve herbicide performance.
Conifer Release: Species such as white pine, ponderosa pine, jack pine, red pine, black spruce, white spruce, red spruce, and balsam fir	1 1/2 to 3 qt	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 pine	4 qt/100 gal	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)	8 qt/100 gal or 2.6 fl oz/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 (May also be used in rangeland, pastures, and noncropland)		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 (May also be used in rangeland, pastures, and noncropland)		Cut frills (overlapping V-shaped notches cut downward through the bark in a continuous ring around the base of the tee) 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 Application (May also be used in rangeland, pastures, and noncropland)	(1 to 2 ml per injection site)	To control unwanted hardwood trees such as elm, hickory, oak, and sweetgum in forests and other non-crop areas, apply by injecting at a rate of 1 ml of undiluted LIBERTY 2,4-D AMINE 4 per inch of trunk diameter at breast height (DBH) as measured approximately 4 1/2 feet above the ground. For hard to control species such as ash, maple, and dogwood use 2 ml of undiluted LIBERTY 2,4-D AMINE 4 per injection site or double the number of 1 ml injections. Make applications 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. Maples should not be treated during the spring sap flow. **For Dilute Injection:** Mix 1 gallon of product in 19 gallons of water for dilute injections. **For Concentrate Injections:** Use 1 to 2 ml of concentrated product per injection. **Note:** No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly Injected into agricultural plants.

Precautions

- **DO NOT** allow sprays to contact conifer shoot growth (current year's new growth) or injury may occur.

Restrictions:

- **DO NOT** apply to nursery seed beds.
- For conifer release, **DO NOT** use on plantations where pine or larch are among the desired species.
- For broadcast applications, **DO NOT** apply more than 8.0 pints (4.0 lb ae) per acre per year.
- **DO NOT** make more than 1 broadcast application per year.
- **Basal spray, Cut Surface - Stumps, and Frill:**
  - Limited to one application per year.
  - Maximum of 8.0 lb ae per 100 gallons of spray solution.
- **Injections:**
  - Limit of one basal spray or cut surface application per year.
  - Maximum of 2.0 ml of 4.0 lb ae per gallon formulation per injection site.

BIOENERGY CROPS - GRASSES*

Weed Control In Giant Reedgrass (*Arundo donax*), Switchgrass (*Panicum virgatum*), Giant Miscanthus (*Miscanthus x giganteus*) and Other Non-Food Perennial Grass Bioenergy Crops

[*Not for use in California to Bioenergy Crops – Grasses]

Use Instructions
This product may be applied for broadleaf weed control in giant reedgrass (*Arundo donax*), switchgrass (*Panicum virgatum*) giant Miscanthus (*Miscanthus x giganteus*) and other non-food perennial grass bioenergy crops.

For perennial grasses, apply no earlier than 4-leaf stage. Apply 1/2 to 2 pints per acre to seedling grasses with ground or air equipment. A rate of 1 to 4 pints per acre should be used when grasses are well established.

Restrictions
- **DO NOT** apply more than 4 pints (2.0 lb ae) per acre per application.
- Limited to 2 broadcast applications per year.
- Minimum of 30 days between applications.
- Apply by air or ground equipment in sufficient gallonage to obtain adequate coverage. Minimum of 2 gallons of water per acre for aerial application and 10 for ground application is recommended.
- **DO NOT** spray immediately before irrigation and withhold above-ground irrigation for 3 days after application.
- Treated plantings not to be consumed by human or animal.

BIOENERGY CROPS - TREES
Weed Control in Hybrid Poplar Trees, Cottonwood Trees And Willow Trees Grown as Bioenergy Crops

Use Instructions
This product may be used in hybrid poplar trees, cottonwood trees and willow trees grown as bioenergy crops. Application during warm weather is preferred. Apply when
weeds are actively growing, preferably before bud stage. Repeat treatment may be necessary for less susceptible weeds; re-apply as needed.
For hybrid poplar, cottonwood and willow make application prior to or after planting. For ground spray equipment, use 1/2 to 3 pints per acre. Apply 1 to 4 pints per acre using wick type applicators that treat weeds directly. Crop injury may result if the wick, wick solution or spray solution contact leaves or green bark of the crop trees.
NOTE: Extreme care should be exercised to avoid contact of the spray solution, spray, drift, or mist with tree foliage, green bark of trucks, stems or exposed
roots of the poplar, cottonwood and will trees. Contact of the spray solution to these parts can result in serious damage. Even when using extreme care in
application of this product, injury to crops from this herbicide may occur. If you are not prepared to accept some degree of crop injury, **DO NOT** use this product.

Tank Mixtures
This product may be tank mixed with glyphosate to provide broader spectrum of control.

Restrictions
- **DO NOT** apply more than 4 pints (2.0 lb ae) per acre per application.
- Limited to 1 broadcast applications per year.
- Minimum of 30 days between applications.
- Use sufficient spray volume for thorough and uniform coverage, but a minimum of 10 gallons per acre for broadcast application.
- **DO NOT** apply this product by air for use of weed control in hybrid poplar tree, cottonwood trees and willow tress grown as bioenergy crops.
- **DO NOT** use this product in or near greenhouses, for use of weed control in hybrid poplar tree, cottonwood trees and willow tress grown as bioenergy crops.
- **DO NOT** spray immediately before irrigation and withhold above-ground irrigation for 3 days after application.
- Treated plantings not to be consumed by human or animal.

AQUATIC USES

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

Target Plants	Liberty 2,4-D Amine 4 (pt/acre)	Specific Use Directions
Annual Weeds	2 to 4	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 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 LIBERTY 2,4-D AMINE 4 per 64 to 150 gallons of total spray. Wet foliage by applying about 3 to 4 gallons of spray per 1000 square feet (10.5 X 10.5 steps)
Biennial and perennial broadleaf weeds and susceptible wood plants	4	

Restrictions:

- **DO NOT** apply more than 4 pints (2.0 lb ae) per acre per application.
- **DO NOT** apply more than 8 pints (4.o lb ae) per acre per year.
- Limited to 2 applications per season.
- Minimum of 30 days between applications.
- Spot treatment permitted.
- **DO NOT** use on small canals with a flow rate less than 10 cubic feet per second (CFS) where water will be used for drinking purposes.

CFS may be estimated by using the formula below.

The approximate velocity needed for the calculation can be determined by observing the length of time that it takes a floating object to travel a defined distance. Divide the distance (ft.) by the time (sec.) to estimate velocity (ft. per sec.). Repeat 3 times and use the average to calculate CFS. Average Width (ft.) x Average Depth (ft.) x Average Velocity (ft. per sec.) = CFS

For ditchbank weeds:

- **DO NOT** allow boom spray to be directed onto water surface.
- **DO NOT** spray across stream to opposite bank.

For shoreline weeds:

- Boom spraying onto water surface must be held to a minimum and 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.

AQUATIC WEED CONTROL 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.

FLOATING AND EMERGENT WEEDS: Including Water hyacinth *(Eichornia crassipe*)
Apply to emergent aquatic weeds in ponds, lakes, reservoirs, marshes, bayous, drainage ditches, non-irrigation canals, rivers, and streams that are quiescent or slow moving. Coordination and approval of local and state authorities may be required, either by letter of agreement or issuance of special permits for aquatic applications.

Application Rate: 2 to 4 quarts per acre

Restrictions
- **DO NOT** apply more than 4.0 pounds acid equivalent per surface acre per application.
- Limited to 2 applications per year.
- Minimum of 21 days between applications.
- Spot treatments are permitted.

Specific Use Directions
Application Timing: Spray weed mass only. Apply when water hyacinth plants are actively growing. Repeat application as necessary to kill regrowth and plants missed in previous operation. Use 4 quarts per rate when plants are mature or when weed mass is dense.

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. Special precautions such as use of low pressure, large nozzles and spray thickening agents should be taken to avoid spray drift to susceptible crops. Follow label directions for use of any drift control agent.

Aerial Application: Use drift control spray equipment or thickening agent mixed in the spray mixture. Apply 1 gallon of LIBERTY 2,4-D AMINE 4 per acre using standard boom systems using a minimum spray volume of 5 gallons per acre. For Microfoil* drift control spray systems, apply LIBERTY 2,4-D AMINE 4 in a total spray volume of 12 to15 gallons per acre.

SUBMERGED AQUATIC WEEDS: Including Eurasian Water Milfoil *(Myriophyllum spicatum)*

Restrictions:
- **DO NOT** apply more than 10.8 pounds acid equivalent per acre-foot per application.
- Limited to 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.

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

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

Treatment Site	Maximum Application Rate [1]	Specific Use Directions
Aquatic Weed Control in Ponds, Lakes, Reservoirs, Marshes, Bayous, Drainage Ditches, Canals, Rivers and Streams that are Quiescent or Slow Moving, Including Programs of the Tennessee	2.84 gal (10.8 lb acid equivalent) per acre foot	**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.

Valley Authority		**Subsurface Application:** Apply LIBERTY 2,4-D AMINE 4 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 LIBERTY 2,4-D AMINE 4 in a total spray volume of 12 to 15 gallons per acre. Apply to attain a concentration of 2 to 4 ppm (see table below).
[1] LIBERTY 2,4-D AMINE 4 contains 3.8 pounds acid equivalent per gallon of product.		

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

Surface Area	Average Depth	For typical conditions – 2 ppm 2,4-D ae/acre-foot	For difficult conditions* - 4 ppm 2,4-D ae/acre-foot
1 acre	1 ft	5.4 lbs	10.8 lbs
	2 ft.	10.8	21.6
	3 ft	16.2	32.4
	4 ft	21.6	43.2
	5 ft	27.0	54.0
* Examples include spot treatment of pioneer colonies of Eurasian Water Milfoil and certain difficult to control aquatic species.			

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			

Water Use

1. Water for irrigation or sprays:

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

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 greater than or equal to 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 greater than or equal to 600 ft.

C. If no setback distance of greater than or equal to 600 ft. is used for application, applicators or the authorizing organization must provide a drinking water notification prior to a 2,4-D application to the party responsible for public water supply or to individual private water uses. 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 must include the day and time of application. Posting may be removed if analysis of a sample collected at the intake 3 or more days following application shows that the concentration in the water is less than 70 ppb (100 ppb for irrigation or sprays), or after 7 days following application, whichever occurs first.

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

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

i. A setback distance from functional water intake(s) of greater than or equal to 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.

Restrictions for Aquatic Use:

- **DO NOT** treat areas that are not infested with aquatic weeds.
- **Wind Speed: DO NOT** apply when wind speed is at or above 10 mph when making ground or surface applications. **DO NOT** aerially apply when wind speed is greater than 5 mph. Wind speed restrictions **DO NOT** apply for subsurface applications used in submerged aquatic weed control programs.
- **Dissolved Oxygen Ratio:** Fish require oxygen dissolved in water for life processes and a favorable water- oxygen ratio must be maintained. Decaying weeds use up dissolved oxygen in water. Fish kill resulting from decaying plant material can be prevented by: (1) treating the entire area when the weed mass is sparse and the rate of decomposition will not be sufficient to disturb the water-oxygen ratio; or (2) If application is delayed until there is a dense weed mass, at no more than one-half of a lake or pond at one time. For large bodies of weed-infested water, apply product in lanes, leaving buffers strips at least 100 feet wide which can be treated in 4 to 5 weeks or when vegetation in treated lanes has decomposed. During the growing season, decomposition of treated strips will usually occur in 2 to 3 weeks.

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

Pesticide Storage

Store in original container only. Keep container closed when not in use. If exposed to subfreezing temperatures the product should be warmed to at least 40°F and mixed thoroughly before using. **DO NOT** store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with vermiculite, earth, or synthetic absorbent.

Pesticide Disposal

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. 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 Handling

NONREFILLABLE CONTAINER (EQUAL TO OR LESS THAN 5 GALLONS): DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

NONREFILLABLE CONTAINER (GREATER THAN 5 GALLONS): DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Pressure rinse as follows (all sizes): Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

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 percent full with water. Agitate vigorously or recirculate

water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. After triple rinsing is complete, and the container is not suitable for refilling or reconditioning, offer the container for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of LIBERTY CROP PROTECTION, LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold LIBERTY CROP PROTECTION, LLC and Seller harmless for any claims relating to such factors.

LIBERTY CROP PROTECTION, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or LIBERTY CROP PROTECTION, LLC, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, LIBERTY CROP PROTECTION, LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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