OPTI-DGA®
HERBICIDE

Herbicide for weed control in asparagus, conservation reserve programs, corn, cotton, fallow croplands, forestry sites, general farmstead (non-cropland), sorghum, grass grown for seed, hay, proso millet, pasture, rangeland, rights-of way, small grains, soybean, sugarcane, and turf.

ACTIVE INGREDIENT:

Dicamba (Diglycolamine salt of 3,6-dichloro-o-anisic acid)*	58.1%
OTHER INGREDIENTS:	41.9%
TOTAL:	100.0%

*Contains 38.5% 3,6-dichloro-o-anisic acid (4 pounds dicamba acid equivalent per gallon or 480 grams per liter).

KEEP OUT OF REACH OF CHILDREN

CAUTION/PRECAUCION

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.)

FIRST AID	
If in eyes:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact (800) 424-9300, for 24-hour medical emergency assistance (human or animal) and chemical emergency assistance (spill, leak, fire, or accident).	

See inside booklet for complete First Aid, Precautionary Statements, Directions for Use, State-Specific Crop and/or Use Site Restrictions and Conditions of Sale and Warranty.

EPA Reg. No. 5905-597 **AD 020116HAE**
EPA Est. No. 5905-IA-001

MANUFACTURED BY
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PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear protective eye wear (goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, butyl rubber ≥ 14 mills, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or Viton® ≥ 14 mils
- Shoes plus socks
- Protective eyewear

See engineering controls for additional requirements

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.

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 (40CFR 170.2.40(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.

PHYSICAL AND CHEMICAL HAZARDS

Do not mix or allow to come in contact with oxidizing agents as hazardous chemical reaction may occur.

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 **or** 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 product 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 intervals. The requirements in this box only apply to uses of this product that are covered by the WPS.

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
- Chemical-resistant headgear for overhead exposure
- Protective eyewear

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

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

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage 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:

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state

and local authorities.

Triple rinse containers small enough to shake (capacity < 5 gallons) 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.

Triple rinse containers too large to shake (capacity > 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. 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: Empty the remaining contents into application equipment or mix tank. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable Container. Refill this container with pesticide only. DO NOT reuse this container for any other purpose. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Triple rinse as follows: To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

When this container is empty, replace the cap and seal all openings that *have* been opened during use; return the container to the point of purchase or to a designated location. This container must only be refilled with a pesticide product. DO NOT reuse the container for any other purpose. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transport. DO NOT transport if this container is damaged or leaking. If the container is damaged or leaking, or obsolete and not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling, if available, or dispose of container in compliance with state and local regulations.

IN CASE OF SPILL: In case of large-scale spillage regarding this product, call CHEMTREC toll free at 1-800-424-9300.

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 reuse. Keep the spill out of all sewers and open bodies of water.

I. PRODUCT INFORMATION

OPTI-DGA® HERBICIDE is a water-soluble formulation intended for control and suppression of listed annual, biennial, and perennial broadleaf weeds, as well as woody brush and vines listed in Table 1. Weed List, including ALS- and Triazine-Resistant Biotypes.

OPTI-DGA® HERBICIDE may be used for control of these weeds in asparagus, corn, cotton, conservation reserve programs, fallow cropland, forestry sites, grass grown for seed, hay, proso millet, pasture, rangeland, rights-of-way general farmstead (noncropland), small grains, sorghum, soybean, sugarcane, and turf.

Mode of Action

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

Resistance Management

OPTI-DGA® HERBICIDE 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. Weed list, Including ALS- and Triazine-Resistant Biotypes

ANNUALS		PERENNIALS	WOODY SPECIES
Alkanet	Pigweed, Prostrate,	Alfalfa[1]	Alder
Amaranth, Palmer,	Red root	Artichoke, Jerusalem	Ash
Powell, Spiny	(Carelessweed	Aster, Spiny,	Aspen
Aster, Slender	Rough, Smooth,	Whiteheath	Basswood
Bedstraw, Catchweed	Tumble)	Bedstraw, Smooth	Beech
Beggarweed, Florida	Pineappleweed	Bindweed, Field,	Birch
Broomweed, Common	Poorjoe	Hedge	Blackberry[2]
Buckwheat, Tartar,	Poppy, Red-horned	Blueweed, Texas	Blackgum[2]
Wild	Purslane, Common	Bursage, Woollyleaf[1]	Cedar[2]
Burclover, California	Pusley, Florida	(Bur Ragweed,	Cherry
Burcucumber	Radish, Wild Buttercup,	Povertyweed)	Chinquapin
Buttercup, Corn,	Tall	Buttercup, Tall	Cottonwood
Creeping,	Ragweed, Common,	Campion, Bladder	Creosotebush[2]
Roughseed	Giant	Chickweed, Field,	Cucumbertree
Western Field	(Buffaloweed),	Mouseear	Dewberry[2]
Carpetweed	Lance-Leaf Rocket,	Chicory	Dogwood[2]
Catchfly, Nightflowering	London, Yellow	Clover[1], Hop	Elm
Chamomile, Corn	Rubberweed, Bitter	Dandelion	Grape
Chervil, Bur Chickweed,	(Bitterweed)	Dock[1], Broadleaf,	Hawthorn
Common Clovers	Salsify	(Bitterdock), Curly	(Thornapple)[2]
Cockle, Corn, Cow,	Senna, Coffee,	Dogbane, Hemp	Hemlock

White	Sesbania, Hemp	Dogfennel[1]	Hickory
Cocklebur, Common	Shepherdspurse	(Cypressweed)	Honeylocust
Copperleaf,	Sicklepod	Fern, Bracken	Honeysuckle
Hophornbeam	Sida, Prickly	Garlic, Wild	Hornbeam
Cornflower (Bachelor	(Teaweed)	Goldenrod, Canada,	Huckleberry
Button)	Smartweed, Green,	Missouri	Huisache
Croton, Tropic, Woolly	Pennsylvania	Goldenweed, Common	Hophornbeam
Daisy, English	Sneezeweed, Bitter	Hawkweed	Ivy, Poison
Dragonhead, American	Sowthistle, Annual,	Henbane, Black	Kudzu
Eveningprimrose,	Spiny	Horsenettle, Carolina	Locust, Black
Cutleaf	Spanish	Iron weed	Maple
Falseflax, Smallseed	Spikeweed, Common	Knapweed, Black	Mesquite
Fleabane, Annual	Spurge Prostrate	Diffuse, Russian[1],	Oak
Flixweed	Leafy	Spotted	Oak, Poison
Fumitory	Spurry, Corn	Milkweed, Common,	Olive, Russian
Goosefoot, Nettleleaf	Starbur, Bristly	Honeyvine,	Persimmon, Eastern
Hempnettle	Starwort, Little	Western	Pine
Henbit	Sumpweed, Rough	Whorled	Plum, Sand (Wild
Jacobs-Ladder	Sunflower, Common	Nettle, Stinging	Plum)[2]
Jimsonweed	(Wild), Volunteer	Nightshade, Silverleaf	Poplar
Knawel (German	Thistle, Russian	(White Horsenettle)	Rabbitbrush
Moss) Knotweed,	Velvetleaf	Onion, Wild	Redcedar, Eastern[2]
Prostrate Kochia	Waterhemp	Plantain, Broadleaf,	Rose[2], McCartney,
Ladysthumb	Waterprimrose, Winged	Buckhorn	Multiflora
Lambsquarters,	Wormwood	Pokeweed	Sagebrush, Fringed[2]
Common		Ragweed, Western	Sassafras
Lettuce, Miners,	**BIENNIALS**	Redvine	Serviceberry
Prickly	Burdock, Common	Sericea Lespedeza	Spicebush
Mallow, Common,	Carrot, Wild (Queen	Smartweed, Swamp	Spruce
Venice	Anne's Lace)	Snakeweed, Broom	Sumac
Marestail (Horseweed)	Cockle, White	Sorrel[1], Red (Sheep	Sweetgum[2]
Mayweed	Eveningprimrose,	Sorrel)	Sycamore
Morningglory, Ivyleaf,	Common	Sowthistle, Perennial	Tarbush
Tall	Geranium, Carolina	Spurge, Leafy	Willow
Mustard, Black, Blue,	Gromwell	Sundrop	Witch hazel
Tansy, Treacle,	Knapweed, Diffuse,	Thistle, Canada,	Yaupon2
Tumble, Wild,	Spotted	Scotch	Yucca2
Yellowtops	Mallow, Dwarf	Toadflax, Dalmatian	
Nightshade, Black,	Plantain, Bracted	Tropical Soda Apple	
Cutleaf,	Ragwort, Tansy	Trumpetcreeper	
Pennycress, Field	Starthistle, Yellow	(Buckvine)	
(Fanweed,	Sweetclover	Vetch	
Frenchweed,	Teasel	Waterhemlock,	
Stinkweed)	Thistle, Bull, Milk,	Spotted	
Pepperweed, Virginia	Musk, Plumeless	Waterprimrose,	
(Peppergrass)		Creeping, Yellow	

		Wormwood, Louisiana Yankeeweed Yarrow, Common[1]	

[1] Noted perennials may be controlled using lower rates of **OPTI-DGA® HERBICIDE** than those listed for other perennial weeds.

[2] Growth suppression only.

II. APPLICATION INSTRUCTIONS

OPTI-DGA® HERBICIDE can be applied to actively growing weeds as aerial, broadcast, band, or spot spray applications using water or sprayable fertilizer as a carrier. For **OPTI-DGA® HERBICIDE** 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, **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** to prevent injury to desirable plants and shrubs.

Cultivation

DO NOT cultivate within 7 days after applying **OPTI-DGA® HERBICIDE**.

Sensitive Crop Precautions

OPTI-DGA® 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 **OPTI-DGA® HERBICIDE** during their development or growing stage.

Spray Drift Management

- 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 (for ground broadcast applications), unless otherwise required by the manufacturer of drift-reducing nozzles. Consult your spray nozzle supplier concerning the choice of drift-reducing nozzles.
- Federally approved agricultural 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 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 **OPTI-DGA® HERBICIDE** by banding, determine the amount of herbicide and water volume needed using the following formula:

Bandwidth in inches / Row width in inches	x	Broadcast rate = per acre	Banding herbicide rate per acre
Bandwidth in inches / Row width in inches	x	Broadcast = volume per acre	Banding water volume 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)
OPTI-DGA® HERBICIDE may be applied through wiper application equipment to control or suppress actively growing broadleaf weeds, brush, and vines. Use a solution containing 1 part **OPTI-DGA® HERBICIDE** 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.

Table 2. OPTI-DGA® HERBICIDE Application Rates for Control or Suppression by Weed Type and Growth Stage
Use rate limitations are given in sections V. and VI. Crop-Specific Information.

Weed Type and Stage	Rate per Acre (fl oz)	Weed Type and Stage	Rate per Acre (fl oz)
Annual[1]		Perennial	
Small, actively growing	8-16	Top growth suppression	8-16
Established weed growth	16-24	Top growth control & root suppression	16-32
		Noted perennials (footnote 1 in Table 1)	32
		Other perennials[3]	32
Biennial		Woody Brush & Vine	
Rosette diameter 1-3”	8-16	Top growth suppression	16-32
Rosette diameter 3” or more	16-32	Top growth control[2,3]	32
		Stems and stem suppression[3]	32
Bolting	32		

[1] 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.
[2] Species notes in Table 2 will require tank mixes for adequate control.
[3] DO NOT broadcast apply more than 32 fluid ounces per acre for single application. Use the higher level of listed rate ranges when treating dense vegetation growth or perennial weeds with well-established root growth. DO NOT exceed 64 fluid ounces per acre per year.

III. ADDITIVES

To improve postemergence weed control, federally approved agricultural 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 Per Acre.)

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. Do not apply 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.

Nonionic Surfactant

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

The exact composition of suitable products will vary; however, vegetable 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, preemergence, and preharvest application, 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 UAN Solution Crop Oil Concentrate	2.5 pounds 2-4 quarts 1 quart*
*See manufacturer's label for specific rate.	

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 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 flowables, wettable powders, suspension concentrates, or suspo-emulsions).
6. Water-soluble products (such as **OPTI-DGA® 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. TANK MIXING INFORMATION

Tank Mix Partners/Components

The herbicide products listed may be applied with **OPTI-DGA® 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.

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions and precautionary language of the products in the mixture (for example, first aid from one product, spray drift management from another).

OPTI-DGA® HERBICIDE may also be used in tank mixtures with foliar applied insecticides including synthetic pyrethroids such as Ambush®, Asana®, Pounce® and Warrior® insecticides or with the carbamate insecticide Furadan®. DO NOT apply **OPTI-DGA® HERBICIDE** in tank mixtures with Lorsban® insecticide.

Physical incompatibility, reduced weed control, or crop injury may result from mixing **OPTI-DGA® HERBICIDE** with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers. Helena Agri-Enterprises, LLC does not recommend using tank mixes other than those listed on Helena Agri-Enterprises, LLC labeling. Local agricultural authorities may be a source of information when using other than Helena Agri-Enterprises, LLC recommended tank mixes.

- Accent® (nicosulfuron)
- Ally® (metsulfuron-methyl)
- Amber® (triasulfuron)
- Asulox® (asulam)
- Atrazine
- Axiom™ (flufenacet + metribuzin)
- Banvel® SGF (dicamba)
- Basagran® (bentazon)
- Beacon® (primisulfuron-methyl)
- Bicep II Magnum® (s-metolachlor + atrazine)
- 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)
- Degree™ (acetochlor)
- Harmony® Extra (thifensulfuron + tribenuron-methyl)
- Harness® (acetochlor)
- Harness® Xtra (acetochlor + atrazine)
- Hornet™ (flumetsalam + clopyralid)
- Karmex® (diuron)
- Kerb® (pronamide)
- Laddok® 5-12 (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)

- 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 + tribenuronmethyl)
- Fallow Master® (glyphosate + dicamba)
- Field Master™ (acetochlor + atrazine + glyphosate)
- Finesse® (chlorsulfuron + metsulfuronmethyl)
- Frontier® (dimethenamid)
- FulTime™ (acetochlor + atrazine)
- Garlon® (triclopyr)
- Glean® (chlorsulfuron)
- Gramoxone® Extra (paraquat)
- Guardsman® (dimethenamid + atrazine)
- Princep® (simazine)
- Prowl® (pendimethalin)
- Python™ (flumetsulam)
- Ramrod® (propachlor)
- Roundup® Ultra (glyphosate)
- Roundup® Ultra RT (glyphosate)
- Sencor® (metribuzin)
- Spirit™ (primisulfuron + prosulfuron)
- 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. Crop-Specific Restrictions and Limitations for crop specific maximum seasonal use rates. DO NOT exceed 64 fluid ounces of **OPTI-DGA® HERBICIDE** (2 pounds acid equivalent) per acre, per year.
- Single maximum use rate: DO NOT exceed 32 fluid ounces of **OPTI-DGA® HERBICIDE** per single application
- 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 **OPTI-DGA® HERBICIDE** 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 and 22 days per 8 fluid ounces per acre west of the Mississippi River.

Planting/replanting restrictions for applications of more than 24 fluid ounces and up to 64 fluid ounces of **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE**.
- 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.

Table 4. Crop-Specific Restrictions and Limitations[1]

Crop	Maximum Rate per Acre per Application (fl oz)	Maximum In-Crop Rate per Acre per Season (fl oz)	Livestock Grazing or Feeding	Aircraft Application Allowed
Asparagus	16	16	Yes	Yes
Barley, Fall , Spring	8 8	12 11	Yes	Yes
Conservation Reserve Program (CRP)	32	64	Yes	Yes
Corn	16	24	Yes[2]	Yes
Cotton	8	8	Yes	Yes
Fallow Ground	32	64	Yes	Yes
Grass Grown for Seed	32	64	Yes	Yes
Oats	4	4	Yes	Yes
Pastureland	32	32	Yes	Yes
Proso Millet	4	4	Yes	Yes
Small Grains grown for grass, forage, fodder, hay and/or pasture	16	16	Yes	Yes
Sorghum	8	16	Yes	Yes
Soybean	32	64	Yes	Yes
Sugarcane	32	64	Yes	Yes
Triticale	4	4	Yes	Yes
Turf	32	32	Yes	Yes
Wheat	8	16	Yes	Yes

[1] Refer to section VI. Crop-Specific Information for more details.
[2] Once the crop reaches the ensilage (milk) stage or later in maturity.

VI. CROP-SPECIFIC INFORMATION

ASPARAGUS

Apply **OPTI-DGA® 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 spears.

Rates: Apply 8-16 fluid ounces of **OPTI-DGA® HERBICIDE** to control annual sowthistle, black mustard, Canada and Russian thistle, and red root pigweed (carelessweed).

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

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

OPTI-DGA® HERBICIDE can be applied either postharvest in the fall, spring, or summer during the fallow period or to crop stubble/set-aside acres. Apply **OPTI-DGA® HERBICIDE** 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. Restrictions and Limitations for the required interval between application and planting to prevent crop injury.

Rates and Timings:
Apply 4-32 fluid ounces of **OPTI-DGA® HERBICIDE** per acre. Refer to Table 2 to determine use rates for specific targeted weed species. For best performance, apply **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE**.

For seedling control, a follow-up program or other cultural practices could be instituted. For small grain in-crop uses of **OPTI-DGA® HERBICIDE**, 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 **OPTI-DGA® HERBICIDE** per acre for control of annual weeds, or 16-32 fluid ounces of **OPTI-DGA® HERBICIDE** per acre for control of biennial and perennial weeds:

- 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 **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** may be made during a growing season. Sequential applications must be separated by 2 weeks or more.

DO NOT apply **OPTI-DGA® HERBICIDE** to seed corn or popcorn without first verifying with your local seed corn company (supplier) the selectivity of **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** alone or tank mixed with atrazine.

DO NOT use a sprayable fluid fertilizer as the carrier for applications of **OPTI-DGA® HERBICIDE** made after corn emergence.

DO NOT use on sweet corn.

PREPLANT AND PREEMERGENCE APPLICATION IN NO TILLAGE CORN:

Rates:
Apply 16 fluid ounces of **OPTI-DGA® HERBICIDE** per acre on medium- or fine-textured soils containing 2.5% or greater organic matter. Use 8 fluid ounces of **OPTI-DGA® HERBICIDE** 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:
OPTI-DGA® HERBICIDE 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 **OPTI-DGA® HERBICIDE** after 4-6" of regrowth has occurred.

PREEMERGENCE APPLICATION IN CONVENTIONAL OR REDUCED TILLAGE CORN:

Rates:
Apply 16 fluid ounces of **OPTI-DGA® 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:
OPTI-DGA® HERBICIDE may be applied after planting and prior to corn emergence. Preemergence application of **OPTI-DGA® HERBICIDE** 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.

Preemergence 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 **OPTI-DGA® HERBICIDE** per treated acre. Reduce the rate to 8 fluid ounces of **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** per treated acre.

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

- Accent®
- Atrazine
- Axiom™
- Banvel®
- Beacon®
- Bicep®
- Bullet®
- **OPTI-DGA® HERBICIDE**
- Degree™
- Degree Xtra™
- DoublePlay®[1]
- Dual Magnum™
- Dual II Magnum®
- Eradicane®
- Exceed®
- Field Master®
- Frontier®
- FulTime®
- Gramoxone® Extra
- Guardsman®
- Harness®
- Harness® Xtra
- Hornet™
- Laddok® S-12
- Lasso®
- Liberty®[2]
- Lightning®[4]
- Marksman®
- Outlook®
- Permit®
- Princep®
- Prowl®
- Python™
- Roundup® Ultra[3]
- Roundup® Ultra RT
- Spirit™
- Stinger®
- Surpass®
- Sutan® +[1]
- TopNotch™
- Touchdown®
- Tough®
- 2,4-D

[1] Sequential use only.
[2] Use only on Liberty Link® (glufosinate tolerant) corn hybrids.
[3] Includes postemergence use on Roundup® Ready (glyphosate tolerant) corn hybrids.
[4] Use only CLEARFIELD® (imidazolinone tolerant) corn hybrids.

COTTON
PREPLANT APPLICATION:

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

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

Following application of **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** 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.

Cotton Tank Mixes

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

GRASS GROWN FOR SEED

Apply 8-16 fluid ounces of **OPTI-DGA® HERBICIDE** per treated acre on seedling grass after the crop reaches the 3-5 leaf stage. Apply up to 32 fluid ounces of **OPTI-DGA® HERBICIDE** on well-established perennial grass. For best performance, apply **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** 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
OPTI-DGA® HERBICIDE 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.

OPTI-DGA® HERBICIDE combined with 2,4-D will provide control or suppression of the annual broadleaf weeds listed in Table 1.

Apply 4 ounces of **OPTI-DGA® HERBICIDE**. Apply the tank mix of **OPTI-DGA® HERBICIDE** + 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 **OPTI-DGA® HERBICIDE**. Some types of proso millet maybe affected adversely by a tank mix of **OPTI-DGA® HERBICIDE** + 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. Timing Restrictions for Lactating Dairy Animals Following Treatment in Pasture, Hay, Rangeland, and General Farmstead section of this label.

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

OPTI-DGA® HERBICIDE may be used on pasture, hay, rangeland, and general farmstead (noncropland) (including fencerows and non-irrigation ditchbanks) for control or suppression of broadleaf weed and brush species listed in Table 1.

OPTI-DGA® HERBICIDE 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.

OPTI-DGA® HERBICIDE 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 **OPTI-DGA® HERBICIDE** or **OPTI-DGA® HERBICIDE** 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 weed species will require tank mixes for adequate control.

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 **OPTI-DGA® HERBICIDE** per treated acre during a growing season.

Crop-Specific Restrictions and Limitations
DO NOT apply more than 16 fluid ounces of **OPTI-DGA® HERBICIDE** per acre to small grains grown for pasture.

Newly seeded areas may be severely injured if more than 16 fluid ounces of **OPTI-DGA® HERBICIDE** is applied per acre.

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 **OPTI-DGA® HERBICIDE** 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 5 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 5. Timing Restrictions for Lactating Dairy Animals Following Treatment

OPTI-DGA® HERBICIDE Rate per Treated Acre (pts)	Days Before Grazing (days)	Days Before Hay Harvest (days)
Up to 1	7	37
Up to 2	21	51
Up to 4	40	70

OPTI-DGA® 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 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 layers. **OPTI-DGA® HERBICIDE** 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: **OPTI-DGA® HERBICIDE** 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:
OPTI-DGA® HERBICIDE may be applied as a cut surface treatment for control of unwanted trees and prevention of sprouts of cut trees.

Rate: Mix 1 part **OPTI-DGA® HERBICIDE** 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, 2,4-D may be added to the solution.

Applications for Control of Dormant Multiflora Rose:
OPTI-DGA® HERBICIDE 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 **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** to the uphill side of the crown, DO NOT apply when snow or water prevents applying **OPTI-DGA® HERBICIDE** directly to the soil. The use rate of **OPTI-DGA® HERBICIDE** depends on the canopy diameter of the multiflora rose.

Examples: Use 0.25, 1.0, or 2.35 fluid ounces of **OPTI-DGA® HERBICIDE** respectively, for 5, 10, or 15 feet canopy diameters.

- Lo-Oil basal bark treatments; For Lo-Oil basal bark treatments, apply **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE**, and 2.5 pints of No. 2 diesel fuel.
2. 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
OPTI-DGA® HERBICIDE may be applied in tank mixes with one or more of the following herbicides:

- Ally®
- Amber®
- Crossbow®
- Curtail®
- Garlon®
- Gramoxone® Extra
- Roundup® Ultra RT
- Stinger®
- Tordon® 22K
- 2,4-D

CONSERVATION RESERVE PROGRAM (CRP)

OPTI-DGA® HERBICIDE may be used on both newly seeded and established grasses grown in Conservation Reserve or Federal Set-Aside Programs. Treatments of **OPTI-DGA® HERBICIDE** will injure or may kill alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

NEWLY SEEDED AREAS

OPTI-DGA® HERBICIDE 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 **OPTI-DGA® HERBICIDE** greater than 16 fluid ounces per treated acre 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 **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** per treated acre.

When applied at specified rates, **OPTI-DGA® 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 **OPTI-DGA® HERBICIDE** per acre. Refer to Table 2 for rates based on target weed species. **OPTI-DGA® HERBICIDE** may be tank mixed or applied sequentially with other products labeled for use in Conservation Reserve Programs such as atrazine, Cyclone®, glyphosate (Roundup® Ultra), Gramoxone® 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 **OPTI-DGA® HERBICIDE** per acre per year.

SMALL GRAINS NOT UNDERSEEDED TO LEGUMES
(fall- and spring-seeded barley, oat, triticale and wheat)

OPTI-DGA® HERBICIDE 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 **OPTI-DGA® HERBICIDE** with one or more of the herbicides listed. **OPTI-DGA® HERBICIDE** 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 crop section for **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** per treated acre with a non-sulfonylurea herbicide such as 2,4-D or MCPA. Tank mixing **OPTI-DGA® HERBICIDE** with these products will offer more consistent control of sulfonylurea-resistant weeds.

Additives:
When tank mixing **OPTI-DGA® HERBICIDE** with sulfonylurea herbicides (Ally®, Amber®, Canvas®, Express®, Finesse®, Glean®, Harmony® Extra, and Peak®), use 1-4 pints of Federally approved agricultural 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 3-4 fluid ounces of **OPTI-DGA® HERBICIDE** per acre.

Timings:
Apply **OPTI-DGA® HERBICIDE** before, during, or after planting small grains. See specific small grain crop uses below for maximum crop stage. For best performance, apply **OPTI-DGA® HERBICIDE** when weeds are in the 2-3 leaf stage and rosettes are less than 2" across. Applying **OPTI-DGA® HERBICIDE** to 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 grain areas that are grazed or cut for hay 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 **OPTI-DGA® HERBICIDE** to fall-seeded barley prior to the jointing stage. Apply 2-3 fluid ounces of **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** with 2,4-D in early season applications on spring-seeded barley.

PREHARVEST APPLICATIONS:

OPTI-DGA® HERBICIDE can be used to control weeds that may interfere with harvest of fall- and spring-seeded barley. Apply 8 fluid ounces of **OPTI-DGA® HERBICIDE** 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 pre-harvest 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, **OPTI-DGA® HERBICIDE** may be tank mixed with other herbicides, such as 2,4-D, that are labeled for pre-harvest uses in barley.

DO NOT make pre-harvest applications in California.

Barley Tank Mixes

Table 6. Tank Mix Partner
Alley®[1]
Amber®[1]
Bronate®
Buctril®
Canvas®[1]
Express®[1]
Finesse®[1]
Glean®[1]
Harmony® Extra[1]
MCPA amine or ester
Metribuzin (Sencor®, Lexone®)
2,4-D amine or ester [2,3]

[1] 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.
[2] When using formulations other than 4 pounds per gallon use pounds of a.e. per acre listed.
[3] This tank mix is for fall-seeded barley only.

SMALL GRAINS: OAT
(fall- and spring-seeded)
EARLY SEASON APPLICATIONS:

Apply 2-4 fluid ounces of **OPTI-DGA® HERBICIDE** per acre to fall-seeded oat prior to the jointing stage. Apply 2-4 fluid ounces of **OPTI-DGA® HERBICIDE** before spring-seeded oat exceeds the 5-leaf stage.

OPTI-DGA® HERBICIDE may be tank mixed with MCPA amine or ester for applications in oat.

DO NOT tank mix **OPTI-DGA® HERBICIDE** with 2,4-D in oat.

Pre-Harvest Interval: 7 days

SMALL GRAINS: TRITICALE
(fall- and spring-seeded)
EARLY SEASON APPLICATIONS:

Apply 2-4 fluid ounces of **OPTI-DGA® HERBICIDE** 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, **OPTI-DGA® HERBICIDE** should be used in tank mix combination with bromoxynil (Buctril, Brox 2E) herbicide.

Pre-Harvest Interval: 7 days

SMALL GRAINS: WHEAT
(fall- and spring-seeded)
EARLY SEASON APPLICATIONS:

Apply 2-4 fluid ounces of **OPTI-DGA® HERBICIDE** 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 exceeds 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:

OPTI-DGA® HERBICIDE 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 **OPTI-DGA® HERBICIDE** 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. **OPTI-DGA® HERBICIDE** 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:

OPTI-DGA® HERBICIDE can be used to control weeds that may interfere with harvest of wheat. Apply 8 fluid ounces **OPTI-DGA® HERBICIDE** 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 pre-harvest 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, **OPTI-DGA® HERBICIDE** may be tank mixed with other herbicides such as Ally®, Roundup® Ultra, and 2,4-D.

DO NOT make pre-harvest applications in California.

Wheat Tank Mixes

Table 7. **Tank Mix Partner**
Ally®[1]
Amber®[1]
Bronate®
Buctril®
Canvas®[1]
Express®[1]
Finesse®[1]
Glean®[1]
Harmony® Extra[1]
Karmex®[3]
Glyphosate (Roundup® Ultra RT)
MCPA amine or ester
Metribuzin[3] (Sencor®, Lexone®)
Peak®[1]
Stinger®
Tiller®[2]
2,4-D amine or ester [2,3]
[1] 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 **OPTI-DGA® HERBICIDE** 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.

[3] Tank mixes with Karmex® and metribuzin are for use in fall-seeded wheat only.

SORGHUM

OPTI-DGA® 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 **OPTI-DGA® HERBICIDE** to sorghum grown for seed production.

Sorghum, forage PHI = 20 days

Sorghum, fodder PHI = 30 days

PRE PLANT APPLICATION:

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

POSTEMERGENCE APPLICATION:

Up to 8 fluid ounces of **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** per acre may be applied for weed suppression any time after the sorghum has reached the soft dough stage. A federally approved agricultural 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:

OPTI-DGA® HERBICIDE 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
OPTI-DGA® HERBICIDE may be applied prior to, in tank mixes with, or after one or more of the following herbicides:

- Atrazine
- Basagran®
- Bicep II Magnum®
- Buctril®
- Cyclone®
- Dual Magnum™
- Dual II Magnum®
- Fallow Master®
- Frontier®
- Gramoxone® Extra
- Guardsman®
- Laddok® S-12
- Landmaster®
- Lasso®
- Outlook®
- Paramount®
- Peak®
- Permit®
- Ramrod®
- Roundup® Ultra

SOYBEAN

PREPLANT APPLICATIONS:

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

PREHARVEST APPLICATIONS:

OPTI-DGA® HERBICIDE 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 8-32 fluid ounces of **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE**. 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 **OPTI-DGA® HERBICIDE**.

DO NOT make preharvest applications in California.

Soybean Tank Mixes
PREPLANT TANK MIXES:
OPTI-DGA® HERBICIDE may be tank mixed with other herbicides registered for early preplant use in soybeans including burndown herbicides such as glyphosate (Roundup® Ultra) and 2,4-D or residual herbicides such as Outlook®, Frontier® or Dual Magnum™.

PREHARVEST TANK MIXES:
OPTI-DGA® HERBICIDE may be tank mixed with other herbicides registered for preharvest use in soybeans such as glyphosate (Roundup® Ultra) and Gramoxone® Extra.

SUGARCANE

Apply **OPTI-DGA® HERBICIDE** *for* control of annual, biennial, or perennial broadleaf weeds listed in Table 1. Apply 8-24 fluid ounces of **OPTI-DGA® HERBICIDE** per acre for control of annual weeds, 16-32 fluid ounces for control of biennial weeds, and 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 **OPTI-DGA® HERBICIDE** per treated acre during a growing season.

Sugarcane PHI = 87 days

Timing:
OPTI-DGA® HERBICIDE may be applied to sugarcane any time after weeds have emerged, but before the close-in stage of sugarcane. Applications of 32 fluid ounces of **OPTI-DGA® HERBICIDE** 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
OPTI-DGA® HERBICIDE may be tank mixed with other products registered for use in sugarcane such as Asulox®, atrazine, Evik®, and 2,4-D.

FARMSTEAD TURF (noncropland) and SOD FARMS

For use in general farmstead (noncropland) and sod farms, apply 3-32 fluid ounces of **OPTI-DGA® HERBICIDE** per acre to control or suppress growth of many annual, biennial, and some perennial broadleaf weeds commonly found in turf. **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** until after the second mowing. Furthermore, applying more than 16 fluid ounces of **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** 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 **OPTI-DGA® HERBICIDE** have been activated in the soil by rain or irrigation.

Farmstead Turf (noncropland) and Sod Farm Tank Mixes
Apply 3.2-8 fluid ounces of **OPTI-DGA® HERBICIDE** per acre in a tank mix with one of the products in Table 8 at the rates listed. Use the higher rates when treating established weeds.

Table 8. Tank Mix Partner
Bromoxynil (Buctril, Brox 2E)
MCPA
MCPP
2,4-D

RIGHTS-Of-WAY, UTILILITY AND INDUSTRIAL AREAS, AND FENCEROWS

OPTI-DGA® HERBICIDE may be use on non-crop land areas such as rights-of-way (such as roadways, rest areas, utility, railroad, highway, pipeline, and rights-of-way that run through pasture and rangeland); utility facilities (such as substations, pipelines, tankfarms, pumping stations, parking and storage areas, fencerows, and non-irrigated ditchbanks); brush control for forest site preparation or maintenance.

Observe all Precautions on this label. Read and follow the Mixing and Application section.

Rights-of-Way
OPTI-DGA® HERBICIDE can be used to control listed broadleaf weeds on rights-of-way. This use includes applications to roadside, roadway and highways; to areas along utilities such as cable and powerlines; railroad track and embankment; highways/highway medians/bridge abutments, pipelines/and rights-of-way that run through pasture and rangeland. Use controlled application techniques that minimize the risk of off target movement.

Utility and Industrial Areas
OPTI-DGA® HERBICIDE can be used to control many broadleaf weeds and brush in noncrop areas on or surrounding substations, pipelines, tankfarms, pump stations, production facilities, and bareground situations. It may also be used on parking and storage areas (refer to Best Stewardship Practices to avoid direct runoff from impervious surfaces).

Fencerows
OPTI-DGA® HERBICIDE can be used to control listed broadleaf weeds and brush in fencerows.

Mixing and Application
Read and observe Management of Off-Site Movement recommendations in this label.

OPTI-DGA® HERBICIDE can be applied using water, oil in water emulsions including invert systems, or sprayable fluid fertilizer as a carrier. A compatibility test (see Compatibility Test section) should be made prior to tank mixing.

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 herbicidal oil or a pre-mix of all 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.

OPTI-DGA® HERBICIDE may be applied broadcast using either ground or aerial application equipment. When using ground equipment, apply low or high volume sprays of between 3-600 gals, of diluted spray per treated acre. 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, When using aerial equipment, apply 5-40 gals, of diluted spray per treated acre, **OPTI-DGA® HERBICIDE** may be applied to individual clumps or small areas (spot treatment) 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.

Herbicide adjuvants or other spray additives (emulsifiers, spreader stickers, surfactants, wetting agents, drift control agents, or penetrants) may be used for wetting, penetration, or drift control. Spray additives must be federally approved agricultural when used in pasture applications. If spray additives are used, read and follow all use directions and precautions on product label.

Weeds and Brush Controlled
OPTI-DGA® HERBICIDE, when applied at specified rates, will give control of many annual, biennial, and perennial broadleaf weeds, and many woody brush and vine species commonly found in non-crop land areas. (Refer to Weed List.) Noted (*) perennial weeds may be controlled with lower rates of either **OPTI-DGA® HERBICIDE** or **OPTI-DGA® HERBICIDE** plus tank mix combinations.

See Rates and Timings below.

Rates and Timings
Application rates and timings of **OPTI-DGA® HERBICIDE** are given below. Use the higher level of listed rate ranges when treating dense or tall vegetative growth.

Weed Stage and Type	Amount of Product per Acre	Gallons of Spray Mixture per Acre**	Spray Concentration for Low Volume Application**** (% vol/vol)
Annual			
Small, Actively Growing	½-1 pint	25-50	3
Established weed growth	1-1½ pints	50-75	3
Biennial*			

Rosette diameter Less than 3" 3" or more Bolting	 ½-1 pint 1-2 pints 2 pints	 25-50 50-100 100-150	 3-4 3-4 3-4
Perennial Suppression or top growth control Noted (*) Perennials	 ½-1 pint 2 pints 2 pints	 50-100 100-200 200	 4 4 5
Woody Brush and Vines*** Top Growth Stems and Roots	 ½-2 pints 2 pints	 50-200 200	 5 5

*For best performance, make application when biennial weeds are in the rosette stage.
Assuming typical application rate of 1 qt. of **OPTI-DGA® HERBICIDE/100 gals.
***Tank mixes may be required for optimal control. Refer to Weed List.
****Low volume rates must not exceed 4 pts. of **OPTI-DGA® HERBICIDE** maximum per acre per year (5% volume/volume = 10 gals, maximum solution per acre per year).

Retreatments may be made as needed; however, do not exceed a total of 4 pts. (2 lbs. a.i.) of **OPTI-DGA® HERBICIDE** per treated acre per year.

Tank Mix Options for Rights-Of-Way, Utility and Industrial Areas, and Fencerows

OPTI-DGA® HERBICIDE may be tank mixed with other herbicides for additional weed control. The following table lists example options, but does not limit tank mix options.

READ AND FOLLOW THE LABEL OF EACH TANK MIX PRODUCT USED FOR PRECAUTIONARY STATEMENTS, DIRECTIONS FOR USE, APPLICATION RATES, AND OTHER RESTRICTIONS. Consult product labels for specified rates for tank mix partners.

Herbicide	Rates per Treated Acre (lbs. a.i.)
norflurazon (Predict®)	Consult product labels for specified rates
prodiamine (Endurance®)	
glufosinate (Finale®)	
glyphosate (Roundup®, Accord®)	
metsulfuron methyl (Escort®)	
pendimethalin (Pendulum®)	
triclopyr (Redeem®, Garlon®)	
clopyralid (Transline®)	
bromacil (Hyvar®)	
chlorsulfuron (Telar®)	
diquat (Reward®)	
simazine (Princep®)	
diuron (Karmex®)	
DSMA	
fosamine ammonium (Krenite®)	

Hexazinone (Velpar®)	
Imazapyr (Arsenal®)	
imazemethaeyr (Plateau®)	
MSMA	
sulfometuron methyl (Oust®)	
sulfosate (Touchdown®)	
tebuthiuron (Spike®)	
2,4-D	

Due to the differences that may occur between specific formulated products and specific use ingredients (e.g., water supplies), a compatibility test (see Compatibility Test section) is recommended prior to actual tank mixing.

FOREST SITE PREPARATION

Product Information

OPTI-DGA® HERBICIDE may be used for control of undesirable conifers as well as many broadleaf weeds, vines, brambles, hardwood brush, and trees in forest site preparation. **OPTI-DGA® HERBICIDE** may be applied as broadcast foliar sprays from ground or aerial equipment. **OPTI-DGA® HERBICIDE** is absorbed through the leaf surfaces quickly after spraying and will also be absorbed from the soil by the roots, Translocation through the leaves, stems, and roots provides control of undesirable young conifer and broadleaf species. Woody plants, brush, and trees may not display the full extent of herbicide efficacy until several months following treatment. **OPTI-DGA® HERBICIDE** provides application flexibility for extended windows of application and tank mix options (refer to Mixing and Application Procedures and Tank Mix Options).

Mixing and Application Instructions

Ground Operated Spray Equipment

Thoroughly mix and apply the specified amount of **OPTI-DGA® HERBICIDE** (2 qts./A maximum) in a minimum of 15 gals. of water per acre, Spray solution should uniformly cover undesirable foliage for best results. A suitable federally approved nonionic surfactant should be added to the spray solution to enhance foliage wetting, spreading, and solution absorption. Drift control and foam reducing agents may be added at specified rates, if needed. Spray pattern indicator agents may also be added at specified rates, if desired. DO NOT spray under windy or gusty conditions. Maintain proper buffer zones to ensure drift does not reach off-target vegetation.

Aerial Spray Equipment

Thoroughly mix the recommended amount of **OPTI-DGA® HERBICIDE** (2 qts./A maximum) in a minimum of 10 gals. of water per acre and uniformly apply with properly calibrated aerial equipment. A suitable federally approved nonionic surfactant should be added to the spray solution to enhance wetting, spreading, and solution absorption. All precautions should be taken to minimize or eliminate spray drift. Drift control and foam control agents may be added at specified rates, if needed.

Tank Mix Options

For extended range of species control, tank mix **OPTI-DGA® HERBICIDE** with other forest site preparation products such as Arsenal®, Garlon®, Accord®, etc. Observe all precautions and restrictions on the product labels. Always follow the most restrictive label in a tank mix.

TURF AND LAWNS

Including Golf Course (Fairways, Aprons, Tees, and Rough), Parks, and Recreational Areas and Lawn Care application.

IMPORTANT: Observe all Precautions on this label. Read and follow Mixing and Application Procedures.

Established grass stands growing under stress can exhibit *various* injury symptoms that may be more pronounced if herbicides are applied. To avoid injury to newly seeded grasses, application of **OPTI-DGA® HERBICIDE** should be delayed until after the second mowing. Furthermore, application rates in excess of 1 pt. (1/2 lb. a.i.) per treated acre may cause noticeable stunting or discoloration of sensitive grass species such as bentgrass, carpetgrass, buffalograss, and St. Augustine grass.

In areas where roots of sensitive plants extend, do not apply in excess of 1/4 pt. (1/8 lb. a.i.) of **OPTI-DGA® HERBICIDE** per treated acre on coarse-textured (sandy-type) soils, or in excess of 1/2 pt. (1/4 lb. a.i.) per treated acre on fine-textured (clay-type) soils. Do not make repeat applications in these areas for 30 days and until previous applications of **OPTI-DGA® HERBICIDE** have been activated in the soil by rain or irrigation.

Weeds Controlled
OPTI-DGA® HERBICIDE, when applied at specified rates, will give control of many annual, biennial, and noted perennial broadleaf weeds commonly found in turf. **OPTI-DGA® HERBICIDE** will also give growth suppression of many other listed perennial broadleaf weeds and woody brush and vine species. (Refer to **Weed List**.)

Mixing and Application
Apply 30-200 gals. of diluted spray per treated acre (3-17 qts. of dilution/1,000 sq. ft.), depending on density or height of weeds treated and on the type of equipment used.

Rates and Timings
Use the higher level of listed rate ranges when treating dense vegetative growth.

OPTI-DGA® HERBICIDE Broadcast Application Rates

Weed Stage and Type	Pints per Treated Acre	Pound a.i. per Treated Acre	Tsp. per 1,000 sq. ft.
Annual			
Small, Actively Growing	½-1 pint	¼-½	1-2¼
Established weed growth	1-1½ pints	½-¾	2 ¼-3¼
Biennial*			
Rosette diameter			
Less than 3"	½-1 pint	¼-½	1-2¼
3" or more	1-2 pints	½-1	2 ¼-4½

*For best performance, make application when biennial weeds are in the rosette stage.

For best performance, apply when weeds are emerged and actively growing.

Retreatments may be made as needed; however, do not exceed a total of 2 pts. (1 lb. a.i.) of **OPTI-DGA® HERBICIDE** per treated acre during a growing season.

Tank Mix Treatments

READ AND FOLLOW THE LABEL OF EACH TANK MIX PRODUCT USED FOR PRECAUTIONARY STATEMENTS, DIRECTIONS FOR USE, APPLICATION RATES AND TIMINGS, AND OTHER RESTRICTIONS. Consult product labels for rate recommendations for tank mix partners. OBSERVE ALL PRECAUTIONS AND RESTRICTIONS ON THE PRODUCT LABELS. ALWAYS FOLLOW THE MOST RESTRICTIVE LABEL IN A TANK MIX.

Tank mix treatments of **OPTI-DGA® HERBICIDE** may be made with 2,4-D, MCPA, MCPP, Confront®, or bromoxynil for control of additional weeds listed on the tank mix product label.

Apply 1/5 to 1/2 pt. (1/10-1/4 lb. a.i.) of **OPTI-DGA® HERBICIDE** per treated acre with tank mix partner listed above.

Use the higher level of the listed rate ranges when treating established weeds. Repeat treatments may be made as needed; however, do not exceed 2 pts. (1 lb. a.i.) of **OPTI-DGA® HERBICIDE** per treated acre during the growing season.

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 the 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 Agri-Enterprises, LLC or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

Helena Agri-Enterprises, LLC 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.

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