

81927-16

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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Ann M. Tillman
Alligare LLC
c/o Pyxis Regulatory Consulting, Inc.
4110 136th Street NW
Gig Harbor, WA 98332

AUG 20 2009

Subject: Updated Basic and Twenty-Four Alternate Confidential Statements of Formula
Product: Alligare Picloram + D
EPA Registration Number: 81927-16
Submission Date: March 27, 2009

Dear Ms. Tillman:

The updated basic and twenty-four (24) alternate Confidential Statements of Formula (CSFs) dated December 15, 2009 of the product above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) as amended, are acceptable provided you address the items listed below. The updated basic CSF shall supercede the previously registered basic CSF.

The following items must be addressed:

1. A one-year storage stability (830.6317) and corrosion characteristics (830.6320) study is required. Observations must be made at 0, 3, 6, 9, and 12 month intervals. The results should be submitted to the Agency in electronic and hard copy format within one-year of the date on this letter.
2. Assure that the maximum application restrictions on the label does not exceed the highest currently registered rate for each appropriate application site.
3. The following statement must be added to the product labeling:

"Use of this product in certain portions of California, Oregon, and Washington is subject to the January 22, 2004 Order for Injunctive relief in Washington Toxics Coalition et al v. EPA, C01-0132C, (W.D.W.A.). For further information, please refer to <http://www.epa.gov/espp>" must be added to the product labeling."
4. Under Personal Protective Equipment on page 2, add the text "(PPE)" to the heading to read "PERSONAL PROTECTIVE EQUIPMENT (PPE)".
5. Under the Personal Protective Equipment heading on page 2, combine the two separate requirements of "Protective eyewear" and "Goggles or faceshield" into one requirement which should read "Protective Eyewear (goggles or faceshield)".
6. In the User Safety Requirements box on page 2, per the Picloram Reregistration Eligibility Document (RED) add "exist" to the laundering instructions for the sentence to read "If no such instructions for washables exist, use detergent and hot water."

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7. In the User Safety Recommendations box, add “/PPE” to the second bullet for the statement to read “Remove clothing/**PPE** immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.”
8. Per the Picloram RED, add the following text to the Engineering Controls section of the label on page 2: “When handlers use closed systems, enclosed cabs, or aircraft in manner that meets the requirements listed in the WPS (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.”
9. The Entry Restriction in the Non-Agricultural Use Requirements box on page 3 should be changed to read “Entry Restrictions for Non-WPS Uses: Do not enter or allow people (or pets) to enter the treated area until sprays have dried.”
10. Per the Picloram and 2,4-D REDs the following Pasture and Rangeland and CRP restrictions must be added to the label with any contradictory statements currently on the label being removed:

Do not cut forage for hay within 30 days of application.
Do not exceed 7.4 pints (0.5 lb ae picloram) / acre per broadcast application. (Picloram RED, page 93)
Do not exceed 14.7 pints (1.0 lb ae picloram) /acre per year. (Picloram RED, page 93)
For susceptible annual and biennial broadleaf weeds: Use 4 pints (1.0 lbs ae 2,4-D)/acre per application. (2,4-D RED, page 142)
For moderately susceptible biennial and perennial broadleaf weeds: Use 4-7.4 pints / acre per application. (2,4-D RED, page 142 and Picloram RED, page 93)
For difficult to control weeds and woody plants: Use 7.4 pints/acre per application (Picloram RED, page 93 and 2,4-D RED, page 142)
Spot treatment: Do not exceed 8 pints (2.0 lb ae 2,4-D) / acre, with no more than 50% of an acre being treated. (Picloram RED, page 93 and 2,4-D RED, page 142)
Spot treatments and broadcast treatments can be applied during the same growing season only if the total amount applied does not exceed 14.8 pints (1.0 lb ai picloram) / acre per growing season. (Picloram RED, page 93)
Minimum of 30 days between applications. (2,4-D RED, page 142)
Maximum of 2 applications per year. (2,4-D RED, page 142)
If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable. (2,4-D RED, page 140 &142)
For program lands, such as Conservation Reserve Program, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed. (2,4-D RED, page 140)

11. With the exception of the small amount of drift-related text appearing under Environmental Hazards (as “Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas”), General Precautions and Restrictions section of the label (as “Do not apply this product in a way that will contact workers or other persons, either directly or through drift”), and Non-Cropland Use Directions (as “Note: Do not allow the spray, even as minute amounts of spray drift, to contact desirable broadleaf....”), all drift text appearing on the label must be placed together and be located below the required text currently on the label. Any conflicting text must be deleted from the label.
12. Per the 2,4-D RED, change the spray drift heading to read “SPRAY DRIFT MANAGEMENT”.

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13. As appropriate, as a comma (“,”) between “tulip” and “poplar” on page 17 under Woody Plant Control use directions.
14. Note: Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A stamped copy of your labeling is enclosed for your records. Products shipped after 18 months from the date of this Notice or the next printing of the label whichever occurs first, must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA. Your release for shipment of the product constitutes acceptance of these conditions. This label supercedes all previous accepted labels.

As required, submit one copy of final printed labeling incorporating the above changes. If you have any questions, please feel free to contact Michael Walsh by phone at 1-703-308-2972 or via email at walsh.michael@epa.gov.

Sincerely,

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

Enclosure

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RESTRICTED USE PESTICIDE

May injure (phytotoxic) susceptible, non-target plants. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Commercial certified applicators must also ensure that all persons involved in these activities are informed of the precautionary statements.

Alligare Picloram+D

For the control of broadleaf annual and perennial weeds, and certain woody species on Conservation Reserve Program (CRP) acres, rangeland and permanent grass pastures. Alligare Picloram+D may also be used for control of unwanted annual and perennial broadleaf weeds, woody plants, and vines on forest planting sites and non-crop areas including industrial, manufacturing and storage sites; rights-of-way, such as railroads, electric power lines, communication lines, pipelines, highways; and wildlife openings in forest and non-crop areas.

ACTIVE INGREDIENTS:

Picloram: 4-amino-3,5,6-trichloropicolinic acid, triisopropanolamine salt 10.2%
2,4-dichlorophenoxyacetic acid, triisopropanolamine salt 39.6%

OTHER INGREDIENTS:

..... 50.2%

TOTAL: 100.0%

Alligare Picloram+D contains the following acid equivalents:

picloram: 4-amino-3,5,6-trichloropicolinic acid – 5.7% (0.54 lb./gal.)

2,4-dichlorophenoxyacetic acid – 21.2% (2 lbs./gal.)

**ACCEPTED
with COMMENTS**

**EPA Letter Dated:
AUG 20 2009**
under the Federal Insecticide
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No

81927-16

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO

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

FIRST AID	
If in eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.	
NOTE TO PHYSICIAN	
Probable mucosal damage may contraindicate the use of gastric lavage.	

See inside booklet for additional PRECAUTIONARY STATEMENTS

EPA Reg. No. 81927-16

EPA Est. No.

Manufactured for:
Alligare, LLC
13 N. 8th Street
Opelika, AL 36801

NET CONTENTS:

**FOR CHEMICAL SPILL, LEAK, FIRE, OR EXPOSURE,
CALL CHEMTREC (800) 424-9300**

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**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

DANGER. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes or on clothing. Prolonged or frequent repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA chemical-resistance category selection chart.

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

- Long-sleeved shirt and long pants
- Chemical-resistant gloves Category C, such as barrier laminate ≥ 14 mils, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or viton ≥ 14 mils
- Shoes plus socks
- Protective eyewear
- Chemical-resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate
- Goggles or faceshield

See engineering controls for additional requirements.

USER SAFETY REQUIREMENTS

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

User Safety Recommendations

Users should:

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

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. This pesticide is toxic to some plants at very low concentrations. Non-target plants may be adversely affected if pesticide is allowed to drift from areas of application. 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.

Picloram is known to leach through soil into groundwater under certain conditions as a result of agricultural use. 2,4-D has properties and characteristics associated with chemicals detected in groundwater. Use of these chemicals in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, picloram may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several months post-application. These include poorly draining or wet soils with readily visible slopes

toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetative filter strips, and areas over-laying tile drainage systems that drain to surface water.

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 and 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.

PHYSICAL OR CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame.

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.

Do not apply this product through any type of irrigation system.

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 WPS and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls,
- Chemical-resistant gloves made of any waterproof material,
- Shoes plus socks, and
- Protective eyewear

NON-AGRICULTURAL USE REQUIREMENTS

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

Entry Restrictions for Non-WPS Uses: Do not enter or allow others to enter treated area until sprays have dried.

INFORMATION

Alligare Picloram+D is a water soluble liquid product containing picloram and 2,4-D. Use Alligare Picloram+D in permanent grass pastures and rangeland to selectively control many annual, biennial, and perennial broadleaf weeds and woody species listed on this label. Alligare Picloram+D may also be used for control of unwanted annual and perennial broadleaf weeds and woody plants and vines on forest planting sites and non-crop areas including industrial, manufacturing and storage sites; rights-of-way, such as railroads, electric power lines, communication lines, pipelines, highways; and wildlife openings in forest and non-crop areas.

Herbicidal effects of Alligare Picloram+D occur primarily from uptake by plant foliage and translocation throughout the plant, however, secondary herbicidal activity may occur from soil uptake of picloram. Broadleaf plants can be killed or damaged by very small amounts of Alligare Picloram+D. To prevent damage to crops and other desirable plants, carefully follow all directions and precautions.

PRECAUTIONS AND RESTRICTIONS

Observe any special use and application restrictions and limitations, including method of application and permissible areas of use as required by state or local regulations. When used in tank mix combination with other products, follow all applicable use directions, precautions, restrictions, and limitations on the labels of each product used.

Application Rate Ranges: Use higher rates in areas with dense weed populations or for longer residual weed control. For best results, the lower rate should be used only when environmental conditions are favorable for plant growth and when the plants are in the recommended growth stage. Compared to results obtained with the higher rate, a lower rate may be slower to show activity, provide a lower level of control, and may require retreatment.

Maximum Use Rates:

Pasture and Rangeland: Do not exceed 4 quarts per acre of this product per annual growing season. Repeat treatments may be applied as necessary, but total use must not exceed 4 quarts per acre per annual growing season.

Rights-of-Way and other Non-crop Areas: Do not exceed 8 quarts per acre of this product per annual growing season.

Forest Sites: No more than 8 quarts per acre may be applied within a period of 2 annual growing seasons.

Grazing Restrictions: There are no grazing restrictions for non-lactating dairy animals or other livestock including horses, sheep, goats, and other animals in the treatment area. Do not allow lactating dairy animals to graze treated areas within 7 days after application. Do not harvest grass cut for hay from treated areas for 30 days after application. Meat animals must be withdrawn from treated forage at least 3 days before slaughter.

Do not rotate to crops intended for food or feed use on areas treated with this product, other than range or pasture grasses, rye, forage sorghum, sudangrass, wheat, barley or oats not underseeded with a legume.

Do not move treated soil, or use treated soil for growing other plants until soil residues of picloram are no longer detectable as indicated by an adequately sensitive bioassay or chemical test.

Do not apply Alligare Picloram+D in residential areas or near ornamental trees and shrubs. Untreated trees can be affected by root uptake of the herbicide through movement into the top soil or by excretion of the product from the roots of nearby treated trees. Do not apply Alligare Picloram+D within the area occupied by roots of desirable trees, unless such injury can be tolerated.

Established grasses are tolerant to this product, but newly seeded grasses may be injured until well established as indicated by tillering, development of a secondary root system and vigorous growth (refer to the Planting Grasses Section of this label).

Alligare Picloram+D may suppress certain established grasses such as smooth brome grass, Willman's lovegrass and buffalograss. However, subsequent grass growth should be improved by release from weed competition. Smooth brome grass and Willman's lovegrass grown for seed may be sensitive to this product if applied under adverse growing conditions (moisture stress).

If injury to existing forage legumes cannot be tolerated, do not spray pastures. Alligare Picloram+D may injure or kill legume plants. Forage legumes may be less sensitive to the herbicide after the seed has set and plant growth is mature. Seeding of legumes may not be successful if made within one year of application.

Do not mix with dry fertilizer.

Do not transfer livestock from treated grazing areas to broadleaf crop areas without first allowing 7 days of grazing on untreated grass pasture. Otherwise, urine may contain enough picloram to cause injury to sensitive broadleaf plants.

Do not use manure from animals grazing treated areas on land used for growing broadleaf crops, ornamentals, orchards or other susceptible, desirable plants. Manure may contain enough picloram to cause injury to susceptible plants.

Do not use hay or grass from treated areas or manure from animals being fed treated forage or hay for composting or mulching of desirable, susceptible broadleaf plants.

Do not contaminate water intended for irrigation or domestic purposes. Do not treat or allow spray drift or run-off to fall onto banks or bottoms of irrigation ditches, either dry or containing water, or other channels that carry water that may be used for irrigation or domestic purposes. Do not apply to snow or frozen ground.

Do not apply or permit Alligare Picloram+D or sprays containing Alligare Picloram+D to contact crops or other desirable broadleaf plants, including but not limited to alfalfa, beans, cotton, grapes, melons, peas, potatoes, safflower, soybeans, sugar beets, sunflower, tobacco, tomatoes, and other vegetable crops, flowers, fruit plants, ornamentals and shade trees.

Do not use Alligare Picloram+D on sub-irrigated land.

Avoid injury to newly planted conifers. Conifer plantings vary. Pines planted sooner than 6 months after treatment with Alligare Picloram+D may be injured in the South or west of the Cascade Mountains. Other conifers, west of the Cascade Mountains, may be injured if planted sooner than 8 to 9 months after treatment. For all conifers, the waiting period between treatment and planting should be 11 to 12 months in the area between the Cascade and Rocky Mountains and 8 to 9 months in the Lake States and Northeastern U.S.

Avoid Injurious Spray Drift

Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, nontarget crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.

Make applications to avoid spray drift because very small quantities of the spray that may not be visible may severely injure susceptible crops during both growing and dormant periods. To minimize spray drift:

1. Use nozzle pressures no greater than are required to obtain a proper spray pattern for adequate coverage of target plants.
2. Apply as a coarse spray.
3. Use nozzles designed for herbicide application that do not produce a fine droplet spray.
4. Spray when wind velocity is low. Follow local state regulations. Avoid application under conditions which are conducive to air inversions or conditions of atmospheric temperature inversion.

For aerial applications on rights-of-way or other areas near susceptible crops, spray drift may be further lessened by using a drift control system such as Microfoil[®], Thru-Valve[®] boom (or equivalent) or a drift control agent such as Nalco-Trol[®] (or equivalent). If a drift control additive is used, follow all use recommendations and precautions on the product label.

For ground boom applications, apply with nozzle height no more than 4 feet above the ground or crop canopy and when wind speed is 10 mph or less at the application site as measured by an anemometer. Use medium or coarser spray according to ASAE 572 definition for standard nozzles of VMD for spinning atomizer nozzles.

The applicator also must use all other measures necessary to control drift.

Ground Equipment: With ground equipment, spray drift may be lessened by keeping the spray boom as low as possible; by keeping the operating spray pressures at the manufacturers recommended minimum pressures for the specific nozzle types used (low pressure nozzles are available from spray equipment manufacturers). Do not apply this product with a mistblower. In hand-gun applications, spray drift may

be minimized by selecting the minimum pressure that will provide adequate coverage (without forming a mist); by spraying no higher than brush tops.

High Volume Leaf-Stem Treatment: Spray drift may be minimized by using spray pressures no greater than are required to obtain adequate plant coverage and spraying no higher than brush tops. Avoid excessive pressures that result in formation of fine spray mists. Nalco-Trol® thickening agent or equivalent may be used to reduce spray drift. Do not apply this product through a mist blower.

Aerial Application:

AERIAL SPRAY DRIFT MANAGEMENT

Spray Drift Management

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions.

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

1. The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory.

Aerial Drift Reduction Advisory

[This section is advisory in nature and does not supersede the mandatory label requirements.]

Information on Droplet Size

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

Controlling Droplet Size

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

Boom Length

For some use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

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

Swath Adjustment

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

Wind

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

Temperature and Humidity

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

Temperature Inversions

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

Sensitive Areas

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

Determine Air Movement and Direction Before Making Foliar Applications: Do not spray when wind is blowing toward susceptible crops or ornamental plants near enough to be injured. It is suggested that a continuous smoke column at or near the spray site or a smoke generator on the spray equipment be used to detect air movements, lapse conditions, or temperature inversions (stable air). If the smoke layers or otherwise indicates a potential for hazardous spray drift, do not spray.

Cleaning Instructions for Spray Equipment

To avoid injury to susceptible plants, equipment used to apply Alligare Picloram+D should be thoroughly cleaned before reusing to apply any other chemicals.

1. Rinse and flush application equipment thoroughly after use. Flush the entire system at least three times with water, and dispose of rinse water in non-cropland area away from water supplies.
2. During the second rinse, add 1 qt. of household ammonia for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15 to 20 min.). Let the solution stand for several hours, preferably overnight.
3. Flush the solution out the spray tank through the boom.
4. Rinse the system twice with clean water, recirculating and draining each time.
5. Nozzles and screens should be removed separately.

MIXING INSTRUCTIONS

Ground or Aerial Application – For Use With Water Alone

Start with about half the required amount of water in the spray tank. With agitation operating, add the required amount of Alligare Picloram+D. If a surfactant is needed, it should be added as the remainder of the required water is added to complete the spray mix. When using a drift control additive, carefully follow the manufacturer's directions. Complete dispersion and uniform mixing is essential to proper performance of drift control additives. This can be aided by thorough circulation through a mixing pump with moderate to high shearing action.

Use with Oil/Water Emulsions

Ground Application: Add oil to the total spray mix at a rate of 5 to 10% of the total mix, up to a maximum of 1 gallon of oil per acre, using agricultural spray emulsifiers and mixing procedures given below.

Aerial Application: Use oil and water in the spray mixture in a 1:5 ratio (1 part oil to 5 parts water), up to a maximum of 1 gallon of oil per acre using mixing procedures given below:

Mixing Instructions for Oil/Water Emulsions (Batch Mixing)

1. With continuous, vigorous agitation:
2. Add half the amount of water to be used to the spray tank
3. Add the amount of Alligare Picloram+D required for the total volume of spray being mixed.
4. Premix the required amount of oil with an emulsifier such as Sponto 712 or Triton X-100, using the manufacturer's recommended rate of emulsifier per gallon of oil. Add the oil-emulsifier premix to the spray tank.
5. Finally, add the remaining amount of water required to bring the spray batch to the desired total volume.
6. Maintain agitation in the spray tank during application.

Mixing with Liquid Fertilizer for Broadcast Weed Control in Rangeland and Permanent Grass Pastures

Alligare Picloram+D may be tank mixed with liquid fertilizers and used in foliar application for weed control and fertilization of rangelands and permanent grass pastures. Avoid using liquid fertilizers in applications to brush as efficacy may be reduced. Use liquid fertilizers at rates recommended by supplier or local Extension Service Specialists.

Compatibility with Liquid Fertilizer: Prior to large scale batch mixing, conduct a "jar test" for spray mixture compatibility by mixing each component in the required order and proportion in a clear glass jar. Close the jar and agitate the mixture until evenly dispersed. Use of a compatibility agent is indicated if components of the mixture do not disperse readily or do not remain dispersed after mixing. Use of a compatibility aid such as Unite or Compex is recommended to help obtain and maintain a uniform spray solution during mixing and application. Compatibility is best with straight liquid nitrogen fertilizer solutions. Mixing with N-P-K fertilizer solutions or suspensions is more difficult and should not be attempted without first conducting a successful jar test. Agitation in the spray tank must be vigorous to compare with jar test agitation.

Suggested Mixing and Application Procedure

With continuous vigorous agitation:

1. Add half the amount of liquid fertilizer to the spray tank.
2. Add a compatibility aid such as Unite or Compex at 1 quart per 100 gallons of total spray mix.
3. First add the amount of Alligare Picloram+D needed for the total spray mixture. Mixing with N-P-K fertilizer solutions may be improved by premixing Alligare Picloram+D with water (1 part Alligare Picloram+D to 25-30 parts water) before adding to the spray tank.
4. Add the remaining liquid fertilizer to produce the needed total spray volume.
5. Apply as soon as mixing is complete, maintaining continuous, vigorous agitation throughout mixing and application without interruption.

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Application during very cold (near freezing) weather is not advisable. The likelihood of mixing or compatibility problems with liquid fertilizer increases under cold conditions.

Do not store the spray mixture.

Note: Do not use spray equipment for application of other products to land planted, or to be planted, to susceptible crops or desirable sensitive plants, unless it has been determined that all phytotoxic herbicide residue has been removed by thorough cleaning of the equipment. See "Cleaning Instructions for Sprayer Equipment" and the PRECAUTIONS AND RESTRICTIONS sections of this label.

APPLICATION DIRECTIONS
RANGELAND, PERMANENT GRASS PASTURES and CONSERVATION RESERVE PROGRAM
(CRP) ACRES

Broadcast Foliar Application (Ground or Aerial)

Unless otherwise specified, apply in water alone or in an oil-water emulsion in a total spray volume of 10 to 40 gallons per acre using ground equipment or 1 or more gallons per acre by aerial application. If aerially applied, results will be more consistent for spray volumes of 2 or more gallons per acre. Use of the lower total spray volume with ground equipment is recommended primarily where Alligare Picloram+D is applied simultaneously with liquid fertilizer. Good coverage is essential. For aerial application, swath width should not exceed 1 ¼ times the wingspan of the aircraft. Aerial applications may be made using aerial electrostatic charging systems.

To provide more complete wetting and coverage of the foliage, a non-ionic surfactant may be used at recommended rates. Use a drift control additive for drift reduction and improved deposition.

Section I. Control of Broadleaf Weeds and Woody Plants in Rangeland and Permanent Grass Pastures in the Southwest, Southeast, and Mid-Atlantic States

1-2 Pints/Acre or 3-4 Pints/Acre: Make applications at the rate indicated by stage of growth to control the following woody plants or broadleaf weeds:

Weed Species	Specific Use Directions
annual broomweed, bitter sneezeweed, bitterweed, buffalo bur, bull thistle, bursage (bur ragweed), camphor weed, cocklebur, common ragweed, croton, horsetweed, lambsquarters, pigweed, prickly lettuce, smartweed, sunflower, tasajillo, wild carrot	<p>Early Season: Apply at a rate of 1-2 pts/acre in early to mid spring when weeds are less than 3 inches tall. Rates in the lower end of the rate range are effective only when weeds are less than 2 inches tall and conditions are favorable for plant growth.</p> <p>Mid to Late Season: Apply at a rate of 3-4 pts/acre in late spring to early summer when weeds are 3 inches tall to early flowering.</p>

2-4 Pints/Acre: Make applications at the indicated growth stage to control the following woody plants or broadleaf weeds:

Weed or Brush Species	Specific Use Directions
aster, heath	Apply prior to bud stage when actively growing.
aster, spiny (Mexican devilweed)	Apply prior to bud stage when actively growing.
bee plant, Rocky Mountain	Apply prior to bud stage when actively growing.
bindweed, hedge	Apply prior to bud stage when actively growing.

2-4 Pints/Acre: Make applications at the indicated growth stage to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	Specific Use Directions
blackberry	Tank-mix 2 pints per acre of Alligare Picloram+D with 1 pint per acre of Remedy® (triclopyr) herbicide plus surfactant. Apply in late May to early June during or after bloom (not before) when foliage is dark green. Do not treat blackberries in the same year after mowing, shredding, or burning. Even one year after removal of top growth, blackberry stands will be more difficult to control than undisturbed stands and will require retreatment.
buckwheat, climbing false	Apply prior to seed development when actively growing.
buckwheat, wild	Apply prior to seed development when actively growing.
bullnettle, western	Apply in spring when plants begin to flower.
bundleflower, Illinois	Apply prior to bud stage when actively growing.
burdock, common	Apply prior to bud stage when actively growing.
buttercup	Apply in early spring prior to bud stage.
chickweed, mouseear	Apply prior to bud stage when actively growing.
chicory	Apply from rosette stage to early bud stage when actively growing.
coneflower, upright prairie	Apply when plants are to 6 inches tall, but before flowering.
common goldenweed, Drummond's goldenweed (<i>Isocoma</i> spp.)	Apply in the spring (April-June) when favorable growing conditions result in substantial canopy development. Thorough and uniform coverage is essential. Use higher spray volumes (20-25 gpa for ground and 4-5 gpa for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (refer to the Mixing Instructions section of this label).
curly dock	Early Season: Apply 2 pints per acre prior to bolting stage of growth. Mid-to-Late Season: Apply at a rate of 3-4 pts/acre from bolting to bud stage.
devil's-claw	Apply prior to flowering when actively growing.
dogfennel (cypressweed)	Apply when plants are from 6 to 24 inches tall, but before flowering. Increase rate within the rate range as season progresses and plants become larger.
eriogonum, annual	Apply prior to bud stage when actively growing.
fleabane, rough	Apply prior to bud stage when actively growing.
gray goldaster narrowleaf goldaster	Apply in the spring during the bud stage (pre-bloom) using an oil-water emulsion spray. Thorough coverage is essential.
goldenrod, Missouri	Apply prior to bud stage when actively growing.
hemlock, poison	Apply from rosette stage in spring or fall up to 36" tall.
hemlock, water (common)	Apply from rosette stage in spring or fall up to bud stage.
horsenettle, Carolina	Apply 2 pints per acre when plants are 4-6 inches tall. At 2 pints per acre, retreatment may be necessary for acceptable control. Apply 3 to 4 pints per acre when flowering or for longer residual control of later emerging plants and greater stand reduction the following year.
horehound	Apply during active growth.
jimsonweed	Apply prior to bud stage when actively growing.
morningglory, ivyleaf	Apply prior to bud stage when actively growing.
mugwort	Apply prior to bud stage when actively growing.
nightshade, silverleaf	Apply 2 pints per acre when plants are 4-6 inches tall. Apply 3 to 4 pints per acre when flowering or for longer residual control of later emerging plants and greater stand reduction the following year. Retreatment is necessary for total control.
pennycress, field	Apply when plants are to 6 inches tall, but before flowering.
plantain, buckhorn	Apply prior to bud stage when actively growing.
pricklypoppy, annual	Apply prior to bud stage when actively growing.
puncturevine	Apply prior to flowering when actively growing.

2-4 Pints/Acre: Make applications at the indicated growth stage to control the following woody plants or broadleaf weeds:

Weed or Brush Species	Specific Use Directions
ragweed, common, giant, lanceleaf and western	Use lower rates in rate range when weeds are no more than 2 inches tall and conditions are favorable for plant growth. Use higher rates when weeds are from 3 inches tall to early flowering.
sagebrush, sand	Apply when new terminal growth reaches 6-12" and before average daytime temperature reaches 95°F. Use low rate only in early season.
snow-on-the-mountain	Apply prior to bud stage when actively growing.
sowthistle, spiny (prickly)	Apply prior to bud stage when actively growing.
stickweed	Apply 2-3 pts./acre prebloom.
thistles, biennial: including bull, musk, plumeless or scotch	Apply 2 pts./acre at rosette stage. Apply 3 to 4 pts./acre in mid to late season from bolting to bud stage.
vervain, blue vervain, hoary	Apply when plants are 6 inches tall to early flowering. Increase rate within the rate range as season progresses and weeds mature.
vetch, hairy	Apply prior to bud stage when actively growing.
wingstem	Apply 2-3 pts./acre prebloom.
yankeeweed	Apply when plants are 8 to 10 inches tall.

3-4 Pints/Acre: Make applications at the indicated growth stage to control the following woody plants or broadleaf weeds:

Weed or Brush Species	Specific Use Directions
marshelder (sumpweed)	Apply in early season when weeds are less than 4 inches tall. Use higher rates on older plants. Thorough and uniform coverage is essential. Use higher spray volumes (20-25 gpa for ground and 5 or more gpa for aerial equipment).
mesquite and oak sprouts (suppression of regrowth):	Delay applications of Alligare Picloram+D for weed control until the foliage of regrowth brush in the treatment area is fully expanded and turned from light to dark green.
milkweed	Apply 4 pts./acre to actively growing milkweeds less than 4 inches tall. Add a surfactant at the manufacturer's recommended rate to improve wetting of foliage.
mullein, common	Apply 4 pts./acre during the rosette stage in spring or fall prior to bolting. Add a surfactant at the manufacturer's recommended rate to improve wetting of foliage.
poisonous plants such as: groundsel (<i>Senecio</i> spp.), garbancillo (Wooton loco) and Woolly loco	Make applications in fall or winter when moisture conditions are favorable. Because locoweeds are difficult to wet, use of a surfactant (0.25-0.5% vol/vol) or oil-water emulsion is recommended (refer to the Mixing Instructions section of this label). Herbicide treatment may increase palatability of poisonous plants. Do not graze treated areas until the toxic plants are no longer palatable.
thistle, wavyleaf	Apply from rosette to late bolt stage.
tropical soda apple	Apply when plants are beginning to flower.

1 Gallon/Acre: Make applications at the indicated growth stage to control the following woody plants or broadleaf weeds:

Weed or Brush Species	Specific Use Directions
cactus, pricklypear or cholla	Make a ground broadcast application in the spring or early summer to control a broad spectrum of broadleaf weeds in addition to pricklypear.

Chinese tallowtree	Make applications in the spring or fall when conditions are favorable for plant growth. Thorough and uniform spray coverage is required. Use higher spray volumes (20-25 gpa) for ground and 5 or more gpa for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (refer to the Mixing Instructions section of this label).
Macartney rose multiflora rose	Make applications in the spring or fall when conditions are favorable for plant growth. Thorough and uniform spray coverage is essential. Use higher spray volumes (20-25 gpa for ground and 5 or more gpa for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (refer to the Mixing Instructions section of this label). Do not make application within 9-12 months after mowing or when plants have a high percentage of new growth. Poor control will result if plants are less than 3 ft. tall.
locust (honey and black) wild plum	Make applications in the spring when leaves are fully expanded and mature. Use of a surfactant (0.25-0.5% vol/vol) is recommended.

Section II. Control of Broadleaf Weeds and Woody Plants in Rangeland and Permanent Grass Pastures in the North and Northwestern U.S. including Colorado, Idaho, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming

For best results in terms of forage response, desirable forage grasses should be present in the area to be treated in sufficient density to provide competition to lessen weed re-establishment following treatment.

Additionally, good grazing management practices are recommended, particularly in the year following treatment, to allow forage grass density to increase.

Application Rates: Use higher rates in areas with dense weed populations or for longer residual control. For best results, the lower rate should be used only when environmental conditions are favorable for plant growth and when the plants are in the recommended growth stage. Compared to results obtained with the higher rate, a lower rate may be slower to show activity, provide a lower level of control, and may require retreatment.

2 to 4 Pints/Acre: Make applications at the indicated growth stage to control the following broadleaf plant species. Increase rate within rate range as growing season progresses:	
Weed or Brush Species	Specific Use Directions
absinth wormwood annual broomweed	Apply when actively growing in spring or early summer.
biennial thistles, such as bull, musk, plumeless or scotch	Apply 2 pts./acre at rosette stage. Apply 3 to 4 pts./acre to bolted thistle, but apply before early bud stage.
broom snakeweed	Make application after full leaf development to early bloom stage when plants are actively growing.
curly dock	Apply 2 pts./acre early season prior to bolting. Apply 3 to 4 pts./acre in mid to late season from bolting to early flower.
curlycup gumweed	Apply when new growth and seedlings have fully emerged before bloom stage.
fringed sagebrush	Apply a minimum of 3 pts./acre after seed stalk elongation and early flowering (mid-late June) and throughout the summer under good growing conditions.
goldenrod	Apply prior to bud stage during active growth.
hemp (marijuana) hemlock, poison	Make application from rosette stage in spring or fall up to 36" tall.
hemlock, water (common)	Make application from rosette stage in spring or fall up to bud stage.
ironweed, western	Apply 2 to 3 pts./acre prior to bud stage during active growth. A surfactant is recommended.

locoweeds, such as silky crazyweed (white point loco) and lambert crazyweed	Apply from early bud to early bloom stage. Application of Alligare Picloram+D may increase palatability of these poisonous plants. Do not graze treated areas until after the toxic plants have dried up. Higher rate range should be considered to provide greater reduction of poisonous plants.
phlox, hoods	Make application during active growth.
plains pricklypear	Apply when the majority of plants are in the flower stage. The lower rate will provide a partial stand reduction. More complete control may be obtained with the higher rate. Treatment response is very slow and may continue for 2 years or longer.
ragweed, common, giant, lanceleaf and western	Use the lower rate in early season when weeds are no more than 2 inches tall. Use the higher rate when weeds range from 3 inches tall to early flowering, when conditions are favorable for plant growth.
thistles, biennial: including bull, musk, plumeless or scotch	Apply 2 pts./acre at rosette stage. Apply 3 to 4 pts./acre in mid to late season from bolting to bud stage.
vervain, blue and hoary	Apply when plants are 6 inches tall to early flowering. Increase rate within the rate range as season progresses and plants mature.
wormwood, Louisiana and absinth	Make application during active growth prior to woody stem development.
yarrow	Apply 2 pts./acre prior to bud stage. A surfactant is recommended.

4 Pints/Acre: Make applications at the indicated growth stage to control the following broadleaf weed species.

Weed or Brush Species	Specific Use Directions
dense clubmoss	Apply in early summer with a surfactant at 0.25% v/v.
geyer larkspur	Apply from rosette to flower bud formation.
hairy goldenaster	Apply at bloom stage during active growth.
houndstongue	Apply to rosettes in late fall or early summer.
larkspur, plains	Apply prior to bud stage when actively growing.
licorice, wild	Apply at bloom stage, but before bur formation.
loco, woolly	Make application from bolting to early bloom. Application of Alligare Picloram+D may temporarily increase palatability of this poisonous plant. Do not graze treated areas until toxic plants have dried up.
milkweed, common	Apply at bud stage when actively growing.
mullein, common	Apply during rosette stage in spring or fall prior to bolting. Add a surfactant at the manufacturer's recommended rate to improve wetting of foliage.
oxeye daisy	Apply 3-4 pts./acre when all plants have emerged to late flowering.
pussytoes	Make application prior to bud stage when actively growing. Use a surfactant at the manufacturer's recommended rate to improve wetting of foliage.

1 Gallon/Acre: Make applications at the indicated growth stage to control the following woody plants or broadleaf weeds:

Weed or Brush Species	Specific Use Directions
Macartney rose multiflora rose	Make application in spring or fall when conditions are favorable for plant growth. Thorough and uniform spray coverage is essential. Use higher spray volumes (20-25 gpa for ground and 5 or more gpa for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (refer to the Mixing Instructions section of this label). Do not make application within 9-12 months after mowing or when plants have a high percentage of new growth. Poor control will result if plants are less than 3 ft. tall.
locust (honey and black) wild plum	Apply in spring when leaves are fully expanded and mature. Use of a surfactant (0.25-0.5% vol/vol) is recommended.

High-Volume Foliar Applications

Spray to thoroughly wet foliage and stems. The use of an approved agricultural surfactant is recommended. Do not use more than 1 gallon of Alligare Picloram+D (0.54 lb. of picloram) per acre. To minimize spray drift, use the lowest possible pressure and coarse spray to achieve good coverage. Keep sprays no higher than brush tops.

1 Gallon/100 Gallons of Spray: Make applications at the indicated growth stage to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	Specific Use Directions
blackberry, elm, granjeno, locust, maple, oaks, sweetgum, sumac	Tank mix the recommended rate of Alligare Picloram+D with 1-2 qts./100 gallons of Remedy® (triclopyr) and apply in late spring to early summer when leaves are fully expanded and mature. Use of a surfactant (0.25-0.5% vol/vol) is recommended. Spray to thoroughly wet foliage. For best results on blackberry, treat during or after bloom.
annual broomweed, bitterweed, bitter sneezeweed, bullnettle, bursage (bur ragweed), bull thistle, buffalo bur, camphorweed, cocklebur, common ragweed, croton, gray goldaster, lanceleaf ragweed, marshelder (sumpweed), musk thistle, narrowleaf goldaster, prickly lettuce, smartweed, sunflower, wild carrot, silverleaf nightshade, tasajillo, upright prairie cone flower, western horsenettle, western ragweed, yankeeweed	Make application when target weeds are 2-3 inches tall until early flowering.
flameleaf sumac honeylocust	Apply in spring when leaves are fully expanded and mature. Use of a surfactant (0.25-0.5% vol/vol) is recommended. Spray to thoroughly wet foliage.
Tropical soda apple	Apply when plant begins to flower.
1-2 Gallons/100 Gallons of Spray: Make applications at the indicated growth stage to control the following woody plants or broadleaf weeds:	

Weed or Brush Species	Specific Use Directions
Macartney rose multiflora rose	Make application in spring or fall when conditions are favorable for plant growth. High volume application is recommended for control of large undisturbed clumps or small regrowth.

2 Gallons/100 Gallons of Spray: Make applications at the indicated growth stage to control the following woody plants or broadleaf weeds:

Weed or Brush Species	Specific Use Directions
Chinese tallow tree	Make application in spring or fall when conditions are favorable for plant growth.
cactus, pricklypear or cholla	Applications may be made throughout the year. Spray to wet all pads to runoff. Use of a surfactant (0.25-0.5% vol/vol) is recommended. Water soluble dye may be added to the spray mixture to mark treated plants.
common goldenweed, Drummond's goldenweed	Apply in the spring (April-June) when favorable growing conditions result in substantial canopy development.
Poisonous plants such as: groundsel (<i>Senecio</i> spp.), garbancillo (Wooton loco), and Woolly loco	Make application in fall or winter when moisture conditions are favorable. Application of Alligare Picloram+D may increase the palatability of poisonous plants. Do not graze treated areas until the toxic plants have dried up and lost their palatability.

Treatment After Planting Grasses, Including Conservation Reserve Program (CRP) Acres

Weed Control Prior to Seeding Planting Grasses

Alligare Picloram+D may be applied to control weeds prior to planting cool season grasses. Apply Alligare Picloram+D at 4 pints per acre or less depending on the target species. Alligare Picloram+D may be tank-mixed with Alligare Glyphosate 4 Plus (glyphosate) to control grasses prior to seeding.

- To optimize weed control, minimal disturbance of the treatment area with the seeding operation is suggested. The site should be left undisturbed for a minimum of 21 days prior to seedbed preparation or seeding. To optimize weed control and reduce the potential for injury of seeded grasses, increase the interval between application of Alligare Picloram+D and planting grass seed.
- Do not plant smooth bromegrass for 60 days after treatment.

Perennial Grasses

Make applications of Alligare Picloram+D to perennial grasses only after perennial grasses are well established as indicated by vigorous growth and a well-developed secondary root system.

Sprigged Bermudagrass: Alligare Picloram+D at 1.5 pints per acre or less can be used on sprigged bermudagrass once the runners (stolons) have reached 6 inches in length and growing conditions are favorable.

Overseeding: Alligare Picloram+D at rates of 1.5 pints per acre or less can be applied to permanent pastures that have been over seeded with small grains (such as barley, forage sorghum, oats, rye, ryegrass, sudangrass or wheat) grown for pasture or hay only. Young seedling small grains or grasses are sensitive to Alligare Picloram+D. Do not apply Alligare Picloram+D until overseeded grasses are well established and at tillering stage of growth or later.

Precautions:

- Applications of Alligare Picloram+D to established warm season grasses such as bermudagrass during initial greenup in early spring could delay or suppress emergence of new growth. If temporary suppression of new growth cannot be tolerated, application of Alligare Picloram+D should be made prior to greenup or after vigorous vegetative growth has resumed.
- Do not use Alligare Picloram+D if legumes are a desired cover during CRP.
- Conditions unfavorable to plant growth, such as drought, will increase potential for injury to grasses at all stages of growth.

- **Crop Rotation:** Do not rotate to grain sorghum (milo) if greater than 4 pints per acre of Alligare Picloram+D has been applied. For rates below 4 pints per acre, do not plant grain sorghum for 8 months after application. This product is not intended for use on land planted to sweet sorghum. To avoid potential crop injury, planting of small grains should be delayed a minimum of 60 days of soil temperatures above 40°F following application, except in Idaho, North Dakota, Nebraska, Montana, Oregon, South Dakota, Washington and Wyoming, where the minimum interval should be 90 days.
- After CRP, do not plant broadleaf crops in treated acres until an adequately sensitive bioassay (described below) shows that no detectable picloram is present in the soil.

Field Bioassay Instructions: In fields previously treated with this product, plant short test rows of the intended rotational crop across the original direction of application. The test area should sample field conditions such as soil texture, soil pH, drainage, and any other variable that could affect the seedbed of the new crop. The field bioassay can be initiated at any time between harvest of the treated crop and the planting of the rotational crop. Observe the test crop for herbicidal activity, such as poor stand (effect on seed germination), chlorosis (yellowing), and necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown. If there is apparent herbicidal activity, do not plant the field to the test rotational crop; plant only a labeled crop such as pasture grasses, small grains (barley, oats, rye or wheat), or, after a rotational interval of 8 months, grain sorghum.

**APPLICATION DIRECTIONS
FOREST PLANTING SITES AND NON-CROP AREAS**

To control broadleaf weeds, use Alligare Picloram+D at rates of 2 to 8 quarts per acre and at rates of 4 to 8 quarts per acre to control woody plants and vines. Alligare Picloram+D may be tank mixed with Triclopyr 4E (or Alligare Triclopyr 4) or Triclopyr 3A (or Alligare Triclopyr 3), or 4 lbs./gal. 2,4-D low-volatile esters registered for sites listed on this label to control mixed woody plant and vine species. When tank mixing, observe all precautions, directions and limitations on both products' labeling. In all cases, use the amounts specified in enough water to give thorough and uniform coverage of the plants to be controlled.

Note: Alligare Picloram+D does not readily mix with oil. Use a non-ionic surfactant such as Ortho® X-77, Triton® AG-98 or Tronic® for all applications. Follow the use directions and precautions listed on the surfactant manufacturer's label. When applying lower spray volumes per acre, use the higher recommended concentrations of surfactant in the spray mixture.

Alligare Picloram+D controls the following annual and perennial broadleaf weeds, woody plants and vines.

Annual and Perennial Broadleaf Weeds

- | | | |
|-----------------|-----------------|---------------------|
| bindweed, field | goldenrod | rush skeleton weed |
| bouncingbet | horsenettle | sowthistle |
| carrot, wild | knawweed | spurge, leafy |
| chicory | milkweed | starthistle, yellow |
| clover | plantain | thistles |
| dandelion | prickly lettuce | toadflax |
| dock | ragweed | vetch |
| fleabane | ragwort, tansy | |

Woody Plants and Vines

- | | | |
|--------------|-------------|--------------|
| ailanthus | fir, balsam | persimmon |
| alder | gorse | pine |
| aspen | gum | poison oak |
| birch | hemlock | sassafras |
| blackberry | hickory | sourwood |
| bracken fern | honeysuckle | spruce |
| buttonbush | kudzu | sumac |
| cherry | locust | tulip poplar |

Douglas fir
elm

maple
oak

wild rose
willow

SPECIFIC USE DIRECTIONS

NON-CROPLAND

(Fencerows, Roadsides, Ditches, Rights-of-Way, Utility Power Lines, Railroads, Airports, and Industrial Sites)

High Volume Leaf-Stem Treatment

To control broadleaf weeds, vines and other woody plants, use 4 quarts of Alligare Picloram+D and dilute to make 100 gallons of spray. To control a wider range of plant species, mix 1 to 2 quarts of Alligare Picloram+D with 1-to-3 quarts of Triclopyr 4E herbicide (or Alligare Triclopyr 4) or 1-to-4 quarts of Triclopyr 3A herbicide (or Alligare Triclopyr 3) or 4 lbs./gal. 2,4-D low-volatile ester and dilute to make 100 gallons of spray. Provide thorough spray coverage after foliage is well developed. For woody plants, apply the spray mixture in a manner that thoroughly wets all leaves, stems, and root collars. For hard-to-kill species such as ash and oak, also wet the soil around the root collar. The amount of spray mixture applied per acre will vary with plant size and density; however, total use of Alligare Picloram+D must not exceed 8 quarts per acre.

Note: Do not allow the spray, even as minute amounts of spray drift, to contact desirable broadleaf plants, and do not wet the soil over roots of such plants.

Broadcast Ground or Aerial Foliage Treatment

For ground applications, make applications of Alligare Picloram+D in 15 or more gallons of total spray mixture per acre. For aerial applications, use 5 to 20 gallons of spray mixture per acre. Use higher spray volumes where plants are tall, where the vegetation to be treated is dense or where difficult to control species are present.

Broadleaf Annual and Perennial Weed and Woody Vine Control: Apply Alligare Picloram+D at rates of 2 to 4 quarts per acre in a water spray mixture. Apply to problem weeds and vines any time after growth begins in the spring and late in summer or fall.

Apply 2-to-3 quarts of Alligare Picloram+D per acre in water spray for season control of vigorously growing stands of field bindweed, Canada thistle or mixtures of these with susceptible annual weeds such as ragweed, dandelion, plantain, clovers and dock.

Use up to 4 quarts of Alligare Picloram+D per acre in arid areas and for control of more resistant perennial weeds. Use up to 4 quarts per acre to control species such as Canada thistle, field bindweed and milkweed. The higher rates should be used under drought stress conditions and for the more resistant species such as bouncingbet, leafy spurge, toadflax and woody vines. The spectrum of activity can be improved by tank mixing 2 to 4 quarts of Alligare Picloram+D with 1/3-to-1 gallon of Triclopyr 3A (or Alligare Triclopyr 3) or 1-to-3 quarts of Triclopyr 4E (Alligare Triclopyr 4) per acre.

Woody Plant Control: Use Alligare Picloram+D at the rate of 4 to 8 quarts per acre in a water spray mixture.

Use 4 to 6 quarts of Alligare Picloram+D per acre in a water spray mixture for susceptible seedling stages of species such as aspen, cherry and sumac.

For more mature and/or less susceptible species such as poison oak, blackberries, Douglas fir, willow, buttonbush, black locust, sassafras, sumac, tulip poplar and cherry, use 8 quarts of Alligare Picloram+D per acre in a water spray mixture.

For more resistant brush such as maple, pine, sourwood, blackgum, cedar and oak, and to improve the spectrum of species controlled, 4 to 8 quarts of Alligare Picloram+D per acre can be tank-mixed with 1 1/2-to-2 gallons per acre of Triclopyr 3A (or Alligare Triclopyr 3), Triclopyr 4E (or Alligare Triclopyr 4) or 4 lbs./gal. 2,4-D low volatile ester.

Note: Use the higher rates for best results under conditions of drought stress. Even these rates under such conditions may not be as effective as the lower rates under good growing conditions.

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BROADCAST CUT STUBBLE TREATMENT

Apply Alligare Picloram+D at the rate of 8 quarts per acre in 25 or more gallons of a water spray mixture to prevent resprouting of susceptible woody species after mowing or hand-cutting on non-crop areas and rights-of-way. For best results, make applications before or during periods of active root growth. Do not apply when the soil surface is frozen or covered by snow or standing water. Make applications soon after cutting, before sprouting of woody species has occurred.

NON-CROPLAND RESTRICTIONS:

- Postemergence (annual & perennial weeds): Do not make more than 2 applications per year.
- Postemergence (annual & perennial weeds): Do not apply more than 4 quarts per acre per application.
- Postemergence (annual & perennial weeds): Minimum spray interval between applications is 30 days.
- Postemergence (woody plants): Do not make more than 1 application per year.
- Postemergence (woody plants): Do not apply more than 8 quarts per acre per application.

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

Alligare Picloram+D contains 0.5 pounds a.e. of 2,4-D per quart. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 4.0 pounds of 2,4-D a.e. per acre per year.

BROADCAST TREATMENTS FOR FOREST SITE PREPARATION (Not for Conifer Release)

For broadcast applications, apply the recommended rate of Alligare Picloram+D in a total spray volume of 5-to-25 gallons per acre by air or 10-to-100 gallons per acre by ground. Use spray volumes sufficient to provide thorough coverage of treated foliage. Use application systems designed to prevent spray drift to off-target sites. Nozzles or additives that produce larger droplets may require higher spray volumes to provide adequate coverage. **Note:** This use is not intended for conifer release (see General Use Precautions).

Southern states including Alabama, Arkansas, Delaware, Georgia, Louisiana, Maryland, Mississippi, North Carolina, Tennessee, Texas and Virginia: Apply Alligare Picloram+D at a rate of 6-to-8 quarts per acre to control susceptible woody plants and broadleaf weeds. Apply 6-to-8 quarts per acre of Alligare Picloram+D in tank-mix combination with 2-to-4 quarts per acre of Triclopyr 4E herbicide (or Alligare Triclopyr 4) to broaden the spectrum of woody plants and broadleaf weeds controlled. Where grass control is also desired, Alligare Picloram+D alone, or in combination with Triclopyr 4E (or Alligare Triclopyr 4), may be tank-mixed with 1-to-4 quarts per acre of Accord™, Gly Star™ Plus, Glyphosate 4 Plus or Roundup® herbicides, or 8-to-16 fluid ounces per acre of Arsenal® Applicator's Concentrate. Susceptible woody plants, broadleaf weeds and grasses may also be controlled using a tank-mix of 6-to-8 quarts per acre of Alligare Picloram+D and 3-to-5 quarts of Accord™, Gly Star™ Original, Alligare Glyphosate 4 or Roundup® herbicide, or 16-to-24 fluid ounces of Arsenal® Applicator's Concentrate. When applying tank mixes, follow the directions for use and precautions on each product label.

In Western, Northeastern, North Central and Lake States (States not listed above as Southern States): To control susceptible woody plants and broadleaf weeds, apply Alligare Picloram+D at a rate of 4-to-8 quarts per acre. Apply 4-to-8 quarts per acre of Alligare Picloram+D in tank-mix combination with 1 ½-to-3 quarts of Triclopyr 4E (or Alligare Triclopyr 4) to broaden the spectrum of woody plants and broadleaf weeds controlled. Where grass control is also desired, Alligare Picloram+D alone, or in combination with Triclopyr 4E (or Alligare Triclopyr 4), may be tank-mixed with 1-to-3 quarts per acre of Accord™, Gly Star™ Plus, Glyphosate 4 Plus or Roundup®, or 2-to-4 fluid ounces of Oust®, or a combination of Accord™, Gly Star™ Plus, Glyphosate 4 Plus or Roundup®, plus Oust® at the rates listed, or 8-to-16 fluid ounces of Arsenal® Applicator's Concentrate. When applying tank mixes, follow the directions for use and precautions on each product label.

Conifer Strip Thinning in the Northeastern United States

To thin stands of naturally regenerated spruce and fir by applying herbicide in treated bands or strips which alternate with untreated bands or strips, apply Alligare Picloram+D such that the application rate in the treated bands or strips is 8 quarts of herbicide per acre in a total spray mixture volume of 12 to 20 gallons. Make applications during the period of active conifer growth. To obtain the precise placement of spray mixture in the treated bands that is required for this technique, aerial applications should be made using a helicopter equipped with a Microfoil® or Thru-Valve® boom. Multiple treated bands may be obtained within a single spray swath by establishing alternating series of flowing and blocked spray nozzles.

Note: Injury or death of desired residual conifers may result if spray mixture is permitted to contact their foliage as a result of inaccurate flight guidance during aerial application or as a result of spray drift from treated into untreated strips.

FORESTRY RESTRICTIONS:

- Do not make more than one broadcast application per year.
- Do not apply more than 8 quarts per acre per broadcast application within a period of 2 annual growing seasons.

CUT SURFACE TREATMENTS

In forest and other non-crop areas to kill unwanted trees such as elm, maple, oak and pine, apply Alligare Picloram+D diluted with water as described below.

Tree Injector Method: Make applications by injecting ½ milliliter of undiluted Alligare Picloram+D or 1 milliliter of the diluted solution through the bark at intervals of 3 inches between edges of the injector wound. The injections should completely surround the tree at any convenient height.

Note: No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.

Frill or Girdle Method: Make a single girdle through the bark completely around the tree at a convenient height. Wet the cut surface with the diluted solution.

Stump Treatment: Paint or spray to wet the cut surfaces of freshly cut stumps or stubs with Alligare Picloram+D undiluted or diluted 1:1 in water. All of the cambium area next to the bark is the most vital area to wet.

Dilution Ratio: Maximum of 16 quarts Alligare Picloram+D in 100 gallons of water.

The above methods may be used successfully in any season except during periods of heavy sap flow of certain species, such as maples, or during drought periods. Untreated trees within a few feet of the treated trees or stumps may be injured or killed.

CUT SURFACE & INJECTION RESTRICTIONS:

- Do not make more than one basal or cut surface application per year.
- Do not use more than 22 pints per 100 gallons of spray solution.
- Do not make more than one injection application per year.
- Do not apply more than 4 ml of formulation per injection site.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Keep container tightly closed when not in use. If exposed to subfreezing temperatures, the product should be warmed to at least 40°F and thoroughly mixed before using. Open dumping is prohibited.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by the 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:

[NONREFILLABLE CONTAINERS]

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

(Nonrefillable container ≤ 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling 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.

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

[REFILLABLE CONTAINERS]

Refillable container. 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.

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 percent 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. Then offer for recycling 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.

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.

Gly Star™ is a trademark of Albaugh, Inc.

Arsenal® is a registered trademark of the BASF Corporation.

Accord™, Garlon™ and Remedy® are trademarks of Dow AgroSciences LLC.

Oust® is a registered trademark of E.I. duPont de Nemours & Co., Inc.

Roundup® is a registered trademark of the Monsanto Company.

EPA [approval date]