# **Hi-Yield**® Range and Pasture

For use on Conservation Reserve Program Land, Fallow Systems (Between Crop Applications), General Farmstead, Sorghum, Grass (Hay or Silage), Pastures, Rangeland, Sugarcane, Wheat, Corn (Preplant and Preemergence)\*, Soybeans (Preplant)\* and Cotton (Preplant)\*. Also for Control of Brush and Broadleaf Weeds on Rights-of-Way\*, Forest Brush\*, Industrial Sites\*, Non-Irrigation Ditchbanks\*, Fence Rows\*, and Other Labeled Non-Crop Areas\*

\*Not approved for use in California

#### ACTIVE INGREDIENTS:

Dimethylamine salt of 3,6-dichloromethoxybenzoic acid*12.5%
Dimethylamine salt of 2,4-dichlorophenoxyacetic acid** 36.0%
OTHER INGREDIENTS: 51.5%
ΤΟΤΔΙ · 100.0%

\*This product contains 10.4% dicamba or 1 pound per gallon (120 grams per liter) acid equivalent.

\*\* This product contains 29.9% 2.4-D or 2.87 pounds per gallon (344 grams per liter) acid equivalent.

Isomer specific by AOAC method 978.05, 15th Edition

# **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.) See label booklet for additional Precautionary Statements and Directions for Use including Storage and Disposal instructions.

	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 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 indev ovniting unless told to do so by a poison control center or doctor.     Do not give anything by mouth to an unconscious or convulsing person.
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 further treatment advice.
IF INHALED:	Move person to fresh air.     If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.     Call a poison control center or doctor for further treatment advice.

#### 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.

Manufactured for:

Voluntary

Purchasina Groups, Inc.

Visit Us At: www.hi-vield.com Product Questions? 855-270-4776

230 FM 87 • BONHAM, TEXAS 75418

24183-1215-CI

EPA Est. No. 7401-TX-01

EPA Reg. No. 81927-42-7401

**NET CONTENTS: ONE GALLON (3.79 LITERS)** 

# **Hi-Yield** Range and Pasture

# DICAMBA + D

Manufactured for:



230 FM 87 • BONHAM, TEXAS 75418 Visit Us At: www.hi-yield.com Product Questions? 855-270-4776

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER.** Corrosive. Causes irreversible eye damage. Harmful if swallowed. Harmful if absorbed through skin. Do not get in eyes, on skin, or on clothing.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are made of any waterproof material.

# All mixers, loaders, all other applicators and handlers must wear:

- · Long-sleeved shirt and long pants
- · Shoes and socks
- · Chemical-resistant gloves
- · Goggles or faceshield, and
- Chemical-resistant apron when mixing, loading, cleaning up spills or equipment, or otherwise exposed to the concentrate
   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 the 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 re-used until it has been cleaned.

# **Engineering Control Statements**

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

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

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

#### 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. If pesticide gets on skin, wash immediately with soap and water.
   Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas 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 washwaters or rinsate.

#### **Groundwater Contamination**

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.

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/ loading and disposal sites. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

# **Endangered Species Concerns**

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law.

#### 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 nestricide regulation.

Unless otherwise directed in supplemented labeling, all applicable directions, restrictions, precautions and Conditions of Sale and Warranty are to be followed. This labeling must be in the user's possession during application.

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

Do not enter or allow others to enter until sprays have dried.

# STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Do not store below temperature of 32°F or above 100°F. Store in original container in a well-ventilated area separately from fertilizer, feed, and foodstuffs. Keep container tightly closed when not in use. Reduce stacking height where local conditions can affect package strength. Do not store under conditions that might adversely affect the container or its ability to function properly.

Steps to be taken in case material is released or spilled: Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing, and wash affected skin areas with soon and water. Wash clothing before re-use. Keen the soil out of all sewers and ooen bods of water.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Wastes resulting from this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Non-refillable containers. Plastic/Metal Containers. Do not reuse or refill this container. Offer for recycling or reconditioning, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Non-refillable container less than or equal to 5 gallons: 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.

Non-refillable container greater than 5 gallons: 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. Replace and triplet no closures. Tip container on its side and forlit back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over on 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.

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 pressurer insing 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.

In Case of Spill: In case of large-scale spillage regarding this product, call ChemTrec 800-424-9300.

#### I. PRODUCT INFORMATION

Hi-Yield® Range and Pasture Dicamba + D herbicide is a selective postemergence herbicide for controlling a wide spectrum of annual, biennial, and perennial broadleaf weeds and brush in grass forages and selected row crops.

#### Mode of Action

Hi-Vield® Range and Pasture Dicamba + D contains two active ingredients uniquely formulated to be used alone or tank mixed with other listed products as well as liquid fertilizer solutions. Hi-Vield® Range and Pasture Dicamba + D is readily absorbed by plants through shoot and root uptake, translocates throughout the plant's system, and accumulates in areas of active growth. Hi-Vield® Range and Pasture Dicamba + D interferes with the plant's growth hormones (auxins) resulting in death of many broadleaf weeds.

#### II. APPLICATION INSTRUCTIONS

Apply Hi-Yield® Range and Pasture Dicamba + D at the rates and growth stages listed in Tables 1 and 2 as follows unless instructed differently by section on "Food/Feed Crop Specific Information" or "Non-Food/Feed Use-Specific Information." Applications can be made to actively growing weeds as aerial, broadcast, band, or spot spray applicants. Hi-Yield® Range and Pasture Dicamba + D may be applied using water or sprayable fluid fertilizer as a carrier. Sprayable fluid fertilizer may be used as the carrier in preplant or pre-emergence use for all crops listed on this label. Postemergence uses with sprayable fluid fertilizer may be made on pasture, hayland, or wheat crops only.

The most effective application rate and timing varies based on the target weed species (refer to Table 1). In mixed populations of weeds the correct rate is determined by the weed species requiring the highest rate. Delaying application permits weeds to exceed the maximum size and will prevent adequate control.

#### Irrigation:

In irrigated areas, it may be necessary to irrigate before treatment to ensure active weed growth.

#### Spray Coverage:

Weeds must be thoroughly covered with spray. Dense leaf canopies shelter smaller weeds and prevent adequate spray coverage.

#### Sensitive Crop Precautions:

Hi-Vield® Range and Pasture Dicamba + D may cause injury to desirable trees and plants, particularly beans, cotton, flowers, truit trees, grapes, ornamentals, peas, potatoes, soybeans, sunflowers, tobacco, tomatoes and other broadleaf plants when contacting their roots, stems or foliage. These plants are most sensitive to Hi-Vield® Range and Pasture Dicamba + D during their development or growing stage. Do not treat areas where either possible downward movement into the soil or surface washing may cause contact of Hi-Vield® Range and Pasture Dicamba + D with the roots of desire trees and shrubs.

Do not use aerial equipment or apply Hi-Yield® Range and Pasture Dicamba + D when sensitive crops and plants are growing in the vicinity of area to be treated.

#### 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, 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 coarse 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 norzles

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

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

Susceptible Plants: Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use, or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants. Do not spray near susceptible plants if the wind is gusty or in excess of 5 mph and moving in the direction of nearby susceptible crops or if a temperature inversion exists. However, always make applications when there is some air movement to determine the direction and distance of possible spray drift. Leave an adequate buffer zone between area to be treated and susceptible plants. Coarse sprays are less likely to drift out of the target area than fine sprays. The use of agriculturally accepted drift retardants are acceptable and advised.

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 and surrogates.

Cleaning Spray Equipment: Clean application equipment thoroughly by using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions and then triple rinse the equipment before and after applying this product.

#### AERIAL APPLICATION METHODS AND EQUIPMENT

Water Volume: Use 3-10 gallons of water per acre. Use the higher spray volume when treating dense or tall vegetation.

**Application Equipment:** Select nozzles designed to produce minimal amounts of fine spray particles. Make applications at the lowest stage height to reduce the exposure of spray droplets to evaporation and wind.

The boom height 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 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.

The applicator must follow the most restrictive use cautions to avoid drift hazards, including those found in this labeling as well as applicable state and local regulations and ordinances.

Do not use aerial equipment if spray particles can be carried by the wind into areas where sensitive crops or plants are growing or when temperature inversions exist.

Table 1. Application Rate and Timing - Annual Weeds

Weeds Controlled	Rate Per Acre (according to weed growth stage)						
(including ALS - and triazine-resistant)	0.5 pint	1.0 pint	1.5 pints	2 pints	3 pints	4 pints	
Amaranth, Palmer*	-	<3"	3 to 10"	-	-	-	
Beebalm, Spotted	-	-	-	pre-bloom	post-bloom	-	
Broomweed	1-3"	3" branching	-	branching	-	after branching	
Buckwheat, Wild	-	1-6"	-	-	-	-	
Buffalobur	-	-	-	1-6"	-	flowering	
Burdock	-	pre-flower	-	-	-	-	
Buttercup	-	pre-flower	-	early bloom	late bloom	-	
Chickweed, Common	-	seedling	1-3"	-	-	-	
Cockle, Cow	-	< 3"	-	-	-	-	
Cocklebur, Common	-	1-6"	6-12"	12-18"	-	-	
Coreopsis, Plains	-	1-6"	-	-	-	-	
Croton, Woolly	1-4"	4-12"	12-30"	-	-	-	
Devil's claw	-	-	-	< 8"	-	-	
Dogfennel	-	-	-	10-15"	-	-	
Evening Primrose	-	< 2"	-	2-6"	-	-	
Falseflax, Smallseed	-	< 2"	-	-	-	-	
Fleabane, Annual	-	1-4"	4-8"	8"	-	-	
Flixweed	-	< 3"	-	-	-	-	
Henbit	-	-	preflower	-	flower	-	
Knotweed spp.	-	< 3" runners	-	> 3" runners	-	actively growing	
Kochia	-	1-6"	6-10"	10-20"	-	actively growing	
Lambsquarters, Common	-	1-6"	6-10"	10-20"	-	actively growing	
Mallow, Common	-	< 3"	-	-	-	-	
Marestail (Horseweed)	-	-	rosette to 3"	3 to 6"	-	-	

Weeds Controlled	Rate Per Acre (according to weed growth stage)							
(including ALS - and triazine-resistant)	0.5 pint	1.0 pint	1.5 pints	2 pints	3 pints	4 pints		
Mayweed	-	-	-	-	1 to 6"	-		
Morning glory, Ivyleaf	-	pre-flower	-	-	-	-		
Tall	-	pre-flower	-	post-flower	-	-		
Mustards, Annual	-	rosette	-	early bolt	-	-		
Tansy	-	< 3"	-	-	-	-		
Nightshade, Black	-	-	-	full flower	-	actively growing		
Pennycress, Field	-	-	-	rosette	-	-		
Pepperweed, Virginia	-	-	1-3"	3-6"	after branching	-		
Pigweed, Prostrate	-	< 3"	-	-	-	-		
Redroot	-	< 3"	3-10"	-	-	-		
Smooth	-	< 3"	-	-	-	-		
Tumble	-	< 3"	-	mature	-	-		
Poorjoe	-	prior to flower	-	-	-	-		
Purslane, Common	-	< 3"	3-8"	-	-	-		
Ragweed, Common	-	-	-	>10"	-	-		
Western, Lanceleaf	1-3"	3-6"	6-10"	actively growing	-	-		
Sedge <sup>1</sup>	-	-	-	< 4 leaves	-	-		
Shepherdspurse	-	rosette	-	-	-	-		
Smartweed, Pennsylvania	-	<4"	-	-	4-12"	-		
Sneezeweed, Bitter	-	1-4"	prior to flower	flower	-	-		
Sowthistle, Annual	-	rosette	-	bolting	-	-		
Sunflower	-	1-3"	3-6"	6-24"	-	-		
Thistle, Russian	-	-	-	rosette	-	-		
Velvetleaf	-	< 6"	6-20"	> 20"	-	-		
Waterhemp, Common	-	<3"	3 to 10"	-	-	-		

<sup>&</sup>lt;sup>1</sup> For use in non-food/feed crop. Adding crop oil concentrate has shown to improve performance on actively growing annual sedge.

<sup>\*</sup>Not approved for this use in California

Table 2. Application Rate and Timing - Biennial and Perennial Weeds

Wanda Onstrallad			Rate Per Acre (accord	ding to weed growt	h stage)	
Weeds Controlled	0.5 pint	1.0 pint	1.5 pints	2 pints	3 pints	4-5 pints
Bindweed, Field	-	-	-	-	-	actively growing
Bittercress	-	2-3"	-	-	-	-
Buckeye species <sup>1</sup>	-	-	-	-	full leaf	-
Bullnettle <sup>2</sup>	-	-	-	flower	-	-
Chicory	-	-	-	rosette	early bolting	-
Clover, Bur	-	-	pre-flower	-	-	-
Dandelion, Common	-	rosette	-	bolting	-	-
Dewberry, Southern1	-	-	-	-	-	spring or fall
Dock, Curly	-	-	prior to bolting	-	after bolting	-
Elderberry <sup>2</sup>	-	-	-	-	-	actively growing
Goldenrod, Missouri	-	-	-	3-15"	flower	-
Goldenrod, Common	-	-	-	-	-	actively growing
Groundsel, Texas	-	rosette	post-bolting	-	-	-
Honeysuckle, Hairy	-	-	-	-	spring or fall	-
Horsenettle, Carolina <sup>1</sup>	-	-	-	-	-	flower or berry
Ivy, Poison	-	-	-	after bloom	-	_
Knapweed, Black <sup>2</sup>	-	-	-	-	-	actively growing
Russian <sup>2</sup>	-	-	-	-	-	actively growing
Spotted	-	-	-	-	-	actively growing
Lettuce, Prickly	- 1	-	-	rosette	-	actively growing
Marshelder	- 1	-	-	<12"	12"/prebloom	_
Mesquite <sup>3</sup>	-	-	-	-	-	45-90 days after budbreak
Milkweed <sup>1</sup>	_	_	_	pre-flower	_	flower
Nightshade, Silverleaf <sup>1</sup>				full flower		-
Black <sup>1</sup>	-	-	-	full flower	-	actively growing
Persimmon, Eastern 3	_	_	_	_	_	actively growing
Rabbitbrush <sup>2</sup>	_	_	_	_	_	-
Ragwort, Tansy	_	_	_	rosette	_	actively growing
Redvine <sup>2</sup>			_	_		actively growing

Weeds Controlled	Rate Per Acre (according to weed growth stage)						
weeds Controlled	0.5 pint	1.0 pint	1.5 pints	2 pints	3 pints	4-5 pints	
Sagebrush, Fringed <sup>2</sup>	_	_	_	_	_	actively growing	
Smartweed, Perennial		_	_	_	_	-	
Sorrel, Red		_	rosette	bolting	flower	actively growing	
Sowthistle2, Perennial	_	_	_	_	_	actively growing	
Spurge, Leafy <sup>2</sup>	_	_	_	_	flower	full leaf	
Tallow Tree, Chinese4	_	_	_	_	_	full leaf	
Thistle, Bull	_	_	rosette	bolting	_	actively growing	
Canada <sup>2</sup>	_ [	_	_	_	_	actively growing	
Musk	_ [	_	_	rosette/bolting	_	_	
Plumeless	_ [	_	rosette	bolting	_	_	
Vetch, Hairy	_	1-4"	4-8"	8"full flower	_	_	
Yankeeweed		_	_	10-18"	_	rosette	
Yellow Starthistle <sup>1</sup>	_	_	_	_	_	rosette	

<sup>1</sup> May require repeat applications

Aerial Application Methods and Equipment

Water Volume: Use 3 to 10 gallons of water per acre. Use the higher spray volume when treating dense or tall vegetation.

#### **Ground Application (Banding)**

When applying Hi-Yield® Range and Pasture Dicamba + D herbicide by banding, determine the amount of herbicide and water volume needed using the following formula:

Band width in inches x Broadcast rate = Banding herbicide per acre rate per acre

Band width in inches x Broadcast rate = Banding water Row width in inches volume per acre volume per acre

#### **Ground Application (Broadcast)**

Water volume: Use 5-40 gallons of spray solution per broadcast acre for optimal performance. Use the higher spray volume when treating dense or tall vegetation.

**Application Equipment:** Select nozzle design to produce minimal amounts of fine spray particles. Spray nozzles as close to the weeds as is practical for good weed coverage.

<sup>&</sup>lt;sup>2</sup> Recommended rate will provide top growth suppression only.

<sup>&</sup>lt;sup>3</sup> For improved root kill of woody species such as mesquite and eastern persimmon spray 4 pints per acre of Hi-Yield® Range and Pasture Dicamba + D each crop season for 3 consecutive crop seasons. For increased control of weeds such as blackberry and dewberry, Hi-Yield® Range and Pasture Dicamba + D may be tank mixed with Ally® herbicide (0.1-0.2 ounces per acre), if labeled for the use site.

<sup>&</sup>lt;sup>4</sup> Under dense populations, a second application may be needed the following growing season.

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

# Spot or Small Area Application

Hi-Yield® Range and Pasture Dicamba + D may be applied to individual clumps or small areas of undesirable vegetation using handgun or similar types of application equipment. Apply diluted sprays to allow complete wetting (up to runoff) of foliage and stems. For knapsack or other small capacity sprayers, prepare a solution of Hi-Yield® Range and Pasture Dicamba + D in water according to Table 3 (assuming that the spot treatment rate equates to 60 gallons per acre on the broadcast basis.) Adding a surfactant (0.5% by yolump) can help improve control.

For example, 5 gallons (40 pints or 640 fluid ounces) of herbicide solution would require 0.2 pints (3.2 fluid ounces) of surfactant. Do not make soot treatments in addition to broadcast or band treatments.

**Application equipment:** Select nozzles designed to produce minimal amounts of fine spray particles. Spray with nozzles as close to the weeds as is practical for good weed coverage.

Table 3. - Knapsack Sprayer Dilution Instructions

Sprayer Capacity (gallons of water)	Amount of Hi-Yield® Range and Pasture Dicamba + D to add to the spray tank
1 gallon	1 fluid ounce*
3 gallons	3 fluid ounces
5 gallons	5 fluid ounces

<sup>\*1</sup> fluid ounce = 2 tablespoons

#### III. ADDITIVES

To improve burndown of emerged weeds, surfactants and/or low use rates of liquid fertilizers (28-0-0; 32-0-0), or crop oil concentrate may be used with Hi-Yield® Range and Pasture Dicamba + D herbicide or Hi-Yield® Range and Pasture Dicamba + D the state of the properties of the pr

#### 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. For additional information, see Compatibility Test for Mix Components.

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. sorghum, grass (hay or silage), pastures, rangeland, sugarcane and wheat.)

## Nitrogen Source

 Sprayable liquid fertilizers: Use one quart of sprayable liquid fertilizers (28-0-0; 32-0-0) per acre. Do not use brass or aluminum nozzles when spraying fertilizers.

#### Nonionic Surfactant

Use 2-4 pints of an 80% active non-ionic spray surfactant per 100 gallons of water. For certain weeds, use a higher spray surfactant rate.

Table 4. - Additive Rate Per Acre

Additive	Additive Rate Per Acre
Nonionic Surfactant	2-4 pints per 100 gallons
Sprayable Liquid Fertilizers (28-0-0; 32-0-0)	2 to 4 quarts
Crop Oil Concentrate	1 quart*

<sup>\*</sup> See manufacturer's label for specific adjuvant rate recommendations.

#### IV. TANK MIXING INFORMATION

# **Tank Mix Partners/Components**

The following products may be tank mixed with **Hi-Yield® Range and Pasture Dicamba + D** according to the specific tank mixing instructions in this label and respective product labels.

- Aim™(carfentrazone-ethyl)
- Ally® or Alligare MSM 60 (metsulfuron-methyl)
- Amber® (triasulfuron)
- Asulox® (asulam)
- Atrazine
- Basagran® (bentazon)
- Bronate<sup>®</sup> (bromoxynil + MCPA)
- Buctril<sup>®</sup> (bromoxynil)
- Canvas® (thifensulfuron-methyl + tribenuron-methyl + metsulfuron-methyl)
- Clarity® (dicamba)
- Curtail<sup>™</sup> or Alligare Cody Herbicide (clopyralid + 2,4-D)
- Cvclone® (paraguat)
- Dakota® (fenoxaprop-p-ethyl + MCPA)

- Distinct® (diflufenzopyr + dicamba)
- Evik® (ametryn)
- Express<sup>®</sup> (tribenuron-methyl)
- Fallowmaster<sup>®</sup> (glyphosate + dicamba)
- Finesse® (chlorsulfuron + metsulfuron-methyl)
- Glean® or Alligare Chlorsulfuron 75 (chlorsulfuron)
- Gramoxone® Extra (paraguat)
- Harmony® Extra (thifensulfuron-methyl + tribenuron-methyl)
- Karmex® or Alligare Diuron 80DF (diuron)
- Kerb™ (pronamide)
- Laddok<sup>®</sup> S-12 (bentazon + atrazine)
- Landmaster<sup>®</sup> (glyphosate + 2,4-D)
- Lexone<sup>®</sup> (metribuzin)
  - MCP/
- Paramount® or Alligare Quinclorac 75 WDG (quinclorac)
- Peak® (prosulfuron)
- Permit (halosulfuron-methyl)
- Rave<sup>™</sup> (dicamba + triasulfuron)
- Roundup<sup>®</sup> Ultra or Glyphosate 4 Plus (glyphosate)
- Sencor<sup>®</sup> (metribuzin)
- Sinbar® (terbacil)
- Stinger<sup>™</sup> or Hi-Yield Range and Pasture Clopyralid 3 (clopyralid)
- Tiller® (fenoxaprop-p-ethyl + 2,4-D + MCPA)
- Tordon<sup>™</sup> (picloram)
- Touchdown<sup>®</sup> (glyphosate)
- 2.4-D

See **FOOD/FEED CROP SPECIFIC INFORMATION** section for more information. Read and follow the applicable Restrictions and Limitations and Directions for Use on all products involved in tank mixing. The most restrictive labeling applies to tank mixes.

Physical incompatibility, reduced weed control, or crop injury may result from mixing **Hi-Yield® Range and Pasture Dicamba** + **D** with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers.

# **Compatibility Test for Mix Components**

Before mixing components, always perform a compatibility jar test. For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes adjust accordingly. Only use water from the intended source at the source temperature.

Add components in the sequence indicated in the **Mixing Order** using 2 teaspoons for each pound or 1 teaspoon for each pint of recommended label rate per acre.

Always cap the jar and invert 10 cycles between component additions.

When the components have all been added to the jar, let the solution stand for 15 minutes. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is still incompatible, do not mix the ingredients in the same tank.

#### Mixing Order

If an inductor is used, rinse it thoroughly after each component has been added. Maintain constant agitation during application.

- 1. Water. Begin by agitating a thoroughly clean sprayer tank half full of clean water.
- 2. Agitation. Maintain constant agitation throughout mixing and application.
- Products in PVA bags. Place any product contained in water-soluble bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
- 4. Water-dispersible products (such as dry flowables, wettable powders, suspension concentrates, and suspo-emulsions)
- 5. Water-soluble products (such as Hi-Yield® Range and Pasture Dicamba + D).
- 6. Emulsifiable concentrates (such as oil concentrate, when applicable).
- 7. Water-soluble additives (such as liquid fertilizers (28-0-0; 32-0-0), when applicable).
- 8. Remaining quantity of water.

\* If sprayable fluid fertilizer is used as the carrier, Hi-Yield\* Range and Pasture Dicamba + D must be diluted with a minimum of 5 parts water to 1 part Hi-Yield\* Range and Pasture Dicamba + D. Then add 0.25-0.5% volume/volume of a nonionic surfactant to the dilution before adding it to the sprayable fluid fertilizer to reduce the concern for compatibility problems with this mix. Always perform the Compatibility Test before mixing into the spray tank. Also, when using a sprayable fluid fertilizer as the carrier, any product contained in PVA bags must first be completely dissolved in water before the contents can be added to the fertilizer mix.

#### V. RESTRICTIONS AND LIMITATIONS

- . Maximum seasonal use rate: Refer to Table 5.
- Preharvest Interval (PHI): Refer to "Food/Feed Crop Specific Information"
- · Restricted entry Interval (REI): 48 Hours
- Crop Rotational Restrictions: The interval between application and planting rotational crop is given below. Always exclude
  counting days when the ground is frozen. Planting at intervals less than specified below may result in crop injury. Moisture
  is essential for the degradation of this herbicide in soil. If dry weather prevails, use cultivation to allow herbicide contact
  with moist soil.

Planting/replanting restrictions for Hi-Yield® Range and Pasture Dicamba + D herbicide applications of 6 pints per acre or less: No rotational cropping restrictions apply at 120 days or more following application. Additionally, for annual crop uses in this label including sorghum, follow the preplant use directions in section "Food/Feed Crop-Specific Information." For barley, oat, wheat, and other grass seedings, the interval between application and planting is 10 days per pint per acre.

Planting/replanting restrictions for applications of more than 6 pints and up to 8 pints of Hi-Yield® Range and Pasture Dicamba + D per acre: Corn, soybean, sorghum, cotton (east of the Rocky Mountains) and all other crops grown in areas with 30" or more of annual rainfall may be planted 120 days or more after application. Barley, oat, wheat, and other grass seedings, may be planted if the interval from application to planting is 10 days per pint per acre east of the Mississippi River. For all other crops in areas with less than 30" of annual rainfall, the interval between apolication and planting is 180 days or more.

- Rainfast Period: Rainfall or irrigation occurring within 4 hours after postemergence applications may reduce effectiveness of Hi-Yield® Range and Pasture Dicamba + D.
- Stress: Do not apply to crops under stress such as stress due to lack of moisture, hail damage, flooding, herbicide injury, mechanical injury, or widely fluctuating temperatures, as unsatisfactory control may result.
- Do not apply to crops that show injury (leaf phytotoxicity or plant stunting) produced by any other prior herbicide applications, because this injury may be enhanced or prolonged.
- Do not apply this product though any type of irrigation equipment.
- Do not contaminate irrigation ditches or water used for domestic purposes.
- This product cannot be used to formulate or reformulate another pesticide product.

**Table 5. Crop Specific Restrictions and Limitations** 

Crop	Maximum Rate Per Acre Per Application	Maximum Rate Per Acre Per Season	Livestock Grazing or Feeding	Aircraft Application	Comments
Between Crop Applications	5.5 pints	11 pints	Yes	Yes	Plant only labeled crops within 29 days following application. Limited to 2 applications per crop season. Minimum of 30 days between applications. Maximum of 5.5 pints Hi-Yield® Range and Pasture Dicamba + D per acre per application (11 pints Hi-Yield® Range and Pasture Dicamba + D per acre per crop season). Maximum of 2.0 lb ae 2,4-D and 1.0 lb ae dicamba per application.
Pasture, Hay, Silage	5.5 pints	11 pints	Yes	Yes	Maximum of 2 applications per crop season. Minimum of 30 days between applications. Maximum of 5.5 pints H-iYeld® Range and Pasture Dicamba + D per acre per application (11 pints Hi-Yeld® Range and Pasture Dicamba + D per acre per crop season). Maximum of 4.0 lb ae 2,4-D per acre per crop season season.
Sorghum	1 pint	1 pint	Yes	Yes	Limited to one application per crop season.
Sugarcane	5.5 pints	11 pints	Yes	Yes	Limited to one application per crop cycle.
Wheat Postemergence Preharvest	-	3.33 pints 1.39 pints	Yes Yes	Yes Yes	Limited to one postermegence and one preharvest application per crop cycle. Limited to 4.8 pints Hi-Yield® Range and Pasture Dicamba + D per acre per crop season.  Postemergence: Maximum 1.25 lb ae 2,4-D per acre per application (3.33 pints Hi-Yield® Range and Pasture Dicamba + D per acre per application).  Preharvest: Maximum of 0.5 lb, ae 2,4-D per acre per application (1.39 pints Hi-Yield® Range and Pasture Dicamba + D per acre per application).

Refer to FOOD/FEED CROP SPECIFIC INFORMATION for grazing and feeding restrictions.

#### VI. FOOD/FEED CROP SPECIFIC INFORMATION

# Pastures, Rangeland and Grass (Hay, Silage)

Hi-Yield® Range and Pasture Dicamba + D can be used for pasture (including pasture grown for hay), rangeland, grass grown for hay or silage, between crop applications/fallow systems, Conservation Reserve Programs, and general farmstead (non-cropland only).

Refer to **Tables 1** and **2** for rate selection based on targeted weed or brush species. Some weed species will require tank mixes for adequate control

Rates above 4 pints of Hi-Yield® Range and Pasture Dicamba + D per acre are for spot treatments only.

#### **Crop Specific Restrictions:**

- Do not exceed a total of 11 pints of Hi-Yield® Range and Pasture Dicamba + D per treated acre per year.
- Maximum of 4.0 lb ae 2,4-D per acre per year.
- · Maximum of 2 applications per year.
- · Minimum of 30 days between applications.
- Maximum of 5.5 pints Hi-Yield® Range and Pasture Dicamba + D per acre per application per year.
- For spot treatment, do not exceed 5.5 pints Hi-Yield® Range and Pasture Dicamba + D per acre.
- Do not cut forage for hav within 7 days of application.
- Pre-harvest Interval (PHI) for grass is 7 days.
- If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable.

In newly established hybrid Bermudagrass, Pangolagrass, and stargrasses (*Cynodon* spp.) use 2 to 4 pints of **Hi-Yield® Range** and **Pasture Dicamba + D** per acre to control or suppress weeds after planting vegetative propagules (stolons) of hybrid bermudagrasses. In addition to the weeds listed in Tables 1 and 2, this rate of **Hi-Yield® Range** and **Pasture Dicamba + D** will control or suppress annual sedges, broadleaf signalgrass, crabgrass, and goosegrass.

Best results will be obtained if Hi-Yield® Range and Pasture Dicamba + D is applied at the germinating stage of weeds. Under favorable conditions, this is usually 7-10 days after planting these grasses. Reduced control can be expected if weeds are allowed to reach 1" in height before application or if germination of weeds occurs 10 days after application.

Do not use on bentgrass, susceptible grass pastures (such as carpetgrass, buffalograss, or St. Augustine grass), lespedeza, wild winter peas, vetch, clover, and alfalfa pastures as injury will occur.

When perennial weeds are reaching maturity, mowing and allowing some regrowth will enhance control. Difficult to control weeds and brush may require a repeat application.

For pasture renovations, wait 3 weeks per quart (2 pints) of Hi-Yield® Range and Pasture Dicamba + D used per acre before interseeding or injury may occur.

If grasses are grown for seed or for seed-down purposes, do not apply after grass reaches joint stage.

#### Grasses for Seed Crops\*:

#### \*Not approved for this use in California

Apply 1.25 to 4.0 pints of product in up to 30 gallons of water per acre by air or ground equipment in the spring or fall to control broadleaf weeds in grass being grown for seed. Do not apply from early boot to milk stage. Spray seedling grass only after

the five leaf stage, using 1.25 pints per acre to control small seedling weeds. After the grass is well established, higher rates of up to 4.0 pints per acre can be used to control hard-to-control annual or perennial weeds. For best results, apply when soil moisture is adequate for good growth.

#### Use Restrictions for Grasses for Seed Crops

- Do not make more than 2 applications per year.
- Maximum of 2.0 lbs. 2.4-D ae/acre (5.5 pints Alligare Dicamba + 2.4-D) per application.
- Minimum of 21 days between applications.
- Do not apply after the grass seed crop begins to joint.
- This product contains 1.0 lb. of dicamba active ingredient per gallon. Do not exceed a combined total of 1.0 lb. of dicamba
  active ingredient per acre per application.

#### **Use Precautions for Grasses for Seed Crops**

Application to bentgrass could result in injury.

#### No-Till Application:

This product may be used in the broadcast method with a normal boom or with direct pipes set 12" apart in 36" rows. When using this product, apply at a rate of 1.25 pints in 10 gallons of water per acre. Maintain uniform pressure and speed when applying.

#### Grasses Cut for Hav or Silage:

Use 1.25 to 4.0 pints of product in sufficient water to give good coverage to one acre depending on type of weeds and stage of growth. Use only on established stands of perennial grasses. Do not use on alfalfa, bentgrass, clover, or other legumes. Do not use on newly seeded areas until grass is well established. Do not apply after the crop begins to joint when grass seed production is desired.

# Use Restrictions for Grasses Cut for Hay or Silage

- Do not cut forage for hav within 7 days of application.
- When using this product there is a 7 day pre-grazing interval for lactating dairy animals.
- When using this product there is a 30 day pre-slaughter interval for meat animals.
- Do not apply after the crop begins to joint when grass seed production is desired.
- This product contains 1.0 lb. of dicamba active ingredient per gallon. Do not exceed a combined total of 1.0 lb. of dicamba
  active ingredient per acre per application.

Grazing and Feeding Non-Lactating Animals: There is no waiting period between treatment and grazing for non-lactating, non-meat animals. Do not permit meat animals being finished for slaughter to graze treated fields within 30 days of slaughter.

Grazing and Feeding Lactating Animals: Do not graze lactating dairy animals within 7 days of treatment.

**Dry hay and Silage:** Treated grasses may be harvested for dry hay or silage but do not harvest within 7 days of treatment.

Small grains (barley, corn, forage sorghum, oats, rye, sudangrass, or wheat) grown for pasture, hay, and silage only.

Uses described in the Pastures, Rangeland and Grass (Hay, Silage) section above also pertain to small grains (barley, corn, forage sorghum, oats, rye, sudangrass, or wheat) grown for pasture, hay, and silage only. Newly seeded areas including small grains grown for pasture or hay, may be injured if rates of Hi-Yield® Range and Pasture Dicamba + D greater than 2 pints per acre are applied.

#### Additional Restrictions when Applying to Wheat, Barley, Oats and Rye Grown for Pasture, Hay, and Silage Only

- Pre-harvest Interval (PHI) is 14 days.
- Postemergence Applications: Limited to one postemergence application per crop cycle. Maximum of 3.4 pints Hi-Yield®
  Range and Pasture Dicamba + D (1.25 lbs. ae/acre) per application.
- Preharvest: Limited to one preharvest application per crop cycle. Maximum of 1.4 pints Hi-Yield® Range and Pasture Dicamba + D (0.5 lb. ae/acre) per application.
- Limited to 4.8 pints Hi-Yield® Range and Pasture Dicamba + D (1.75 lbs. ae/acre) per crop cycle.

#### Pasture and Rangeland Tank Mixes

Hi-Yield® Range and Pasture Dicamba + D may be applied in tank mixes with one or more of the following herbicides:

Ally® Banvel® Rave® Amber® Clarity®

#### Sorghum

# **Rates and Timings**

Apply 1 pint of **Hi-Yield® Range and Pasture Dicamba + D** per acre to sorghum in the 3-5 leaf stage (4"-8" tall.) For best performance apply when weeds are small (less than 3" tall).

Applications of Hi-Yield® Range and Pasture Dicamba + D to sorghum during periods of rapid growth may result in temporary leaning of plants or rolling leaves. These effects are usually outgrown within 10-14 days. Sorghum growing under conditions of stress such as high moisture, low fertility, and abnormal temperature may be more sensitive to applications of Hi-Yield® Range and Pasture Dicamba + D.

# **Crop Specific Restrictions:**

- Do not use surfactants or oils with postemergence applications of Hi-Yield® Range and Pasture Dicamba + D on sorghum crops.
- Do not use Hi-Yield® Range and Pasture Dicamba + D if the potential for sorghum injury is not acceptable.
- Do not apply Hi-Yield® Range and Pasture Dicamba + D to sorghum grown for seed production.
- Limited to 1 application per crop cycle.
- Maximum of 1 pint Hi-Yield® Range and Pasture Dicamba + D per acre per crop season.
- Pre-harvest interval (PHI) for grain sorghum is 30 days.

**Grazing Restrictions:** Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following application. There is no waiting period between treatment and grazing for non-lactating or non-meat animals.

#### Sorghum Tank Mixes

Hi-Yield® Range and Pasture Dicamba + D may be applied in tank mixes with one or more of the following herbicides:

Atrazine Laddock® S-12 Peak® Basagran® Paramount® Permit® Ructril®

#### Sugarcane

Applications of Hi-Yield® Range and Pasture Dicamba + D can be made any time after weeds have emerged and are actively growing but prior to the close-in stage of sugarcane. When possible, direct the spray beneath the sugarcane canopy in order to minimize the likelihood of crop injury. The use of directed sprays will also aid in maximizing spray coverage of weed foliage. Application rates and timing are given below. Use the higher level of listed rate ranges when treating dense vegetative growth.

#### Rate:

- For control of listed annual broadleaf weeds, apply 2 pints of Hi-Yield® Range and Pasture Dicamba + D per treated acre.
- For suppression of listed perennial weeds, apply 1-5.5 pints of Hi-Yield® Range and Pasture Dicamba + D per acre per application.

#### Crop Specific Restrictions:

- Limited to 1 application per crop cycle.
- Do not exceed a maximum of 5.5 pints Hi-Yield® Range and Pasture Dicamba + D per application.
- Maximum of 11 pints Hi-Yield® Range and Pasture Dicamba + D per acre per year.
- . Do not harvest cane prior to crop maturity.
- Do not apply more than 4 lbs. ae 2.4-D per acre per crop cycle.
- Pre-harvest Interval (PHI) for sugarcane is 87 days.

# Sugarcane Tank Mixes

Hi-Yield® Range and Pasture Dicamba + D may be applied in tank mixes with one or more of the following herbicides:

Asulox® Atrazine Fvik® Lexone® Sencor® Sinbar®

#### Wheat

# (Fall and Spring-seeded)

If small grains are grown for pasture or hay only, refer to Pastures, Rangeland and Grass (Hay, Silage).

#### Crop Specific Restrictions:

- Do not graze or harvest for livestock feed prior to crop maturity.
- Do not use Hi-Yield® Range and Pasture Dicamba + D in wheat underseeded with legumes.
- Applications are limited to 1 postemergence application per crop cycle and 1 preharvest application per crop cycle, with a maximum application of 1.75 lb ae 2,4-D per acre per crop cycle (4.8 pints Hi-Yield® Range and Pasture Dicamba + D per acre per crop season).

#### Postemergence:

- Limited to 1 application per crop cycle.
- Maximum application rate of 1.25 lb. ae 2.4-D per acre per application
- (3.33 pints Hi-Yield® Range and Pasture Dicamba + D per acre per application).

#### Preharvest:

- Limited to 1 application per crop cycle.
- Maximum application rate of 0.5 lb. ae 2.4-D per acre per application
- (1.39 pints Hi-Yield® Range and Pasture Dicamba + D per acre per application).

#### EARLY SEASON APPLICATION:

Apply 0.5-1 pint of **Hi-Yield® Range and Pasture Dicamba + D** per acre to wheat unless using one of the wheat specific programs below.

Early season applications to spring-seeded wheat must be made after tillering and before wheat reaches the 6-leaf stage.

Early season applications to fall-seeded wheat must be made after tillering and prior to the jointing stage.

Care should be taken in staging early developing wheat varieties such as TAM 107, Madison, or Wakefield to be certain that the application occurs prior to the jointing stage.

# SPECIFIC USE PROGRAMS FOR FALL-SEEDED WHEAT ONLY:

Up to 1.39 pints of Hi-Yield® Range and Pasture Dicamba + D per acre may be applied on fall-seeded wheat after the wheat begins to tiller for suppression of perennial weeds, such as field bindweed. Applications may be made in the fall following a frost but before a killing freeze. Periods of extended stress such as cold and wet weather may enhance the possibility of crop injury. For fall applications only, do not use if the potential for crop injury is not acceptable.

#### PREHARVEST APPLICATIONS:

Hi-Yield® Range and Pasture Dicamba + D can be used to control weeds that may interfere with harvest of wheat. Apply up to 1.39 pints of Hi-Yield® Range and Pasture Dicamba + D per acre as a broadcast or spot treatment to annual broadleaf weeds when wheat is in the hard dough stage and the green color is gone from the nodes (joints) of the stem. Best results will be obtained if application can be made when weeds are actively growing but before weeds canopy.

A waiting interval of 14 days is required before harvest.

Do not use preharvest-treated wheat for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

For control of additional broadleaf weeds or grasses, **Hi-Yield® Range and Pasture Dicamba + D** may be tank mixed with other herbicides such as Ally or Glyphosate 4 Plus that are registered for preharvest use in wheat.

 $\label{eq:prehamba} \mbox{Prehamba + D is not registered for use in California.}$ 

Table 6. Wheat Tank Mixes

Tank Mix Partner	Rate Per Acre
Aim™	0.3 ounce
Ally® ¹	0.05 - 0.1 ounce
Amber®1	0.14 - 0.28 ounce
Bronate®	0.75 -1.5 pints
Buctril®	1-1.5 pints
Canvas® 1	0.2- 0.4 ounce
Curtail™	2 - 2.67 pints
Dakota® 2	16 fluid ounces
Express® 1	0.083 - 0.167 ounce <sup>1</sup>
Finesse <sup>®1</sup>	0.167 - 0.33 ounce <sup>1</sup>
Glean®	0.167 ounce <sup>1</sup>
Harmony® Extra	0.167- 0.33 ounce <sup>1</sup>
Karmex <sup>®3</sup>	0.5 -1.5 pounds
2,4-D amine	4 - 20 fluid ounces <sup>4</sup>
Metribuzin³ (Sencor®, Lexone®)	0.25 - 0.375 pounds a.i.
Peak® 1	0.25 - 0.38 ounce
Stinger™	4 - 5.33 fluid ounces
Tiller® 2	1 - 1.7 pints

Do not use low rates of sulfonylurea herbicide, such as Ally®, Amber®, Canvas®, Express®, Finesse®, Glean®, Harmony® Extra, and Peak® on more mature weeds or on dense vegetative growth.

<sup>2</sup> Do not use Hi-Yield® Range and Pasture Dicamba + D as a tank mix treatment with Dakota or Tiller on Durum wheat. Do not tank mix with Tiller if wild oat is the larger weed.

<sup>3</sup> Tank mixes with Karmex and metribuzin are for use in fall-seeded wheat only.

<sup>4</sup> Hi-Yield® Range and Pasture Dicamba + D contains 0.36 pounds acid equivalent, of 2,4-D per pint. When tank mixing with 2,4-D do not exceed a combined total of 1.0 pound acid equivalent per acre of 2,4-D and do not exceed 0.5 pounds acid equivalent of 2,4-D and do not exceed 0.5 pounds acid equivalent of 2,4-D and you ness nignry to wheat is acceptable.

# PREPLANT APPLICATION DIRECTIONS FOR BROADLEAF CONTROL IN CROPLAND ROTATED TO WHEAT (POST-HARVEST / FALLOW / STUBBLE / SET-ASIDE) WEEDS CONTROLLED

This product, when applied at the listed rates, will control the ANNUAL and BIENNIAL weeds and suppress the PERENNIAL weeds listed below

	ANNUALS	
Buckwheat, Wild	Mustards	Salsify, Western
Cockle, Cow	Nightshade, Black	Smartweed, Pennsylvania
Cocklebur, Common	Pigweed, Redroot (Carelessweed)	Sowthistle, Annual
Knotweed	Pigweed, Rough	Sunflower
Kochia	Purslane, Common	Tansymustard
Lambsquarters, Common	Ragweed, Common	Thistle, Russian
Mallow, Common Sage, Lanceleaf		Velvetleaf
	BIENNIALS	
Carrot, Wild	Starthistle, Yellow	Thistle, Musk
Ragwort, Tansy	Thistle, Bull	Thistle, Plumeless
	PERENNIALS	
Bindweed, Field	Dock, Curly	Thistle, Canada

#### RATES AND TIMING

Application may be made to fallow land, wheat stubble or land to be rotated to wheat. Application should be made to emerged and actively growing weeds. Use higher rate when treating dense vegetative growth. Avoid disturbing treated areas for seven days following application.

Wheat injury may occur if the interval between application and planting is less than 10 days for each pint per acre of this product is used. Exclude days when ground is frozen.

Weed Type & Stage	Broadcast Rate Per Treated Acre Amount
Annual	
Small, actively growing (less than 4 inches)	1.0 to 1.5 pints
Established weed growth (greater than 4 inches)	1.5 to 3.0 pints
Biennial	
Rosette diameter (3 inches or less) (3 inches or more) Greater than 4 inches, tillering Bolted or flowering	1.5 to 2.0 pints 2.0 to 4.0 pints 4.0 pints
Perennial	
Suppression or top growth control	2.0 to 4.0 pints
Seasonal Control	4.0 to 8.0 pints

Add 0.5% v/v of an agriculturally approved surfactant to this product when used alone or in a tank mix. The addition of a surfactant will enhance spray coverage and the herbicide's penetration of weed foliage. Retreatment may be made 30 days after initial treatment; however, do not exceed a total of 8 pints of this product per treated acre per year.

# Cropland Rotated to Wheat (Post-Harvest / Fallow / Stubble / Set-Aside) Restrictions:

Plant only labeled crops within 29 days following application.

Limited to 2 applications per year.

Maximum of 2.0 lbs 2,4-D ae/acre per application.

Minimum of 30 days between applications.

#### TANK MIX TREATMENTS

This product may be tank mixed with one or more of the following herbicides for control of grasses or additional broadleaf weeds. Read and follow the label of each tank mix product used for precautionary statements, directions for use, rates and timings, weeds controlled, geographic or other restrictions. Add 0.5% v/v of an agriculturally approved surfactant to all tank mixes.

Herbicide	Rate Per Treated Acre (lbs a.i.)
Atrazine	½ to 3.0
Chlorsulfuron	0.016 to 0.024
Glyphosate	1/4 to 2.0
Metribuzin	1/3 to 3/4
Paraquat	½ to 1.0

# CORN (PREPLANT and PREEMERGENCE ONLY)\*\* (Field, Popcorn, Seed)

	Amount of Hi-Yield® Range and Pasture Dicamba + D per Acre	Directions	
Preplant	1.25 to 2.5	To control actively growing emerged broadleaf weed seedlings or existing cover crops prior to planting corn, apply 7 to 14 days* before planting. Preplant application may be used with no-tillage, conventional tillage or reduced tillage practices.	
Corn (Preplant	Corn (Preplant) Restrictions:		

- Do not use more than 2.0 pints of this product per acre if the soil organic matter is less than 2%.
- Limited to one preplant application per crop cycle.
- See Corn (Preplant and Preemergence) Restrictions for additional restrictions.

Preemergence	Apply 3 to 5 days* after planting but before corn emerges.
	Preemergence application may be used with no-tillage,
	conventional tillage or reduced tillage practices.

#### Corn (Preemergence) Restrictions:

- Do not use this product if corn seeds are less than 1.5" below the soil surface.
  - Do not use this product if the soil organic matter is less than 2%.
- Limited to one preemergence application per crop cycle.
  - See Corn (**Preplant and Preemergence**) **Restrictions** for additional restrictions.

CORN (PREPLANT and PREEMERGENCE ONLY)** (Field, Popcorn, Seed) Continued		
Amount of Hi-Yield® Rar and Pasture Dicamba + per Acre		Directions

#### Corn (Preplant and Preemergence) Restrictions:

- Do not use more than 2.5 pints per acre per application.
- Do not use on light, sandy soil (sand, sandy loam, and loamy sand), or where soil moisture is inadequate for normal weed growth.
- Do not apply this product to popcorn or seed corn without first verifying the selectivity of this product on the variety with your local seed corn company (supplier).
- Do not use this product on sweet corn.
- Do not replant fields treated with this product in the same growing season with crops other than those labeled for 2,4-D and dicamba pre-plant use.
- · Limited to one preplant or one preemergence application per crop cycle.
  - If applying a spring preplant treatment following application of a fall post-harvest application to the previous crop, then the combination of both treatments may not exceed 5 pints of this product.
  - · Limited to 2 applications per year.
  - A minimum of 30 days\* is required between applications.

#### Notes:

- Refer to Table 1 to determine use rates for specific targeted weed species, but do not exceed rate shown for corn preplant and preemergence.
- Use higher rate for less susceptible weeds, larger weeds or cover crops such as alfalfa.
- For applications applied 30 or more days\* before planting, follow the directions and precautions for 'Postharvest, Fallow, Crop Stubble' listed in Section VII, NON-FOOD/FEED USE of this label.
- Best results will be obtained when product is mixed with additives or tank mixed with additional herbicides see ADDITIVES and TANK MIXING INFORMATION sections of this label.
- For best control of legume sod (e.g., alfalfa or clover), apply this product after 4 to 6 inches of legume regrowth has occurred.
- Certain tillage equipment (e.g., drags, harrows) which concentrates treated soil over seed furrow may increase the risk
  of crop injury.
- · Corn may be harvested or grazed for feed once the crop has reached the ensilage (milk) stage or later in maturity.

\*Minimum waiting interval excludes days when ground is frozen.

<sup>\*\*</sup>Not currently registered for use in California.

#### SOYBEAN\* (PREPLANT ONLY)

	Amount of Hi-Yield® Range and Pasture Dicamba + D per Acre	Minimum Waiting Interval Before Planting Soybeans	Directions
Preplant	1.0 to 1.25 pints	15 Days**	Apply before planting soybeans to control actively growing emerged broadleaf weed seedlings.
гтеріані	1.25 to 2.5 pints	30 Days**	Apply to control actively growing emerged broadleaf weeds.

#### Sovbean Restrictions:

- For use only preplant to soybeans.
- Following application, a minimum accumulation of 1" rainfall or overhead irrigation followed by the specified minimum waiting interval, is
  required before planting soybeans.
- Do not apply more than 2.5 pints of this product per acre per crop cycle under these directions for preplant application to soybeans.
- Only one application of this product may be made per crop cycle under these directions for preplant application to soybeans.
- 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 and dicamba preplant 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 sovbean in fields having a coarse-textured soil where the organic matter is less than 1%.
- Livestock should be restricted from feeding/grazing of treated cover crops. Do not cut treated cover crops for hav or feed.
- The minimum waiting intervals must be observed prior to planting sovbean or crop injury may occur.
- Do not make preplant applications of this product to soybean in geographic areas with average annual rainfall less than 25".
   \*Not currently registered for use in California.

#### Notes:

- Refer to Table 1 to determine use rates for specific targeted weed species, but do not exceed rate stated for soybeans preplant.
- For applications applied 60 or more days\*\* before planting soybeans, follow the directions and precautions for 'Postharvest, Fallow, Crop Stubble' listed in Section VII of this label.
- Best results will be obtained when product is mixed with additives or tank mixed with additional herbicides see ADDITIVES and TANK MIXING INFORMATION sections of the label.

<sup>\*\*</sup>Minimum waiting interval excludes days when ground is frozen.

#### COTTON\* (PREPLANT ONLY)

	Amount of Hi-Yield® Range and Pasture Dicamba + D per Acre	Minimum Waiting Interval Before Planting Cotton	Directions
Preplant	2.0 pints	30 Days**	Apply to control actively growing emerged broadleaf weeds prior to planting cotton. For best performance, apply when weeds are in the 2-4 leaf stage and rosettes are less than 2" across.

#### Cotton Restrictions:

- For use only preplant to cotton.
- Following application, a minimum accumulation of 1" rainfall or overhead irrigation followed by the specified minimum waiting interval, is required before planting cotton.
- . Do not apply more than 2.0 pints of this product per application per acre in one season prior to planting cotton.
- Do not apply more than 2 applications per year.
- Do not apply this product prior to planting cotton if you are not prepared to accept the results of cotton injury including possible loss
  of stand and vield.
- Do not replant fields treated with this product in the same growing season with crops other than those labeled for 2,4-D and dicamba pre-plant use.
- Mowing or cultivating weeds prior to treatment with this product may result in poor weed control.
- Do not apply this product pre-plant to cotton in fields having a coarse-textured soil where the organic matter is less than 1%.
- Do not feed treated hay, forage, or fodder. Livestock should be restricted from feeding/grazing of treated cover crops.
- Do not cut treated crop for feed, hay, forage, fodder or graze treated cotton to livestock.
- The minimum waiting intervals must be observed prior to planting cotton or crop injury may occur.
- Do not make preplant applications of this product to cotton in geographic areas with average annual rainfall less than 25".
   \*Not currently registered for use in California.

#### Notes:

- . Refer to Table 1 to determine use rates for specific targeted weed species, but do not exceed rate stated for cotton preplant.
- For applications applied 75 or more days\*\* before planting, follow the direction and precautions for 'Postharvest, Fallow, Crop Stubble' listed in Section VII of the container label.
- Best results will be obtained when product is mixed with additives or tank mixed with additional herbicides see ADDITIVES and TANK MIXING INFORMATION sections of label.
- \*\*Minimum waiting interval excludes days when ground is frozen.

# Between Crop Applications/Fallow Systems, Conservation Reserve Programs, and General Farmstead

These uses are considered Food/Feed Crops when harvested, grazed or foraged. Consult section on "**Tank Mixing Information**" for adjuvant restrictions and section on "**Additives**" for specific use directions.

# VII. NON-FOOD/FEED USE (LAND NOT HARVESTED, GRAZED OR FORAGED) - SPECIFIC INFORMATION

#### Between Crop Applications

## PREPLANT DIRECTIONS (POSTHARVEST, FALLOW, CROP STUBBLE, SET-ASIDE) FOR BROADLEAF WEED CONTROL:

Hi-Yield® Range and Pasture Dicamba + D can be applied postharvest in the fall, spring, or summer during the fallow period or to crop stubble/set-aside acres. Apply to weeds after crop harvest (postharvest) and before a killing frost or in the fallow cropland or crop stubble the following spring or summer:

See **RESTRICTIONS AND LIMITATIONS** for the required interval between application and planting to prevent crop injury. **Rates and Timinos:** 

Apply 0.5-5.5 pints of **Hi-Yield® Range and Pasture Dicamba + D** per acre. Refer to Table 1 to determine use rates for specific targeted weed species. Retreatments may be made as needed; however, do not exceed a total of 11 pints of **Hi-Yield® Range and Pasture Dicamba + D** per treated acre during a growing season. For best performance, apply **Hi-Yield® Range and Pasture Dicamba + D** when annual weeds are less than 6° tall, when biennial weeds are in the rosette stage and to perennial broadleaf weeds such as Canada thistle and Jerusalem artichoke occurs if **Hi-Yield® Range and Pasture Dicamba + D** is applied when the majority of weeds have at least 4-6° of regrowth or for weeds such as field bindweed and hedge bindweed that are in or beyond the full bloom stage.

Avoid disturbing treated areas following application. Treatments may not kill weeds that develop from seed or underground plant parts such as hizomes or bulblets, after the effective period for Hi-Yield® Range and Pasture Dicamba + D. For seedling control. a follow-up program or other cultural practices could be instituted.

#### **Between Crop Tank Mixes:**

In tank mixes with one or more of the following herbicides, apply 0.5-2 pints of Hi-Yield® Range and Pasture Dicamba + D per acre for control of annual weeds, or 2-8 pints of Hi-Yield® Range and Pasture Dicamba + D per acre for control of biennial and perennial weeds.

Aim™ or Alligare MSM 60 Distinct® Paramount® or Alligare Quinclorac 75

Ally® Fallowmaster® WDG

Amber® Finesse® Sencor®

Atrazine Glyphosate Tordon™ 22K or Alligare Picloram 22K

Bladex® Gramoxone® Extra Touchdown®

Curtail™ or Alligare Cody Herbicide Kerb™ 2,4-D

Cyclone® Landmaster® BW

# Conservation Reserve Programs and General Farmstead

Hi-Yield® Range and Pasture Dicamba + D may be used for Conservation Reserve Programs, general farmstead (non-cropland only), weed and brush control, or use in State Recognized Noxious Weed areas (non-cropland areas).

Refer to **Tables 1 and 2** for rate selection based on targeted weed or brush species. Some weed species will require tank mixes for adequate control.

Rates above 4 pints of Hi-Yield® Range and Pasture Dicamba + D per acre are for spot treatments only.

Retreatments may be made as needed; however, do not exceed a total of 5.5 pints of **Hi-Yield® Range and Pasture Dicamba** + **D** per treated acre during a growing season.

#### Farmstead and Fence-row Treatment Application Instructions

Hi-Yield® Range and Pasture Dicamba + D may be applied using water or oil and water emulsions in spot application to control undesirable vegetation using handgun or similar types of application equipment. In addition to weed species listed in Tables 1 and 2, these treatments may be used to control or suppress woody plant species listed in Table 7.

To prepare soil and water emulsions, mix in the order and proportions indicated below.

The solution should remain milky colored without an oily layer on top when under agitation. If an oily layer forms, increase the amount of emulsifier or change to a more effective emulsifier.

Do not exceed 40 gallons of spray solution per treated acre per application. Forty gallons of spray solution contains 1.0 pound acid equivalent of dicamba and 2.87 pounds acid equivalent of 2,4-D. Spray plants to wet. Do not allow this spray mix to contact desirable vecetation.

To control brush, briars, and weeds along fence-rows surrounding pasture and ranch lands, and fallow fields, use a tank mix of 2.5% **HI-Yield® Range and Pasture Dicamba + D**, 87.5% water, 10% diesel oil, and sufficient emulsifier (to mix the diesel and emulsifier). The diesel oil in this tank mix will damage or kill desirable grasses and should not be used in pastures or where damage to desirable species cannot be tolerated.

- Water: Begin by agitating a thoroughly clean sprayer tank with the desired quantity of clean water. Maintain constant
  agitation during complete mixing procedure.
- 2). Emulsifier: Add 0.5% volume to volume of water.
- 3). Hi-Yield® Range and Pasture Dicamba + D: add 2.5 gallons per 100 gallons of total intended solution.
- 4). Diesel Oil: Add 10 gallons per 100 gallons of total intended solution.

Maintain constant agitation during application. Under good agitation, the spray solution should be milky white with no oil layer on top. If oil layer forms, increase the amount of emulsifier or change to a more effective emulsifier.

#### FOR SPRAYING FOLIAR APPLICATIONS:

- Spray when leaves have reached full size but have not hardened due to drought or maturity.
- Spray individual plants to wet with handgun.
- For larger stems (up to 3" in diameter) and hard to control species, direct spray stream to base of stems to wet the stem at soil surface in addition to wetting the foliage.
- 4. Do not apply under drip line of desirable trees or adjacent to desirable vegetation.

#### FOR DORMANT BASAL APPLICATIONS:

- 1. Increase diesel oil content to 15% or 15 gallons of diesel oil per 100 gallons of total solution.
- 2. Spray in late winter and early spring before plants break dormancy.
- 3. Spray the bottom 24" of the target stem to wet on all sides.
- For larger stems (up to 3" in diameter) and hard to kill species direct the spray solution to the base of target stems to wet the soil at the stem/soil junction in addition to wetting the stem.
- 5. Do not apply under drip line of desirable trees or adjacent to desirable vegetation.

#### FOR CUT SURFACE TREATMENTS:

Apply Hi-Yield® Range and Pasture Dicamba + D in an undiluted state as a cut surface treatment to control unwanted trees and prevent sprouts of cut trees.

- Frill or Girdle Treatments: Make a continuous cut or a series of overlapping cuts using an axe to girdle tree trunk. Spray
  or paint the cut surface with Hi-Yield® Range and Pasture Dicamba + D.
- Stump Treatments: Spray or paint freshly cut surface with Hi-Yield® Range and Pasture Dicamba + D. The cambium
  layer (the area adjacent to the bark) should be thoroughly wet. Treat stumps within 6 hours after cutting.

Table 7. The following list of trees and vines can be controlled on farmsteads and fencerows as foliar, basal, or cut surface treatments:

Alder         Dogwood           Ash         Elm           Aspen         Grape           Basswood         Greenbriar           Beech         Hawthorn (Thornapple)           Blackberry         Hemlock           Blackgum         Hickory           Cedar         Honeylocust           Cherry         Honeysuckle           Chinquapin         Hornbeam           Cottonwood         Huckleberry           Cresostebush         Huisache           Dewberry         lvy, Poison	Kudzu Locust, Black Maple Mesquite Oak Oak, Poison Olive, Russian Persimmon, Eastern Pine Plum, Sand (Wild Plum) Poplar Rabbitbrush Redcedar, Eastern	Rose, McCartney Rose, Multiflora Sagebrush, Fringe Sassafras Spruce Sumac Sweetgum Sycamore Tarbrush Willow Witchhazel Yaupon Yucca
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# Restrictions for Non-Crop Areas (CRP, General Farmstead, Fencerow)

#### Postemergence (annual and perennial weeds):

- Limited to 2 applications per year.
- Maximum of 5.5 pints product (2.0 lbs. ae 2.4-D) per acre per application.
- Minimum of 30 days between applications.

#### Postemergence (woody plants):

- Limited to 1 application per year.
- Maximum of 8 pints product (2.87 lbs. ae 2,4-D, 1.0 lb. dicamba) per acre.
- Limited to one (1) basal spray or cut surface application per year.

# NON-CROP APPLICATIONS

RIGHTS-OF-WAY (RAILROAD, ROADSIDES, UTILITY, PIPELINE), NON-SELECTIVE FOREST BRUSH CONTROL, INDUSTRIAL SITES, NON-IRRIGATION DITCHBANKS, AND OTHER NON-CROP AREAS\*

# \*Not approved for use in California

When used as directed, this product will control or suppress many herbaceous broadleaf weeds (annual, biennial, and perennial) as well as many unwanted woody plant and vine species. Species controlled include:

ANNUALS					
Buckwheat, wild Cocklebur Lambsquarter Purslane					
Carpetweed	Daisy, English	Morningglory	Ragweed		
Chickweed Henbit Mustard Smartweed					
Clover	Knawl	Pigweed	Velvetleaf		

BIENNIALS	
Ragwort, Tansy	Thistle, Musk

PERENNIALS			
Bindweed, Field	Dogfennel	Sorrel, Sheep	
Carrot, Wild (Queen Anne's Lace)	Knapweed, Russian	Spurge, Leafy	
Dock, Curly	Milkweed	Thistle, Canada	
DUCK, CUTIY	Ragweed, Perennial	Toadflax, Dalmatian	

WOODY BRUSH AND VINES				
Alder	Cucumber tree	Locust	Redcedar, Eastern*	Snowberry
Ash	Dogwood*	Maple	Redvine	Spruce
Aspen	Elderberry	0ak	Rose, Multiflora*	Sumac
Basswood	Elm	Olive, Russian	Sagebrush	Sycamore
Beech	Gum	Persimmon	Sassafras	Trumpetcreeper
Birch	Hawthorn*	Pine	Schinus	Waxmyrtle
Blackberry*	Hemlock	Plum, Wild*	(Florida Holly,	Willow
Cherry	Honeysuckle	Poplar	Brazil Peppertree, Christmas berry)	Witchhazel
Creeper, Virginia	Ivy, Poison	Puncturevine	Officialities berry)	Yaupon*
Creosotebush*	Kudzu	Raspberry	Serviceberry	

<sup>\*</sup>Suppression

#### RATES

Regardless of the species to be controlled, spray volumes should be high enough to allow for good spray coverage. Make applications when weeds and brush are actively growing. The addition of surfactants can increase control. Biennials are best controlled when treated in the rosette stage. Regrowth may occur on resistant species. To control additional weed species, this product may be tank mixed with any of the products listed on this label.

#### RESTRICTIONS

# Preemergence (annual and perennial weeds):

Limited to 2 applications per year.

Maximum of 5.5 pints (2.0 lbs. ae 2.4-D) per acre per application.

Minimum of 30 days between applications.

# Postemergence (woody):

Limited to 1 application per year.

Maximum of 11 pints (4.0 lbs. ae 2,4-D) per year.

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

# HERBACEOUS BROADLEAF WEED CONTROL

Apply 1 to 2,75 pints of this product in 20 to 100 gallons of water per treated acre, (1/3 to 1 fluid ounce per 1,000 square feet). When using low-volume application equipment, 3 to 20 gallons of water per acre is acceptable. 1 to 2 pints (1/3 to 0.7 fluid ounce per 1,000 square feet) of this product may be used for annuals, 1.5 to 2.75 pints (0.55 to 1 fluid ounce per 1,000 square feet) for biennials and easy-to-kill perennials, and 2.75 pints for established perennials. Do not apply more than 5.5 pints of product per treated acre.

#### BRUSH AND VINE CONTROL

**High Volume Foliar Spot Applications:** Mix 2.75 to 5.5 pints of this product in enough water to make 100 gallons of spray mix. When using low-volume application equipment, 3 to 20 gallons of water per acre is acceptable. Spray volume applied will depend on the size and density of the brush to be treated, but do not apply more than 5.5 pints of product per treated acre. Direct the spray to treat all foliace, stems, and root collars to wet.

Broadcast Applications with Ground Equipment: Apply 2.75 to 5.5 pints of this product in 20 to 100 gallons of water per treated acre. When using low-volume application equipment, 3 to 20 gallons of water per acre is acceptable. Spray volume applied will depend on the size and density of the brush to be treated, but do not apply more than 5.5 pints of product per treated acre. Sorav all foliace, stems and root collars to wet.

#### AERIAL APPLICATIONS

Aerial applications may be made to control either herbaceous or woody plants. Apply 1 to 2.75 pints of this product (for herbaceous weeds) or 2.75 to 5.5 pints of this product (for woody brush and vines) in 5 to 40 gallons of water per treated acre. Coverage is important, so increase spray volume when treating dense stands of brush of weeds. Do not apply more than 5.5 pints of product per treated acre.

#### TANK MIX TREATMENTS

READ AND FOLLOW THE LABEL OF EACH TANK MIX PRODUCT USED FOR PRECAUTIONARY STATEMENTS, DIRECTIONS FOR USE, AND OTHER RESTRICTIONS. For broader spectrum control, this product may be tank mixed with one or more of the following herbicides for noncropland uses (e.g., rallroad, highway, pipeline, etc.) including forest management, pastures and rangeland applications, if permitted by product labeling (e.g. 2,4-D). Add water to the spray tank prior to the addition of the tank mix products. Do not or remix concentrates.

HERBICIDE	RATE (LBS. A.I./TREATED ACRE)
Amitrol*	1.8 to 8.0
Asulam (Asulox®)	2.92 to 6.68
Atratol	4.77 to 39.96
Bromacil (Hyvar®)	1.6 to 24.0
Clorflurecol (Maintain®)	2.0 to 3.0
Chlorsulfuron	0.1875 to 2.25 oz.***
Dalapon	4.25 to 12.75
Dicamba (Diablo®)	0.25 to 1.75****
Diquat	0.5 to 1.0
Diuron (Karmex®)	4.0 to 48.0
Fenac (Fenatrol®)	4.5 to 18.0
Fosamine ammonium (Krenite®)	6.0 to 12.0
Glyphosate (Razor®)	0.75 to 3.75
Hexazinone (Velpar®)	0.675 to 10.8

HERBICIDE	RATE (LBS. A.I./TREATED ACRE)	
Imazapyr** (Polaris®)	0.5 to 1.5	
Limit®**	0.625	
Maleic hydrazide (Royal Slo-Gro®)	2.25 to 4.5	
Mefluidide (Embark®)	0.25 to 1.0	
Metsulfuron Methyl (Patriot®)1	0.3 to 0.9***	
MSMA	1.0 to 2.475	
Paraquat*	0.5	
Picloram* (Trooper® or Tordon®)	2.0 to 3.0	
Simazine* (Princep®)	4.8 to 40.0	
Sulfometuron methyl (Oust®)	0.75 to 9.0 oz.***	
Tebuthiuron (Spike®)	1.0 to 16.0	
Triclopyr (Tahoe®)	0.75 to 12.0	
2,4-D	0.475 to 3.5****	
2,4-DP	0.5 to 11.1	

Due to variations that may occur in formulated products and specific use ingredients (e.g., water supplies) a COMPATIBILITY TEST as described below is recommended prior to actual tank mixing.

- \* Restricted use pesticides limited to certified applicators.
- \*\* Limit does not have a common name.
- \*\*\* Chlorsulf E-Pro = 0.1875 to 2.25 ounces a.i./acre (0.25 to 3.0 ounces product/acre)
  - Oust = 0.75 to 9.0 oz. a.i./acre (1.0 to 12.0 ounces product/acre)
  - Patriot = 0.3 to 0.9 oz. a.i.(0.5 to 1.5 ounces product/acre)
- \*\*\*\* Do not exceed a total of 2 pounds a.i. dicamba per treated acre per growing season. (This product contains 1 pound a.i. dicamba per gallon.)
- \*\*\*\*\* Use of extremely hard water (500 ppm) may cause this product to form a precipitate when used in a tank mix with this product. Do not exceed 4 pounds total 2,4-D acid equivalent per acre per application per site.

Using this product and Patriot to reduce the development and spread of resistant biotypes and problem weeds such as Kochia and Russian thistle: Some commonly resistant weeds typically require multiple spray applications to obtain adequate control. To reduce the number of applications required, applicators can utilize a mixture of Patriot and this product. Apply as a tank mix for postemergence as follows: Add 0.5 ounce of Patriot to 1 quart of this product per acre. A non-ionic or silicone surfactant may be used for wetting and penetration.

NOTE: All intended tank mix combinations should be used only in recommended areas on the same broadleaf weed species found on both labels. For application methods and other use specifications, use the most restrictive limitations from labeling of both products.

#### COMPATIBILITY TEST

Before mixing in the spray tank, it is advisable to test compatibility by mixing all components in a small container in proportionate quantities (see following table).

# AMOUNT OF HERBICIDE TO ADD TO ONE PINT OF SPRAY CARRIER

#### (ASSUMING VOLUME IS 25 GALLONS PER ACRE)

HERBICIDE FORMULATIONS	RATE PER ACRE	LEVEL TEASPOONS
Dry	1 pound	1-1/2
Liquid	1 pint	1/2

If herbicide(s) do not ball-up or form flakes, sludge, gels, oily films or layers, or other precipitates, then the tested components are compatible. Usually incompatibility in any of the above described forms will occur within 5 minutes after mixing. If components are incompatible, the use of a compatibility agent is recommended. Rerun the above COMPATIBILITY TEST with a suitable compatibility agent (1/4 teaspoon is equivalent to 2 pints per 100 gallons of spray solution).

#### PROCEDURE FOR CLEANING SPRAY EQUIPMENT

The steps listed below are suggested for thorough cleaning of spray equipment following applications of this product or tank mixes of this product plus 2.4-D Amine.

- Hose down thoroughly the inside as well as outside surfaces of equipment while filling the spray tank half full of water. Flush by operating sprayer until the system is purged of the rinse water.
- 2) Fill tank with water while adding 1 quart of household ammonia or ¼ pint of Neutral-CleanTM 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.
- 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.
  The steps listed below are suggested for thorough cleaning of spray equipment used to apply this product as a tank mix
  - The steps listed below are suggested for thorough cleaning of spray equipment used to apply this product as a tank mix with wettable powders (MP), emulsifiable concentrates (EC), or other types of water-dispersible formulations. Tank mixing this product with water-dispersible formulations, requires the use of a water/detergent rinse.
- 5) Complete Step 1.
- 6) Fill tank with water while adding 2 pounds of detergent for every 40 gallons of water. Operate the pump to circulate the detergent solution through the boom and nozzles. Let the solution stand for several hours, preferably overnight.
- 7) Flush the detergent solution out of the spray tank through the boom.
- 8) Repeat Step 1, and follow with Steps 2, 3 and 4.

# Weeds listed in this label:

Common Name	Scientific Name	Common Name	Scientific Name		
ANNUALS					
Amaranthus, Palmer Beebalm, Spotted Broomweed, Common Buckwheat, Wild Buffalobur Burdock Buttercup, Corn Carpettweed Chickweed, Common Cockle, Corn Devil's Claw Dogfennel (Cypressweed) Eveningprimrose, Cutleaf Falseflax, Smallseed Fleabane, Annual Flixweed Henbit Knotweed, Prostrate Kochia Lambsquarters, Common Lettuce, Prickly Mallow, Common Marestail (Horseweed)	Amaranthus palmeri Monarda punctafa Gutierezia dracuncutoides Polygonum convulvulus Solanum rostratum Arctium spp. Rannculus arvensis Mollugo verticilitat Stellaria media Agrostemma githago Vacaria hispanica Vacaria hispanica Vacaria hispanica Vacaria hispanica Vacaria hispanica Vacaria hispanica Santhium strumarium Coreopsis tinctoria Croton capitatus Bellis perennis Proboscidea luisianica Eupatorium capilifiolium Oenothera lacinata Linum capitiriolium Erigeron annuus Descurainia sophia Lamium amplexicaule Polygonum aviculare Kochia scoparia Chenopodium album Lactuca serriola Maalva neglecta	Mayweed Morningglory, lvyleaf Tall Mustard, Annual Tansy Nightshade Penperweed, Virginia Pepperweed, Virginia Pigweed, Prostrate Redroot Smooth Tumble Poorjoe Purslane, Common Ragweed, Common Ragweed, Common Ragweed, Redroot Seed Western Sage, Lanceleaf Salsify, Western Sedge Snarrweed, Pennsylvania Sneezeweed, Bitter Sowthistle, Annual Sunflower, Common (wild) Thistle, Russian Velvetleaf Waterhemo. Common	Anthemis cotula Ipomea hederacea Ipomea purupurea Brassica spp. Descurainia pinnata Solamum nigrum Thlaspi arvense Lepidium virginicum Amaranthus biltoides Amaranthus retroflexus Amaranthus labus Diodia teres Portulaca oleracea Ambrosia bidentata Ambrosia bidentata Ambrosia bidentata Ambrosia psilostachya Salvia reflexa Tragopogon dubius Cyperus compressus Capsella bursa-pastoris Polygonum pensylvanicum Helenium amurum Sonchus oleraceus Helianthus annuus Salsola iberica Abutilon teophrasti Amaranthus rudis		

Common Name	Scientific Name	Common Name	Scientific Name			
BIENNALS AND PERENNIALS						
Bindweed, field Bittercress Buckeye Bullnettle Carrot, Wild Chicory Clover, Hop Dandelion Dock, Curly Elderberry, Missouri Goldenrod, Missouri Goldenrod, Missouri Goldenrod, Hairy Honeysuckle, Hairy Horsenettle lvy, Poison Knapweed, Black Russian Spotted Marshelder Mesquite Milkweed	Convolvulus arvensis Cardamine spp. Aesculus stp. Cnidosculus stimulosus Daucus carota Cichorium intybus Trifoleum aureum Taraxacum officinale Rumex crispus Sambucus canadensis Solidago missouriensis Isocoma coronopifolia Senecio vulgaris Lonicera Solarum caroliniense Rhus radicans Centaurea nigra Centaurea repens Centaurea maculosus Ina annua Prosopis juliflora Asciepius	Nightshade, Silverleaf , Black Persimmon, Eastern Rabbitbrush Ragwort, Tansy Redvine Sagebrush, Fringed Smartweed, Swamp Sorrel, Red (Sheep, Sorrel) Sowthistle, Perennial Spurge, Leafy Starthistle, Yellow Tallow Tree, Chinese Thistle, Bull Canada Musk Plumeless Toadflax, dalmation Vetch Yankeeweed	Solanum elaeagnifolium Solanum ingrum Diospyros virginiana Chrysanthemus puichellus Senecio Jacobia Brunnichia ovata Artemisia frigida Polygonum coccineum Rumex acetoselfa Sonchus arvensis Euphorbia esula Centauria solstitialis Sapium sebiferum Cirsium vulgare Cirsium arvense Carduus nutans carduus gaanthoides Linaria dalmatica Vicia spp. Eupatorium compositifolium			

# Food/Feed Crop Uses

This product can be used on the following:

\*Conservation Reserve Program Land \*Fallow Systems (Between Crop Application)

\*General Farmstead

Grain Sorghum
Grass (Hay or Silage)
Corn (Preplant and Preemergence)\*\*
Soybean (Preplant)\*\*

Cotton (Preplant)\*\*

Pastures

Rangeland Sugarcane

Wheat

\*These crops are considered Food/Feed crops only when harvested, grazed or foraged. Otherwise they are considered as non-Food/Feed uses.

<sup>\*\*</sup>Not approved for use in California

Use of this product in certain portions of California, Oregon and Washington is subject to the January 22, 2004 Order for Injunction Relief in Washington Toxics Coalition, et.al. v. EPA, C01-0132C (W.D.WA). For further information, please refer to EPA website: http://www.epa.gov/espp.

#### CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

To the extent consistent with applicable law, upon purchase or use of this product, purchaser and user agree to the following terms:

<u>Warranty:</u> Voluntary Purchasing Groups, Inc. (the Company) warrants that this product conforms to the chemical description on the label in all material respects and is reasonably fit for the purpose referred to in the directions four es, subject to the exceptions noted below, which are beyond the Company's control. To the extent consistent with applicable law, the Company makes no other representation or warranty, express or implied, concerning the product, including no implied warranty of merchantability or fitness for a particular purpose. No such warranty shall be implied by law, and no agent or representative is authorized to make any such warranty on the Company's behalf.

Terms of Sale: The Company's directions for use of this product must be followed carefully. It is impossible to eliminate all because of such factors as weather conditions, presence of other materials, and the manner of use or application (including failure to adhere to label directions), all of which are beyond the Company's control. To the extent consistent with applicable law, all such risks are assumed by the user.

Limitation of Liability. To the extent consistent with applicable law, the exclusive remedy against the Company for any cause of action relating to the handling or use of this product is a claim for damages, and in no event shall damages or any other recovery of any kind exceed the price of the product which caused the alleged loss, damage, injury or other claim. To the extent consistent with applicable law, under no circumstances shall the Company be liable for any special, indirect, incidental or consequential damages of any kind, including loss of profits or income, and any such claims are hereby waived. Some states do not allow the exclusion or limitation of incidental or consequential damages.

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