



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

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Michael Kellogg  
Pyxis Regulatory Consulting, Inc.  
4110 136<sup>th</sup> St. NW  
Gig Harbor, WA 98332

SEP 29 2010

Subject: EPA Reg. 81927-42 / Alligare Dicamba + 2,4-D DMA Notification

Dear Mr. Kellogg:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated 7-2-10 for the product EPA Reg. 81927-42 / Alligare Dicamba + 2,4-D DMA). The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions please call Erik Kraft at 703-308-9358 or email at [Kraft.Erik@epa.gov](mailto:Kraft.Erik@epa.gov) or Kathryn Montague at 703-305-1243 or [Montague.Kathryn@epa.gov](mailto:Montague.Kathryn@epa.gov).

Sincerely,

A handwritten signature in black ink that reads "Kathryn Montague".

Kathryn Montague  
Team Leader  
Herbicide Branch, Team 23  
Registration Division (7504P)



United States  
Environmental Protection Agency  
Washington, DC 20460

Registration  
 Amendment  
 Other

OPP Identifier Number

**Application for Pesticide - Section I**

1. Company/Product Number 81927-42	2. EPA Product Manager K. Montague	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Alligare, LLC / Alligare Dicamba + 2,4-D DMA	PM# 23	
5. Name and Address of Applicant (Include ZIP Code) Alligare, LLC c/o Pyxis Regulatory Consulting, Inc. 4110 136th St. NW Gig Harbor, WA 98332 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

**Section - II**

Amendment - Explain below.  Final printed labels in response to Agency letter dated \_\_\_\_\_

Resubmission in response to Agency letter dated \_\_\_\_\_  "Me Too" Application.

Notification - Explain below.  Other - Explain below.

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

Submission of label notification adding alternate tank mix partner brand names per PRN 98-10. This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

**Section - III**

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Plastic
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt	No. per container
				<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
				<input type="checkbox"/> Other (Specify) _____	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 1, 2.5, 30, 250, 265 gallon		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product		<input checked="" type="checkbox"/> Lithograph Paper glued Stenciled		<input type="checkbox"/> Other _____	

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)

Name Michael Kellogg	Title Agent	Telephone No. (Include Area Code) (253) 853-7369
-------------------------	----------------	---

**Certification**

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature 	3. Title Agent	6. Date Application Received (Stamped)
4. Typed Name Michael Kellogg	5. Date 7/2/10	



# Certification with Respect to Label Integrity

version: 9/11/02

I certify that the information (including, but not limited to, text, tables, and graphics) contained in the electronic file identified below by file name and submitted with this certification is the same information as that on the paper copies of these documents included with this submission.

PROPOSED LABEL		
EPA Registration #	Date Submitted to EPA	Electronic file name
81927-42	July 2, 2010	081927-00042.20100702.Alligare Dicamba + 2,4-D DMA label notification.pdf

I certify that the statements that I have made on this form are true, accurate, and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.

  
 \_\_\_\_\_  
 Signature

  
 \_\_\_\_\_  
 Date

Michael Kellogg

\_\_\_\_\_  
Name (typed)

\_\_\_\_\_  
Agent

\_\_\_\_\_  
Title

# ALLIGARE DICAMBA + 2,4-D DMA

For use on Conservation Reserve Program Land, Fallow Systems (Between Crop Applications), General Farmstead, Sorghum, Grass (Hay or Silage), Pastures, Rangeland, Sugarcane, and Wheat

**ACTIVE INGREDIENTS:**

Dimethylamine salt of 3,6-dichloromethoxybenzoic acid\* ..... 12.5%  
Dimethylamine salt of 2,4-dichlorophenoxyacetic acid\*\* ..... 36.0%

**OTHER INGREDIENTS:** ..... 51.5%

**TOTAL:** ..... 100.0%

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

\*\* This product contains 29.9% 2,4-D or 2.87 pounds per gallon (344 grams per liter) acid equivalent.

Isomer specific by AOAC method 978.05, 15<sup>th</sup> Edition

## NOTIFICATION

SEP 29 2010

**KEEP OUT OF REACH OF CHILDREN**

## DANGER/PELIGRO

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

### FIRST AID

<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious or convulsing person.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>

### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

See inside booklet for complete Precautionary Statements and Directions for Use.

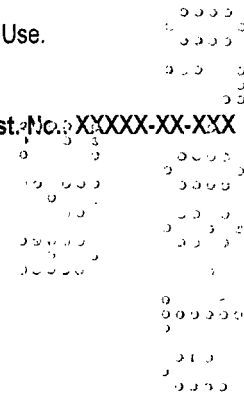
EPA Reg. No. 81927-42

EPA Est. No. XXXX-XX-XXX

Net Contents: \_\_\_\_\_

**Manufactured For:**

Alligare, LLC  
13 N. 8<sup>th</sup> Street  
Opelika, AL 36801



## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER.** Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear goggles. Harmful if swallowed, inhaled or absorbed through skin. Avoid contact with skin. Avoid breathing spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

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

- Long-sleeved shirt and long pants
- Shoes plus socks, and
- Chemical-resistant gloves (except for applicators using groundboom equipment, pilots and flaggers), and
- Chemical-resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

See Engineering Controls for additional requirements.

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

### Engineering Control Statements

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

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

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

### USER SAFETY RECOMMENDATIONS

**Users should:**

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

### ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift or runoff may be hazardous to aquatic organisms in water adjacent to treated areas, and non-target plants. Do not contaminate water when disposing of equipment washwaters or rinsate.

#### Groundwater Contamination

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

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

**Endangered Species Concerns**

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

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of **48 hours**.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

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

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

**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 people (or pets) to enter the treated area until sprays have dried.

### STORAGE AND DISPOSAL

**PROHIBITIONS:** Do not contaminate water, food, or feed by storage or disposal. Do not store under conditions that might adversely affect the container or its ability to function properly.

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

**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.

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

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

**Non-refillable container less than or equal to 5 gallons:** Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

**Non-refillable container greater than 5 gallons:** Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water. Replace and 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 back and forth several times. Turn the container over on its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

**Pressure rinse as follows (all sizes):** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert 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 containers (Drum/Bulk/Mini-bulk).** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. If not returned to the point of purchase or to the designated location, triple rinse emptied container and offer for recycling. Disposal of this container must be in compliance with state and local regulations.

When this container is empty, replace the cap and seal all openings that have been opened during use; and return the container to the point of purchase or to a designated location named at the time of purchase of this product in a bulk container. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transporting. Do not transport if this container is damaged or leaking.

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

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

### I. GENERAL INFORMATION

**Alligare Dicamba + 2,4-D DMA** herbicide is a selective postemergence herbicide for controlling a wide spectrum of annual, biennial, and perennial broadleaf weeds and brush in grass forages and selected row crops.

#### Mode of Action

**Alligare Dicamba + 2,4-D DMA** contains two active ingredients uniquely formulated to be used alone or tank mixed with other listed products as well as liquid fertilizer solutions. **Alligare Dicamba + 2,4-D DMA** is readily absorbed by plants through shoot and root uptake, translocates throughout the plant's system, and accumulates in areas of active growth. **Alligare Dicamba + 2,4-D DMA** interferes with the plant's growth hormones (auxins) resulting in death of many broadleaf weeds.

### II. APPLICATION INSTRUCTIONS

Apply **Alligare Dicamba + 2,4-D DMA** at the rates and growth stages listed in **Tables 1 and 2** as follows unless instructed differently by section on "Food/Feed Crop Specific Information" or "Non-Food/Feed Use-Specific Information." Applications can be made to actively growing weeds as aerial, broadcast, band, or spot spray applications. **Alligare Dicamba + 2,4-D DMA** may be applied using water or sprayable fluid fertilizer as a



carrier. Sprayable fluid fertilizer may be used as the carrier in preplant or pre-emergence use for all crops listed on this label. Postemergence uses with sprayable fluid fertilizer may be made on pasture, hayland, or wheat crops only.

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

**Irrigation:**

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

**Spray Coverage:**

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

**Sensitive Crop Precautions:**

Alligare Dicamba + 2,4-D DMA 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 Alligare Dicamba + 2,4-D DMA during their development or growing stage. Do not treat areas where either possible downward movement into the soil or surface washing may cause contact of Alligare Dicamba + 2,4-D DMA with the roots of desirable trees and shrubs.

Do not use aerial equipment or apply Alligare Dicamba + 2,4-D DMA when sensitive crops and plants are growing in the vicinity of area to be treated.

**SPRAY DRIFT MANAGEMENT**

A variety of factors, including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

**Droplet Size:** When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a Coarse or coarser spray, apply only as a Coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles.

When applying sprays that contain 2,4-D mixed with other active ingredients that require a Medium or more fine spray, apply only as a Medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

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

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

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

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

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

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

**AERIAL APPLICATION METHODS AND EQUIPMENT**

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

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

The boom height must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

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

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

**Table 1. Application Rate and Timing - Annual Weeds**

Weeds Controlled (including ALS - and triazine-resistant)	Rate Per Acre (according to weed growth stage)					
	0.5 pint	1.0 pint	1.5 pints	2 pints	3 pints	4 pints
Beebalm, Spotted	-	-	-	pre-bloom	post-bloom	-
Broomweed	1-3"	3" branching	-	branching	-	after branching
Buckwheat, Wild	-	1-6"	-	-	-	-
Buffalobur	-	-	-	1-6"	-	flowering
Burdock	-	pre-flower	-	-	-	-
Buttercup	-	pre-flower	-	early bloom	late bloom	-
Chickweed, Common	-	seedling	1-3"	-	-	-
Cockle, Cow	-	< 3"	-	-	-	-
Cocklebur, Common	-	1-6"	6-12"	12-18"	-	-
Coreopsis, Plains	-	1-6"	-	-	-	-
Croton, Woolly	1-4"	4-12"	12-30"	-	-	-
Devil's claw	-	-	-	< 8"	-	-
Dogfennel	-	-	-	10-15"	-	-
Evening Primrose	-	< 2"	-	2-6"	-	-
Falseflax, Smallseed	-	< 2"	-	-	-	-
Fleabane, Annual	-	1-4"	4-8"	8"	-	-
Flixweed	-	< 3"	-	-	-	-
Henbit	-	-	preflower	-	flower	-
Knotweed spp.	-	< 3" runners	-	> 3" runners	-	-
Kochia	-	1-6"	6-10"	10-20"	-	-
Lambsquarters, Common	-	1-6"	6-10"	10-20"	-	-
Mallow, Common	-	< 3"	-	-	-	-
Morning glory, Ivyleaf	-	pre-flower	-	-	-	-
, Tall	-	pre-flower	-	post-flower	-	-
Mustards, Annual	-	Rosette	-	early bolt	-	-
, Tansy	-	< 3"	-	-	-	-
Nightshade, Black	-	-	-	full flower	-	actively growing
Pennycress, Field	-	-	-	rosette	-	-
Pepperweed, Virginia	-	-	1-3"	3-6"	after branching	-
Pigweed, Prostrate	-	< 3"	-	-	-	-
, Redroot	-	< 3"	3-10"	-	-	-
, Smooth	-	< 3"	-	-	-	-
, Tumble	-	< 3"	-	mature	-	-

Poorjoe	-	prior to flower	-	-	-	actively growing
Purslane, Common	-	< 3"	3-8"	-	-	-
Ragweed, Common	1-3"	3-6"	6-10"	>10"	-	-
Western, Lanceleaf	1-3"	3-6"	6-10"	actively growing	-	-
Sedge <sup>1</sup>	-	-	-	< 4 leaves	-	-
Shepherdspurse	-	rosette	-	-	-	-
Smartweed, Pennsylvania	-	<4"	-	-	4-12"	-
Sneezeweed, Bitter	-	1-4"	prior to flower	flower	-	-
Sowthistle, Annual	-	rosette	-	bolting	-	-
Sunflower	-	1-3"	3-6"	6-24"	-	-
Thistle, Russian	-	-	-	< 3"	-	-
Velvetleaf	-	< 6"	6-20"	> 20"	-	-

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

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

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

Sagebrush, Fringed <sup>2</sup>	-	-	-	-	-	actively growing
Smartweed, Perennial	-	-	-	-	-	actively growing
Sorrel, Red	-	-	rosette	bolting	flower	-
Sowthistle <sup>2</sup> , Perennial	-	-	-	-	-	actively growing
Spurge, Leafy <sup>2</sup>	-	-	-	-	-	full leaf
Tallow Tree, Chinese <sup>4,5</sup>	-	-	-	-	-	actively growing
Thistle, Bull	-	-	rosette	bolting	-	-
, Canada <sup>2</sup>	-	-	-	-	-	-
, Musk	-	-	-	rosette/bolting	-	-
, Plumeless	-	-	rosette	bolting	-	-
Vetch, Hairy	-	1-4"	4-8"	8"full flower	-	-
Yankeeeweed	-	-	-	10-18"	-	-
Yellow Starthistle <sup>1</sup>	-	-	-	-	-	rosette

<sup>1</sup> May require repeat applications  
<sup>2</sup> Recommended rate will provide top growth suppression only.  
<sup>3</sup> For improved root kill or woody species such as mesquite and eastern persimmon spray 4 pints per acre of **Alligare Dicamba + 2,4-D DMA** each crop season for 3 consecutive crop seasons. For increased control of weeds such as blackberry and dewberry, **Alligare Dicamba + 2,4-D DMA** may be tank mixed with Ally® herbicide (0.1-0.2 ounces per acre), if labeled for the use site.  
<sup>4</sup> Under dense populations, a second application may be needed the following growing season.  
<sup>5</sup> Not for use in California.

**Ground Application (Banding)**

When applying **Alligare Dicamba + 2,4-D DMA** herbicide by banding, determine the amount of herbicide and water volume needed using the following formula:

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Banding herbicide rate per acre}$$

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast rate volume per acre} = \text{Banding water volume per acre}$$

**Ground Application (Broadcast)**

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

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

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

**Spot or Small Area Application**

**Alligare Dicamba + 2,4-D DMA** may be applied to individual clumps or small areas of undesirable vegetation using handgun or similar types of application equipment. Apply diluted sprays to allow complete wetting (up to runoff) of foliage and stems. For knapsack or other small capacity sprayers, prepare a solution of **Alligare Dicamba + 2,4-D DMA** in water according to **Table 3** (assuming that the spot treatment rate equates to 60 gallons per acre on the broadcast basis.) Adding a surfactant (0.5% by volume) can help improve control.

For example, 5 gallons (40 pints or 640 fluid ounces) of herbicide solution would require 0.2 pints (3.2 fluid ounces) of surfactant.

Do not make spot treatments in addition to broadcast or band treatments.

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

**Table 3. – Knapsack Sprayer Dilution Instructions**

Sprayer Capacity (gallons of water)	Amount of <b>Alligare Dicamba + 2,4-D DMA</b> to add to the spray tank
1 gallon	1 fluid ounce*
3 gallons	3 fluid ounces
5 gallons	5 fluid ounces

1 fluid ounce = 2 tablespoons

**III. ADDITIVES**

To improve burndown of emerged weeds, surfactants and/or low use rates of liquid fertilizers (28-0-0; 32-0-0), or crop oil concentrate may be used with **Alligare Dicamba + 2,4-D DMA** herbicide or **Alligare Dicamba + 2,4-D DMA** tank mixes applied after the weeds have emerged. Crop oil concentrate is for non-food/feed crop uses only. Do not apply tank mixes that include Ammonium Sulfate or Crop Oil Concentrate to any food/feed crop use listed on this label. For food/feed crop use, do not use liquid fertilizers that contain Ammonium Sulfate (AMS) as a source of nitrogen as tolerances in commodities derived from the crop may contain residues that exceed established tolerances.

**Oil Concentrate**

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

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

The exact composition of suitable products will vary; however, vegetable oil and petroleum oil concentrates should contain emulsifiers to provide good mixing quality. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. For additional information, see **Compatibility Test for Mix Components**.

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

**Nitrogen Source**

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

**Nonionic Surfactant**

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

**Table 4. - Additive Rate Per Acre**

Additive <sup>1</sup>	Additive Rate Per Acre
Nonionic Surfactant	2-4 pints per 100 gallons
Sprayable Liquid Fertilizers (28-0-0; 32-0-0)	½ GPA of spray solution
Crop Oil Concentrate	1 quart*

\* See manufacturer's label for specific rate recommendations.

**IV. GENERAL TANK MIXING INFORMATION**

**Tank Mix Partners/Components**

The following products may be tank mixed with **Alligare Dicamba + 2,4-D DMA** according to the specific tank mixing instructions in this label and respective product labels.

- Aim™(carfentrazone-ethyl)
- Ally® (metsulfuron-methyl)

- **Amber®** (triasulfuron)
- **Basagran®** (bentazon)
- **Bronate®** (bromoxynil + MCPA)
- **Buctril®** (bromoxynil)
- **Canvas®** (thifensulfuron-methyl + tribenuron-methyl + metsulfuron-methyl)
- **Clarity®** (dicamba)
- **Curtail™** (clopyralid + 2,4-D)
- **Cyclone®** (paraquat)
- **Dakota®** (fenoxaprop-p-ethyl + MCPA)
- **Distinct®** (diflufenzopyr + dicamba)
- **Evik®** (ametryn)
- **Express®** (tribenuron-methyl)
- **Fallowmaster®** (glyphosate + dicamba)
- **Finesse®** (chlorsulfuron + metsulfuron-methyl)
- **Glean®** (chlorsulfuron)
- **Gramoxone® Extra** (paraquat)
- **Harmony® Extra** (thifensulfuron-methyl + tribenuron-methyl)
- **Karmex®** (diuron)
- **Kerb™** (pronamide)
- **Laddok® S-12** (bentazon + atrazine)
- **Landmaster®** (glyphosate + 2,4-D)
- **Lexone®** (metribuzin)
- **MCPA**
- **Paramount®** (quinclorac)
- **Peak®** (prosulfuron)
- **Permit®** (halosulfuron-methyl)
- **Rave™** (dicamba + triasulfuron)
- **Roundup® Ultra** (glyphosate)
- **Sencor®** (metribuzin)
- **Sinbar®** (terbacil)
- **Stinger™** (clopyralid)
- **Tiller®** (fenoxaprop-p-ethyl + 2,4-D + MCPA)
- **Tordon™** (picloram)
- **Touchdown®** (glyphosate)
- **2,4-D**

See **FOOD/FEED CROP SPECIFIC INFORMATION** section for more 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.

Physical incompatibility, reduced weed control, or crop injury may result from mixing **Alligare Dicamba + 2,4-D DMA** with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers.

**Compatibility Test for Mix Components**

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

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

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

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

**Mixing Order**

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

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

\* If sprayable fluid fertilizer is used as the carrier, **Alligare Dicamba + 2,4-D DMA** must be diluted with a minimum of 5 parts water to 1 part **Alligare Dicamba + 2,4-D DMA**. Then add 0.25-0.05% volume/volume of a nonionic surfactant to the dilution before adding it to the sprayable fluid fertilizer to reduce the concern for compatibility problems with this mix. Always perform the **Compatibility Test** before mixing into the spray tank. Also, when using a sprayable fluid fertilizer as the carrier, any product contained in PVA bags must first be completely dissolved in water before the contents can be added to the fertilizer mix.

**V. RESTRICTIONS AND LIMITATIONS**

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

**Planting/replanting restrictions for Alligare Dicamba + 2,4-D DMA herbicide applications of 6 pints per acre or less:** No rotational cropping restrictions apply at 120 days or more following application. Additionally, for annual crop uses in this label including sorghum, follow the preplant use directions in section "Food/Feed Crop-Specific Information." For barley, oat, wheat, and other grass seedings, the interval between application and planting is 10 days per pint per acre.

**Planting/replanting restrictions for applications of more than 6 pints and up to 8 pints of Alligare Dicamba + 2,4-D DMA 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 10 days per pint per acre east of the Mississippi River and 15 days per pint 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 effectiveness of **Alligare Dicamba + 2,4-D DMA**.
- **Stress:** Do not apply to crops under stress such as stress due to lack of moisture, hail damage, flooding, herbicide injury, mechanical injury, or widely fluctuating temperatures, as unsatisfactory control may result.
- Do not apply to crops that show **injury** (leaf phytotoxicity or plant stunting) produced by any other prior herbicide applications, because this injury may be enhanced or prolonged.
- Do not apply this product though any type of **irrigation** equipment.
- Do not contaminate irrigation ditches or water used for domestic purposes.
- This product cannot be used to **formulate** or **reformulate** another pesticide product.

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

Crop	Maximum Rate Per Acre Per Application	Maximum Rate Per Acre Per Season	Livestock Grazing or Feeding <sup>1</sup>	Aircraft Application	Comments
Between Crop Applications	5.5 pints	11 pints	Yes	Yes	Plant only labeled crops within 29 days following application. Limited to 2 applications per crop season. Minimum of 30 days between applications. Maximum of 5.5 pints <b>Alligare Dicamba + 2,4-D DMA</b> per acre per application (11 pints <b>Alligare Dicamba + 2,4-D DMA</b> per acre per crop season). Maximum of 2.0 lb ae 2,4-D and 1.0 lb ae dicamba per application.

Crop	Maximum Rate Per Acre Per Application	Maximum Rate Per Acre Per Season	Livestock Grazing or Feeding <sup>1</sup>	Aircraft Application	Comments
Pasture, Hay, Silage	5.5 pints	11 pints	Yes	Yes	Maximum of 2 applications per crop season. Minimum of 30 days between applications. Maximum of 5.5 pints <b>Alligare Dicamba + 2,4-D DMA</b> per acre per application (11 pints <b>Alligare Dicamba + 2,4-D DMA</b> per acre per crop season). Maximum of 4.0 lb ae 2,4-D per acre per crop season.
Sorghum	1 pint	1 pint	Yes	Yes	Limited to one application per crop season.
Sugarcane	5.5 pints	11 pints	Yes	Yes	Limited to one application per crop cycle.
Wheat					Limited to one postemergence and one preharvest application per crop cycle. Limited to 4.8 pints <b>Alligare Dicamba + 2,4-D DMA</b> per acre per crop season.
Postemergence	-	3.33 pints	Yes	Yes	<b>Postemergence:</b> Maximum 1.25 lb ae 2,4-D per acre per application (3.33 pints <b>Alligare Dicamba + 2,4-D DMA</b> per acre per application).
Preharvest	-	1.4 pints	Yes	Yes	<b>Preharvest:</b> Maximum of 0.5 lb. ae 2,4-D per acre per application (1.4 pints <b>Alligare Dicamba + 2,4-D DMA</b> per acre per application).

<sup>1</sup>Refer to FOOD/FEED CROP SPECIFIC INFORMATION for grazing and feeding restrictions.

## VI. FOOD/FEED CROP SPECIFIC INFORMATION

### Pastures, Rangeland and Grass (Hay, Silage)

**Alligare Dicamba + 2,4-D DMA** is recommended for use for pasture (including pasture grown for hay), rangeland, grass grown for hay or silage, between crop applications/fallow systems, Conservation Reserve Programs, and general farmstead (non-cropland only). If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable.

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

Rates above 4 pints of **Alligare Dicamba + 2,4-D DMA** per acre are for spot treatments only.

#### Crop Specific Restrictions:

- Do not exceed a total of 11 pints of **Alligare Dicamba + 2,4-D DMA** per treated acre during a crop season.
- Maximum of 4.0 lb ae 2,4-D per acre per crop season.
- Maximum of 2 applications per crop season.
- Minimum of 30 days between applications.
- Maximum of 5.5 pints **Alligare Dicamba + 2,4-D DMA** per acre per application per crop season.
- For spot treatment, do not exceed 5.5 pints **Alligare Dicamba + 2,4-D DMA** per acre.

Uses described in this section also pertain to small grains (such as barley, corn, forage sorghum, oats, rye, sudangrass, or wheat) grown for pasture, hay, and silage only. Newly seeded areas including small grains grown for pasture or hay, may be injured if rates of **Alligare Dicamba + 2,4-D DMA** greater than 2 pints per acre are applied.

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

Best results will be obtained if **Alligare Dicamba + 2,4-D DMA** is applied at the germinating stage of weeds. Under favorable conditions, this is usually 7-10 days after planting these grasses. Reduced control can be expected if weeds are allowed to reach 1" in height before application or if germination of weeds occurs 10 days after application.

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



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

For pasture renovations, wait 3 weeks per quart (2 pints) of Alligare Dicamba + 2,4-D DMA used per acre before interseeding or injury may occur.

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

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

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

**Dry hay and Silage:** Treated grasses may be harvested for dry hay or silage but do not harvest within 37 days of treatment.

**Pasture and Rangeland Tank Mixes**

Alligare Dicamba + 2,4-D DMA may be applied in tank mixes with one or more of the following herbicides:

- |        |          |
|--------|----------|
| Ally®  | Banvel®  |
| Amber® | Clarity® |
|        | Rave®    |

**Sorghum**

**Rates and Timings**

Apply 1 pint of Alligare Dicamba + 2,4-D DMA per acre to sorghum in the 3-5 leaf stage (4"-8" tall.) For best performance apply when weeds are small (less than 3" tall).

Applications of Alligare Dicamba + 2,4-D DMA to sorghum during periods of rapid growth may result in temporary leaning of plants or rolling leaves. These effects are usually outgrown within 10-14 days. Sorghum growing under conditions of stress such as high moisture, low fertility, and abnormal temperature may be more sensitive to applications of Alligare Dicamba + 2,4-D DMA.

**Crop Specific Restrictions:**

- Do not use surfactants or oils with postemergence applications of Alligare Dicamba + 2,4-D DMA on sorghum crops.
- Do not use Alligare Dicamba + 2,4-D DMA if the potential for sorghum injury is not acceptable.
- Do not apply Alligare Dicamba + 2,4-D DMA to sorghum grown for seed production.
- Limited to 1 application per crop season.
- Maximum of 1 pint Alligare Dicamba + 2,4-D DMA per acre per crop season.

If sorghum is grown for pasture, hay or silage, refer to "Pastures, Rangeland and Grass (Hay, Silage)" under "Food/Feed Crop Specific Information" for livestock grazing and feeding restrictions.

**Sorghum Tank Mixes**

Alligare Dicamba + 2,4-D DMA may be applied in tank mixes with one or more of the following herbicides:

- |           |               |         |
|-----------|---------------|---------|
| Atrazine  | Laddock® S-12 | Peak®   |
| Basagran® | Paramount®    | Permit® |
| Buctril®  |               |         |

**Sugarcane**

Applications of Alligare Dicamba + 2,4-D DMA can be made any time after weeds have emerged and are actively growing but prior to the close-in stage of sugarcane. When possible, direct the spray beneath the sugarcane canopy in order to minimize the likelihood of crop injury. The use of directed sprays will also aid in maximizing spray coverage of weed foliage. Application rates and timing are given below. Use the higher level of listed rate ranges when treating dense vegetative growth.

**Rate:**

- For control of listed annual broadleaf weeds, apply 2 pints of Alligare Dicamba + 2,4-D DMA per treated acre.
- For suppression of listed perennial weeds, apply 1-6 pints of Alligare Dicamba + 2,4-D DMA per treated acre.

**Crop Specific Restrictions:**

- Limited to 1 application per crop cycle.
- Do not exceed a maximum of 5.5 pints **Alligare Dicamba + 2,4-D DMA** per application.
- Maximum of 11 pints **Alligare Dicamba + 2,4-D DMA** per acre per crop season.

### Sugarcane Tank Mixes

**Alligare Dicamba + 2,4-D DMA** may be applied in tank mixes with one or more of the following herbicides:

Asulox®	Lexone®
Atrazine	Sencor®
Evik®	Sinbar®

### Wheat

#### (Fall and Spring-seeded)

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

#### Crop Specific Restrictions:

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

##### Postemergence:

- Limited to 1 application per crop cycle.
- Maximum application rate of 1.25 lb. ae 2,4-D per acre per application (3.33 pints **Alligare Dicamba + 2,4-D DMA** per acre per application).

##### Preharvest:

- Limited to 1 application per crop cycle.
- Maximum application rate of 0.5 lb. ae 2,4-D per acre per application (1.4 pints **Alligare Dicamba + 2,4-D DMA** per acre per application).

#### EARLY SEASON APPLICATION:

Apply 0.5-1 pint of **Alligare Dicamba + 2,4-D DMA** per acre to wheat unless using one of the wheat specific programs below.

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

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

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

#### SPECIFIC USE PROGRAMS FOR FALL-SEEDED WHEAT ONLY:

Up to 1.33 pints of **Alligare Dicamba + 2,4-D DMA** per acre may be applied on fall-seeded wheat after the wheat begins to tiller for suppression of perennial weeds, such as field bindweed. Applications may be made in the fall following a frost but before a killing freeze. Periods of extended stress such as cold and wet weather may enhance the possibility of crop injury. For fall applications only, do not use if the potential for crop injury is not acceptable.

#### PREHARVEST APPLICATIONS:

**Alligare Dicamba + 2,4-D DMA** can be used to control weeds that may interfere with harvest of wheat. Apply up to 1.4 pints of **Alligare Dicamba + 2,4-D DMA** per acre as a broadcast or spot treatment to annual broadleaf weeds when wheat is in the hard dough stage and the green color is gone from the nodes (joints) of the stem. Best results will be obtained if application can be made when weeds are actively growing but before weeds canopy.

A waiting interval of 14 days is required before harvest.

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

For control of additional broadleaf weeds or grasses, **Alligare Dicamba + 2,4-D DMA** may be tank mixed with other herbicides such as **Ally** or **Glyphosate 4 Plus** that are registered for preharvest use in wheat.

Preharvest use of Alligare Dicamba + 2,4-D DMA is not registered for use in California.

Table 6. Wheat Tank Mixes

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

<sup>1</sup> Do not use low rates of sulfonylurea herbicide, such as Ally®, Amber®, Canvas®, Express®, Finesse®, Glean®, Harmony® Extra, and Peak® on more mature weeds or on dense vegetative growth.

<sup>2</sup> Do not use Alligare Dicamba + 2,4-D DMA as a tank mix treatment with Dakota or Tiller on Durum wheat. Do not tank mix with Tiller if wild oat is the larger weed.

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

<sup>4</sup> Alligare Dicamba + 2,4-D DMA contains 0.36 pounds acid equivalent, of 2,4-D per pint. When tank mixing with 2,4-D do not exceed a combined total of 1.0 pound acid equivalent per acre of 2,4-D and do not exceed 0.5 pounds acid equivalent of 2,4-D unless injury to wheat is acceptable.

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

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

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

**Between Crop Applications**

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

Alligare Dicamba + 2,4-D DMA can be applied postharvest in the fall, spring, or summer during the fallow period or to crop stubble/set-aside acres. Apply to weeds after crop harvest (postharvest) and before a killing frost or in the fallow cropland or crop stubble the following spring or summer.

See **RESTRICTIONS AND LIMITATIONS** for the recommended interval between application and planting to prevent crop injury.

**Rates and Timings:**

Apply 0.5-5.5 pints of Alligare Dicamba + 2,4-D DMA per acre. Refer to Table 1 to determine use rates for specific targeted weed species. Retreatments may be made as needed; however, do not exceed a total of 11 pints of Alligare Dicamba + 2,4-D DMA per treated acre during a growing season. For best performance, apply Alligare Dicamba + 2,4-D DMA 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 Alligare Dicamba + 2,4-D DMA 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 bulbets, after the effective period for Alligare Dicamba + 2,4-D DMA. For seedling control, a follow-up program or other cultural practices could be instituted.

**Between Crop Tank Mixes:**

In tank mixes with one or more of the following herbicides, apply 0.5-2 pints of **Alligare Dicamba + 2,4-D DMA** per acre for control of annual weeds, or 2-8 pints of **Alligare Dicamba + 2,4-D DMA** per acre for control of biennial and perennial weeds.

Aim™ or Alligare MSM 60	Cyclone®	Kerb™
Ally®	Distinct®	Landmaster® BW
Amber®	Fallowmaster®	Paramount® or Alligare Quinclorac 75 WDG
Atrazine	Finesse®	Sencor®
Bladex®	Glyphosate	Tordon™ 22K or Alligare Picloram 22K
Curtail™ or Alligare Cody Herbicide	Gramoxone® Extra	Touchdown®
		2,4-D

**Conservation Reserve Programs and General Farmstead**

**Alligare Dicamba + 2,4-D DMA** is recommended for use for Conservation Reserve Programs, general farmstead (non-cropland only), weed and brush control, or use in State Recognized Noxious Weed areas (non-cropland areas).

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

Rates above 4 pints of **Alligare Dicamba + 2,4-D DMA** per acre are for spot treatments only.

Retreatments may be made as needed; however, do not exceed a total of 5.5 pints of **Alligare Dicamba + 2,4-D DMA** per treated acre during a growing season.

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

**Alligare Dicamba + 2,4-D DMA** may be applied using water or oil and water emulsions in spot application to control undesirable vegetation using handgun or similar types of application equipment. In addition to weed species listed in **Tables 1 and 2**, these treatments may be used to control or suppress woody plant species listed in **Table 6**.

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

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

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

To control brush, briars, and weeds along fence-rows surrounding pasture and ranch lands, and fallow fields, use a tank mix of 2.5% **Alligare Dicamba + 2,4-D DMA**, 87.5% water, 10% diesel oil, and sufficient emulsifier (to mix the diesel and emulsifier). The diesel oil in this tank mix will damage or kill desirable grasses and should not be used in pastures or where damage to desirable species cannot be tolerated.

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

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

**FOR SPRAYING FOLIAR APPLICATIONS:**

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

**FOR DORMANT BASAL APPLICATIONS:**

1. Increase diesel oil content to 15% or 15 gallons of diesel oil per 100 gallons of total solution.
2. Spray in late winter and early spring before plants break dormancy.
3. Spray the bottom 24" of the target stem to wet on all sides.

4. For larger stems (up to 3" in diameter) and hard to kill species direct the spray solution to the base of target stems to wet the soil at the stem/soil junction in addition to wetting the stem.
5. Do not apply under drip line of desirable trees or adjacent to desirable vegetation.

**FOR CUT SURFACE TREATMENTS:**

Apply **Alligare Dicamba + 2,4-D DMA** in an undiluted state as a cut surface treatment to control unwanted trees and prevent sprouts of cut trees.

- **Frill or Girdle Treatments:** Make a continuous cut or a series of overlapping cuts using an axe to girdle tree trunk. Spray or paint the cut surface with **Alligare Dicamba + 2,4-D DMA**.
- **Stump Treatments:** Spray or paint freshly cut surface with **Alligare Dicamba + 2,4-D DMA**. The cambium layer (the area adjacent to the bark) should be thoroughly wet. Treat stumps within 6 hours after cutting.

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

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

**Weeds listed in this label:**

Common Name	Scientific Name
<b>ANNUALS</b>	
Beebalm, Spotted	<i>Monarda punctata</i>
Broomweed, Common	<i>Gutierrezia dracunculoides</i>
Buckwheat, Wild	<i>Polygonum convulvulus</i>
Buffalobur	<i>Solanum rostratum</i>
Burdock	<i>Arctium spp.</i>
Buttercup, Corn	<i>Ranunculus arvensis</i>
Chickweed, Common	<i>Stellaria media</i>
Cockle, Corn	<i>Agrostemma githago</i>
Cocklebur, Common	<i>Xanthium strumarium</i>
Coreopsis, Plains	<i>Coreopsis tinctoria</i>
Croton, Woolly	<i>Croton capitatus</i>
Devil's claw	<i>Proboscidea luisianica</i>
Dogfennel (Cypressweed)	<i>Eupatorium capillifolium</i>
Eveningprimrose, Cutleaf	<i>Oenothera lacinata</i>
Falseflax, Smallseed	<i>Linum catharticum</i>
Fleabane, Annual	<i>Erigeron annuus</i>
Flixweed	<i>Descurainia sophia</i>
Henbit	<i>Lamium amplexicaule</i>

Knotweed, Prostrate	<i>Polygonum aviculare</i>
Kochia	<i>Kochia scoparia</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Lettuce, Prickly	<i>Lactuca serriola</i>
Mallow, Common	<i>Malva neglecta</i>
Moringglory, Ivyleaf	<i>Ipomea hederacea</i>
Tall	<i>Ipomea purpurea</i>
Mustard, Annual	<i>Brassica spp.</i>
Tansy	<i>Descurainia pinnata</i>
Nightshade	<i>Solanum nigrum</i>
Pennycress, Field	<i>Thlaspi arvense</i>
Pepperweed, Virginia	<i>Lepidium virginicum</i>
Pigweed, Prostrate	<i>Amaranthus blitoides</i>
, Redroot	<i>Amaranthus retroflexus</i>
, Smooth	<i>Amaranthus hybridus</i>
, Tumble	<i>Amaranthus albus</i>
Poorjoe	<i>Diodia teres</i>
Purslane, Common	<i>Portulaca oleracea</i>
Ragweed, Common	<i>Ambrosia artemisiifolia</i>
, Lance-leaf	<i>Ambrosia bidentata</i>
, Western	<i>Ambrosia psilostachya</i>
Sedge	<i>Cyperus compressus</i>
Shepherdspurse	<i>Capsella bursa-pastoris</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Sneezeweed, Bitter	<i>Helenium amurum</i>
Sowthistle, Annual	<i>Sonchus oleraceus</i>
Sunflower, Common (wild)	<i>Helianthus annuus</i>
Thistle, Russian	<i>Salsola iberica</i>
Velvetleaf	<i>Abutilon theophrasti</i>

Common Name	Scientific Name
<b>BIENNALS AND PERENNIALS</b>	
Bindweed, field	<i>Convolvulus arvensis</i>
Bittercress	<i>Cardamine spp.</i>
Buckeye	<i>Aesculus spp.</i>
Bullnettle	<i>Cnidoscopus stimulosus</i>
Chicory	<i>Cichorium intybus</i>
Clover, Hop	<i>Trifolium aureum</i>
Dandelion	<i>Taraxacum officinale</i>
Dock, Curly	<i>Rumex crispus</i>
Elderberry	<i>Sambucus canadensis</i>
Goldenrod, Missouri	<i>Solidago missouriensis</i>
Goldenweed, Common	<i>Isocoma coronopifolia</i>
Groundset	<i>Senecio vulgaris</i>
Honeysuckle, Hairy	<i>Lonicera</i>
Horsenettle	<i>Solanum carolinense</i>
Ivy, Poison	<i>Rhus radicans</i>
Knapweed, Black	<i>Centaurea nigra</i>
, Russian	<i>Centaurea repens</i>
, Spotted	<i>Centaurea maculosus</i>
Marshelder	<i>Ina annua</i>
Mesquite	<i>Prosopis juliflora</i>
Milkweed	<i>Asclepius</i>
Nightshade, Silverleaf	<i>Solanum elaeagnifolium</i>
Persimmon, Eastern	<i>Diospyros virginiana</i>
Rabbitbrush	<i>Chrysanthemus pulchellus</i>
Ragwort, Tansy	<i>Senecio jacobia</i>
Redvine	<i>Brunnichia ovata</i>
Sagebrush, Fringed	<i>Artemisia frigida</i>
Smartweed, Swamp	<i>Polygonum coccineum</i>

Sorrel, Red (Sheep Sorrel)	<i>Rumex acetosella</i>
Sowthistle, Perennial	<i>Sonchus arvensis</i>
Spurge, Leafy	<i>Euphorbia esula</i>
Starthistle, Yellow	<i>Centauria solstitialis</i>
Tallow Tree, Chinese	<i>Sapium sebiferum</i>
Thistle, Bull	<i>Cirsium vulgare</i>
, Canada	<i>Cirsium arvense</i>
, Musk	<i>Carduus nutans</i>
, Plumeless	<i>Carduus acanthoides</i>
Vetch	<i>Vicia spp.</i>
Yankee weed	<i>Eupatorium compositifolium</i>

**Food/Feed Crop Uses**

This product can be used on the following:

- Conservation Reserve Program Land
- Fallow Systems (Between Crop Application)
- General Farmstead
  - Grain Sorghum
  - Grass (Hay or Silage)
  - Pastures
  - Rangeland
  - Sugarcane
  - Wheat

Look inside for complete **Restrictions and Limitations and Application Instructions**

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

**CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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

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

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

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

The Company and the seller offer this product, and the purchaser and user accept this product, subject to the foregoing warranty, terms of sale and limitation of liability, which may be varied or modified only by an agreement in writing signed on behalf of the Company by an authorized representative.

Ally®, Canvas®, Express®, Finesse®, Glean®, Harmony®, Karmex®, and Sinbar® are registered trademarks of E. I. du Pont de Nemours & Company.

Banvel®, Clarity®, Distinct®, Fallowmaster®, and Paramount® are registered trademarks of BASF Corporation.

Basagran® and Laddok® S-12 are registered trademarks of BASF AG.

Asulox®, Bronate®, Buctril®, Dakota®, Tiller® are registered trademarks of Bayer CropScience.

Amber®, Evik®, Cyclone®, Sencor®, Gramoxone®, Peak®, Rave™ and Touchdown® are trademarks and/or registered trademarks of Syngenta Crop Protection.

Landmaster®, Permit® and Roundup® Ultra are registered trademarks of Monsanto Company.

Curtail™, Stinger™, Grazon™, Kerb™ and Tordon™ are trademarks of Dow AgroSciences LLC.

Aim™ is a trademark of FMC Corporation.

Fallow Star™ is a registered trademark of Albaugh, Inc.