

U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505C) 401 "M" St., S.W. Washington, D.C. 20460

EPA Req. Number: 53883-

Date of Issuance:

114

MAR 2 0 2003

NOTICE OF PESTICIDE:

<u>x</u> Registration Reregistration (under FIFRA, as amended) Term of Issuance: Conditional

Name of Pesticide Product: DGA 4 Herbicide

Name and Address of Registrant (include ZIP Code):

Control Solutions, Inc. 5903 Genoa-Red Bluff Pasadena, TX 77507-1041

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

- 1. Submit and/or cite all data required for registration/ reregistration of your product when the Agency requires all registrants of similar products to submit data.
- Make the following label changes listed below before you release the product for shipment:
  - Add the phrase, "EPA Reg. No. 53883-114".

Signature of Approving Official:

Date:

MAR 20 2008

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- b. The front panel statement states "See inside booklet for statements....". precautionary 156.10(a)(2)(i) states that all words, statements, graphic representations, designs or other information required on the labeling by the Act or the regulations must be clearly legible to a person with normal vision and must be placed with such conspicuousness and expressed in such terms to render it likely to be read and understood by ordinary individual under customary conditions of purchase and use. 156.10(i)(1)(ii) states that only the directions for use may appear on printed or graphic matter which accompanies the pesticide. When preparing final printed labeling assure that the first aid and precautionary statements and other required text appear on the container label or otherwise can be read during purchase or formally submit a request for a size exemption from the regulations.
- c. At the beginning of the list of Personal Protective Equipment (PPE) within the Precautionary Statements, add the statements "Some of the materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart." In addition, revise the requirement for "waterproof gloves" to a requirement for "chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride."
- d. Within the list of PPE for early re-entry in the Agricultural Use Requirements box, revise the requirement for "waterproof gloves" to a requirement for "chemical-resistant gloves made of any waterproof material."
- e. In the Environmental Hazards Section delete "Keep out of lakes, streams and ponds" and "For terrestrial uses,". Refer to PR Notice 93-8. This statement is only appropriate for pesticides which bear directions for direct application to aquatic sites.
- f. On page 18 for the Bronate Tank Mix correct the typographical error to read 1.5 pints.
- 3. Submit one (1) copy of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

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If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

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

Enclosure

# DGA 4 Herbicide

For weed control in asparagus, conservation reserve programs, corn, cotton, fallow croplands, general farmstead (noncropland), sorghum, grass grown for seed, hay, proso millet, pasture, rangeland, small grains, soybean, sugarcane, and turf.

.8%
<u>.2%</u>
.0%

contains 38.5% 3,6-dichloro-<u>o</u>-anisic acid (4 pounds acid equivalent per gallon or 4**% (CERE DEL** with COMMENTS

# KEEP OUT OF REACH OF CHILDREN CAUTION

(See inside booklet for complete Precautionary Statements and Direction

Under the Federal Insecticide,

**Net Contents:** 

all a poison control center or doctor immediately for treatment advice.  ave person sip a glass of water if able to swallow.  not induce vomiting unless told to do so by a poison control center or octor.  not give anything to an unconscious person.  ake off contaminated clothing.  nse skin immediately with plenty of water for 15-20 minutes.
ake off contaminated clothing.
all a poison control center or doctor for treatment advice.
old eye open and rinse slowly and gently with water for 15-20 minutes. emove contact lenses, if present, after first 5 minutes, then continue asing eye.
2

# **Precautionary Statements**

#### Hazards to Humans and Domestic Animals

CAUTION: Causes moderate eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing.

Personal Protective Equipment (PPE) Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves

liter).

Shoes plus seeks

Follow the manufacturer's instructions cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

# **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.

#### **User Safety Recommendations**

#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing 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

Keep out of lakes, streams, or pends. For terrestrial uses, 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. 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 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**

<u>Point source contamination</u>: 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 than 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 water erosion of treated 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
- Waterproof Gloves
- Shoes plus socks

### Storage and Disposal

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:**

- Plastic or Metal Containers: Triple rinse (or equivalent) and add rinsate to spray tank. Then offer for recycling or reconditioning, 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.
- <u>Bulk/Mini-bulk Containers</u>: Reusable containers should be returned to the point of purchase for cleaning and refilling because the container must be thoroughly cleaned before refilling.

#### In Case of Spill

In case of large-scale spillage regarding this product call:

CHEMTREC

800-424-9300

#### 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

**DGA 4 herbicide** is a water-soluble formulation intended for control and suppression of many annual, biennial, and perennial broadleaf weeds as well as woody brush and vines listed in **Table 1. DGA 4** may be used for control of these weeds in asparagus, corn, cotton, conservation reserve programs, fallow cropland, grass grown for seed, hay, proso millet, pasture, rangeland, general farmstead (noncropland), small grains, sorghum, soybean, sugarcane, and turf.

#### **Mode of Action**

**DGA 4** is readily absorbed by plants through shoot and root uptake, translocates throughout the plant's system, and accumulates in areas of active growth. **DGA 4** interferes with the plant's growth hormones (auxins) resulting in death of many broadleaf weeds.

#### **Resistance Management**

DGA 4 has a low probability of selecting for resistant weed biotypes.

#### **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, Including ALS- and Triazine-Resistant Biotypes

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ANNUALS	Pineappleweed	PERENNIALS	WOODY SPECIES	
Alkanet	Poorjoe	Alfalfa¹	Alder	
Amaranth, Palmer, Powell,	Poppy, Red-horned	Artichoke, Jerusalem	Ash	
Spiny	Puncturevine	Aster, Spiny, Whitehealth	Aspen	
Aster, Slender	Purslane, Common	Bedstraw, Smooth	Basswood	
Bedstraw, Catchweed	Pusley, Florida	Bindweed, Field, Hedge	Beech	
Beggarweed, Florida	Radish, Wild	Blueweed, Texas	Birch	
Broomweed, Common	Ragweed, Common,	Bursage, Woollyleaf¹ (Bur	Blackberry <sup>2</sup>	
Buckwheat, Tartary, Wild	Giant (Buffaloweed),	Ragweed, Povertyweed)	Blackgum²	
Buffalobur	Lance-Leaf	Buttercup, Tall	Cedar <sup>2</sup>	
Burclover, California	Rocket, London, Yellow	Campion, Bladder	Cherry	
Burcucumber	Rubberweed, Bitter	Chickweed, Field, Mouseear	Chinquapin	
Buttercup, Corn, Creeping	(Bitterweed)	Chicory <sup>1</sup>	Cottonwood	
Roughseed, Western Field	Salsify	Clover <sup>1</sup> , Hop	Creosotebush <sup>2</sup>	
Carpetweed	Senna, Coffee	Dandelion¹	Cucumbertree	
Catchfly, Nightflowering	Sesbania, Hemp	Dock <sup>1</sup> , Broadleaf (Bitterdock),	Dewberry <sup>2</sup>	
Chamomile, Corn	Shepherdspurse	Curly	Dogwood <sup>2</sup>	
Chervil, Bur	Sicklepod	Dogbane, Hemp	Elm	
Chickweed, Common	Sida, Prickly (Teaweed)	Donfennel¹ (Cypressweed)	Grape	
Clovers	Smartweed, Green,	Fern, Bracken	Hawthorn (Thomapple) <sup>2</sup>	
Cockle, Corn, Cow, White	Pennsylvania	Garlic, Wild	Hemlock	
Cocklebur, Common	Sneezeweed, Bitter	Goldenrod, Canada, Missouri	Hickory	
Copperleaf, Hophornbeam	Sowthistle, Annual,	Goldenweed, Common	Honeylocust	
Cornflower (Bachelor	Spiny	Hawkweed	Honeysuckle	
Button)	Spanish Needles	Henbane, Black¹	Hornbeam	
Croton, Tropic, Wooly	Spikeweed, Common	Horsenettle, Carolina	Huckleberry	
Daisy, English	Spurge, Prostrate, Leafy	Ironweed	Huisache	
Dragonhead, American	Spurry, Corn	Knapweed, Black, Diffuse,	Ivy, Poison	
Eveningprimrose, Cutleaf	Starbur, Bristly	Russian¹, Spotted	Kudzu	
Falseflax, Smallseed	Starwort, Little	Milkweed, Climbing,	Locust, Black	
Fleabane, Annual	Sumpweed, Rough	Common, Honeyvine,	Maple	
Flixweed	Sunflower, Common	Western Whorled	Mesquite	
Fumitory	(Wild), Volunteer	Nettle, Stinging	Oak	
Goosefoot, Nettleleaf	Thistle, Russian	Nightshade, Silverleaf (White	Oak, Poison	
Hempnettle	Velvetleaf	Horsenettle)	Olive, Russian	
Henbit	Waterhemp	Onion, Wild	Persimmon, Eastern	
Jacobs-Ladder	Waterprimrose, Winged	Plantain, Broadleaf, Buckhorn	Pine	
Jimsonweed	Wormwood	Pokeweed	Plum, Sand (Wild Plum) <sup>2</sup>	
Knawel (German Moss)		Ragweed, Western	Poplar	
Knotweed, Prostrate	BIENNIALS	Redvine	Rabbitbrush	
Kochia	Burdock, Common	Sericia Lespedeza	Redcedar, Eastern²	
Ladysthumb	Carrot, Wild (Queen	Smartweed, Swamp	Rose <sup>2</sup> , McCartney, Multiflora	
Lambsquarters, Common	Anne's Lace)	Snakeweed, Broom	Sagebrush, Fringed <sup>2</sup>	
Lettuce, Miners, Prickly	Cockle, White	Sorrel <sup>1</sup> , Red (Sheep Sorrel)	Sassafras	
Mailow, Common, Venice	Eveningprimrose,	Sowthistle <sup>1</sup> , Perennial	Serviceberry	
Marestail (Horseweed)	Common	Spurge, Leafy	Spicebush	
Mayweed	Geranium, Carolina	Sundrop	Spruce	
Morningglory, Ivyleaf, Tall	Gromwell	Thistle, Canada, Scotch	Sumac	
Mustard, Black, Blue,	Knapweed, Diffuse,	Toadflex, Dalmation	Sweetgum <sup>2</sup>	
Tansy, Treacle, Tumble,	Spotted	Tropical Soda Apple	Sycamore	
Wild, Yellowtops	Mallow Dwarf	Trumpetcreeper (Buckvine)	Tarbush	
Nightshade, Black, Cutleaf	Plantain, Bracted	Vetch	Willow	
Pennycress, Field	Ragwort, Tansy	Waterhemlock, Spotted	Witchazel	
(Fanweed, Frenchweed,	Starthistle, Yellow	Waterprimrose, Creeping	Yaupon <sup>2</sup>	
Stinkweed)	Sweetclover	Woodsorrel <sup>1</sup> , Creeping,	Yucca²	
Pepperweed, Virginia	Teasel	Yellow		
(Peppergrass)	Thistle, Bull, Milk, Musk,	Wormwood, Louisiana		
Pigweed, Prostrate,	Plumeless	Yankeeweed		
Redroot		Yarrow, Common¹		
(Carelessweed), Rough,				
Smooth, Tumble				

¹ Noted perennials may be controlled using lower rates of **DGA 4** than those recommended for other listed perennial weeds. ² Growth suppression only

# II. Application Instructions

**DGA 4** can be applied to actively growing weeds as aerial, broadcast, band, or spot spray applications using water or sprayable fertilizer as a carrier. For general **DGA 4** application rates for control or suppression by weed type and growth stage see **Table 2**. For crop-specific application timing and other details, refer to section **VI. Crop-Specific Information**. To avoid uneven spray coverage, **DGA 4** should 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 **DGA 4** to prevent injury to desirable plants and shrubs.

#### Cultivation

Do not cultivate within 7 days after applying DGA 4.

#### **Sensitive Crop Precautions**

DGA 4 herbicide may cause injury to desirable trees and plants, particularly beans, cotton, flowers, fruit 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 DGA 4 during their development or growing 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° 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. Consult your spray nozzle supplier concerning the choice 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 (2-20 gallons of diluted spray per treated acre for preharvest uses). 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 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 **DGA 4 herbicide** by banding, determine the amount of herbicide and water volume needed using the following formula:

Bandwidth in inches x Broadcast rate = Banding herbicide Row width in inches per Acre rate per acre

<u>Bandwidth in inches</u> x Broadcast = Banding herbicide Row width in inches volume per Acre rate 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)**

**DGA 4** may be applies through wiper application equipment to control or suppress actively growing broadleaf weeds, brush, and vines. Use a solution containing 1 part **DGA 4** to 1 part water. Do not contact desirable vegetation with herbicide solution. Wiper application may be made to crops (including pastures) and non-cropland areas described in this label with the exception of cotton, sorghum, and soybean.

#### 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**.)

#### 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. BASF 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 DGA 4 Application Rates for Control or Suppression by Weed Type and Growth Stage- Use rate limitations are given in section V & VI. Crop- Specific Information.

Weed Type and Stage	Rate per Acre	Weed Type and Stage	Rate per Acre
Annual <sup>1</sup>		Perennial Perennial	
Small, actively growing	8-16 fluid ounces	Top growth suppression	8-16 fluid ounces
Established weed growth	16-24 fluid ounces	Top growth control and root	
		suppression	16-32 fluid ounces
<u>Biennial</u>		Noted perennials (footnote 1 in	
Rosette diameter 1-3"	8-16 fluid ounces	Table 1)	32-64 fluid ounces
Rosette diameter 3" or more	16-32 fluid ounces	Other perennials <sup>3</sup>	64 fluid ounces
Bolting	32-48 fluid ounces		
		Woody Brush & Vines	
		Top growth suppression	16-32 fluid ounces
		Top growth control <sup>2,3</sup>	32-64 fluid ounces
		Stems and stem suppression	64 fluid ounces

<sup>&</sup>lt;sup>1</sup> Rates below 8 fluid ounces per acre may provide control or suppression but should typically be applied with other herbicides that are effective on the same species and biotype.

#### **Nonionic Surfactant**

The standard label recommendation is 1 pint of an 80% active nonionic spray surfactant per 100 gallons of water. For certain weeds, a higher spray surfactant rate is recommended.

#### Oil Concentrate

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

- Be nonphytotoxic,
- Contain only EPA-exempt ingredients,
- Provide good mixing quality in the jar test, and

<sup>&</sup>lt;sup>2</sup> Species noted in Table 2 will require tank mixes for adequate control.

<sup>&</sup>lt;sup>3</sup>Do not broadcast apply more than 64 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.

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.

For additional information, see Compatibility Test for Mix Components.

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 per 100 gallons
AMS	2.5 pounds
UAN Solution	2 - 4 quarts
Crop Oil Concentrate	1 quart*

<sup>\*</sup>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 point 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. Inductor. If an inductor is used, rinse it thoroughly after each component has been added.
- 4. **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.
- 5. **Water-dispersible products** (dry flowable, wettable powders, suspension concentrates, or suspo-emulsions).
- 6. Water-soluble products. (such as DGA 4 herbicide)
- 7. Emulsifiable concentrates (such as oil concentrate when applicable).
- 8. Water-soluble additives (such as AMS or UAN when applicable).
- 9. Remaining quantity of water.

Maintain constant agitation during application.

#### IV. General Tank Mixing Information

# Tank Mix Partners/ Components

The herbicide products listed may be applied with **DGA 4 herbicide** according to the specific tank mixing instructions in this label and 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. The most restrictive labeling applies to tank mixes.

**DGA 4** 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®**. Do not apply **DGA 4** in tank mixtures with **Lorsban®** insecticide. Physical incompatibility, reduced weed control, or crop injury may result from mixing **DGA 4** with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers. BASF does not recommend using tank mixes other than those listed of BASF labeling. Local agricultural authorities may be a source of information when using other than BASF recommended tank mixes.

Accent® (nicosulfuron)
Acquire™ (glyphosate)
Ally® (metsulfuron)
Amber® (triasulfuron)

Asulox® (asulam)

**Atrazine** 

Axiom™ (flufenacet +metribuzin)

Banvel®SGF (dicamba)
Basagran® (bentazon)

Beacon® (primisulfuron-methyl)

Bicep II Magnum® (2-metolachior +

atrazine)

Bladex® (cyanazine)

**Bronate**® (bromoxynil + MCPA) **Bronco**® (alachlor + glyphosate)

Buctril® (bromoxynil)

Bullet® (alachlor + atrazine)

Canvas® (thifensulfuron + tribenuron + metsulfuron)

Caparol® (prometryn)

Crossbow® (2,4-D + triclopyr) Curtail® (clopyralid + 2,4-D)

Cyclone® (paraquat)

Dakota® (fenoxaprop + MCPA)

Degree™ (acetochlor)

Degree Xtra™ (acetochlor + atrazine)
DoublePlay® (acetochlor + EPTC)
Dual Magnum™ (s-metolachlor)
Dual II Magnum™ (s-metolachlor +

atrazine)

Eradicane® (EPTC)
Evik® (ametryn)

Exceed® (primisulfuron + prosulfuron)
Express® (thifensulfuron + tribenuron-

methyl)

Extrazine®II (cyanazine + atrazine)

Fallow Master® (glyphosate + dicamba)

Field Master™ (glyphosate + atrazine + glyphosate)

Finesse® (chlorsulfuron + metsulfuron-

Frontier® (dimethenamid)

FulTime™ (acetochlor + atrazine)

Garlon® (triclopyr)
Glean® (chlorsulfuron)

Gramoxone® Extra (paraquat)

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 + 2,4-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)
Prowl® (pendimethalin)
Python™ (flumetsulam)
Ramrod® (propachlor)

Roundup Ultra® RT (glyphosate)

Sencor® (metribuzin)
Spirit™ (primisulfuron)
Stinger® (clopyralid)
Surpass® (acetochlor)
Sutan® + (butylate)

**Tiller**® (fenoxapropethyl + 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 DGA 4 herbicide (2 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.

- Planting/replanting restrictions for DGA 4 applications of 24 fluid ounces 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 corn, cotton, sorghum, and soybean, follow the preplant use directions in section VI. Crop-Specific Information. For barley, oat, wheat, and other grass seedings, the interval between application and planting is 15 days per 8 fluid ounces per acre applied east of the Mississippi River.
- Planting/replanting restrictions for applications of more than 24 fluid ounces and up to 64 fluid ounces of DGA 4 per acre: Corn, 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 30 days per 16 fluid ounces per acre east of the Mississippi River and 45 days per 16 fluid ounces per acre west of the Mississippi River. For all other crops in areas with less than 30" of annual rainfall, the interval between application and planting is 180 days or more..
- Rainfast period: Rainfall or irrigation occurring within 4 hours after postemergence applications may reduce the effectiveness of DGA 4.
- Stress: Do not apply to crops under stress due to lack of moisture, hail damage, flooding, herbicide injury, mechanical injury, insects, or wildly 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.

Table 4. Crop Specific Restrictions and Limitations<sup>1</sup>

Crop²	Maximum Rate Per Acre of	Maximum In-Crop Rate per Acre Per	Livestock Grazing or Feeding	Aircraft Application
	Application	Season	or reeding	Allowed
Asparagus	16 fluid ounces	16 fluid ounces	Yes	Yes
Barley, Fall	8 fluid ounces	12 fluid ounces	Yes	Yes
Spring	8 fluid ounces	11 fluid ounces		
Corn	16 fluid ounces	24 fluid ounces	Yes <sup>2</sup>	Yes
Cotton	8 fluid ounces	8 fluid ounces	Yes	Yes
Fallow Ground	64 fluid ounces	64 fluid ounces	Yes	Yes
Grass grown for	64 fluid ounces	64 fluid ounces	Yes	Yes
seed				
Proso Millet	4 fluid ounces	4 fluid ounces	Yes	Yes
Pastureland	32 fluid ounces	32 fluid ounces	Yes	Yes
Conservation Reserve Program (CRP)	64 fluid ounces	64 fluid ounces	Yes	Yes
Oats	4 fluid ounces	4 fluid ounces	Yes	Yes
Sorghum	8 fluid ounces	16 fluid ounces	Yes	Yes
Soybean	64 fluid ounces	64 fluid ounces	Yes	Yes
Sugarcane	64 fluid ounces	64 fluid ounces	Yes	Yes
Turf	32 fluid ounces	32 fluid ounces	Yes	Yes
Triticale	4 fluid ounces	4 fluid ounces	Yes	Yes
Wheat	8 fluid ounces	16 fluid ounces	Yes	Yes

<sup>&</sup>lt;sup>1</sup>Refer to section VI. Crop-Specific Information for more details.

# VI. Crop-Specific Information

#### **Asparagus**

Apply **DGA 4 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. Multiple applications may be made per growing season. If spray contacts emerged spears, crooking (twisting) of some spears may result. If such crooking occurs, discard affected areas.

Rates: Apply 8-16 fluid ounces of DGA 4 to control annual Sowthistle, black mustard, Canada and Russian thistle, and redroot pigweed, (carelessweed). Apply 16 fluid ounces of DGA 4 to control common chickweed, field bindweed, nettleleaf goosefoot, and wild radish. Multiple applications may be made per growing season. Do not exceed a total of 16 fluid ounces of DGA 4 per treated acre, per crop year. Do not harvest prior to 24 hours after treatment. Do not use in the Coachella Valley of California.

#### **Asparagus Tank Mixes**

Apply 8-16 fluid ounces of **DGA 4** with glyphosate (**Roundup® Ultra**) or 2,4-D to improve control of Canada thistle and field bindweed.

#### **Between Crop Applications**

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

**DGA 4** can be applied either postharvest in the fall, spring, or summer during the fallow period or to crop stubble/set-aside acres. Apply **DGA 4** 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.

<sup>&</sup>lt;sup>2</sup>Once the crop reaches the ensilage (milk) stage or later in maturity.

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 4-64 fluid ounces of **DGA 4** per acre. Refer to **Table 2** to determine use rates for specific targeted weed species. For best performance, apply **DGA 4** 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 **DGA 4** 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 **DGA 4**. For seedling control, a follow-up program or other cultural practices could be instituted. For small grain in-crop uses of **DGA 4**, refer to the small grain section for details.

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

In tank mixes with one or more of the following herbicides, apply 4-16 fluid ounces of **DGA 4** per acre for control of annual weeds or 16-64 fluid ounces of **DGA 4** per acre for control of biennial and perennial weeds:

Acquire™ Ally® Amber® Atrazine Curtail®

Cyclone®
Fallow Master®

Finesse®

Glyphosate (Roundup Ultra®)

Gramoxone® Extra

Kerb®

Landmaster® BW Paramount® Sencor® Tordon® 22K Touchdown® 2,4-D

# Corn (Field, Pop, Seed, and Silage)

Direct contact of **DGA 4** 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 **DGA 4** 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 ensilage (milk) stage or later in maturity.

Up to 2 applications of **DGA 4** may be made during a growing season. Sequential applications must be separated by 2 weeks or more.

Do not apply **DGA 4** to seed corn or popcorn without first verifying with your local seed corn company (supplier) the selectivity of **DGA 4** on your inbred line or variety of popcorn. This precaution will help avoid potential injury of sensitive varieties.

Avoid using crop oil concentrates after crop emergence as crop injury may result. Use crop oil concentrates only in dry conditions when corn is less than 5" tall and when applying **DGA 4** alone or tank mixed with atrazine.

Use of sprayable fluid fertilizer as the carrier is not recommended for applications of **DGA 4** made after corn emergence.

DGA 4 is not registered for use on sweet corn.

# PREPLANT AND PRE-EMERGENCE APPLCIATION IN NO TILLAGE CORN:

Rates: Apply 16 fluid ounces of **DGA 4** per acre on medium or fine-textured soils containing 2.5% or greater organic matter. Use 8 fluid ounces of **DGA 4** per acre on coarse soils (sand, loamy sand, and sandy loam) or medium- and fine-textured soils with less than 2.5% organic matter.

**Timing: DGA 4** 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 **DGA 4** after 4-6" of regrowth has occurred.

#### PRE-EMERGENCE APPLICATION IN CONVENTIONAL OR REDUCED TILLAGE CORN:

Rates: Apply 16 fluid ounces of **DGA 4 herbicide** per treated acre 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: DGA 4** may be applied after planting and prior to corn emergence. Pre-emergence application of **DGA 4** 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 soils 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 DGA 4 per treated acre. Reduce the rate to 8 fluid ounces of DGA 4 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:**

Rate: Apply 8 fluid ounces of DGA 4 per treated acre.

**Timing:** Apply **DGA 4** 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 DGA 4 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 **DGA 4**, 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 DGA 4 prior to, in tank mix with, or after one or more of the following herbicides:

Accent®¹ Acquire™ Atrazine

Axiom™ Degree Xtra™

Banvel®¹
Beacon®¹
Bicep®
Bladex®
Bullet®
Degree™
DoublePlay®²
Dual Magnum™
Dual II Magnum®
Eradicane®

Exceed®¹
Extrazine®II
Field Master®
Frontier®

FulTime®

Gramoxone®Extra
Guardsman®
Harness®
Harness® Xtra
Hornet™¹
Laddok® S-12
Lasso®
Liberty®³
Lightning®⁵

Liberty®³
Lightning®⁵
Marksman®¹
Outlook™
Permit®¹
Princep®
Prowl®
Python®

Roundup Ultra®⁴ Roundup Ultra® RT Spirit®¹ Stinger®¹ Surpass® Sutan® +² TopNotch™ Touchdown® Tough® 2,4-D¹

See **Table 5** for additional limitations or restrictions that apply for tank mix or sequential use programs with these products.

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 com is greater than 8" tall and when application can be made with drop pipes that direct spray beneath com 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 acid equivalent per acre).
Banvel or Marksman	Tank mixes with these products that contain dicamba must not exceed a total combined rate of 0.50 pounds of dicamba acid equivalent per acre (0.25 pound on coarse-textured soils or on any soil when corn is greater than 8" tall). Sequential applications of these products must be separated by a minimum of 2 weeks (unless the combined rate is less than 0.5 pounds of dicamba acid equivalent and corn is 8" tall or less) and must not exceed a combined total of 0.75 pounds dicamba acid equivalent per acre for in-crop use.
Exceed, Spirit, Stinger, Hornet, or Permit	For improved control of velvetleaf, tank mix 0.25-0.5 ounce of Exceed, 0.5 ounce of Spirit, or 0.17-0.33 ounce Permit per acre with DGA 4. For improved control of Canada thistle. Stinger at 1.5-3 fluid ounces per acre or Hornet at 0.6-1.2 ounces per acre may be tank mixed with DGA 4. Use the higher rates in the range for heavier infestations of these weeds.

#### Cotton

#### PREPLANT APPLICATION:

Apply up to 8 fluid ounces of **DGA 4 herbicide** per acre to control emerged broadleaf weeds prior to planting cotton in conventional or conservation tillage systems.

For best performance... apply **DGA 4** when weeds are in the 2-4 leaf stage and rosettes are less than 2" across.

Following application of **DGA 4** 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 **DGA 4** 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 aced equivalent per acre.

<sup>&</sup>lt;sup>2</sup>Sequential use only

<sup>&</sup>lt;sup>3</sup>Use only on **Liberty Link®** (glufosinate tolerant) corn hybrids.

<sup>&</sup>lt;sup>4</sup>Includes postemergence use on **Roundup Ready** (glyphosate tolerant) corn hybrids.

<sup>&</sup>lt;sup>5</sup>Use only **Clearfield®** (imidazolinone tolerant) corn hybrids.

#### **Cotton Tank Mixes**

For control of grasses or additional broadleaf weeds, DGA 4 may be tank mixed with Bladex®, Caparol®, Gramoxone® Extra, and Roundup Ultra®RT herbicides.

#### **Grass Grown for Seed**

Apply 8-16 fluid ounces of **DGA 4** per treated acre on seedling grass after the crop reaches the 3-5 leaf stage. Apply up to 64 fluid ounces of **DGA 4** on well-established perennial grass. For best performance, apply **DGA 4** 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 64 fluid ounces of **DGA 4** 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.

Do not apply DGA 4 after the grass seed crop begins to joint.

Refer to the Pasture, Hay, Rangeland, and General Farmstead section for grazing and feeding restrictions.

# **Grass Seed Tank Mixes**

**DGA 4** may be applied in tank mixes with one or more of the following herbicides:

- Buctril®
- Curtail®
- Express®
- Karmex®
- MCPA amine
- Sencor®
- Stinger®
- 2,4-D amine or ester

#### **Proso Millet**

For use only within Colorado, Nebraska, North Dakota, South Dakota, and Wyoming. DGA 4 combined with 2,4-D will provide control or suppression of the annual broadleaf weeds listed in Table 1.

Apply 4 ounces of **DGA 4** with 0.375 pounds a.i. of 2,4-D. Apply the tank mix of **DGA 4** + 2,4-D as a broadcast or spot treatment to emerged and actively growing weeds and when proso millet is in the 205 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 **DGA 4**.

Some types of proso millet may be affected adversely by a tank mix of **DGA 4** + 2,4-D.

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

Restrictions for proso millet that is grazed or cut for hay are indicated in **Table 6** in **Pasture**, **Hay**, **Rangeland**, **and General Farmstead** section of this label.

#### Pasture, Hay, Rangeland, and General Farmstead (noncropland)

**DGA 4** 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**.

**DGA 4** 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. **DGA 4** uses described in this section also pertain to small grains (forage, sorghum, rye, sundangrass, or wheat) grown for pasture use only. Some perennial weeds may be controlled with lower rates of **DGA 4** or **DGA 4** plus 2,4-D (refer to **Table 2**).

**Rates and Trimmings** 

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

Rate above 32 fluid ounces of **DGA 4** per acre are for spot treatments only. Do not broadcast apply more than 32 fluid ounces per acre.

Retreatments may be made as needed; however, do not exceed a total of 32 fluid ounces of **DGA** 4 per treated acre during a growing season.

# **Crop-Specific Restrictions and Limitations**

Do not apply more than 16 fluid ounces of **DGA 4** per acre to small grains grown for pasture. Newly seeded areas may be severely injured if more than 16 fluid ounces of **DGA 4** is applies per acre. Established grass crops growing under stress can exhibit various injury symptoms 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 **DGA 4** is applied per acre. Usually colonial bentgrasses are more tolerant than creeping types. Velvetgrasses are most easily injured. Treatments will kill or injure alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

**Table 6** lists the timing restrictions for grazing or harvesting hay from treated fields. There are no grazing restrictions for animals other than lactating dairy animals.

Table 6. Timing Restrictions for Lactating Dairy Animals Following Treatment

DGA 4 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

**DGA 4 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**). To prepare oil in water emulsions, half-fill spray tank with water, then add the appropriate amount to 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 layers. **DGA 4** 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: DGA 4 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) or foliage and stems.

# **Cut Surface Treatments:**

**DGA 4** may be applied as a cut surface treatment for control of unwanted trees and prevention of sprouts of cut trees.

Rate: Mix 1 part DGA 4 with 1-3 parts water to create the application solution. Use the lower dilution rate when treating difficult-to-control species.

- For Fill or Girdle Treatments: Make a continuous cut or a series of overlapping cuts using an axe to girdle trunk. Spray or paint the cut surface with the solution.
- For Stump-Treatments: Spray or paint freshly cut surface with the water mix. The areas adjacent to the bark should be thoroughly wet.

Note: For more rapid foliar effects, 2,4-D may be added to the solution.

<u>Applications For Control of Dormant Multiflora Rose:</u> DGA 4 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 **DGA 4** 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 **DGA 4** to the uphill side of the crown. Do not apply when snow or water prevents applying **DGA 4** directly to the soil. The use rate of **DGA 4** depends on the canopy diameter of the multiflora rose. **Examples:** Use 0.25, 1.0, or 2.35 fluid ounces of **DGA 4** respectively, for 5, 10, or 15 feet canopy diameters.
- Lo-Oil basal bark treatments: For Lo-Oil basal bark treatments, apply DGA 4 to the
  basal stern 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 DGA 4 when plants
  are showing signs of active growth. Do not apply when snow or water prevents applying
  DGA 4 to the ground line.

To prepare approximately 2 gallons of a Lo-Oil spray solution:

- 1. Combine 1.5 gallons of water, 1 ounce of emulsifier, 16 fluid ounces of **DGA 4**, and 2.5 pints of No. 2 diesel fuel.
- Adjust the amounts of materials used proportionately to the amount of final spray solution desired.

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

#### **Pasture Tank Mixes**

DGA 4 maybe applied in tank mixes with one or more of the following herbicides:

Acquire™

Gramoxone Extra®

Ally®

Roundup Ultra® RT

Amber®

Stinger®

Crossbow®

Tordon® 22K

Curtail® Garlon® 2,4-D

# Conservation Reserve Program (CRP)

**DGA 4** is recommended for use on both newly seeded and established grasses grown in Conservation Reserve of federal Set-Aside Programs. Treatments of **DGA 4** will injure or may kill alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

### **NEWLY SEEDED AREAS**

**DGA 4** may be applied wither 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 **DGA 4** greater than 16 fluid ounces per treated acre may severely injure new seedings if the interval between application and grass planting is less than 45 days per 16 fluid ounces of **DGA 4** applies 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 injusted when treated with more than 16 fluid ounces of **DGA 4** per treated acre. When applied at recommended rates, **DGA 4 herbicide** will control many annual and biennial weeds and provide control or suppression of many perennial weeds.

#### **Rates and Timings**

Apply 4-64 fluid ounces of **DGA 4** per acre. Refer to **Table 2** for rates based on target weed species. **DGA 4** may be tank mixed or applied sequentially with other products labeled for use in Conservation Reserve Programs such as atrazine, **Cyclone®**, glyphosate (**Acquire™**, **Roundup Ultra®**), **Gramozone® Extra**, **Touchdown®**, or 2,4-D. Retreatments may be made as needed; however, do not exceed a total of 64 fluid ounces (4 pints) of **DGA 4** per acre.

# Small Grains not underseeded to legumes (fall- and spring-seeded barley, oat, triticale and wheat)

DGA 4 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 DGA 4 with one or more of the herbicides listed.

DGA 4 used in a tank mix with other herbicides offers the best spectrum of weed control and herbicide tolerant or resistant weed management. Refer to the specific section crop for DGA 4 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 DGA 4 with these products will offer more consistent control of sulfonvlurea-resistant weeds.

Additives: When tank mixing DGA 4 with sulfonylurea herbicides (Ally®, Amber®, Canvas®, Express®, Finesse®, Glean®, Harmony® Extra, and Peak®), 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 lower rate ranges of the tank mix or when treating more mature and difficult to control weeds or dense vegetative growth occurs, use the 3-4 fluid ounces of DGA 4 per acre.

Timings: Apply DGA 4 before, during, or after planting small grains. See specific small grain crop uses below for maximum crop stage. For best performance, apply DGA 4 when weeds are in the 2-3 leaf stage and rosettes are less than 2" across. Applying DGA 4 small grains during periods of rapid growth may result in crop leaning. This condition is temporary and will not reduce crop yields. Applications to small grains 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.

Restrictions for small gain areas that are grazed or cut for hav are indicated in Table 6 in Pasture, Hay, Rangeland, and General Farmstead section of this label.

#### Small Grains: Barley (fall- and spring-seeded)

#### **EARLY SEASON APPLICATIONS:**

Apply 2-4 fluid ounces of DGA 4 to fall-seeded barley prior to the jointing stage. Apply 2-3 fluid ounces of DGA 4 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 **DGA 4** with 2.4-D in early season applications on spring-seeded barley.

#### PREHARVEST APPLICATIONS:

DGA 4 can be used to control weeds that may interfere with harvest of fall-and spring- seeded barley. Apply 8 fluid ounces of DGA 4 per acre as a broadcast or spot treatment to annual broadleaf weeds when barley is in the hard dough stage and the greed 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 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, DGA 4 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.

# **Barley Tank Mixes**

Table 7.

Tank Mix Partner	Rate per Acre
Ally®	0.005-0.1 ounce <sup>1</sup>
Amber®	0.14 <del>-0.28 ounce<sup>1</sup></del>
Bronate®	0.75\0.15 pints

Buctril®	0-1.5 pints
Canvas®	0.2-0.4 ounce <sup>1</sup>
Express®	0.083-0.167 ounce <sup>1</sup>
Finesse®	0.167-0.33 ounce <sup>1</sup>
Glean®	0.167¹
Harmony® Extra	0.167-0.33 ounce <sup>1</sup>
MCPA amine or ester	8-12 fluid ounces <sup>2</sup>
	(0.25-0.375 pound a.e)
Metribuzin (Sencor®, Lexone®)	0.125-0.47 pound a.i.
2,4-D amine or ester <sup>2,3</sup>	8 fluid ounces
	(0.25 pounds a.e.)

<sup>&</sup>lt;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.

# Small Grains: Oat (fall- and spring- seeded)

# **EARLY SEASON APPLICATIONS:**

Apply 2-4 fluid ounces of DGA 4 herbicide per acre to fall-seeded oat prior to the jointing stage.

Apply 2-4 fluid ounces of **DGA 4** before spring-seeded oat exceed the 5-leaf stage.

DGA 4 may be tank mixed with MCPA amine or ester for applications in oat.

Do not tank mix DGA 4 with 2.4-D in oat.

# Small Grains: Triticale (fall- and spring-seeded)

# **EARLY SEASON APPLICATIONS:**

Apply 2-4 fluid ounces of DGA 4 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 be made before triticale reaches the 6-leaf stage.

**Triticale Tank Mixes:** For best performance, should be use in tank mix combination with bromoxynil (**Buctril, Moxy 2E**) herbicide.

### Small Grains: Wheat (fall- and spring- seeded)

# **EARLY SEASON APPLICATIONS:**

Apply 2-4 fluid ounces of **DGA 4** 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 msut 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.

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:

**DGA 4** may be used at 6 fluid ounces on fall-seeded what in Western Oregon as a spring application only. In Colorado, Kansas, New Mexico, Oklahoma, and Texas, up to 8 fluid ounces of **DGA 4** 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. **DGA 4** 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.

When using formulations other than 4 pounds per gallon use pounds of a.e. per acre listed.

<sup>&</sup>lt;sup>3</sup>This tank mix is for fall-seeded barley only.

#### **PREHARVEST APPLICATIONS:**

**DGA 4** can be used to control weeds that may interfere with harvest of wheat. Apply 8 fluid ounces **DGA 4** 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.

**DGA 4** may be tank mixed with other herbicides such as **Ally, Roundup® Ultra,** and 2,4-D. Do not make preharvest applications in California.

# Wheat Tank Mixes

Tank Mix Partner	Rate Per Acre	
Ally®	0.05-0.1 ounce	
Amber®	0.14-0.28 ounce	
Bronate®	0.75-1.5 pints	
Buctril®	1-1.5 pints	
Canvas®	0.2-0.4 ounce <sup>1</sup>	
Curtail®	2-2.67 pints	
Dakota®²	16 fluid ounces	
Express®	0.083-0.167 ounce <sup>1</sup>	
Finesse®	0.167-0.33 ounce <sup>1</sup>	
Glean®	0.167 ounce <sup>1</sup>	
Harmony® Extra	0.167-0.33 ounce	
Karmex® <sup>3</sup> 0.5-1.5 pounds		
Glyphosate (Roundup Ultra® RT)⁴	12-16 fluid ounces	
MCPA amine or ester⁵	8-12 fluid ounces	
	(0.25-0.375 pound a.e.)	
Metribuzin³ (Sencor®,Lexone®)	0.25-0.375 pound a.i.	
Peak®¹	0.25-0.38 ounce	
Stinger®	4-5.33 fluid ounces	
Tiller®²	1.17 pints	
2,4-D amine or ester <sup>5</sup>	8-12 fluid ounces	
	(0.25-0.375 pound a.e.)	

<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.

<sup>2</sup>Do not use **DGA 4** 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.

<sup>4</sup>A tank mix of up to 4 fluid ounces of **DGA 4** with **Roundup Ultra RT** or any glyphosate formulation labeled for use as a preplant application to small grains 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.

#### Sorghum

**DGA 4 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 **DGA 4** to sorghum grown for seed production.

#### PREPLANT APPLICATION:

Up to 8 fluid ounces of **DGA 4** may be applied per acre if applied at least 15 days before sorghum planting.

# **POSTEMERGENCE APPLICATION:**

Up to 8 fluid ounces of **DGA 4** 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 **DGA 4** 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 **DGA 4** 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.

<u>Preharvest uses in Texas and Oklahoma only:</u> Up to 8 fluid ounces of **DGA 4** 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:**

**DGA 4** may be applied in split applications: preplant followed by postemergence or preharvest; or postemergence followed by preharvest. Do not exceed 8 fluid ounces per acre, per application or a total of 16 ounces per acre, per season.

#### Sorghum Tank Mixes and Sequential Treatments

DGA 4 may be applied prior to, in a tank mix with, or after one or more of the following herbicides:

Acquire™ Atrazine Basagran® Guardsman® Laddok® S-12 Landmaster®

Bicep II Magnum® Buctril®

Lasso® Outlook™ Paramount®

Cyclone® Dual Magnum™

Peak® Permit®

Dual II Magnum™ Fallow Master®

Ramrod®

Frontier®

Roundup Ultra®

Gramoxone® Extra

#### Soybean

#### PREPLANT APPLICATIONS:

Apply 4-16 fluid ounces of **DGA 4** per acre to control emerged broadleaf weeds prior to planting soybeans. Do not exceed 16 fluid ounces of **DGA 4** per acre in a spring application prior to planting soybeans. Following application of **DGA 4** 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 **DGA 4** preplant applications to soybeans in geographic areas with average annual rainfall less than 25".

# **PREHARVEST APPLICATIONS:**

**DGA 4** 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 **DGA 4** 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.

Treatments may not kill weeds that develop from seed or underground plant parts, such as rhizomes or bulblets, after the effective period for **DGA 4**. 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.

Do not feed soybean fodder or hay following a preharvest application of DGA 4.

Do not make preharvest applications in California.

# Soybean Tank Mixes

# PREPLANT TANK MIXES:

**DGA 4** 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:

**DGA 4** may be tank mixed with other herbicides registered for preharvest use in soybeans such as glyphosate (**Roundup Ultra**) and **Gramoxone Extra**.

#### Sugarcane

Apply **DGA 4 herbicide** for control of annual, biennial, or perennial broadleaf weeds listed in **Table 1**. Apply 8-24 fluid ounces of **DGA 4** per acre for control of annual weeds, 16-32 fluid ounces for control of biennial weeds, and 32-64 fluid ounces for control or suppression of perennial weeds. Use the higher level of listed rate ranges when treating dense vegetative growth.

Retreatments may be made as needed, however, do not exceed a total of 64 fluid ounces of **DGA 4** per treated acre during a growing season.

**Timing: DGA 4** may be applied to sugarcane any time after weeds have emerged, but before the close-in stage of sugarcane. Applications of 32-64 fluid ounces of **DGA 4** 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

**DGA 4** may be tank mixed with other products registered for use in sugarcane such as **Asulox**®, atrazine, **Evik**®, and 2,4-D.

#### Turf and Lawns

For use in general farmstead (noncropland) and sod farms, apply 3-32 fluid ounces of **DGA 4** per acre to control or suppress growth of many annual, biennial, and some perennial broadleaf weeds commonly found in turf. **DGA 4** 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.

Repeat treatments may be made as needed, however, do not exceed 32 fluid ounces of **DGA 4** per acre, per growing season.

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 **DGA 4** until after the second mowing. Furthermore, applying more than 16 fluid ounces of **DGA 4** per treated acre 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 **DGA 4** per treated acre 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 **DGA 4** have been activated in the soil by rain or irrigation.

#### **Turf and Lawn Mixes**

Apply 3.2-8 fluid ounces of **DGA 4** per acre 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	Rate Per Acre
Bromoxynil (Buctril®)	0.375-0.5 pound a.i.
MCPA	0.5-1.5 pounds a.e.
MCPP	0.5-1.5 pounds a.e.
2,4-D	0.5-1.5 pounds a.e.

Pests Listed in This Label: Annuals Common Name Scientific Name		
Alkanet Amaranth, Palmer	Lithospermum arvense Amaranthus parlmeri	
Powell	Amaranthus powelii	
Spiny	Amaranthus poweiii Amaranthus spinosus	
Aster, Slender	Aster subulatus	
Bedstraw, Catchweed	Galium aparine	
Beggarweed, Florida	Desmodium tortuosum	
Broomweed, Common	Gutierezia dracunculoides	
Buckwheat, Tartary		
Wild	Fagopyrum tatarium Polygonum convolvulus	
Buffalobur	Solanum rostratum	
Burclover California		
Burcucumber	Medicago polymorpha	
Buttercup, Corn	Sicyos angulatus Ranunclulus arvensis	
Creeping	Ranunculus arvensis Ranunculus repens	
Roughseed	Ranunculus nuricatus	
Western Field	Ranunculus muncatus Ranunculus occidentalis	
Carpetweed	Mullugo vertcillata	
Catchfly, Nightflowering	Silene noctiflorum	
Chamomile, Corn	Anthemis arvensis	
Chervil. Bur	Anthriscus caucalis	
Chickweed, Common	Stellaria media	
Clovers	Trifolium spp.	
Cockle Corn	Agraostemma githago	
Cow	Vaccaria pyramidata	
White	Melandrium album	
Cocklebur, Common	Xanthium strumarium	
Copperleaf, Hophornbeam	Acalypha ostryifolia	
Cornflower (Bachelor Button)	Centaurea Cynus	
Croton, Tropic	Croton glandiola	
Wooly	Croton capitatus	
Daisy, English	Bellis perennia	
Dragonhead, American	Dracocephalum parviflorum	
Eveningprimrose, Cutleaf	Oenothera lacinata	
Falseflax, Smallseed	Camelina microcarpa	
Fleabane, Annual	Erigeron annuus	
Flixweed	Descurainia Sophia	
Fumitory	Fumaria officinalis	
Goosefoot, Nettleleaf	Chenopodium murale	
Hempnettle		
Henbit	Galeopsis tetrahit	
Jacob's Ladder	Lamium amplexicaule	
	Polemonium caeruleum	
Jimsonweed	Datura stratium	
Knawel (German Moss)	Scleranthus annuus	
Knotweed, Prostrate	Polygonum aviculare	
Kochia	Kochia scoparia	
Ladysthumb	Polygonum periscaria	
Lambsquarters, Common	Chenopodium album	
Lettuce Miners	Claytonia perfoliata	
Prickly	Lactua serriola	
Mallow, Common	Malva neglecta	
Venice	Hibiscus trionum	

Marestail (Horseweed)	Hippurus vulgaris
	Anthemis cotula
	Ipomea hederacea
	Ipomea purpurea
	Brassica nigra
	Chorispora tenella
Tanksy	Descurainia pinnata
	Erysimum repandum
	Sisymbriumm alstissimum
	Sinapsis arvensis
	Solanum nigrum
	Solanum Triflorum
Pennycress, Field (Farweed, Frenchweed, Stinkweed)	Thlaspi arvense
Pepperweed, Virginia (Peppergrass)	Lepidium virginicum
Pigweed, Prostate	Amaranthus blitoides
Redroot (Carelessweed)	Amaranthus retroflexus
Smooth	Amarnathus hybridus
Tumble	Amaranthus albus
Pineappleweed	Matricaria matriacarioides
Poorjoe	Diodia teres
Puncturevine	Tribulus terrestris
Purslane, Common	Portulaca oleracea
Pusley, Florida	Richardia scabra
Radish, Wild	Raphanus raphanistrum
Ragweed, Common	Ambrosia artemisiifolia
Giant (Buffaloweed)	Ambrosia bidentata
Lance-Leaf	Ambrosia artemisiifolia
Ragwort, Tansy	Senecia jacobea
Rocket, London	Sisymbrium irio
Yellow	Barbarea vulgaris
Rubberweed, Bitter	Hymenoxys oderata
Salsify	Tragopogon porriolius Sesbania exaitata
Sesbania, Hemp	
Shepherdspurse	Capsella bursa-pastoris
Sicklepod	Cassia obtusifolia
Sida, Prickly (Teaweed) Smartweed, Green	Sida spinosa
Pennsylvania	Polygonum scabrum Polygonum pensylvanicum
Sneezeweed, Bitter	Helenium amurum
Sowthistle, Annual	Sonchus oleraceus
Spiny	Sonchus asper
Spikeweed, Common	
	Hemizonia pungens
Spurge, Prostrate	Hemizonia pungens Euphorbia humistrata
Spurge, Prostrate Spurry, Corn	Hemizonia pungens Euphorbia humistrata Spergula arvensis
Spurge, Prostrate Spurry, Corn Starbur, Bristly	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum
Spurge, Prostrate Spurry, Corn Starbur, Bristly Starwort, Little	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea
Spurge, Prostrate Spurry, Com Starbur, Bristly Starwort, Little Sumpweed, Rough	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea Iva cilliata
Spurge, Prostrate Spurry, Corn Starbur, Bristly Starwort, Little Sumpweed, Rough Sunflower, Common (Wild)	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea Iva cilliata Helianthus annuus
Spurge, Prostrate Spurry, Com Starbur, Bristly Starwort, Little Sumpweed, Rough Sunflower, Common (Wild) Thistle, Russian	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea Iva cilliata Helianthus annuus Salsola iberica
Spurge, Prostrate Spurry, Com Starbur, Bristly Starwort, Little Sumpweed, Rough Sunflower, Common (Wild) Thistle, Russian Velvetleaf	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea Iva cilliata Helianthus annuus Salsola iberica Abutilon teophrasti
Spurge, Prostrate Spurry, Com Starbur, Bristly Starwort, Little Sumpweed, Rough Sunflower, Common (Wild) Thistle, Russian Velvetleaf Waterhemp, Common	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea Iva cilliata Helianthus annuus Salsola iberica Abutilon teophrasti Amaranthus rudis
Spurge, Prostrate Spurry, Com Starbur, Bristly Starwort, Little Sumpweed, Rough Sunflower, Common (Wild) Thistle, Russian Velvetleaf Waterhemp, Common Tall	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea Iva cilliata Helianthus annuus Salsola iberica Abutilon teophrasti Amaranthus rudis Amaranthus tuberculatus
Spurge, Prostrate Spurry, Com Starbur, Bristly Starwort, Little Sumpweed, Rough Sunflower, Common (Wild) Thistle, Russian Velvetleaf Waterhemp, Common Tall Waterprimrose, Winged	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea Iva cilliata Helianthus annuus Salsola iberica Abutilon teophrasti Amaranthus rudis Amaranthus tuberculatus Ludwigia decurrens
Spurge, Prostrate Spurry, Com Starbur, Bristly Starwort, Little Sumpweed, Rough Sunflower, Common (Wild) Thistle, Russian Velvetleaf Waterhemp, Common Tall Waterprimrose, Winged Wormwood	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea Iva cilliata Helianthus annuus Salsola iberica Abutilon teophrasti Amaranthus rudis Amaranthus tuberculatus Ludwigia decurrens Artemisia annua
Spurge, Prostrate Spurry, Com Starbur, Bristly Starwort, Little Sumpweed, Rough Sunflower, Common (Wild) Thistle, Russian Velvetleaf Waterhemp, Common Tall Waterprimrose, Winged Wormwood  Bienn	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea Iva cilliata Helianthus annuus Salsola iberica Abutilon teophrasti Amaranthus rudis Amaranthus tuberculatus Ludwigia decurrens Artemisia annua
Spurge, Prostrate Spurry, Com Starbur, Bristly Starwort, Little Sumpweed, Rough Sunflower, Common (Wild) Thistle, Russian Velvetleaf Waterhemp, Common Tall Waterprimrose, Winged Womwood Bienn Burdock, Common	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea Iva cilliata Helianthus annuus Salsola iberica Abutilon teophrasti Amaranthus rudis Amaranthus tuberculatus Ludwigia decurrens Artemisia annua  nials Arctium minus
Spurge, Prostrate Spurry, Corn Starbur, Bristly Starwort, Little Sumpweed, Rough Sunflower, Common (Wild) Thistle, Russian Velvetleaf Waterhemp, Common Tall Waterprimrose, Winged Womwood  Bienn Burdock, Common Carrot, Wild (Queen Anne's Lace)	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea Iva cilliata Helianthus annuus Salsola iberica Abutilon teophrasti Amaranthus rudis Amaranthus tuberculatus Ludwigia decurrens Artemisia annua hials Arctium minus Daucus carota
Spurge, Prostrate Spurry, Corn Starbur, Bristly Starwort, Little Sumpweed, Rough Sunflower, Common (Wild) Thistle, Russian Velvetleaf Waterhemp, Common Tall Waterprimrose, Winged Womwood  Bienn Burdock, Common Carrot, Wild (Queen Anne's Lace) Cockle, White	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea Iva cilliata Helianthus annuus Salsola iberica Abutilon teophrasti Amaranthus rudis Amaranthus tuberculatus Ludwigia decurrens Artemisia annua nials Arctium minus Daucus carota Melandrium album
Spurge, Prostrate Spurry, Corn Starbur, Bristly Starwort, Little Sumpweed, Rough Sunflower, Common (Wild) Thistle, Russian Velvetleaf Waterhemp, Common Tall Waterprimrose, Winged Womwood  Bienn Burdock, Common Carrot, Wild (Queen Anne's Lace) Cockle, White Eveningprimrose, Common	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea Iva cilliata Helianthus annuus Salsola iberica Abutilon teophrasti Amaranthus rudis Amaranthus rudis Amaranthus tuberculatus Ludwigia decurrens Artemisia annua hials Arctium minus Daucus carota Melandrium album Oenothera biennis
Spurge, Prostrate Spurry, Corn Starbur, Bristly Starwort, Little Sumpweed, Rough Sunflower, Common (Wild) Thistle, Russian Velvetleaf Waterhemp, Common Tall Waterprimrose, Winged Womwood  Bienr Burdock, Common Carrot, Wild (Queen Anne's Lace) Cockle, White Eveningprimrose, Common Geranium, Carolina	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea Iva cilliata Helianthus annuus Salsola iberica Abutilon teophrasti Amaranthus rudis Amaranthus tuberculatus Ludwigia decurrens Artemisia annua nials Arctium minus Daucus carota Melandrium album Oenothera biennis Geranium carolinianum
Spurge, Prostrate Spurry, Corn Starbur, Bristly Starwort, Little Sumpweed, Rough Sunflower, Common (Wild) Thistle, Russian Velvetleaf Waterhemp, Common Tall Waterprimrose, Winged Womwood  Bienn Burdock, Common Carrot, Wild (Queen Anne's Lace) Cockle, White Eveningprimrose, Common Geranium, Carolina Gromwell	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea Iva cilliata Helianthus annuus Salsola iberica Abutilon teophrasti Amaranthus rudis Amaranthus rudis Amaranthus tuberculatus Ludwigia decurrens Artemisia annua hials Arctium minus Daucus carota Melandrium album Oenothera biennis Geranium carolinianum Lithospermum spp.
Spurge, Prostrate Spurry, Corn Starbur, Bristly Starwort, Little Sumpweed, Rough Sunflower, Common (Wild) Thistle, Russian Velvetleaf Waterhemp, Common Tall Waterprimrose, Winged Womwood  Bienr Burdock, Common Carrot, Wild (Queen Anne's Lace) Cockle, White Eveningprimrose, Common Geranium, Carolina Gromwell Knapweed, Diffuse	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea Iva cilliata Helianthus annuus Salsola iberica Abutilon teophrasti Amaranthus rudis Amaranthus rudis Amaranthus tuberculatus Ludwigia decurrens Artemisia annua nials Daucus carota Melandrium album Oenothera biennis Geranium carolinianum Lithospermum spp. Cantaurea diffusa
Spurge, Prostrate Spurry, Com Starbur, Bristly Starwort, Little Sumpweed, Rough Sunflower, Common (Wild) Thistle, Russian Velvetleaf Waterhemp, Common Tall Waterprimrose, Winged Wormwood  Bienn Burdock, Common Carrot, Wild (Queen Anne's Lace) Cockle, White Eveningprimrose, Common Geranium, Carolina Gromwell Knapweed, Diffuse Spotted	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea Iva cilliata Helianthus annuus Salsola iberica Abutilon teophrasti Amaranthus rudis Amaranthus rudis Amaranthus tuberculatus Ludwigia decurrens Artemisia annua hials Daucus carota Melandrium album Oenothera biennis Geranium carolinianum Lithospermum spp. Cantaurea diffusa Cantaurea maculosa
Spurge, Prostrate Spurry, Com Starbur, Bristly Starwort, Little Sumpweed, Rough Sunflower, Common (Wild) Thistle, Russian Velvetleaf Waterhemp, Common Tall Waterprimrose, Winged Wormwood  Bienn Burdock, Common Carrot, Wild (Queen Anne's Lace) Cockle, White Eveningprimrose, Common Geranium, Carolina Gromwell Knapweed, Diffuse	Hemizonia pungens Euphorbia humistrata Spergula arvensis Acanthospermum hispidum Stellaria graminea Iva cilliata Helianthus annuus Salsola iberica Abutilon teophrasti Amaranthus rudis Amaranthus tuberculatus Ludwigia decurrens Artemisia annua  nials  Arctium minus Daucus carota Melandrium album Oenothera biennis Geranium carolinianum Lithospermum spp. Cantaurea diffusa

Ragwort, Tansy	Senecio jocobaea	
Starthistle, Yellow	Centaurea solstitialis	
Sweetclover	Melilotus spp.	
Teasel	Dipsacus sativus	
Thistle, Bull	Cirsium vulgare	
Musk	Carduus nutans	
Plumeless	Carduus acanthoides	

Pests Listed in This Label: Perennials		
Alfalfa	Medicago sativa	
Artichoke, Jerusalem	Helianthus tuberosus	
Aster, Spiny	Aster spinosus	
Whiteheath	Aster pilosus	
Bedstraw, Smooth	Gallium mollugo	
Bindweed, Field	Convolvulus arvensis	
Hedge	Calystegia sepium	
Blueweed, Texas Bursage, Woollyleaf, (Bur Ragweed, Povertyweed)	Helianthus ciliaris	
Buttercup, Tall	Ambrosia grayi Runanculus acris	
Campion, Bladder	Silene vulgaris	
Chickweed, Field	Cerastium arvense	
Mouseear	Cerastium intybus	
Chicory	Cichorium intybus	
Clover, Hop	Trifoleum aureum	
Dandelion	Taraxacum officinale	
Dock, Broadleaf (Bitterdock)	Rumex obtusifolius	
Curley	Rumex crispus	
Dogbane, Hemp	Apocynum cannabinum	
Dogfennel (Cypressweed)	Eupatorium capillifolium	
Fern, Bracken	Pteridium aquilinum	
Garlic, Wild	Allium vineale	
Goldenrod, Canada	Solidago canadensis	
Missouri	Solidago missouriensis	
Goldenweed, Common	Isocoma coronopifolia	
Hawkweed	Hieracium spp.	
Henbane, Black	Hyoscyamus niger	
Horsenettle, Carolina Ironweed	Solanum caroliniense Veronia spp.	
Knapweed, Black	Veronia spp. Centaurea nigra	
Russian	Centaurea repens	
Milkweed, Climbing	Sarcostemma cynanchoides	
Common	Asclepias syriaca	
Honeyvine	Ampelamus albidus	
Western Whorled	Asclepias subverticillata	
Nettle, Stinging	Urtica dioica	
Nightshade, Silverleaf (White Horsenettle)	Solanum elaeagnifolium	
Onion, Wild	Allium canadense	
Plantain, Broadleaf	Plantage major	
Buckhorn	Plantago lanceolatat	
Pokeweed	Phytolacea Americana	
Ragweed, Western	Ambrosia psilstachya	
Redvine Sericia Lespedeza	Brunnichia ovata	
Sericia Lespedeza Smartweed, Swamp	Sericia Lespedeza Polygonum coccineum	
Snakeweed, Broom	Gutierezia sarothrae	
Sorrel, Red (Sheep Sorrel)	Rumex acetosella	
Sowthistle, Perennial	Sonchus arvensis	
Spurge, leafy	Euphorbia esula	
Sundrops	Oenothera perenis	
Thistle, Canada	Cirsium arevense	
Scotch	Onopordum acanthium	
Toadflex, Dalmation	Linaria genistrata	
Tropical Soda Apple	Solanum viarum	
Trumpetcreeper (Buckvine)	Campsis radicans	
Vetch	Vicia spp.	

Waterhemlock, Spotted	Cicuta maculata
Waterprimrose, Creeping	Ludwigia peploides
Woodsorrel, Creeping Yellow	Oxalis comiculata Oxalis stricta
Wormwood, Absinth Louisiana	Artmesia absinthium Artemesia ludoviciana
Yankeeweed	Eupatorium compositifolium
Yarrow, Common	Achillea millefolium
	ts Listed in This Label:
	Woody Species
Common Name	Scientific Name
Alder	Alnus spp.
Ash	Fraxinus spp.
Aspen	Populus spp.
Basswood	Tilia Americana
Birch	Fagus spp.
Blackberry	Setula spp. Rubus spp.
Blackgum	Nyssa spp.
Cedar	Cedrus spp.
Cherry	Prunus spp.
Chinquapin	Chryoeois chrysolphylla
Cottonwood	Populus deltoids
Creosotebush	Larrea Indentata
Cucumbertree Dewberry	Magnoilia acuminata
Dogwood	Rubus caesius
Elm	Cornus spp. Ulmus spp.
Grape	Vitus spp.
Hawthorn (Thornapple)	Crataegus spp.
Hemlock	Tsuga spp.
Hickory	Carya spp.
Honeylocust	Gleditsia triacanthos
Honeysuckle	Lonicera spp.
Hornbeam	Carpinus spp.
Huckleberry Huisache	Vaccinium arboreum
Ivy, Poison	Acacia Farmesiana Rhus radicans
Kudzu	Puerana lobata
Locust, Black	Robinia pseudicacia
Maple	Acer spp.
Mesquite	Prosopus ruscifolia
Oak	Quercus spp.
Oak, Poison	Rhus toxicodentron
Olive, Russian	Eleaegnus angustifolia
Persimmon, Eastern Pine	Diospyros, virginiana
Plum, Sand (Wild Plum)	Pinus spp. Prunus amygdalis
Poplar	Populus spp.
Rabbitbrush	Chrysothamnus pulchellus
Redcedar, Eastern	Juniperus virginiana
Rose, McCartney	Rosa bracteata
Multiflora	Rosa multiflorum
Sagebrush, Fringed	Artemesia frigida
Sassafras	Sassafras albidum
Serviceberry	Amelachier sanguinea
Spicebush Spruce	Lindera benxoin Picea spp.
Sumac	Rhus spp.
Sweetgum	Liquidamber stryaciflua
Sycamore	Platanus occidentalis
Tarbush	Flourensia cernua
Willow	Salix spp.
Witchhazel	Hamamelis rhacrophylla
Yaupon	llex spp.
Yucca	Yucca spp.

#### **CROPS**

This product can be used on the following crops:

**Asparagus** 

Conservation Reserve Program (CRP)

Corn

Cotton

Fallow Systems (Between Crop Applications)

**Proso Millet** 

Pastures, Rangeland, General Farmstead

Small Grains (Barley, Oat, Triticale, and Wheat)

Sorghum

Soybean

Sugarcane

Turf

Look inside for complete Restrictions and Limitations and Application Instructions.

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