

42750-76

5-7-2008

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

L 7 MAY 2008

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Albaugh, Inc.
P.O. Box 2127
Valdosta, GA
31604-2127

Subject: EPA Reg. No. 42750-76/ Thundermaster 2,4-D RED Label Amendment

The labeling referred to above is in compliance with the 2,4-D RED provided you make the following changes:

1. Per the acute toxicity review, the word "Corrosive" must be added to the Hazards to Humans and Domestic Animals section and must be placed before the text "Causes irreversible eye damage."
2. Per the combined 2,4-D and Dicamba label tables and the acute toxicity review, the PPE section must be revised to read as specified below. The text "Containers greater than one gallon but less than five gallons: Mixers and loaders who do not use a mechanical system (probe and pump) to transfer the contents of this container must wear coveralls or a chemical-resistant apron in addition to the other required PPE" may be removed from the label if the mechanical transfer text is deleted. Refer to item 3 below.

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

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

Long-sleeved shirt and long pants,

Shoes and socks,

Face shield or goggles,

Chemical-resistant gloves (except for applicators using groundboom equipment, pilots and flaggers), and

Chemical-resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

See engineering controls for additional requirements."

3. The mechanical transfer engineering control text may be deleted from the label.

4. Per the combined label table, the text in **bold type** below must be added to the following User Safety Requirements:

“...If no such instructions for washables **exist**, use detergent and hot water...”.

5. The text in **bold type** must be added to the User Safety Recommendation text currently on the label:

“User should remove clothing/**PPE** immediately if pesticide gets inside.”.

6. The text “except as noted on appropriate labels” must be deleted from the Environmental Hazard text.

7. Per the combined 2,4-D and Dicamba label table, the early entry PPE must be revised to read:

“Coveralls worn over shirt-sleeve shirt and short pants,
Chemical-resistant footwear plus socks,
Chemical-resistant gloves made of any waterproof material,
Chemical-resistant headgear for overhead exposure,
Protective eyewear.”.

8. A Non-Agricultural Use Requirements box must be added to label with the following entry restriction text:

"NON-AGRICULTURAL USE REQUIREMENTS

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

9. With the exception of drift-related text appearing in the Environmental Hazards (“Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas”) and General Precautions and Restrictions (“Do not apply this product in a way that will contact workers or other persons, either directly or through drift”), all drift text appearing on the label must be placed together.

The text “Do not apply during inversion conditions, when winds are gusty, or when other conditions will favor drift” and “Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle

pressure” should be deleted from the label because it is incomplete and conflicts with the required spray drift text currently on the label.

Reference to “chemigation” must be deleted from the spray drift text because application of this product through any irrigation system is prohibited.

The text “2,4-D esters may volatilize during conditions of low humidity and high temperatures. Do not apply during conditions of low humidity and high temperature” must be deleted from the label because this product is a salt not an ester of 2,4-D.

The text in **bold type** must be added to the following:

“Only apply this product if the wind direction favors on-target deposition and **there** are not sensitive areas....”.

10. The rate restrictions expressed as acid equivalents throughout the label should be qualified to indicate 2,4-D acid equivalency.

11. The directions to apply a 1 percent or 1-2 percent solution of this product for spray-to-wet or spot-spraying applications appearing on Pages 13, 16, 18 and 19 must be deleted from the label because an area to be treated is not specified and it conflicts with the required rate restriction text for all crops listed on the label.

12. For preharvest application to wheat, a 14 day PHI must be added to the label.

13. Per Page 14 of the combined label table, the following restrictions must be added to the label for post harvest use to grains:

“Do not apply more than 2 applications per year.
The minimum retreatment interval is 30 days.”.

14. For Non-cropland and pasture and rangeland, the rate restriction allowing rates of up to 30 2/3 pints of product or 4.0 lbs ae [active ingredient not specified] (4.0 lbs ae of 2,4-D and 1.5 lb ae of dicamba) per acre per year exceeds the allowable rate of 1.0 lb ae of dicamba per acre per year and must be revised.

15. On page 11 and 16 change “Recommended rates and weeds controlled” to “Rates and weeds controlled”.

16. To the Conditions of Sale and Warranty section add “To the extent consistent with applicable law” in front of “Albaugh, Inc. makes no other” and “Buyer’s exclusive remedy”.

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17. To the label add the correct Company address.

18. The phrase "until this product has disappeared from the soil" is not clear. Add specific directions on how to determine when rotated crops may be planted in the treated soil.

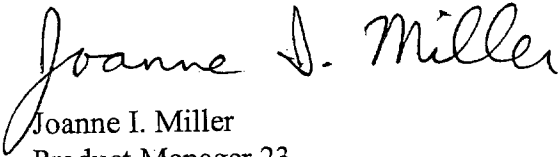
Please note: Final product reregistration cannot be considered until after all active ingredients in this product are eligible for reregistration.

Submit one copy of the revised final printed label for the record.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

If you have any questions please call Erik Kraft at 703-308-9358 or email at Kraft.Erik@epa.gov.

Signature of Approving Official:



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

EDITOR'S NOTE: Clean draft label for 2,4-D RED

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THUNDERMASTER™

Thundermaster™ is a postemergence herbicide for control or suppression of emerged weeds in fallow and reduced tillage systems, industrial and noncrop areas. Thundermaster™ can also be applied prior to planting or emergence of small grains (wheat, barley, oats) corn, sorghum (grain or forage), through hooded sprayers between rows of corn, as a spot treatment in corn, sorghum, forage grasses, as a preharvest treatment in wheat, and as a postharvest treatment following grain harvest.

AVOID CONTACT WITH FOLIAGE OF CROP OR OTHER DESIRABLE VEGETATION SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

Read the "CONDITIONS OF SALE AND WARRANTY" before buying or using. If terms are not acceptable, return at once unopened.

ACTIVE INGREDIENTS*:

Glyphosate (N-(phosphonomethyl)glycine, in the form of its isopropylamine salt	23.56%
2,4-D, 2,4-dichlorophenoxyacetic acid, in the form of its isopropylamine salt	14.00%
Dicamba (3,6 dichloro-o-anisic acid), in the form of its isopropylamine salt	4.90%
OTHER INGREDIENTS:.....	57.54%
TOTAL	100.00%

*Contains: 2.28 lbs per gallon of the active ingredient, glyphosate, in the form of its isopropylamine salt; 1.36 lbs per gallon of the active ingredient, 2,4-D, in the form of its isopropylamine salt; 0.5 lb per gallon of the active ingredient, dicamba, in the form of its isopropylamine salt. Equivalent to 1.69 lbs per gallon of glyphosate acid; 1.07 lbs per gallon of 2,4-D acid; 0.4 lb per gallon of dicamba acid.

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO

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

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.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.	
NOTE TO PHYSICIAN - Probable mucosal damage may contraindicate the use of gastric lavage.	

See inside booklet for additional PRECAUTIONARY STATEMENTS

EPA Reg. No. 42750-76

EPA Est. No. xxxxxx-xx-xxx

NET CONTENTS

ACCEPTED
with **COMMENTS**
In EPA Letter Dated:
7 MAY 2008

MANUFACTURED BY:
Albaugh, Inc.
Ankeny, IA 50021

PO Box 2127
Valdosta, GA
31609-2127

FOR CHEMICAL SPILL, LEAK, FIRE, OR EXPOSURE CALL CHEMTREC (800) 424-9300

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

42750-76

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

Causes irreversible eye damage. Do not get in eyes or on clothing.

PERSONAL PROTECTIVE EQUIPMENT: (PPE)

Some materials that are chemical-resistant to this product are butyl rubber, natural rubber, neoprene or nitrile rubber. If you want more options, follow the instructions for Category A on an EPA chemical-resistance category selection chart.

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

Long-sleeved shirt and long pants.

Shoes and socks.

Chemical resistant gloves when applying with any handheld nozzle or equipment, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

Chemical resistant apron when applying with any handheld nozzle or equipment, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

Containers greater than one gallon but less than five gallons: Mixers and loaders who do not use a mechanical system (probe and pump) to transfer the contents of this container must wear coveralls or a chemical-resistant apron in addition to the other required PPE.

See engineering controls for additional requirements.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. After each day of use, clothing or PPE must not be reused until it has been cleaned.

ENGINEERING CONTROLS STATEMENTS:

Containers of five gallons or more: A mechanical system (probe and pump) 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.

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

Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240 (d)(6)].

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USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

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

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

PHYSICAL OR CHEMICAL HAZARDS

Spray solutions of this product should be mixed, stored and applied only in stainless steel, aluminum, fiberglass, plastic and plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS.

This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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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, are:

1. Coveralls
2. Chemical-resistant gloves made of any waterproof material.
3. Shoes plus socks and
4. Protective eyewear.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Do not store near fertilizers, seeds, insecticides or fungicides. STORE ABOVE 40°F to keep product in solution. If crystals form, place in a warm room (72°F), allow the product to reach room temperature and roll or shake periodically until crystals have dissolved. Keep container closed to prevent spills and contamination.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixtures, or rinsate is a violation of Federal Law and may contaminate groundwater. If these wastes cannot be disposed of by the 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. Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

CONTAINER DISPOSAL:

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

Returnable-Refillable Container (Drum/Bulk/Mini-bulk): When this container is empty, replace the cap and seal all openings that have been opened during use; and return the container to the point of purchase or to a designated location named at the time of purchase of this product in a bulk container. This container may only be refilled with this herbicide. DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transporting. Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, contact ChemTrec at 1-800-424-9300 or Albaugh, Inc. at 515-964-9444. If not returned to the point of purchase or to the designated location, triple rinse emptied container and offer for recycling. Disposal of this container must be in compliance with state and local regulations.

GENERAL INFORMATION

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Read the entire label before using this product.

Use only according to label instructions.

Thundermaster™ is a postemergence herbicide for control or suppression of emerged weeds in fallow and reduced tillage systems, pasture and rangeland, airports, dry canals, industrial plant sites, parking areas, parks, schools, storage areas, farmsteads, ditches, fencerows, roadside and highway rights-of-way, other public areas, and similar industrial and noncrop sites. Thundermaster™ can also be applied prior to planting or emergence of wheat, barley, corn, oats, sorghum (grain or forage), through hooded sprayers between rows of corn, as a spot treatment in corn, sorghum, forage grasses, as a preharvest treatment in wheat, and as a postharvest treatment following grain harvest.

This product enters the plant through the foliage and moves throughout the plant. Visual effects of control are a gradual wilting or yellowing of the plant, which advances to complete browning of aboveground growth and deterioration of affected underground plant parts. Visible symptoms will usually develop on labeled weeds within 2 to 4 days after application, but may not occur for 7 or more days. Extremely cool or cloudy weather following treatment may slow activity of this product and delay the visual effects of control.

Keep people and domestic animals off treated areas until foliage has dried.

APPLICATION PRECAUTIONS

DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM.

- Delay planting of wheat, barley, oats, or sorghum (grain or forage) for 15 days after application of this product.
- Do not plant any crop other than wheat, barley, corn, oats or sorghum (grain or forage) for 3 months after treatment or until this product has disappeared from the soil.
- Do not harvest, feed or forage treated vegetation for 8 weeks after application.
- Following spot treatment in forage grasses, allow 37 days before harvesting or 30 days before grazing domestic livestock.
- This product is recommended for control of emerged weeds prior to establishment of labeled crops. Large amounts of green or decaying vegetation left standing or incorporated into the seedbed may enhance the development of disease in newly planted crops. This may result in poor emergence and/or stands, especially under cool and/or wet conditions.
- Applications of this product after planting and prior to crop emergence may cause crop injury if rainfall or environmental conditions delaying crop emergence are experienced.
- Spraying early to control young weeds before dense stands develop or light cultivation to assist weed decay will favor preparation of suitable seedbeds.
- In reduced tillage and no-till systems, ensure good seed to soil contact and proper seeding depth.
- This product may cause injury to desirable trees, plants or crops, especially sensitive broadleaf plants such as beans, cotton, flowers, fruit trees, grapes, ornamentals, peas, potatoes, soybeans, sunflowers, tomatoes and other broadleaf plants if brought into contact with their roots, stems or foliage. These plants are most sensitive during their active growth and development stage.
- Do not use aerial equipment to apply this product when sensitive crops and plants are growing in the vicinity of area to be treated.
- Applications should be made only when there is no hazard from spray drift, since very small quantities of spray, which may not be visible, may severely injure susceptible crops or desirable vegetation.
- The likelihood of injury occurring to adjacent crops from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions including lesser wind velocities will favor spray drift.

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- Movement of this product on soil particles during windstorms may cause damage to susceptible plants that are contacted. This hazard is reduced if rainfall occurs shortly after application.
 - Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this herbicide or other materials that are not expressly recommended in this labeling. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance. Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences.
 - Thundermaster™ is subject to all state and county regulations for 2,4-D and dicamba.

The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate, dicamba or 2,4-D as the active ingredient, whether applied as mixtures or separately. Calculate application rates and ensure that the total use of this and other glyphosate, dicamba or 2,4-D containing products does not exceed the stated maximum use rate.

TIMING OF APPLICATION

This product should be applied postemergence to vigorously growing weeds when they have reached the recommended size given in the "RECOMMENDED RATES AND WEEDS CONTROLLED" section of this label. Application should be delayed until maximum emergence of the target weeds, but before weeds exceed the maximum size recommended. For annual weeds, allow 1 day after treatment before tillage. For field bindweed, allow at least 7 days after treatment before tillage.

Reduced control may result if applications are made during poor growing conditions such as drought stress, disease or insect damage or if weeds have been mowed, grazed or cut. Heavy dust on foliage or an overstory canopy covering targeted weeds may also reduce control.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash this product off the foliage and a repeat application may be required.

APPLICATION EQUIPMENT

This product may be applied using either ground or aerial spray equipment. Use extreme care to avoid misting or drifting of herbicide solution onto foliage, green stems or fruit of desirable crops, trees, or plants during both growing and dormant periods since even very small quantities of spray can cause severe plant injury.

GROUND APPLICATION: Apply recommended rates of this product in 3 to 10 gallons of water per acre as a broadcast spray unless otherwise directed in this label. For optimum spray distribution and coverage, use flat fan or low-volume flood nozzles. When using flood nozzles, space them no more than 40 inches apart and ensure double overlap of spray pattern. Refer to the manufacturer's recommendations for correct pressure and nozzle height above the target canopy. Avoid pressure and nozzles which produce fine droplets or mist.

Use appropriate marking devices to ensure uniform spray coverage and best results from this product.

HAND-HELD and HIGH-VOLUME EQUIPMENT (use coarse sprays only): Mix this product in clean water and apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff. Use a 1 percent solution for annual weed control and field bindweed suppression.

AERIAL APPLICATION: Apply the recommended rates of this product in 3 to 5 gallons of water per acre as a broadcast spray unless otherwise directed on this label. **DO NOT APPLY DURING INVERSION CONDITIONS, WHEN WINDS ARE GUSTY, OR WHEN OTHER CONDITIONS WILL FAVOR DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT WAS NOT INTENDED.**

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TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

HOODED SPRAYERS: This product may be used through hooded sprayers for weed control between the rows of corn (field, pop, seed, and silage). Thundermaster™ is not registered for use on sweet corn. Do not apply Thundermaster™ to seed corn or popcorn without first verifying with your local seed corn company (supplier) the Thundermaster™ selectivity on your inbred line or variety of popcorn. This precaution will help avoid potential injury of sensitive varieties. Only hooded sprayers that completely enclose the spray pattern may be used.

A hooded sprayer is a type of shielded applicator. The spray pattern is completely enclosed on the top and all 4 sides by a hood, thereby shielding the crop from the spray solution. This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. If the hoods are raised, spray particles may escape and come into contact with the crop, causing damage or destruction of the crop. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground.

When applying to corn that is grown on raised beds, ensure that the hood is designed to completely enclose the spray solution. If necessary, extend the front and rear flaps of the hoods to reach the ground in deep furrows.

Follow these requirements:

- The spray hoods must be operated on the ground or skimming across the ground.
- Do not apply more than 30 ounces of this product per acre per application.
- Corn must be at least 12 inches tall, measured without extending leaves.
- Do not apply after tasseling.
- Leave at least an 8 inch untreated strip over the drill row. For example, if the crop row width is 38 inches, the maximum width of the spray hood should be 30 inches.
- Maximum tractor speed: 5 mph.
- Maximum wind speed: 10 mph.
- Use low-drift nozzles.

Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.

Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator.

Do not graze or feed corn forage or fodder following applications of this product through hooded sprayers.

Do not apply more than 102 fl. oz. of this product per acre per year for hooded sprayer applications. Allow two or more weeks between applications of Thundermaster™.

Do not apply Thundermaster™ when soybeans are growing nearby if any of these conditions exist:

- Corn is more than 24 inches tall
- Soybeans are more than 10 inches tall
- Soybeans have begun to bloom

SPRAY DRIFT MANAGEMENT

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H/C

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, chemigation) 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 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.

2,4-D esters may volatilize during conditions of low humidity and high temperatures. Do not apply during conditions of low humidity and high temperatures

Susceptible Plants

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

Other State and Local Requirements

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

Equipment

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

For aerial equipment, the boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

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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 in a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

For ground boom application, do not apply with a nozzle height greater than 4 feet above the crop canopy.

MIXING INSTRUCTIONS

Thundermaster™ ALONE

Fill the spray tank to about $\frac{3}{4}$ of the desired volume with clean water. Add the recommended amount of this product, then complete the filling process while maintaining agitation. Remove the hose from the mix tank immediately after filling to avoid siphoning back into the carrier source. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, terminate by-pass and return lines at the tank bottom and/or use an agriculturally approved antifoam or defoaming agent.

NOTE: Reduced results may occur if water containing soil is used, such as water from ponds and unlined ditches.

TANK MIXTURES

Always predetermine the compatibility of labeled tank mixtures of this herbicide with water carrier by mixing small proportional quantities in advance.

Mix labeled tank mixtures of Thundermaster™ with water as follows:

1. Place a 20 to 35-mesh screen or wetting basket over filling port.
2. Through the screen, fill the sprayer tank one-half full with water and start agitation.
3. If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
4. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
5. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
6. Continue filling the sprayer tank with water and add the required amount of Thundermaster™ herbicide near the end of the filling process.
7. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water-soluble liquid.

Maintain good agitation at all times, until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed. Keep by-pass line on or near bottom of tank to minimize foaming. Screen size in nozzle should be no finer than 100 mesh and in-line strainers should be no finer than 50 mesh. Carefully select proper nozzle to avoid spraying a fine mist. For best results with conventional ground application equipment, use flat fan nozzles.

Check label of all products used in tank mix for cleaning instructions. Clean as per the hardest material to remove.

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To improve burndown of emerged weeds, use surfactants or crop oil concentrate with Thundermaster™ or Thundermaster™ tank mixes and apply after weeds have emerged. Crop oil concentrate is for non-food/feed crop uses only. Do not apply tank mixes that include ammonium sulfate or crop oil concentrate to any food/feed crop use listed on this label. For food/feed crop use, do not use liquid fertilizers that contain ammonium sulfate (AMS) as a source of nitrogen as tolerances in commodities derived from the crop may contain residues that exceed established tolerances.

Oil Concentrate

A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all of the following criteria:

- be non-phytotoxic
- contain only EPA-exempt ingredients
- provide good mixing quality in the jar test, and
- be successful in local experience

The exact composition of suitable products will vary; however, vegetable oil and petroleum oil concentrates should contain emulsifiers to provide good mixing quality. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils.

Adjuvants containing crop oil concentrates may be used for preplant, pre-emergence and between cropping applications. Do not use crop oil concentrate for postemergence applications in food/feed crops (i.e. grass (hay or silage), pastures, rangeland, and wheat.)

Non-ionic Surfactant

The addition of a non-ionic surfactant labeled for use with herbicides is recommended. The standard label recommendation is 2-4 pints of an 80% active non-ionic spray surfactant per 100 gallons of water (4 pints per 100 gallons water is equal to 1/2% non-ionic spray surfactant by volume). Rate will vary with the size and condition of weeds to be controlled. Use lowest rate per 100 gallons when weeds are small and actively growing. As weeds increase in size and or become hardened off, the rate of non-ionic surfactant will have to be increased to give optimum coverage and control.

Additive ¹	Rate Additive Per Acre
Non-ionic Surfactant	2-4 pints per 100 gallons ²
Crop Oil Concentrate	1 quart

¹ See manufacturer's label for specific rate recommendations.

² Use lowest rate per 100 gallons when weeds are small and actively growing. As weeds increase in size and or become hardened off, the rate of non-ionic surfactant will have to be increased to give optimum coverage and control.

Ammonium Sulfate

The addition of 1 to 2 percent dry ammonium sulfate by weight (or liquid equivalent) or 8.5 to 17 pounds per 100 gallons of water may increase the performance of Thundermaster™ and Thundermaster™ tank mixtures on annual weeds. The improvement in performance may be apparent where environmental stress is a concern. Use the higher rate of ammonium sulfate with Thundermaster™ when treating large or dense populations of annual weeds. Low-quality ammonium sulfate may contain material that will not readily dissolve which could result in nozzle tip plugging. To determine quality, perform a jar test by adding 1/3 cup of ammonium sulfate to 1 gallon of water and agitate for 1 minute. If undissolved

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sediment is observed, predissolve the ammonium sulfate in water and filter prior to addition to the spray tank. If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly may clog outlet line. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides. Thoroughly rinse the spray system with clean water after use to reduce corrosion. Observe all precautionary statements on the ammonium sulfate product label.

NOTE: Compatibility problems may occur at carrier volumes below 5 GPA.

SPRAYER CLEANUP

The steps listed below are suggested for thorough cleaning of spray equipment following applications of this product. Failure to clean the sprayer thoroughly may result in injury to desirable vegetation subsequently sprayed with the equipment.

1. Hose down thoroughly the inside as well as outside surfaces of equipment while filling the spray tank half full with water. Flush by operating the sprayer until the system is purged of the rinse water.
2. Fill the tank with water while adding 1 quart of household ammonia for every 25 gallons of water. Operate the pump to circulate the ammonia solution through the sprayer system for 15 to 20 minutes and discharge a small amount of the ammonia solution through the boom and nozzles. Let the solution stand for several hours, preferably overnight.
3. Flush the solution out of the spray tank through the boom.
4. Remove the nozzles and screens and flush the system with two full tanks of water.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR ARE MOST SUSCEPTIBLE. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C 38413 may prevent corrosion.

RECOMMENDED RATES AND WEEDS CONTROLLED

For best results, apply this product after most weed seeds have germinated but before seedhead formation in grasses or flower bud formation in broadleaves.

When applied as directed, this product will provide control or suppression of the grass and broadleaf weed species listed below. Rates recommended are for maximum weed height at treatment time.

PERENNIAL WEED SPECIES	THUNDERMASTER™	
	RATE PER ACRE (FLUID OUNCES)	LENGTH OF VINES/TREATMENT HEIGHT
Bindweed, field** Convolvulus arvensis	30 - 42 oz (suppression only)	6" to 18"
Spurge, leafy	30 - 42 oz (suppression only)	Post bloom

ANNUAL WEED SPECIES	THUNDERMASTER™	
	RATE PER ACRE	MAXIMUM HEIGHT
Foxtail, green Setaria viridis	22 - 32 oz	12"

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ANNUAL WEED SPECIES	THUNDERMASTER™	
	RATE PER ACRE	MAXIMUM HEIGHT
Barley <i>Hordeum vulgare</i> Brome, downy* <i>Bromus tectorum</i> Cheat* <i>Bromus secalinus</i> Foxtail <i>Setaria</i> spp. Kochia* <i>Kochia scoparia</i> Lettuce, prickly* <i>Lactuca serriola</i> Oats, wild <i>Aven fatua</i> Puncturevine <i>Tribulus terrestris</i> Purslane, common <i>Portulaco oleracea</i>	22 - 42 oz	6"
Cocklebur <i>Xanthium strumarium</i> Lambsquarters <i>Chenopodium album</i> Mustard, tansy <i>Descurainia pinnata</i> Mustard, tumble <i>Sisymbrium altissimum</i> Pigweed <i>Amaranthus</i> spp. Rye <i>Secale cereale</i> Sandbur, field <i>Cenchrus</i> spp. Stinkgrass <i>Eragrostis cilianensis</i> Thistle, Russian <i>Salsola kali</i> Wheat <i>Triticum aestivum</i> Witchgrass <i>Panicum capillare</i>	22 - 42 oz	12"
Barnyardgrass <i>Echinocha crus-galli</i> Buffalobur <i>Solanum rostratum</i> Goatgrass <i>Aegilops cylindrical</i> Mustard, blue <i>Chorispota tenella</i> Panicum, fall <i>Panicum dichotomiflorum</i>	30 - 42 oz	6"
Oats, wild <i>Aven fatua</i>	30 - 42 oz	12"

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*For improved control in no-till systems or heavy infestations or overwintered stands, use 30 fluid ounces. For best results on light kochia infestations, treat after the plant has passed through the woolly stage of growth and is 3 to 6 inches in height.

** Thundermaster™ may also be used as a 1 percent solution on a spray-to-wet basis for annual weed control and field bindweed suppression. Spray coverage should be uniform and complete. Do not spray to the point of runoff.

Prepare the desired volume of spray by mixing the amount of Thundermaster™ in clean water as shown in the following table:

SPRAY SOLUTIONS

DESIRED VOLUME	AMOUNT OF THUNDERMASTER™
1 gallon	1 1/3 fluid ounces
25 gallons	1 quart
100 gallons	1 gallon

2 tablespoons = 1 fluid ounce

SPOT TREATMENT

Applications in growing crops must be made prior to heading of small grains (wheat, barley, oats), grain sorghum (milo) and silking of corn.

For applications in forage grasses, apply in areas where the movement of domestic livestock can be controlled. No more than one-tenth of any acre should be treated at one time. Further applications may be made in the same area at 30-day intervals. Remove domestic livestock before application and wait 30 days after application before grazing livestock and 37 days before harvesting.

ECOFARMING SYSTEMS

The Ecofarming System consists of the following rotation: winter wheat, corn/sorghum, ecofallow.

Use the following tank mixtures for control of emerged annual weeds before planting corn or sorghum in the Ecofarming System.

Thundermaster™ at 30 to 34 fluid ounces per acre

Plus

ATRAZINE at 0.75 to 1 pound active ingredient per acre

Plus

A preemergent grass herbicide labeled for these uses
(follow label directions for recommended application rates)

The above tank mixtures should be applied in 28-0-0 or 32-0-0 liquid fertilizer carrier at 20 to 30 gallons per acre. The liquid fertilizer may be diluted with water to achieve the desired carrier volume.

WEEDS CONTROLLED – The following weeds, up to a maximum height of 4 inches, will be controlled:

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- Brome, downy
Bromus tectorum
- Cheat
Bromus secalinus
- Foxtail, green
Setaria viridis
- Foxtail, yellow
Setaria lutescens
- Kochia
Kochia scoparia
- Lettuce, prickly
Lactuca serriola
- Pigweed, redroot
Amaranthus retroflexus
- Thistle, Russian
Salsola kali
- Wheat, volunteer
Triticum aestivum

Risk of crop injury from 2,4-D and dicamba can be reduced by applying this treatment 7 to 14 days before planting.

Refer to the specific product labels for preemergence weed control achieved by these tank mixtures.

Refer to the specific product labels for crop rotation restrictions and cautionary statements for all products in these mixtures.

ECOFARMING RESTRICTIONS:

- Do not make more than 2 applications per year.
- Minimum spray interval between applications is 30 days.

PREHARVEST APPLICATIONS TO WHEAT

This product provides weed control when applied prior to harvest of wheat. Apply when wheat is in the hard dough stage and the green cooler is gone from the nodes (joints) of the stem and at least 7 days prior to harvest.

This product may be applied using either aerial or ground spray equipment. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section for instructions for ground and aerial applications.

NOTE: It is not recommended that wheat grown for seed be treated because a reduction in germination or vigor may occur.

WHEAT PREHARVEST RESTRICTIONS:

- Do not apply more than 62.5 fluid ounces per acre per.
- Do not make more than 1 preharvest application per crop cycle.
- Do not feed treated straw to livestock. Do not permit dairy animals or meat animals being finished for slaughter to forage treated grain fields within 2 weeks after treatment.

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This product used in combination with preplant and conventional fallow tillage practices will provide control of downy brome, cheat, volunteer wheat, tansy mustard and foxtail.

Apply 15 fluid ounces of this product in 3 to 10 gallons of water per acre to weeds that are actively growing. Treat when weeds are less than 6 inches in height. Application must be followed by conventional tillage practices before regrowth of the treated plant occurs. Allow at least 1 day after application before tillage.

POSTHARVEST APPLICATIONS FOLLOWING GRAIN HARVEST

This product will provide control of weeds following grain harvest. Weeds should be allowed to regrow after damage incurred during harvesting operations, and to recover from environmental stress, before application of this product. Weeds should be treated prior to the heading stage of annual grasses and before broadleaf weeds exceed 24 inches in height. Ammonium sulfate will improve performance on annual weeds under stress conditions.

Weeds controlled at the 22-42 ounce-per-acre rate include downy brome, foxtail, pigweed, puncturevine, stinkgrass, Russian thistle and volunteer wheat.

Weeds controlled at the 30-42 ounce-per-acre rate include field bindweed, leafy spurge, barnyardgrass, buffalobur, blue mustard, fall panicum and wild oats.

THUNDERMASTER™ PLUS ATRAZINE

Tank mixtures of Thundermaster™ plus atrazine will provide postemergence control of listed annual weeds in fallow and reduced tillage systems. In addition, these tank mixtures will provide soil residual control of weeds listed on the atrazine label.

Annual Weeds Controlled

Barnyardgrass	Lambsquarters	Sandbur, field	Witchgrass
Echinochloa crus-galli	Chenopodium album	Cenchrus spp.	Panicum capillare
Brome, downy	Lettuce, prickly	Stinkgrass	
Bromus tectorum	Lactuca serriola	Eragrostis ciliaris	
Foxtail, green	Mustard, tansy	Thistle, Russian	
Setaria viridis	Descurainia pinnata	Salsola kali	
Kochia	Pigweed, redroot	Wheat	
Kochia scoparia	Amaranthus retroflexus	Triticum aestivum	

Apply 22 ounces of this product plus 1 pound or less of the active ingredient, atrazine, per acre. Use 30 ounces of this product plus 2 pounds or less of the active ingredient, atrazine, per acre. Use 34 ounces of this product plus 1 to 3 pounds of the active ingredient, atrazine, per acre. In Oregon and Washington, do not exceed 1 pound of the active ingredient, atrazine, per acre. Barnyardgrass will be suppressed at the 34 ounce per acre rate and will require up to 45 ounces per acre for control. The addition of ammonium sulfate is recommended to increase the performance of Thundermaster™ plus atrazine tank mixtures.

Consult the atrazine labels (90DF, 80W, 4L) for use rates, soil type, planting, cropping and other restrictions, as well as other precautionary statements and use according to the most restrictive label. These tank mixtures may be applied with ground or aerial equipment. See the "APPLICATION EQUIPMENT" section for instructions.

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For ground application, apply in 3 to 10 gallons of water per acre.

For aerial application, apply in 3 to 5 gallons of water per acre.

FOR NONSELECTIVE CONTROL IN SMALL GRAIN CROPPING SYSTEMS IN SOUTH DAKOTA ONLY

Weeds Controlled

Refer to the "RECOMMENDED RATES AND WEEDS CONTROLLED" section of this label for rate recommendations and annual weeds controlled.

Application Instructions

For ground applications, use 3 to 5 gallons of water per acre.

For aerial applications, use 1 to 3 gallons of water per acre.

NON-CROPLAND USES

FARMSTEADS, DITCHES AND FENCEROWS

When applied as directed, this product will control downy brome, bulbous bluegrass, kochia, tumble mustard, tansy mustard and prickly lettuce, and provide suppression of crested wheatgrass, smooth brome grass and field bindweed.

Use a 1 percent solution of this product for spray-to-wet, spot-spraying applications. Spray coverage should be uniform and complete. Do not spray to the point of runoff. Treat when weeds are small, actively growing and free of dust. Use 58 fluid ounces of this product in 5 to 10 gallons of water per acre for broadcast boom applications.

ROADSIDE AND HIGHWAY RIGHTS-OF-WAY

When applied as directed, Thundermaster™ alone and tank mixtures of Thundermaster™ plus Velpar® and/or Oust® will reduce vegetative growth of bahiagrass turf as well as control or partially control the following annual and perennial weeds (Please refer to the "RECOMMENDED RATES AND WEEDS CONTROLLED" section of this label for additional information):

- | | |
|------------------------|---------------------|
| Bindweed, field | Brome, downy |
| Convolvulus arvensis | Bromus tectorum |
| Spurge, leafy | Cheat |
| | Bromus secalinus |
| Foxtail, green | Foxtail |
| Setaria viridis | Setaria spp. |
| Cocklebur | Kochia |
| Xanthium strumarium | Kochia scoparia |
| Lambsquarters | Lettuce, prickly |
| Chenopodium album | Lactuca serriola |
| Mustard, tansy | Oats, wild |
| Descurainia pinnata | Avena fatua |
| Mustard, tumble | Puncturevine |
| Sisymbrium altissimum | Tribulus terrestris |
| Pigweed, redroot | Purslane, common |
| Amaranthus retroflexus | Portulaco oleracea |

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Pigweed, smooth
 Amaranthus hybridus
 Rye
 Secale cereale
 Stinkgrass
 Eragrostis cilianensis
 Thistle, Russian
 Salsola kali
 Wheat
 Triticum aestivum
 Oats, wild
 Aven fatua
 Barley
 Hordeum vulgare

Barnyardgrass
 Echinocha crus-galli
 Buffalobur
 Solanum rostratum
 Goatgrass
 Aegilops cylindrical
 Mustard, blue
 Chorisporea tenella
 Panicum, fall
 Panicum dichotomiflorum
 Witchgrass
 Panicum capillare

Make applications to bahiagrass prior to seedhead emergence or after the bahiagrass has been mowed to a uniform height of 4 to 5 inches. For best results, make applications when both bahiagrass and weeds are healthy and actively growing.

Apply 8 to 18 fluid ounces of Thundermaster™ as a broadcast spray in 10 to 25 gallons of spray solution per acre.

OR

Apply 8 to 18 fluid ounces of Thundermaster™ plus 8 to 16 fluid ounces (1/2 to 1 pint) of Velpar® plus 1/4 ounce of Oust® as a broadcast spray in 10 to 25 gallons of spray solution per acre.

OR

Apply 8 to 18 fluid ounces of Thundermaster™ plus 8 to 16 fluid ounces (1/2 to 1 pint) of Velpar® as a broadcast spray in 10 to 25 gallons of spray solution per acre.

OR

Apply 8 to 18 fluid ounces of Thundermaster™ plus 1/4 to 1/2 ounce of Oust® as a broadcast spray in 10 to 25 gallons of spray solution.

Read and carefully observe the label claims, precautionary statements and all information on the labels of each product used in this tank mixture. Use according to the most restrictive label directions for each product in the mixture.

INDUSTRIAL AREAS, AIRPORTS, RAILROADS, DRY CANALS, PLANT SITES, PARKING AREAS, UTILITY POWER LINES, STORAGE AREAS, OTHER PUBLIC AREAS AND NONCROP SITES

This product provides weed control when used as directed under the "RECOMMENDED RATES AND WEEDS CONTROLLED" section of this label, when applied to industrial areas, airports, dry canals, plant sites, parking areas, parks, schools, storage areas, other public areas, and noncrop sites.

This product is also recommended for musk thistle control in industrial areas. Best control of musk thistle is obtained when applications are made while plants are in the rosette stage of growth. Applications should be made in the spring prior to bolting or in the fall prior to soil freeze-up. Partial control or suppression may be obtained with treatments made from bolting through flowering. For best results, plants should be actively growing and not under stress and free of dust layers on leaves.

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For broadcast applications, apply 8 to 18 fluid ounces per acre of this product alone or as a tank mixture with either 4 to 8 fluid ounces of Tordon™ 22K or 0.1 to 0.3 ounces of Escort®.

For spray-to-wet applications, apply this product as a 1 to 2 percent solution alone or as a tank mixture with ½ to 1 percent Tordon™ 22K or with Escort® at a rate of 1 ounce of product per 100 gallons of spray solution.

Read and carefully observe the label directions, precautionary statements and all other information on the labels of each product used in tank mixtures.

NON-CROPLAND RESTRICTIONS:

- Postemergence (annual & perennial weeds):
 - Do not make more than 2 applications per year.
 - Do not apply more than 15 1/3 pints (250 fluid ounces) per acre per application.
 - Minimum spray interval between applications is 30 days.
- Postemergence (woody plants):
 - Do not make more than 1 application per year.
 - Do not apply more than 30 2/3 pints (500 fluid ounces) 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.

Thundermaster contains 0.134 pounds a.e. of 2,4-D per pint (0.008 pounds a.e. per fluid ounce). When tank mixing with products that contain 2,4-D, do not exceed a combined total of 4.0 pounds of a.e. per acre per year.

PASTURE AND RANGELAND

This product is recommended for leafy spurge and musk thistle control in rangeland and pasture areas. It is also recommended for the control of those weeds listed in the "RECOMMENDED RATES AND WEEDS CONTROLLED" section of this label.

Do not graze lactating dairy animals on treated grass within 7 days after application. Animals being finished for slaughter that are grazing in the treated area within 30 days of treatment must be removed from the treated area 3 days before slaughter. Do not cut forage for hay within 37 days of application. When this product is used for spot treatments where less than 10 percent of the total grazed area will be treated, there is no grazing restriction.

Best control of leafy spurge is obtained when applications are made during the seed-set growth stage. This typically occurs in late June. Desirable grass species may be injured with this application. However, injury is usually temporary and normal growth resumes soon after application. Usually colonial bentgrasses are more tolerant than creeping types. Velvetgrasses are most easily injured. Treatments will kill or injure alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes. Do not use this application on the same area for two consecutive years because grass injury will increase.

Apply 30 fluid ounces of this product per acre as a broadcast application in 3 to 10 gallons of water per acre.

Best control of musk thistle is obtained when applications are made while plants are in the rosette stage of growth. Applications should be made in the spring prior to bolting or in the fall prior to soil freeze-up. Partial control or suppression may be obtained with treatments made from bolting through flowering. For best results, plants should be actively growing and not under stress and free of dust layers on leaves.

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For broadcast applications, apply 8 to 18 fluid ounces per acre of this product alone or as a tank mixture with either 4 to 8 ounces of Tordon™ 22K or 0.1 to 0.3 ounces of Escort®.

For spray-to-wet applications, apply this product as a 1 to 2 percent solution alone or as a tank mixture with 1/2 to 1 percent Tordon™ 22K or with Escort® at a rate of 1 ounce of product per 100 gallons of spray solution.

When using tank mixtures, refer to the tank mix product label for grazing restrictions for that product. Follow the most restrictive label. Read and carefully observe the label directions, precautionary statements and all other information on the labels of each product used in these tank mixtures.

PASTURE & RANGELAND USE RESTRICTIONS:

- Do not make more than 2 broadcast applications per year.
- Minimum spray interval between applications is 30 days.
- If grass is to be cut for hay, Agricultural Use requirements for the Worker Protection Standard are applicable.

Thundermasterr™ contains 0.134 pounds a.e. of 2,4-D per pint. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 4.0 pounds of a.e. per acre per year.

CONDITIONS OF SALE AND WARRANTY

The DIRECTIONS FOR USE of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of ALBAUGH, INC. or the Seller. To the fullest extent permitted by law, all such risks shall be assumed by the Buyer.

ALBAUGH, INC. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use subject to the inherent risks referred to above. ALBAUGH, INC. MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS.

BUYER'S EXCLUSIVE REMEDY AND MANUFACTURER'S OR SELLER'S EXCLUSIVE LIABILITY FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF OR THE REPAYMENT OF THE PURCHASE PRICE FOR THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. When Buyer suffers losses or damages resulting from the use or handling of this product (including claims based on contract, negligence, strict liability, or other legal theories), Buyer must promptly notify Seller in writing of any claims to be eligible to receive either remedy stated above.

TO THE FULLEST EXTENT PERMITTED BY LAW, IN NO CASE SHALL ALBAUGH, INC. OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. ALBAUGH, INC. and the Seller offer this product, and the Buyer accepts

it, subject to the foregoing Conditions of Sale and Warranty, which may be varied only by agreement in writing signed by a duly authorized representative of ALBAUGH, INC. No employee or agent of ALBAUGH, INC. or the Seller is authorized to vary or exceed the terms of this Warranty in any other manner.

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