5905-576

6212012



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON DC 20460

> OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

Mr Bill Washburn Helena Chemical Company 225 Schilling Boulevard, Suite 200 Collierville, TN 38017

JUN 2 1 2012

Label Amendment Subject Product Name VISION EPA Reg No 5905-576 Application dated March 21, 2012 Decision Number 463294

1

Dear Mr Washburn

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

One copy of the label stamped "Accepted" is enclosed for your records Products shipped after 18 months from the date on this notice or the next printing of the label, whichever occurs first, must bear the new revised label Amended labeling will supersede all previously accepted ones

Per 40 CFR 156 10(6), submit one copy of your final printed labeling before you release the product for shipment If you have questions or concerns regarding this letter, please contact Beth Benbow at (703) 347-8072 or email at benbow bethany@epa gov

Sincerely,

MECHAER WALSH

Kathryn V Montague for Product ManaHerbicide Branch Registration Division (7505P)

## ACCEPTED JUN 2 1 2012 Under the Federal Insecticide

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

905-

2082

VISION.

Herbicide for weed control in asparagus barley conservation reserve programs corn (field pop seed silage) cotton (preplant) fallow croplands general farmstead (noncropland) grass grown for seed hay oats proso millet pasture rangeland sorghum soybean sugarcane triticale turf and wheat

ACTIVE INGREDIENT Dicamba Acid\* OTHER INGREDIENTS TOTAL

Contains 3 8 pounds dicamba acid per gallon or 450 grams per liter CAS No 1918 00 9

## 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) PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

## DANGER

**CORROSIVE CAUSES IRREVERSIBLE EYE DAMAGE** Harmful if swallowed Inhaled or absorbed through skin Do not get in eyes or on clothing Avoid contact with skin Avoid breathing spray mist Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals In Case of Spill In case of large scale spillage regarding this product call CHEMTREC 1 800 424 9300

	FIRST AID		
IF IN EYES	Hold eye open and rinse slowly and gently with water for 15 20 minut	tes	
	Remove contact lenses if present after the first 5 minutes then cont	linue rinsing eye	
	Call a poison control center or doctor for treatment advice		
IF ON SKIN OR	Take off contaminated clothing		
CLOTHING	Rinse skin immediately with plenty of water for 15 20 minutes		
	Call a poison control center or doctor for treatment advice		
IF SWALLOWED	Call a poison control center or doctor immediately for treatment advic	сe	
	Have person sip a glass of water if able to swallow		
	Do not induce vomiting unless told to do so by a poison control cente	r or doctor	
	Do not give anything to an unconscious person		
IF INHALED	Move person to fresh air		
	If person is not breathing call 911 or an ambulance then give artificiate	al respiration	
	preferably mouth to mouth if possible		
	Call a poison control center or doctor for further treatment advice		
NOTE TO PHYSICIAN Probable mucosal damage may contraindicate the use of gastric lavage			
HOT LINE NUMBER In case of an emergency involving this product call CHEMTREC toll free at 1 800 424 9300			
	ner or label with you when calling a poison control center or doctor or going		
SEE INSI	DE PANEL FOR ADDITIONAL PRECAUTIONS AND DIRECTIONS FOR L	JSE	
EPA Reg No 5905 576	EPA Est No 42750 MO 001	SN 040408/0310	

#### MANUFACTURED FOR HELENA CHEMICAL COMPANY 225 SCHILLING BOULEVARD SUITE 300 COLLIERVILLE TN 38017

40 0% <u>60 0%</u> 100 0%

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are made of barrier laminate butyl rubber nitrile rubber or Viton If you want more options follow the instructions for category **F** of an EPA chemical resistance category chart

## Applicators and other handlers must wear

(

- Long sleeved shirt and long pants
- Chemical resistant gloves
- Shoes plus socks
- Protective eyewear
- •

#### See Engineering Controls for additional requirements and exceptions

Follow the manufacturer's instructions for cleaning and maintaining PPE If no such instructions for washables exist use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them

## ENGINEERING CONTROLS STATEMENT

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 cockpits in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170 240(d)(4 6)]

## USER SAFETY RECOMMENDATIONS

#### Users should

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

## **ENVIRONMENTAL HAZARDS**

Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Apply this product only as directed on the label

This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable particularly where the water table is shallow may result in ground water contamination.

## **Ground and Surface Water Protection**

**Point source contamination** To prevent point source contamination do not mix load this pesticide product within 50 feet of wells (including abandoned wells and drainage wells) sink holes perennial or intermittent streams and rivers and natural or impounded lakes and reservoirs. Do not apply pesticide product within 50 feet of wells. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described below.

Mixing loading rinsing or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills equipment or container leaks equipment wash waters and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

**Care must be taken when using this product to prevent** a) back siphoning into wells b) spills or c) improper disposal of excess pesticide spray mixtures or rinsates. Check valves or antisiphoning devices must be used on all mixing equipment.

**Movement by surface runoff or through soil** Do not apply under conditions which favor runoff Do not apply to impervious substrates such as paved or highly compacted surfaces in areas with high potential for ground water contamination Ground water contamination may occur in areas where soils are permeable or coarse and ground water is near the surface Do not apply to soils classified as sand with less than 3% organic matter and where ground water depth is shallow. To minimize the possibility of ground water contamination carefully follow application rate recommendations as affected by soil type in the General Information section of this label.

**Movement by water erosion of treated soil** Do not apply or incorporate this product through any type of irrigation equipment nor by flood or furrow irrigation. Ensure treated areas have received at least one half inch rainfall (or irrigation) before using tailwater for subsequent irrigation of other fields.

## **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 pesticide regulation.

Unless otherwise directed in supplemental 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 24 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 sleeved shirt and short pants
- Chemical resistant footwear plus socks
- Chemical resistant gloves made of any waterproof material Protective eyewear
- ٠

#### NONAGRICULTURAL 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

Prohibitions Do not contaminate water food or feed by storage or disposal Open dumping is prohibited This product may not be mixed loaded or used within 50 feet of all wells including abandoned wells drainage wells and sinkholes

**PESTICIDE STORAGE** Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material Store in original container in a well ventilated area separately from fertilizer feed and foodstuffs Avoid cross contamination with other pesticides

**PESTICIDE DISPOSAL** Wastes resulting from this product may be disposed of on site or at an approved waste disposal facility Pesticide spray mixture or rinsate that cannot be used according to label instructions must be disposed of according to federal state or local procedures under Subtitle **C** of the Resource Conservation and Recovery Act Improper disposal of excess pesticide spray mix or rinsate is a violation of federal law

**CONTAINER DISPOSAL Non Refiliable containers (1, 2 5, 30 & 55 gallon)** Do not reuse or refili this container Offer for recycling if available Triple rinse or pressure rinse container (or equivalent) promptly after emptying

**Non Refillable (<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 ¼ 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 Refiliable (>5 gallons)** Triple rinse as follows Empty the remaining contents into application equipment or a mix tank Fill the container ¼ full with water Replace and tighten closures. Tip container on its side and roll it back and forth ensuring at least one complete revolution for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

**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 for disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**Refiliable Container (250 gallon & bulk)** Refill this container with pesticide only Do not reuse this container for any other purpose Cleaning the container before final disposal is the responsibility of the person disposing of the container Cleaning before refilling is the responsibility of the refiller

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 soap and water Wash clothing before re use Keep the spill out of all sewers and open bodies of water

## **I GENERAL INFORMATION**

VISION<sup>™</sup> herbicide is an emulsifiable formulation intended for control or suppression of many annual biennial and perennial broadleaf weeds as well as woody brush and vines listed in Table 1 VISION<sup>™</sup> may be used for control of these weeds in asparagus corn (field pop seed silage) cotton (preplant) conservation reserve programs fallow cropland grass grown for seed hay proso millet pasture rangeland general farmstead (non cropland) small grains sorghum soybean sugarcane and turf

## MODE OF ACTION

VISION<sup>™</sup> is readily absorbed by plants through shoot and root uptake translocates throughout the plants system and accumulates in areas of active growth VISION<sup>™</sup> interferes with the plants growth hormones (auxins) resulting in death of many broadleaf weeds

### **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 rinsing the equipment before and after applying this product

Table 1 General Weed List

(

ANNUALS		T	
Alkanet	Cornflower (Bachelor	Mayweed	Sesbania Hemp
Amaranth Palmer Powell	Button)	Morningglory Ivyleaf Tall	Shepherdspurse
Spiny	Croton Tropic Woolly	Mustard Black Blue	Sicklepod
Aster Slender	Daisy English	Tansy Treacle Tumble	Sida Prickly (Teaweed)
Bedstraw Catchweed	Dragonhead American	Wild Yellowtops	Smartweed Green
Beggarweed Florida	Eveningprimrose Cutleaf	Nightshade Black Cutleaf	Pennsylvania
Broomweed Common	Falseflax Smallseed	Pennycress Field	Sneezeweed Bitter
Buckwheat Tartary Wild	Fleabane Annual	(Fanweed Frenchweed	Sowthistle Annual Spiny
Buffalobur	Flixweed	Stinkweed)	Spanish Needles
Burclover Calıfornıa	Fumitory	Pineappleweed	Spikeweed Common
Burcucumber	Goosefoot Nettleleaf	Poorjoe	Spurge Prostrate Leafy
Buttercup Corn Creeping	Hempnettle	Poppy Red horned	Spurry Corn
Roughseed	Henbit	Puncturevine	Starbur Bristly
Western Field	Jacobs Ladder	Purslane Common	Starwort Little
Carpetweed	Jımsonweed	Pusley Florida	Sumpweed Rough
Catchfly Nightflowering	Knawel (German Moss)	Radish Wild	Sunflower Common
Chamomile Corn	Knotweed Prostrate	Ragweed Common Giant	(Wild) Volunteer
Chervil Bur	Kochia	(Buffaloweed) Lance Leaf	Thistle Russian
Chickweed Common	Ladysthumb	Rocket London Yellow	Velvetleaf
Clovers	Lambsquarters Common	Rubberweed Bitter	Waterhemp
Cockle Corn Cow White	Lettuce Miners Prickly	(Bitterweed)	Waterprimrose Winged
Cocklebur Common	Mallow Common Venice	Salsify	Wormwood
Copperleaf Hophornbeam	Marestail (Horseweed)	Senna Coffee	
BIENNIALS			
Burdock Common	Eveningprimrose	Mallow Dwarf	Sweetclover
Carrot Wild (Queen	Common	Plantain Bracted	Teasel
Anne s Lace)	Geranium Carolina	Ragwort Tansy	Thistle Bull Milk Musk
Cockle White	Gromwell	Starthistle Yellow	Plumeless
	Knapweed Diffuse		
	Spotted		
PERENNIALS	······		
Alfalfa <sup>(1)</sup>	Dock <sup>(1)</sup> Broadleaf	Milkweed Climbing	Sowthistle <sup>(1)</sup> Perennial
Artichoke Jerusalem	(Bitterdock)	Common Honeyvine	Spurge Leafy
Aster Spiny Whiteheath	Curly	Western Whorled	Sundrop
Bedstraw Smooth	Dogbane Hemp		Thistle Canada Scotch
Bindweed Field Hedge	Dogfennel <sup>(1)</sup>	Nettle Stinging Nightshade Silverleaf	Toadflex Dalmatian
Blueweed Texas	(Cypressweed)	(White Horsenettle)	
Bursage Woollyleaf <sup>(1)</sup>	Fern Bracken	Onion Wild	Tropical Soda Apple Trumpetcreeper
	Garlic Wild	Plantain Broadleaf	(Buckvine)
(Bur Ragweed Povertyweed)			
	Goldenrod Canada	Buckhorn	Vetch
Buttercup Tall	Missouri	Pokeweed	Waterhemlock Spotted
Campion Bladder	Goldenweed Common	Ragweed Western	Waterprimrose Creeping
Chickweed Field	Hawkweed   Henbane Black <sup>(1)</sup>	Redvine	Woodsorrel <sup>(1)</sup> Creeping
Mouseear		Sericia Lespedeza	Yellow
Chicory <sup>(1)</sup>	Horsenettle Carolina	Smartweed Swamp	Wormwood Louisiana
Clover <sup>(1)</sup> Hop Dandelion <sup>(1)</sup>	Ironweed	Snakeweed Broom	Yankeeweed
Dandellon	Knapweed Black Diffuse	Sorrel <sup>(1)</sup> Red (Sheep	Yarrow Common <sup>(1)</sup>
	Russian <sup>(1)</sup> Spotted	Sorrell	
	Russian <sup>(1)</sup> Spotted	Sorrel)	
WOODY SPECIES Alder	Dewberry <sup>(2)</sup>	Sorrel)	Sassafras

WOODY SPECIES			
Alder	Dewberry <sup>(2)</sup>	Locust Black	Sassafras
Ash	Dogwood <sup>(2)</sup>	Maple	Serviceberry
Aspen	Elm	Mesquite	Spicebush
Basswood	Grape	Oak	Spruce
Beech	Hawthorn (Thornapple) <sup>(2)</sup>	Oak Poison	Sumac
Bırch	Hemlock	Olive Russian	Sweetgum <sup>(2)</sup>
Blackberry <sup>(2)</sup>	Hickory	Persimmon Eastern	Sycamore

60f27

(

Blackgum <sup>(2)</sup>	Honeylocust	Pine	Tarbush
Cedar <sup>(2)</sup>	Honeysuckle	Plum Sand (Wild Plum) <sup>(2)</sup>	Willow
Cherry	Hornbeam	Poplar	Witchhazel
Chinquapin	Huckleberry	Rabbitbrush	Yaupon <sup>(2)</sup>
Cottonwood	Huisache	Redcedar Eastern <sup>(2)</sup>	Yucca <sup>(2)</sup>
Creosotebush <sup>(2)</sup>	Ivy Poison	Rose <sup>(2)</sup> McCartney	
Cucumbertree	Kudzu	Multiflora	
		Sagebrush Fringed <sup>(2)</sup>	

<sup>(1)</sup> Noted perennials may be controlled using lower rates of **VISION™** than those listed for other listed perennial weeds <sup>(2)</sup> Growth suppression only

## **II APPLICATION INSTRUCTIONS**

VISION<sup>™</sup> can be applied to actively growing weeds with aerial broadcast band or spot spray applications using water or sprayable fertilizer as a carrier For VISION<sup>™</sup> application rates for control or suppression by weed type and growth stage see **Table 2** For crop specific application rates timing directions use precautions and restrictions refer to section **VI Crop Specific Information** 

To avoid uneven spray coverage VISION™ must not be applied during periods of gusty wind or when wind is in excess of 15 mph

Avoid off target movement Use extreme care when applying VISION™ to prevent injury to desirable plants and shrubs

#### CULTIVATION

Do not cultivate within 7 days after applying VISION™

#### SENSITIVE CROP PRECAUTIONS

VISION<sup>™</sup> herbicide may cause injury or death to desirable crops and ornamental plants particularly beans cotton flowers fruit trees grapes ornamentals (trees and shrubs) peas potatoes soybeans sunflowers tobacco tomatoes and other broadleaf plants when their roots stems or foliage are exposed to low levels. These plants are most sensitive to VISION<sup>™</sup> during their development or growth stage

Use coarse sprays (volume median diameter of 400 microns or more) to avoid potential herbicide drift. Select nozzles that are designed to produce minimal amounts of fine spray particles (less than 200 microns). Examples of nozzles designed to produce coarse sprays via ground applications are Delavan® Raindrops. Spraying Systems XR (excluding 110<sup>0</sup> tips) flat fans Turbo Teejets Turbo Floodjets® or large capacity flood nozzles such as D10 TK10 or greater capacity tips. Keep the spray pressure at or below 20 psi and the spray volume at or above 20 gallons per acre unless otherwise required by the manufacturer of drift reducing nozzles.

Agriculturally approved drift reducing additives may be used

#### **AERIAL APPLICATION METHODS AND EQUIPMENT**

**Water Volume** Use 1 10 gallons of water per acre for post harvest use Use 2 20 gallons of diluted spray per treated acre for preharvest uses Use the higher spray volume when treating dense or tall vegetation

## SPRAY DRIFT MANAGEMENT

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER

The interaction of many equipment and weather related factors determine the potential for spray drift The applicator and grower are responsible for considering all these factors when making decisions

The following drift management requirements must be followed to avoid off target movement from aerial applications to agricultural field crops These requirements do not apply to forestry applications public health uses or to applications using dry formulations

1 The distance of the outer most nozzles on the boom must not exceed  $\frac{3}{2}$  the length of the wingspan or rotor

2 Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees

Where states have more stringent regulations they must be observed

The applicator and the grower must be familiar with and take into account the information covered in the <u>Aerial Drift Reduction</u> <u>Advisory</u>

## **AERIAL DRIFT REDUCTION INFORMATION**

## INFORMATION ON DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (See Wind Temperature and Humidity and Temperature Inversions )

## CONTROLLING DROPLET SIZE

- Volume Use high flow rate nozzles to apply the highest practical spray volume Nozzles with higher rated flows produce larger droplets
- Pressure Do not exceed the nozzle manufacturers recommended pressures For many nozzle types lower pressure
  produces larger droplets When higher flow rates are needed use higher flow rate nozzles instead of increasing
  pressure
- Number of Nozzles Use the minimum number of nozzles that provide uniform coverage
- Nozzle Orientation Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice Significant deflection from horizontal will reduce droplet size and increase drift potential
- Nozzle Type Use a nozzle type that is designed for the intended application With most nozzle types narrower spray angles produce larger droplets Consider using low drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

#### **BOOM LENGTH**

For some use patterns reducing the effective boom length to less than  $\frac{3}{4}$  of the wingspan or rotor length may further reduce drift without reducing swath width

#### **APPLICATION HEIGHT**

Applications should not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind

#### SWATH ADJUSTMENT

When applications are made with a crosswind the swath will be displaced downwind Therefore on the up and downwind edges of the field the applicator must compensate for this displacement by adjusting the path of the aircraft upwind Swath adjustment distance should increase with increasing drift potential (higher wind smaller drops etc.)

#### WIND

Drift potential is lowest between wind speeds of 2 10 mph However many factors including droplet size and equipment type determine drift potential at any given speed Application should be avoided below 2 mph due to variable wind direction and high inversion potential **NOTE** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift

#### **TEMPERATURE AND HUMIDITY**

When making applications in low relative humidity set up equipment to produce larger droplets to compensate for evaporation Droplet evaporation is most severe when conditions are both hot and dry

#### **TEMPERATURE INVERSIONS**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog, however, if fog is not present inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

## SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas bodies of water known habitat for threatened or endangered species non target crops) is minimal (e.g. when wind is blowing away from the sensitive areas)

#### Application Equipment

Select nozzles designed to produce minimal amounts of fine spray particles Make aerial applications at the lowest safe height to reduce exposing the spray to evaporation and wind 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

## **GROUND APPLICATION (BANDING)**

When applying VISION<sup>™</sup> herbicide by banding determine the amount of herbicide and water volume needed using the following formula

<u>Bandwidth in inches</u> Row width in inches	X	Broadcast rate per acre	=	Bandıng herbicide rate per acre
<u>Bandwidth in inches</u> Row width in inches	X	Broadcast volume per acre	=	Bandıng water volume per acre

## GROUND APPLICATION (BROADCAST)

**Water Volume** Use 3 50 gallons of spray solution per broadcast acre for optimal performance. Use the higher spray volume when treating dense or tall vegetation

**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

#### **GROUND APPLICATION (WIPERS)**

VISION<sup>™™</sup> may be applied through wiper application equipment to control or suppress actively growing broadleaf weeds brush and vines listed on this label. Use a solution containing 1 part VISION<sup>™</sup> to 1 part water. Do not contact desirable vegetation with herbicide solution. Wiper application may be made to crops (but not to sorghum or soybeans) and on non cropland areas and pasture described in this label.

## **III ADDITIVES**

To improve postemergence weed control agriculturally approved surfactants sprayable fertilizers (urea ammonium nitrate or ammonium sulfate) or crop oil concentrate may be added particularly in dry growing conditions (Refer to **Table 3, Additive Rate**') Do not use crop oil concentrate for postemergence in crop applications unless specifically allowed in section **Vi Crop Specific Information**" of this label

#### Nitrogen Source

- Urea ammonium nitrate (UAN) Use 2 4 quarts of UAN (commonly referred to as 28% 30% or 32% nitrogen solution) per acre Do not use brass or aluminum nozzles when spraying UAN
- Ammonium sulfate (AMS) AMS at 2.5 pounds per acre may be substituted for UAN Use high quality AMS (spray grade) to avoid plugging of nozzles. Other sources of nitrogen are not as effective as those mentioned. Helena Chemical Company does not recommend applying AMS if applied in less than 10 gallons per acre because of potential problems with precipitation in reduced volumes. Use AMS only if it has been demonstrated to be successful in local experience.

## Table 2 General VISION™™ Application Rates for Control or Suppression by Weed Type and Growth Stage Use rate limitations are given in sections V & VI Crop Specific Information

Weed Type and Stage	Rate Per Acre <sup>(3)</sup>
Annual <sup>(1)</sup>	
Small actively growing	8 16 fluid ounces
Established weed growth	16 24 fluid ounces
Biennial	
Rosette diameter 1 3	8 16 fluid ounces

Rosette diameter 3 or more	16 32 fluid ounces
Bolting	32 fluid ounces
Perrennial	
Top growth suppression	8 16 fluid ounces
Top growth control and root suppression	16 32 fluid ounces
Noted perennials (footnote 1 in Table 1)	32 fluid ounces
Other perennials <sup>(2)</sup>	32 fluid ounces
Wood Brush & Vines	
Top growth suppression	16 32 fluid ounces
Top growth control <sup>(2)</sup>	32 fluid ounces
Stems and stem suppression <sup>(2)</sup>	32 fluid ounces

(

(2) Species noted in Table 2 will require tank mixes for adequate control

<sup>(3)</sup> No more than 2 applications per year are allowed Do not broadcast apply more than 32 fluid ounces per acre. Use the higher level of listed rate ranges when treating dense vegetative growth or perennial weeds with well established root growth

## Nonionic Surfactant

The standard label recommendation is 1 pint of an 80% active nonionic spray surfactant per 100 gallons of water

#### **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 from tolerance regulation 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 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 in preplant pre emergence and preharvest applications as well as in pastures and noncropland Do not use crop oil concentrate for postemergence in crop applications unless specifically allowed in section VI Crop Specific Information of this label

## Table 3 Additive Rate Per Acre

ADDITIVE	RATE PER ACRE
Nonionic Surfactant	1 2 pints
AMS	2 5 pounds
UAN Solution	2 4 quarts
Crop Oil Concentrate	1 guart*

See manufacturer's label for specific rate recommendations

#### **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 then compatible use the compatibility agent as directed on its label. If the solution is still incompatible do not mix the ingredients in the same tank.

#### Mixing Order

- 1 Water Begin by agitating a thoroughly clean sprayer tank three quarters full of clean water
- 2 Agitation Maintain constant agitation throughout mixing and application
- 3 Products in PVA bags Place any product contained in water soluble PVA 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 (dry flowables wettable powders suspension concentrates or suspo emulsions)
- 5 Water based soluble concentrate products
- 6 Emulsifiable concentrates
- 7 Water soluble additives (such as AMS or UAN when applicable)
- 8 Remaining quantity of water Maintain constant agitation during application

## IV GENERAL TANK MIXING INFORMATION

#### **Tank Mix Partners/Components**

The herbicide products listed below may be applied with VISION<sup>™</sup> herbicide according to the specific tank mixing instructions on this label and on the respective product labels

See section "VI Crop Specific Information for more details Read and follow the applicable Restrictions and Limitations' and Directions For Use on all products involved in tank mixing Follow the Directions for Use of the labeling of any product used in the tank mixes

**VISION™** may also be used in tank mixtures with foliar applied insecticides including synthetic pyrethroids such as Ambush Asana Pounce and Warrior or with the carbamate insecticide Furadan

Physical incompatibility reduced weed control or crop injury may result from mixing **VISION™** with other pesticides (fungicides herbicides insecticides or miticides) additives or fertilizers Helena Chemical Company does not recommend using tank mixes other than those listed as follows

Accent® (nicosulfuron) Acquire™ (glyphosate) Ally® (metsulfuron methyl) Amber® (triasulfuron) Asulox® (asulam) Atrazine Axiom™ (flufenacet + metribuzin) Banvel® SGF (dicamba) Basagran® (bentazon) Beacon® (primisulfuron methyl) Bicep II Magnum® (smetolachlor + atrazine) Bronate® (bromoxynil MCPA) Bronco® (alachlor + glyphosate) Buctril® (bromoxvnil) Bullet® (alachlor + atrazine) Canvas® (thifensulfuron tribenuron + metsulfuron) Caparol® (prometryn) Curtail® (clopyralid + 2 4 D) Cyclone® (paraquat) Dakota® (fenoxaprop + MCPA) Degree™ (acetochlor) Degree Xtra™ (acetochlor + atrazine) DoublePlay® (acetochlor + EPIC) Dual Magnum<sup>™</sup> (s metolachlor) Dual II Magnum® (s metolachlor + atrazine) Eradicane® (EPTC) Evik® (ametryn) Exceed® (primisulfuron prosulfuron) Express® (thifensulfuron + tribenuron methyl)

Fallow Master® (glyphosate + dicamba) Field Master™ (acetochlor + atrazine + glyphosate) Finesse® (chlorsulfuron metsulfuron methyl) Frontier® (dimethenamid) FulTime™ (acetochlor + atrazine) Garton® (triclopyr) Glean® (chlorsulfuron) Gramoxone® Extra (paraguat) Guardsman® (dimethenamid + atrazine) Harmony® Extra (thifensulfuron + tribenuron methyl) Harness® (acetochlor) Harness® Xtra (acetochlor + atrazine) Hornet™ (flumetsulam + clopyralid) Karmex® (diuron) Kerb® (pronamide) Laddok® S 12 (bentazon + atrazine) Landmaster® BW (glyphosate + 24 D) Lariat® (alachlor + atrazine) Lasso® (alachlor) Lexone® (metribuzin) Liberty® (glufosinate) Lightning® (imazethapyr + imazapyr) Marksman® (dicamba + atrazine) MCPA Outlook™ (dimethenamid P) Paramount® (quinclorac) Partner® (alachlor) Peak® (prosulfuron) Permit® (halosulfuron) Princep® (simazine)

11067

Prowl® (pendimethalin) Python™ (flumetsulam) Ramrod® (propachlor) Roundup Ultra® (glyphosate) Roundup Ultra® RT (glyphosate) Sencor® (metribuzin) Spint™ (primisulfuron + prosulfuron) Stinger® (clopyralid) Surpass® (acetochlor) Sutan® + (butylate) Tiller® (fenoxaprop ethyl + MCPA + 2 4 D) TopNotch™ (acetochlor) Tordon® 22K (picloram) Touchdown® (sulfosate) Tough® (pyridate) 2 4 D

## **V RESTRICTIONS AND LIMITATIONS**

- Maximum seasonal use rate Refer to **Table 4** for crop specific maximum seasonal use rates Do not exceed 64 fluid ounces of **VISION™** herbicide (2 0 pounds acid equivalent) per acre per year
- Preharvest Interval (PHI) Refer to section VI Crop Specific Information for preharvest intervals
- Restricted Entry Interval (REI) 24 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.

CROP	MINIMUM DAYS PLANTBACK INTERVAL (Days) Application < 24 fl_oz_per acre	MINIMUM DAYS PLANTBACK INTERVAL (Days) Application 24 32 fl oz per acre
Corn (field pop seed silage)	0*	120
Cotton (preplant)	21**	120
Sorghum	15***	120
Soybeans	14 *** 28 ****	120
Barley oat wheat and other grass seedings	<ul> <li>15 - per 8 fl oz / acre east of the Mississippi River</li> <li>22 - per 8 fl oz / acre west of the Mississippi River</li> <li>30 - per 16 fl oz / acre east of the Mississippi River</li> <li>45 - per 16 fl oz / acre west of the Mississippi River</li> </ul>	30 – per 16 fl oz / acre east of the Mississippi River 45 – per 16 fl oz / acre west of the Mississippi River
All other crops grown in areas with 30 or more of annual rainfall	120	120
All other crops grown in areas with 30 or less of annual rainfall	180	180

\* Up to 8 fl oz /acre on medium to coarse textured soils containing < 2 5% OM and up to 16 fl oz on fine to medium textured soils containing > 2 5% OM

\*\* Per 8 fl oz /acre or less following application and an accumulation of 1 of rainfall and/or irrigation \*\* Up to 8 fl oz /acre

- \*\* \* More than 8 fl\_oz /acre up to 16 fl\_oz /acre
- Rainfast period Rainfall or irrigation occurring within 4 hours after postemergence applications may reduce the effectiveness of VISION™
- Stress Do not apply to crops under stress due to lack of moisture hail damage flooding herbicide injury mechanical injury insects or widely fluctuating temperatures as injury may result
- Do not apply through any type of irrigation equipment. Do not treat irrigation ditches or water used for crop irrigation or domestic purposes
- Livestock may be grazed or fed after application on labeled sites For corn once the crop reaches the ensilage (milk) stage or later in maturity
- Aircraft application is allowed for all labeled sites

#### Table 4 Crop Specific Maximum Seasonal Use Rates

Crop	Maximum Rate Per Acre Per	Maximum In Crop Rate Per Acre
	Application	Per Season
Asparagus	16 fluid ounces	16 fluid ounces
Barley Fall	8 fluid ounces	12 fluid ounces
Barley, Spring	8 fluid ounces	11 fluid ounces
Corn	16 fluid ounces	24 fluid ounces
Fallow Ground	32 fluid ounces	64 fluid ounces
Grass grown for seed	32 fluid ounces	64 fluid ounces
Proso Millet	4 fluid ounces	4 fluid ounces
Pastureland	32 fluid ounces	32 fluid ounces
Conservation Reserve Program (CRP)	32 fluid ounces	64 fluid ounces
Oats	4 fluid ounces	4 fluid ounces
Sorghum	8 fluid ounces	16 fluid ounces
Soybean	32 fluid ounces	64 fluid ounces
Sugarcane	32 fluid ounces	64 fluid ounces
Turf	32 fluid ounces	32 fluid ounces
Triticale Triticale	4 fluid ounces	4 fluid ounces
Wheat	8 fluid ounces	16 fluid ounces

#### VI CROP-SPECIFIC INFORMATION

#### ASPARAGUS

Apply **VISION™** herbicide to emerged and actively growing weeds in 40 60 gallons of diluted spray per treated acre immediately after cutting the field but at least 24 hours before the next cutting If spray contacts emerged spears crooking (twisting) of some spears may result If such crooking occurs discard affected spears

**Rates** Apply 8 16 fluid ounces of **VISION™** to asparagus to control annual sowthistle black mustard Canada and Russian thistle and redroot pigweed (carelessweed) Apply 16 fluid ounces of **VISION™** to asparagus to control common chickweed field bindweed nettleleaf goosefoot and wild radish

#### ASPARAGUS TANK MIXES

Apply 8 16 fluid ounces of VISION™ with glyphosate or 2 4 D to asparagus to improve control of Canada thistle and field bindweed

## ASPARAGUS RESTRICTIONS

- Do not exceed a total of 16 fluid ounces of VISION to asparagus per treated acre per crop year
- Do not harvest prior to 24 hours after treatment
- Do not use in the Coachella Valley of California
- Do not make more than two applications per year
- VISION contains 0 475 pounds a e of dicamba per pint When tank mixing with products that contain dicamba do not exceed a combined total of 1 0 pound of a e per acre per application

#### **BETWEEN CROP APPLICATIONS**

# PREPLANT DIRECTIONS (POSTHARVEST, FALLOW CROP STUBBLE CONSERVATION RESERVE PROGRAMS, FARMLAND) FOR BROADLEAF WEED CONTROL

**VISION™** can be applied either postharvest in the fall spring or summer during the fallow period or to crop stubble/set aside acres Apply **VISION™** as a broadcast or spot treatment to emerged and actively growing weeds after crop harvest (postharvest) and before a killing frost or in the fallow cropland or crop stubble the following spring or summer

See Crop Rotational Restrictions in section V General Restrictions and Limitations for the recommended interval between application and planting to prevent crop injury

#### **Rates and Timings**

Apply 4-32 fluid ounces of **VISION™** per acre for between crop applications Refer to **Table 2** to determine use rates for specific targeted weed species. For best performance apply **VISION™** when annual weeds are less than 6 tall when biennial weeds are in the rosette stage and to perennial weed regrowth in late summer or fall following a mowing or tillage treatment. The most effective control of upright perennial broadleaf weeds such as Canada thistle and Jerusalem artichoke occurs if **VISION™** 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 rhizomes or bulblets after the effective period for VISION™ For seedling control a follow up program or other cultural practices could be instituted. For small grain in crop uses of VISION™ refer to the small grain section for details.

## BETWEEN CROP TANK MIXES

In tank mixes with one or more of the following herbicides for between crop applications apply 4 16 fluid ounces of VISION™ per acre for control of annual weeds or 16 32 fluid ounces of VISION™ per acre for control of biennial and perennial weeds

Acquire® Ally® Arekar®	Atrazıne Curtaıl®	Fallow Master® Finesse®	Gramoxone® Extra Kerb®	Paramount® Roundup® Ultra	Tordon® 22K Touchdown®
Amber®	Cyclone®	Gly Star® Plus	Landmaster® BW	Sencor®	24 D

#### BETWEEN CROP RESTRICTIONS

- VISION contains 0 475 pounds a e of dicamba per pint When tank mixing with products that contain dicamba do not exceed a combined total of 1 0 pound of a e per acre per application
- Make no more than two applications per year
- Timing Restrictions for Lactating Dairy Animals Following Treatment

VISION <sup>™</sup> Rate Per Treated Acre	Days Before Grazing	Days Before Hay Harvest
Up to 1 pint	7 days	37 days
Up to 2 pints	21 days	51 days

## CORN (FIELD POP SEED, AND SILAGE)

Direct contact of **VISION™** with corn seed must be avoided if corn seeds are less than 1.5 below the soil surface delay application until corn has emerged Applications of **VISION™** to corn during periods of rapid growth may result in temporary leaning. Corn will usually become erect within 3.7 days. Cultivation should be delayed until after corn is growing normally to avoid breakage.

Corn may be harvested or grazed for feed once the crop has reached the ensulage (milk) stage or later in maturity

#### PREPLANT AND PRE EMERGENCE APPLICATION IN NO TILLAGE CORN

**Rates** Apply 16 fluid ounces of **VISION™** per acre for no tillage corn on medium or fine textured soils containing 2 5% or greater organic matter. Use 8 fluid ounces of **VISION™** per acre for no tillage corn on coarse soils (sand loamy sand and sandy loam) or medium and fine textured soils with less than 2 5% organic matter.

**Timing VISION™** can be applied to emerged weeds before during or after planting a corn crop When planting into a legume sod (e.g. alfalfa or clover) apply **VISION™** after 4.6 of regrowth has occurred

## PRE EMERGENCE APPLICATION IN CONVENTIONAL OR REDUCED TILLAGE CORN

**Rates** Apply 16 fluid ounces of **VISION**<sup>™</sup> herbicide per treated acre for conventional or reduced tillage corn to medium or fine textured soils that contain 2 5% organic matter or more. Do not apply to coarse textured soils (sand loamy sand or sandy loam) or any soil with less than 2 5% organic matter until after corn emergence (see Early Postemergence uses below)

**Timing VISION<sup>TM</sup>** may be applied after planting and prior to corn emergence. Pre-emergence application of **VISION<sup>TM</sup>** does not require mechanical incorporation to become active. A shallow mechanical incorporation is recommended if the application is not followed by adequate rainfall or sprinkler irrigation. Avoid tillage equipment (e.g. drags harrows) that concentrate treated soil over seed furrow as seed damage could result.

Pre emergence control of cocklebur jimsonweed and velvetleaf may be reduced if conditions such as low temperature or lack of soil moisture cause delayed or deep germination of weeds

## EARLY POSTEMERGENCE APPLICATION IN ALL TILLAGE SYSTEMS

**Rates** Apply 16 fluid ounces of **VISION™** per treated acre to corn for early postemergence Reduce the rate to 8 fluid ounces of **VISION™** per treated acre for corn grown on coarse textured soils (sand loamy sand and sandy loam)

**Timing** Apply between corn emergence and the 5 leaf stage or 8 tall whichever occurs first Refer to Late Postemergence Application if the sixth true leaf is emerging from whorl or the corn is greater than 8 tall

## LATE POSTEMERGENCE APPLICATION

Rate Apply 8 fluid ounces of VISION™ per treated acre to corn for late postemergence application

**Timing** Apply **VISION™** from 8 36 tall corn or 15 days before tassel emergence whichever comes first For best performance apply when weeds are less than 3 tall

Apply directed spray when corn leaves prevent proper spray coverage sensitive crops are growing nearby or tank mixing with 2.4 D

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

- corn is more than 24 tall
- soybean are more than 10 tall
- soybean have begun to bloom

## CORN TANK MIXES OR SEQUENTIAL USES

When using tank mix or sequential applications with **VISION**<sup>TM</sup> always follow the companion product label to determine specific use rates by soil types weed species and weed or crop growth stage. In addition follow precautions and restrictions including state and local use restrictions that may apply to specific products.

Apply VISION™ prior to in tank mix with or after one more of the following herbicides

Accent® <sup>(1)</sup>	Bullet®	Frontier®	Lasso®	Stinger® <sup>(1)</sup>
Acquire™	Degree™	FulTime®	Liberty® <sup>(3)</sup>	Surpass®
Atrazine	Degree Xtra™	Gly Star Plus	Lightning® <sup>(5)</sup>	Sutan® + <sup>(2)</sup>
Axiom™	DoublePlay® <sup>(2)</sup>	Gramoxone® Extra	Outlook™	TopNotch™
Banvel® <sup>(1)</sup>	Dual Magnum™	Guardsman®	Permit® <sup>(1)</sup>	Roundup Ultra® <sup>(4)</sup>
Dicamba DMA <sup>(1)</sup>	Dual II Magnum®	Harness®	Princep®	Touchdown®
Dicamba + 2 4 D <sup>(1)</sup>	Eradicane®	Harness® Xtra	Prowl®	Tough®
Beacon® <sup>(1)</sup>	Exceed® <sup>(1)</sup>	Hornet® <sup>(1)</sup>	Python™	$2 4 D^{(1)}$
Bicep®	Field Master®	Laddock® S 12	Spirit <sup>™(1)</sup>	

NOTE

<sup>(1)</sup> See **Table 5** below for additional limitations or restrictions that apply for tank mix or sequential use programs with these products

(2) Sequential use only

<sup>(3)</sup> Use only Clearfield (imidazolinone tolerant) corn hybrids

<sup>(4)</sup> Includes postemergence use on Roundup Ready (glyphosate tolerant) corn hybrids

<sup>(5)</sup> Use only on Liberty Link (glufosinate tolerant) corn hybrids

## Table 5 Specific Guidelines for Tank Mixes or Sequential Use Programs

Tank Mix Partner	Rate Per Acre
Accent or Beacon	When tank mixing applications immediately following extreme day or night temperature fluctuations or applications when daytime temperatures do not exceed 50 F may result in decreased weed control or crop injury Delay application until the temperatures warm and both weeds and crop resume normal growth
2 4 D	To provide maximum crop safety after corn emergence use this tank mix only after corn is greater than 8 tall and when application can be made with drop pipes that direct spray beneath corn leaves and away from the whorl of the corn The maximum rate of 2.4 D recommended in this tank mix is 0.25 pints

	per acre (0 125 pounds of acıd equivalent per acre)
Exceed	For improved control of velvetleaf tank mix Exceed Spirit or Permit with
Spirit	VISION™ For improved control of Canada thistle Stinger or Hornet may be
Stinger	tank mixed with VISION™ Use the higher rate in the range for heavier
Hornet or	infestations of these weeds
Permit	

#### CORN PRECAUTIONS

- Do not apply VISION to seed corn or popcorn without first verifying with your local seed corn company (supplier) the tolerance of your inbred line or variety of popcorn to VISION. This precaution will help avoid potential injury of sensitive varieties.
- Do not use crop oil concentrates in a tank mix with VISION after crop emergence as crop injury may result
- Use of sprayable fluid fertilizer as the carrier is not recommended for applications of VISION made after corn emergence

## CORN RESTRICTIONS

- Up to 2 applications of VISION may be made during a growing season
- Sequential applications must be separated by 2 weeks or more
- VISION is not registered for use on sweet corn
- VISION contains 0 475 pounds a e of dicamba per pint. When tank mixing with products that contain dicamba do not exceed a combined total of 1 0 pound of a e per acre per application.
- Timing Restrictions for Lactating Dairy Animals Following Treatment

VISION™ Rate Per Treated Acre	Days Before Grazing	Days Before Hay Harvest
Up to 1 pint	7 days	37 days
Up to 2 pints	21 days	51 days
Up to 4 pints	40 days	70 days

## COTTON

#### PREPLANT APPLICATION

Apply up to 8 fluid ounces of **VISION™** herbicide per acre to cotton to control emerged broadleaf weeds prior to planting cotton in conventional or conservation tillage systems

For best performance apply VISION™ when weeds are in the 2.4 leaf stage and rosettes are less than 2 across

#### **COTTON TANK MIXES**

For control of grasses or additional broadleaf weeds **VISION™** may be tank mixed with Caparol<sup>®</sup> Gramoxone<sup>®</sup> Extra and glyphosate herbicides

#### COTTON RESTRICTIONS

- Following application of VISION™ to cotton and a minimum accumulation of 1 of rainfall or overhead irrigation a waiting interval of 21 days is required per 8 fluid ounces per acre or less. These intervals must be observed prior to planting cotton.
- Do not apply preplant to cotton west of the Rockies
- Do not make VISION™ preplant applications to cotton in geographic areas with average annual rainfall less than 25
- If applying a spring preplant treatment following application of a fall preplant (postharvest) treatment then the combination of both treatments may not exceed 2 pounds acid equivalent per acre
- VISION contains 0 475 pounds a e of dicamba per pint When tank mixing with products that contain dicamba do not exceed a combined total of 1 0 pound of a e per acre per application

lloof

## **GRASS GROWN FOR SEED**

Apply 8 16 fluid ounces of **VISION™** per treated acre on seedling grass after the crop reaches the 3 5 leaf stage Apply up to 32 fluid ounces of **VISION™** on well established perennial grass For best performance apply **VISION™** when weeds are in the 2 4 leaf stage and rosettes are less than 2 across. Use the higher level of listed rate ranges when treating more mature weeds or dense vegetative growth

To suppress annual grasses such as brome (downy and ripgut) rattail fescue and windgrass apply up to 32 fluid ounces of **VISION™** per treated acre in the fall or late summer after harvest and burning of established grass seed crops. Applications should be made immediately following the first irrigation when the soil is moist and before weeds have more than 2 leaves.

## **GRASS SEED TANK MIXES**

VISION™ may be applied in tank mixes with one or more of the following herbicidesBrox 2EExpress®Curtail®Karmex®Karmex®Sencor®

Stinger® 2 4 D amine or ester 17092

#### GRASS GROWN FOR SEED RESTRICTIONS

- Do not apply VISION after the grass seed crop begins to joint
- VISION contains 0 475 pounds a e of dicamba per pint When tank mixing with products that contain dicamba do not exceed a combined total of 1 0 pound of a e per acre per application
- Do not make more than 2 applications per year
- Refer to the Pasture Hay Rangeland and General Farmstead section for grazing and feeding restrictions

## **PROSO MILLET**

For use only within Colorado Nebraska North Dakota South Dakota and Wyoming

VISION™ combined with 2 4 D will provide control or suppression of the annual broadleaf weeds listed in Table 1

Apply 4 ounces of **VISION**<sup>m</sup> with 0 375 pounds a i of 2 4 D Apply the tank mix of **VISION**<sup>m</sup> + 2 4 D as a broadcast or spot treatment to emerged and actively growing weeds and when proso millet is in the 2 5 leaf stage. Use directions for 2 4 D products vary with manufacturers. Refer to a 2 4 D product with labeling consistent with the crop stage timing for **VISION**<sup>m</sup> Some types of proso millet may be affected adversely by a tank mix of **VISION**<sup>m</sup> + 2 4 D.

Do not apply unless possible proso millet crop injury will be acceptable

#### PROSO MILLET RESTRICTIONS

- VISION contains 0 475 pounds a e of dicamba per pint When tank mixing with products that contain dicamba do not exceed a combined total of 1 0 pound of a e per acre per application
- Do not make more than 2 applications per year Restrictions for proso millet that is grazed or cut for hay are indicated in GRASS PASTURE HAY AND RANGELAND AND GENERAL FARMSTEAD section of this label

## PASTURE HAY AND RANGELAND AND GENERAL FARMSTEAD (NONCROPLAND)

VISION<sup>™</sup> is recommended for use on pasture hay rangeland and general farmstead (non cropland) (including fencerows and non irrigation ditchbanks) for control or suppression of broadleaf weed and brush species listed in Table 1

VISION<sup>™</sup> may also be applied to non cropland areas to control broadleaf weeds in noxious weed control programs districts or areas including broadcast or spot treatment of roadsides and highways utilities railroad and pipeline rights of way Noxious weeds must be recognized at the state level but programs may be administered at state county or other level VISION<sup>™</sup> uses described in this section also pertain to small grains (forage sorghum rye sudangrass or wheat) grown for pasture use only Some perennial weeds may be controlled with lower rates of either VISION<sup>™</sup> or VISION<sup>™</sup> plus 2.4 D (refer to Table 2)

#### **Rates and Timings**

Refer to Table 2 for rate selection based on targeted weed or brush species Some weeds will require tank mixes for adequate control

VISION™ herbicide can be applied using water oil in water emulsions including invert systems or sprayable fluid fertilizer as a carrier (refer to the "Compatibility Test for Mix Components")

#### COMPATIBILITY TEST FOR MIX COMPONENTS

To prepare oil in water emulsions half fill spray tank with water then add the appropriate amount of emulsifier With continuous agitation slowly add the herbicide and then the oil (such as diesel oil or fuel oil) or a premix of oil plus additional emulsifier to spray tank Complete filling of spray tank with water

Maintain vigorous agitation during spray operation to prevent oil and water from forming separate lavers VISION™ may be applied broadcast using either ground or aerial application equipment

#### **Aerial Application**

Spray Volume Use 2 40 gallons of diluted spray per treated acre in a water based carrier

#### Ground Application

Spray Volume Use 3-600 gallons of diluted spray per treated acre The volume of spray applied will depend on the height density and type of weeds or brush being treated and on the type of equipment being used Spot Treatments VISION™ 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

#### Cut Surface Treatments

VISION™ may be applied as a cut surface treatment for control of unwanted trees and prevention of sprouts of cut trees

Rate Mix 1 part VISION™ with 1 3 parts water to create the application solution. Use the lower dilution rate when treating difficult to control species

For 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 the solution

For Stump Treatments Spray or paint freshly cut surface with the water mix The area adjacent to the bark should be thoroughly wet

Note For more rapid foliar effects a 2 4-D product labeled for cut surface treatment may be added to the solution

## APPLICATIONS FOR CONTROL OF DORMANT MULTIFLORA ROSE

VISION™ can be applied when plants are dormant as an undiluted spot treatment directly to the soil or as a Lo Oil basal bark treatment using an oil water emulsion solution

Spot treatments Spot treatment applications of VISION™ should be applied directly to the soil as close as possible to the • root crown but within 6 8 of the crown On sloping terrain apply VISION™ to the uphill side of the crown Do not apply when snow or water prevents applying VISION™ directly to the soil. The use rate of VISION™ depends on the canopy diameter of the multiflora rose

Examples Use 0 25 1 0 or 2 35 fluid ounces of VISION™ respectively for 5 10 or 15 feet canopy diameters

Lo Oil basal bark treatments For Lo Oil basal bark treatments apply VISION™ to the basal stem region from the ground line to a height of 12 18 Spray until runoff with special emphasis on covering the root crown For best results apply VISION<sup>™</sup> when plants are dormant. Do not apply after bud break or when plants are showing signs of active growth. Do not apply when snow or water prevents applying VISION™ to the around line

To prepare approximately 2 gallons of a Lo Oil spray solution

- Combine 1 5 gallons of water 1 ounce of emulsifier 16 fluid ounces of VISION™ and 2 5 pints of No 2 diesel fuel
- Adjust the amounts of materials used proportionately to the amount of final spray solution desired 2

Do not exceed 8 gallons of spray solution mix applied per acre per year

## GRASS PASTURE TANK MIXES

**VISION™** may be applied in tank mixes with one or more of the following herbicides

2 4 D Acquire® Ally® Amber® Crossbow® Curtail® Garlon® Gramoxone® Extra Gly Star Plus® Stinger® Tordon 22K®

#### PASTURE HAY RANGELAND AND GENERAL FARMSTEAD (NONCROPLAND) RESTRICTIONS

- Do not apply more than 16 fluid ounces of VISION per acre to small grains grown for pasture
- Newly seeded areas may be severely injured if more than 16 fluid ounces of VISION is applied per acre to small grains grown for pasture
- Established grass crops growing under stress can exhibit various injury symptoms that may be more pronounced if herbicides are applied Bentgrass carpetgrass buffalograss and St Augustinegrass may be injured if more than 16 fluid ounces of VISION is applied per acre Usually colonial bentgrasses are more tolerant than creeping types Velvetgrasses have the least tolerance Treatments will kill or injure alfalfa clovers lespedeza wild winter peas vetch and other legumes Do not make more than 2 applications per year
- Do not harvest hay within 7 days of last application
- VISION contains 0 475 pounds a e of dicamba per pint. When tank mixing with products that contain dicamba do not exceed a combined total of 1 0 pound of a e per acre per application
- There are no grazing restrictions for animals other than lactating dairy animals
- Timing Restrictions for Lactating Dairy Animals Following Treatment

VISION Rate Per Treated Acre	Days Before Grazing	Days Before Hay Harvest
Up to 1 pint	7 days	37 days
Up to 2 pints	21 days	51 days

## **CONSERVATION RESERVE PROGRAM (CRP)**

**VISION™** is recommended for use on both newly seeded and established grasses grown on land in Conservation Reserve Programs Treatments of **VISION™** will injure or may kill alfalfa clovers lespedeza wild winter peas vetch and other legumes

## NEWLY SEEDED AREAS

VISION<sup>™</sup> may be applied either preplant or postemergence to newly seeded grasses or small grains such as barley oats rye sudangrass wheat or other grain species grown as a cover crop Postemergence applications may be made after seedling grasses exceed the 3 leaf stage Rates of VISION<sup>™</sup> greater than 16 fluid ounces per treated acre to CRP may severely injure newly seeded grasses

Preplant applications may injure new seedings if the interval between application and grass planting is less than 45 days per 16 fluid ounces of **VISION™** applied per treated acre west of the Mississippi River or 20 days per 16 fluid ounces applied east of the Mississippi River

#### ESTABLISHED GRASS STANDS

Established grass stands are perennial grasses planted one or more seasons prior to treatment. Certain species (bentgrass carpetgrass smooth brome buffalograss or St Augustinegrass) may be injured when treated with more than 16 fluid ounces of **VISION™** per treated acre

When applied at recommended rates VISION<sup>TM</sup> herbicide will control many annual and biennial weeds and provide control or suppression of many perennial weeds

#### **Rates and Timings**

Apply 4 32 fluid ounces of **VISION™** to established grass stands per acre See list of weeds in **Table 2** for rates for control and suppression based on target weed species

#### CONSERVATION RESERVE PROGRAM TANK MIXES

VISION<sup>™</sup> may be tank mixed or applied sequentially with other products labeled for use in Conservation Reserve Programs such as atrazine Cyclone<sup>®</sup> glyphosate Gramoxone<sup>®</sup> Extra Touchdown<sup>®</sup> or generic 2.4 D labeled for Conservation Reserve Program use

#### CONSERVATION RESERVE PROGRAM (CRP) RESTRICTIONS

Retreatments may be made as needed however do not exceed a total of 64 fluid ounces (4 pints) of **VISION™** per acre to established grass stands under CRP Do not make more than 2 applications per year. When tank mixing with products that contain dicamba do not exceed a combined total of 1 0 lb a e /acre/application

## FALL AND SPRING SEEDED BARLEY, OATS TRITICALE AND WHEAT

VISION<sup>™</sup> combinations with listed tank mix partners will provide control or suppression of the annual broadleaf weeds listed in Table 1 For improved control of listed weeds tank mix VISION<sup>™</sup> with one or more of the herbicides listed

VISION™ used in a tank mix with other herbicides offers the best spectrum of weed control and herbicide tolerant weed management Refer to the specific section crop for VISION™ application rate and timing

For applications prior to weed emergence or when sulfonylurea resistant weeds are present or suspected tank mix a minimum of 3 fluid ounces of **VISION™** per treated acre with a non sulfonylurea herbicide such as 2 4 D or MCPA Tank mixing **VISION™** with these products will offer more consistent control of sulfonylurea tolerant weeds

Additives When tank mixing VISION™ with sulfonylurea herbicides (Ally<sup>®</sup> Amber<sup>®</sup> Canvas<sup>®</sup> Express<sup>®</sup> Finesse<sup>®</sup> Glean<sup>®</sup> Harmony<sup>®</sup> Extra and Peak<sup>®</sup>) use 1-4 pints of an agriculturally approved surfactant (containing at least 80% active ingredient) per 100 gallons of spray or not more than 0 25 0 5% by volume. Use the highest rate of surfactant when using the lower rate ranges of the tank mix or when treating more mature and difficult to control weeds or dense vegetative growth.

Refer to the specific crop sections below for use rates When treating difficult to control weeds such as kochia wild buckwheat cow cockle prostrate knotweed Russian thistle and prickly lettuce or when dense vegetative growth occurs use the 4 fluid ounces of **VISION**<sup>™</sup> per acre on barley oats triticale and wheat

#### Timings

Apply **VISION**<sup>TM</sup> before during or after planting barley oats triticale and wheat See specific barley oats triticale and wheat crop uses below for maximum crop stage. For best performance apply **VISION**<sup>TM</sup> when weeds are in the 2.3 leaf stage and rosettes are less than 2 across Applying **VISION**<sup>TM</sup> to barley oats triticale and wheat during periods of rapid growth may result in crop leaning. This condition is temporary and will not reduce crop yields. Applications to barley oats triticale and wheat may be made with aerial applications with 1 gallon of water or more per acre. Where dense foliage is present 2.3 gallons of water per acre should be used.

## BARLEY (Fall- and Spring- Seeded)

## EARLY SEASON APPLICATIONS

Apply 2 4 fluid ounces of VISION™ to fall seeded barley prior to the jointing stage Apply 2 3 fluid ounces of VISION™ before spring seeded barley exceeds the 4 leaf stage

**Note** For spring barley varieties that are seeded during the winter months or later follow the rates and timings given for spring seeded barley

Do not tank mix VISION™ with 2 4 D in early season applications on spring seeded barley

#### **PREHARVEST APPLICATIONS**

VISION<sup>™</sup> can be used to control weeds that may interfere with harvest of fall and spring seeded barley. Apply 8 fluid ounces of VISION<sup>™</sup> per acre as a broadcast or spot treatment to annual broadleaf weeds when barley 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 7 days is required before harvest. Do not use preharvest treated barley 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 **VISION**<sup>m</sup> may be tank mixed with other herbicides such as 2.4 D that are labeled for preharvest uses in barley

Do not make preharvest applications in California

## Table 7 Barley Tank Mixes

Tank Mıx Partner
Ally®
Amber®
Bronate®
Buctril®
Canvas <sup>®</sup>
Express
Finesse®
Glean
Harmony <sup>®</sup> Extra
MCPA amine or ester
Metribuzin (Sencor <sup>®</sup> Lexone <sup>®</sup> ) <sup>(1)</sup>
2 4 D amine or ester <sup>(2 3)</sup>

- <sup>(1)</sup> Do not use low rates of sulfonylureas (Ally Amber Canvas Express Finesse Glean and Harmony Extra) on more mature weeds or on dense vegetative growth
- <sup>(2)</sup> When using formulations other than 4 pounds per gallon use pounds of a e per acre listed
- <sup>(3)</sup> This tank mix is for fall seeded barley only

## OATS (Fall and Spring Seeded)

## EARLY SEASON APPLICATIONS

Apply 4 fluid ounces of **VISION™** herbicide per acre to fall seeded oat prior to the jointing stage Apply 4 fluid ounces of **VISION™** before spring seeded oats exceed the 5 leaf stage

VISION™ may be tank mixed with MCPA amine or ester for applications in oat

Do not tank mix VISION™ with 2 4 D in oat

Do not harvest oats within 7 days of last application

## TRITICALE (Fall and Spring- Seeded)

#### EARLY SEASON APPLICATIONS

Apply 4 fluid ounces of VISION™ to triticale

Early season applications to fall seeded triticale must be made prior to the jointing stage

Early season applications to spring seeded triticale must be made before triticale reaches the 6 leaf stage

**Triticale Tank Mixes** For best performance should be used in tank mix combination with bromoxynil (Buctril® Moxy® 2E) herbicide

## WHEAT (Fall and Spring- Seeded)

#### EARLY SEASON APPLICATIONS

Apply 4 fluid ounces of VISION™ to wheat unless using one of the fall seeded wheat specific programs below

Early season applications to fall seeded wheat must be made prior to the jointing stage

Early season applications to spring seeded wheat must be made before wheat reaches the 6 leaf stage Early developing wheat varieties such as TAM 107 Madison or Wakefield must receive application between early tillering and the jointing stage Care should be taken in staging these varieties to be certain that the application occurs prior to the jointing stage

210f2

To improve control of Russian thistle flixweed gromwell or mayweed add 2.4 D amine or ester to a tank mix with one of the following herbicides Ally® Amber® Canvas® Express® Finesse® Glean® Harmony® Extra or Peak®

## SPECIFIC USE PROGRAMS FOR FALL SEEDED WHEAT ONLY

VISION<sup>™</sup> may be used at 6 fluid ounces on fall seeded wheat in Western Oregon as a spring application only In Colorado Kansas New Mexico Oklahoma and Texas up to 8 fluid ounces of VISION<sup>™</sup> may be applied on fall seeded wheat after it exceeds the 3 leaf stage for suppression of perennial weeds such as field bindweed Applications may be made in the fall following a frost but before a killing freeze VISION<sup>™</sup> may be tank mixed with 2 4 D amine at 8 fluid ounces after wheat begins to tiller 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

VISION<sup>™</sup> can be used to control weeds that may interfere with harvest of wheat Apply 8 fluid ounces VISION<sup>™</sup> 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 7 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 **VISION**<sup>m</sup> may be tank mixed with other herbicides such as Ally Roundup<sup>®</sup> Ultra and 2.4 D

Do not make preharvest applications in California

#### **Table 8 Wheat Tank Mixes**

Tank Mix Partner
Ally®(1)
Amber <sup>®(1)</sup>
Bronate®
Buctril®
Canvas <sup>®(1)</sup>
Curtail®
Dakota <sup>(2)</sup>
Express® <sup>(1)</sup>
Finesse <sup>®(1)</sup>
Glean <sup>®(1)</sup>
Harmony Extra <sup>®(1)</sup>
Karmex <sup>(3)</sup>
Glyphosate (Roundup Ultra <sup>®</sup> RT <sup>(4)</sup>
MCPA amine or ester <sup>(5)</sup>
Metribuzin <sup>3</sup> (Sencor <sup>®</sup> Lexone <sup>®</sup> )
Peak <sup>®(1)</sup>
Stinger
Tiller <sup>(2)</sup>
2 4 D amine or ester <sup>(5)</sup>

- <sup>(1)</sup> Do not use low rates of sulfonylurea herbicides such as Ally Amber Canvas Express Finesse Glean Harmony Extra and Peak on more mature weeds or on dense vegetative growth
- (2) Do not use VISION™ as a tank mix treatment with Dakota or Tiller on Durum wheat Do not tank mix with Tiller if wild oat is the target weed
- <sup>(3)</sup> Tank mixes with Karmex and metribuzin are for use in fall seeded wheat only
- (4) A tank mix of up to 4 fluid ounces of VISION™ with Roundup Ultra RT or any glyphosate formulation labeled for use as a preplant application to wheat may be applied with no waiting period prior to planting
- <sup>(5)</sup> Up to 32 fluid ounces of (1 0 pound a e) may be used on fall seeded wheat if crop injury is acceptable When using formulations other than 4 pounds per gallon use the pounds of a e per acre listed

## BARLEY OATS TRITICALE AND WHEAT RESTRICTIONS

- VISION contains 0 475 pounds a e of dicamba per pint When tank mixing with products that contain dicamba, do not exceed a combined total of 1 0 pound of a e per acre per application
- Timing Restrictions for Lactating Dairy Animals Following Treatment

VISION™ Rate Per Treated Acre	Days Before Grazing	Days Before Hay Harvest
Up to 1 pint	7 days	37 days
Up to 2 pints	21 days	51 days

## SORGHUM

VISION™ herbicide may be applied preplant postemergence or preharvest in sorghum to control many annual broadleaf weeds and to reduce competition from established perennial broadleaf weeds as well as control their seedlings

Do not graze or feed treated sorghum forage or silage prior to mature grain stage If sorghum is grown for pasture or hay refer to **Pasture Hay Rangeland and General Farmstead** section of this label for specific grazing and feeding restrictions

Do not apply VISION™ to sorghum grown for seed production

#### PREPLANT APPLICATION

Up to 8 fluid ounces of VISION™ may be applied per acre if applied at least 15 days before sorghum planting

## POSTEMERGENCE APPLICATION

Up to 8 fluid ounces of VISION<sup>™</sup> per acre may be applied after sorghum is in the spike stage (all sorghum emerged) but before sorghum is 15 tall. For best performance apply VISION<sup>™</sup> when the sorghum crop is in the 3 5 leaf stage and weeds are small (less than 3 tall). Use drop pipes (drop nozzles) if sorghum is taller than 8. Keep the spray off the sorghum leaves and out of the whorl to reduce the likelihood of crop injury and to improve spray coverage of weed foliage. Applying VISION<sup>™</sup> to sorghum during periods of rapid growth may result in temporary leaning of plants or rolling of leaves. These effects are usually outgrown within 10 14 days.

**Preharvest uses in Texas and Oklahoma only** Up to 8 fluid ounces of **VISION™** per acre may be applied for weed suppression any time after the sorghum has reached the soft dough stage. An agriculturally approved surfactant may be used to improve performance. For aerial applications use at least 2 gallons of water based carrier per treated acre. Delay harvest until 30 days after a preharvest treatment.

## SPLIT APPLICATION

VISION<sup>™</sup> may be applied in split applications preplant followed by postemergence or preharvest or postemergence followed by preharvest

## SORGHUM TANK MIXES AND SEQUENTIAL TREATMENTS

VISION™ may be	applied prior to in a	tank mix with or after	one or more of th	e following herbicides
Acquire™	Cyclone®	Frontier®	Landmaster®	Peak®
Atrazine	Dual Magnum®	Gramoxone® Extra	Lasso®	<i>Permit</i> ®
Basagran®	Dual II Magnum®	Guardsman®	Outlook™	Ramrod®
Bicep II Magnum®	Fallow Master™	Laddok® S 12	Paramount®	GlyStar Plus
Buctril®				-

#### SORGHUM RESTRICTIONS

- Do not exceed 8 fluid ounces per acre per application or a total of 16 ounces per acre per season on sorghum
- Do not make more than 2 applications per year
- VISION contains 0 475 pounds a e of dicamba per pint. When tank mixing with products that contain dicamba do not exceed a combined total of 1 0 pound of a e per acre per application.
- Observe the following Pre Harvest Intervals (PHI)
  - Sorghum Grain 30 days
  - Sorghum Fodder 30 days
  - Sorghum Forage 20 days
- Timing Restrictions for Lactating Dairy Animals Following Treatment

VISION <sup>™</sup> Rate Per Treated Acre	Days Before Grazing	Days Before Hay Harvest
Less than 1 pint	7 days	37 days

## SOYBEAN

## PREPLANT APPLICATIONS

Apply 4 16 fluid ounces of **VISION™** per acre to soybeans to control emerged broadleaf weeds prior to planting Use the higher rates to control perennial or large annual broadleaf weeds. Do not exceed 16 fluid ounces of **VISION™** per acre in a spring application prior to planting soybeans. Following application of **VISION™** to soybeans and a minimum accumulation of 1 rainfall or overhead irrigation a waiting interval of 14 days is required for 8 fluid ounces per acre or less and 28 days for 16 fluid ounces per acre. These intervals must be observed prior to planting soybeans or crop injury may occur. Do not make **VISION™** preplant applications to soybeans in geographic areas with average annual rainfall less than 25

#### PREHARVEST APPLICATIONS

VISION<sup>™</sup> can be used to control many annual and perennial broadleaf weeds and control or suppress many biennial and perennial broadleaf weeds in soybean prior to harvest (refer to **Table 1**) Apply 8 64 fluid ounces of **VISION**<sup>™</sup> to soybeans per acre as a broadcast or spot treatment to emerged and actively growing weeds after soybean pods have reached mature brown color and at least 75% leaf drop has occurred. Soybeans may be harvested 14 days or more after a preharvest application. Use the higher rates to control perennial broadleaf weeds or large annual broadleaf weeds.

Treatments may not kill weeds that develop from seed or underground plant parts such as rhizomes or bulblets after the effective period for **VISION™** For seedling control a follow up program or other cultural practice could be instituted

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

#### PREPLANT TANK MIXES

#### SOYBEAN TANK MIXES

VISION™ may be tank mixed with other herbicides registered for early preplant use in soybeans including burndown herbicides such as glyphosate (Acquire Roundup Ultra) and 2.4 D or residual herbicides such as Outlook Frontier or Dual Magnum

#### PREHARVEST TANK MIXES

VISION™ may be tank mixed with other herbicides registered for preharvest use in soybeans such as Gramoxone® Extra

SOYBEAN RESTRICTIONS

- Do not feed soybean fodder or hay following a preharvest application of VISION
- Do not make preharvest applications in California
- Do not harvest seed within 7 days of last application
- VISION contains 0 475 pounds a e of dicamba per pint When tank mixing with products that contain dicamba do not exceed a combined total of 1 0 pound of a e per acre per application

#### SUGARCANE

Apply VISION™ herbicide for control of annual biennial or perennial broadleaf weeds listed in Table 1 Apply 8 24 fluid ounces of VISION™ to sugarcane per acre for control of annual weeds 16 32 fluid ounces/acre for control of biennial weeds and 32 fluid ounces/acre for control or suppression of perennial weeds

Use the higher level of listed rate ranges when treating dense vegetative growth

**Timing VISION™** may be applied to sugarcane any time after weeds have emerged but before the close in stage of sugarcane Applications of 32 fluid ounces to sugarcane of **VISION™** per acre made over the top of actively growing sugarcane may result in crop injury When possible direct the spray beneath the sugarcane canopy to minimize the

likelihood of crop injury Using directed sprays will also help maximize the spray coverage of weed foliage

#### SUGARCANE TANK MIXES

**VISION**<sup>m</sup> may be tank mixed with other products registered for use in sugarcane such as Asulox<sup>®</sup> atrazine Evik<sup>®</sup> and 2.4 D

### SUGARCANE RESTRICTIONS

- Do not make more than 2 applications per year
- VISION contains 0 475 pounds a e of dicamba per pint When tank mixing with products that contain dicamba do not exceed a combined total of 1 0 pound of a e per acre per application
- Do not harvest within 87 days of last application
- Timing Restrictions for Lactating Dairy Animals Following Treatment

VISION™ Rate Per Treated Acre	Days Before Grazing	Days Before Hay Harvest
Up to 1 pint	7 days	37 days
Up to 2 pints	21 days	51 days

## TURF AND LAWNS

For use by commercial applicators on residential recreational or institutional turf and lawns for use in sod farms apply 8 24 fluid ounces to turf of **VISION™** per acre for control of annual weeds 16 32 fluid ounces for control of biennial weeds and 32 fluid ounces for suppression of perennial weeds

VISION<sup>™</sup> will also suppress many other listed perennial broadleaf weeds and woody brush and vine species Refer to **Table 2** for rate recommendations based on targeted weed or brush species and growth stage Some weed species will require tank mixes for adequate control

Apply 30 200 gallons of diluted spray per treated acre (3 17 quarts of water per 1 000 square feet) depending on density or height of weeds treated and on the type of equipment used

To avoid injury to newly seeded grasses delay application of **VISION™** until after the second mowing Furthermore applying more than 16 fluid ounces of **VISION™** per treated acre to turf may cause noticeable stunting or discoloration of sensitive grass species such as bentgrass carpetgrass buffalograss and St Augustinegrass

In areas where roots of sensitive plants extend do not apply more than 4 fluid ounces of VISION™ per treated acre to turf on coarse textured (sandy type) soils or in excess of 8 fluid ounces per treated acre on fine textured soils. Do not make repeat applications in these areas for 30 days and until previous applications of VISION™ have been activated in the soil by rain or irrigation

#### TURF AND LAWN TANK MIXES

Apply 3 2 8 fluid ounces of **VISION™** per acre to turf in a tank mix with one of the products in Table 9 at the rates listed Use the higher rates when treating established weeds

## Table 9

Tank Mix Partner	
Brox 2E	
MCPA	
MCPP	
24D	

#### TURF and LAWN RESTRICTIONS

- Do not make more than 2 applications per year
- VISION contains 0 475 pounds a e of dicamba per pint When tank mixing with products that contain dicamba do not exceed a combined total of 1 0 pound of a e per acre per application

## SITES OF USE ON THIS LABEL

This product may be used on the following sites

Asparagus Conservation Reserve Program (CRP) land Corn (field pop seed and silage) (not for use on sweet corn) Cotton (preplant only) Fallow Cropland Proso Millet Pastures Rangeland General Farmstead Barley Oats Triticale and Wheat Sorghum Soybean Sugarcane Turf

Look inside for complete Restrictions and Limitations and Application Instructions

### 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 must 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 use of the product in a manner inconsistent with its labeling all of which are beyond the control of Helena Chemical Company or the Seller. To the extent allowed by applicable law all such risks shall be assumed by the Buyer.

Helena Chemical Company 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 TO THE EXTENT ALLOWED BY APPLICABLE LAW HELENA CHEMICAL COMPANY MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY TO THE EXTENT ALLOWED BY APPLICABLE LAW, IN NO CASE SHALL HELENA CHEMICAL COMPANY OR THE SELLER BE LIABLE FOR CONSEQUENTIAL SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT Helena Chemical Company and the Seller offer this product and the Buyer and User accept 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 Helena Chemical Company

If these conditions are not acceptable return unopened package to point of purchase for a refund

BASF Corporation registered trademarks are Banvel Banvel SGF Clarity Fallow Master Frontier Guardsman Marksman Paramount Acquire and Outlook

BASF AG trademarks are Basagran and Laddok

E I du Pont de Nemours & Company registered trademarks are Accent Ally Asana Canvas Express Finesse Glean Harmony Karmex and Lexone

Syngenta Corp<sup>-</sup> registered trademarks are Amber Beacon Bicep 11 Magnum Caparol Dual II Magnum Evik Exceed Peak Princep and Tough

Novartis AG trademark is Dual Magnum

Novartis Corp trademark is Spirit

Rhone Poulenc Agriculture Ltd registered trademark is Bronate

Bayer AG registered trademark is Sencor

Dow AgroSciences LLC registered trademarks are Crossbow Curtail FirstRate Garton Lorsban Stinger and Tordon

AgroSciences LLC trademark is Hornet

Monsanto Co registered trademarks are Bronco Bullet Harness Landmaster Lariat Lasso Partner Ramrod Roundup Ultra and Roundup Ready

Monsanto Co trademarks are Degree Degree Xtra and Field Master

Zeneca Inc registered trademarks are Ambush Cyclone DoublePlay Eradicane Gramoxone Surpass Touchdown Sutan and Warrior

26092

Zeneca Inc trademarks are FulTime Topnotch and Touchdown AgrEvo USA Company registered trademark is Dakota Schering AgrEvo GmbH Registered trademarks are Liberty Liberty Link and Tiller Rohm and Hass registered trademark is Kerb Nissan Chemical registered trademark is Permit American Cyanamid Co registered trademarks are Clearfield Lightning and Prowl Valent USA Corp registered trademark is Select FMC Corp registered trademarks are Furadan and Pounce Bayer Corporation registered trademark is Axiom Riverside trademark is Moxy Spraying Systems Inc registered trademarks are Turbo Teejet and Turbo Floodjet Garlock International Inc registered trademark is Delavan