

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

OFFICE OF CHEMICAL SAFETY
-AND-POLLUTION-PREVENTION-

MAY 2 2011

Mr. Michael Kellogg Alligare, LLC c/o Pyxis Regulatory Consulting, Inc. 4110 136<sup>th</sup> St. NW Gig Harbor, WA 98322

Subject: Notification per PR Notice 98-10 - Minor Label Revision

Alligare Tebuthiuron 80 WG EPA Reg. No. 81927-37 Application Dated – April 19, 2011

Dear Mr. Kellogg:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the subject product.

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 date-stamped "Notification" and will be placed in our records.

If you have any questions regarding this letter, please contact Maggie Rudick at (703) 347-0257 or <a href="maggie@epa.gov">rudick.maggie@epa.gov</a>.

Sincerely,

Kable Bo Davis, Product Manager 25

Herbicide Branch

Registration Division (7505P) Office of Pesticide Programs Please read instructions on reverse before compliaing form.

MB No. 2070-0060. Approvel expires 2-28-95

	Registration
	Amendmen
/	Other

Environmental P	rotection Age on, DC 20460	ncy	Amend  Other		
Ар	plication for F	esticide - Secti	on I		
1. Company/Product Number 81927-37		2. EPA Product Manag B. Davis	ger		posed Classification  None Restricted
4. Company/Product (Name) Alligare, LLC / Alligare Tebuthiuron 80 WG		·РМ# 25	5		
5. Name and Address of Applicant (Include ZIP Code) Alligare, LLC c/o Pyxis Regulatory Consulting, Inc. 4110 136th St. NW Giq Harbor, WA 98332 Check if this is a new address		(b)(i), my product is to: EPA Reg. No.	similar or iden	tical in con	FIFRA Section 3(c)(3) inposition and labeling
Chack it this is a new address	Soci	Product Name			
Amendment - Explain below.  Resubmission in response to Agency letter dat		Final printed   Agency letter "Me Too" Ap	plication. NO		ION
Notification - Explain below.		Other - Explai	in below.		
Explanation: Use additional page(s) if necessary. (	For section I and Sec	tion (I.)	M	AY - 2 2	UII
Notification of a minor label revision per PR Notice the provisions of PR Notice 98-10 and EPA regular confidential statement of formula of this product. It to EPA. I further understand that if this notification be in violation of FIFRA and I may be subject to en	ations at 40 CFR 152 I understand that it is n is not consistent w	2.46, and no other cha s a violation of 18 U.S ith the terms of PR No	inges have bee .C. Sec. 1001 to tice 98-10 and	n made to to willfully m 40 CFR 15	the labeling or the take any false statement 2.46, this product may
	Secti	on - III			
1. Material This Product Will Be Packaged In:					
Child-Resistant Packaging  Yes  No  No  If "Yes"  N	<b>V</b>	oluble Packaging Yes No	2. Type of	Metal Plastic Glass Paper	
* Certification must be submitted			1	Other (Sp	foil-lined poly bag
	Size(s) Retail Contain 5, 25	1	. Location of Lat		
6. Manner in Which Label is Affixed to Product	✓ Lithograph Paper glued Stenciled	Other	On Labering	g accompanying	y product
		on - IV			
1. Contact Point (Complete items directly below for it	<del></del>	<del></del>	necessary, to pr	ocess this e	pplication.)
Name Michael Kellogg	Title Agent			Telephone (253) 853	No. (Include Area Code)
I certify that the statements I have made on this I acknowledge that any knowlinglly false or misl both under applicable law.	Certification form and all attachn eading statement ma	nents thereto are true, o	accurate and cor or imprisonmen	molete.	5. Dots: Application Received  {{Stámped}
2. Signature  Mirror Carry	3. Title Agent			. C C C C C C C C	(
4. Typed Name Michael Kellogg	5. Date	a/11			(

## PYXIS REGULATORY CONSULTING, INC.

4110 136<sup>th</sup> St. NW Gig Harbor, WA 98332 Phone: 253-853-7369 Fax: 253-853-5516 www.PyxisRC.com

April 19, 2011

#### **COURIER DELIVERY**

Bo Davis (PM 25)
Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 S. Crystal Drive
Arlington, VA 22202

RE: Alligare, LLC – Alligare Tebuthiuron 80 WG (EPA Reg. No. 81927-37)

Notification of Minor Label Revision per PRN 98-10 to Facilitate Registration in the State of California

Dear Mr. Davis,

On behalf of Alligare, LLC please find the enclosed notification of minor label revision to the Alligare Tebuthiuron 80 WG (EPA Reg. No. 81927-37) labeling to facilitate registration in the State of California. The following change has been made to the Alligare Tebuthiuron 80 WG labeling:

• P. 14 – added the phrase "\*Not registered for this use in California" under the heading "Establishment of Herbicidal Firebreaks"

In support of this notification submission, we submit the following documents:

- 1. Completed Application for Registration (EPA Form 8570-1)
- 2. One (1) copy of the Alligare Tebuthiuron 80 WG labeling with changes tracked
- 3. One (1) copy of the Alligare Tebuthiuron 80 WG labeling with changes incorporated
- 4. Certification with Respect to Label Integrity
- 5. One (1) copy of the Alligare Tebuthiuron 80 WG labeling on CD
- 6. Letter of Authorization

Please feel free to contact me by phone (253) 853-7369 or by email at Mike@PyxisRC.com if you have any questions or need any additional information.

Sincerely,

Michael Kellogg

**Enclosures** 

## NOTIFICATION MAY - 2 2011

## Alligare Tebuthiuron 80 WG

A Herbicide for preemergence and postemergence use.

Controls woody plant species, brush and weeds on noncrop areas, including rangeland, permanent grass pastures, fencerows, and clearings for wildlife habitat.

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Not for sale, distribution, or use in Nassau or Suffolk counties in New York State. Alligare Tebuthiuron 80 WG will kill trees and shrubs. Carefully read the precautions before using.

#### **ACTIVE INGREDIENT:**

Contains 20 pounds active ingredient per 25 pound bag

# KEEP OUT OF REACH OF CHILDREN CAUTION PRECAUCION

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

	FIRST AID
If swallowed:	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.
If on skin or	Take off contaminated clothing.
clothing:	Rinse skin immediately with plenty of water for 15-20 minutes.
	Call a poison control center or doctor for treatment advice.
If in eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.
	Remove contact lenses, if present, after the first 5 minutes, then continue
	rinsing eye.
	Call a poison control center or doctor for treatment advice.
If inhaled:	Move person to fresh air.
	• If person is not breathing, call 911 or an ambulance, then give artificial
	respiration, preferably mouth-to-mouth, if possible.
	Call a poison control center or doctor for further treatment advice.
	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.

EPA Reg. No. 81927-37 Manufactured For: Alligare, LLC 13 N. 8<sup>th</sup> Street Opelika, AL 36801 EPA<sub>E</sub>ęt..No.

Net Weight:

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION.** Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing-before-reuse.—Wear-long-sleeved-shirt,—long-pants,—shoes,—socks,—and-chemical-resistant-gloves made of any waterproof material when handling or applying this product.

#### **Environmental Hazards**

**Precaution**: Do not use Alligare Tebuthiuron 80 WG herbicide in any area where desirable species are in the vicinity of the plants to be controlled. A small amount of Alligare Tebuthiuron 80 WG in contact with the roots of desirable trees or other woody species may cause severe injury or death. The roots of such plants may extend far beyond their drip lines.

Do not apply directly to water, 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 washwater or rinsate.

**Ground Water Advisory**: This product is known to leach through soil into ground water under certain conditions as a result of registered (rangeland and non-crop) uses. Use of this product in areas where soils have rapid to very rapid permeability, particularly where the water table is shallow, may result in ground water contamination.

#### **Use Restrictions for Groundwater Protection**

Vulnerable Sites: To minimize any movement of tebuthiuron to subsurface water, do not exceed the application rates specified below on treatment sites where soils have a sand or loamy sand texture throughout the soil profile and all of the following characteristics:

- 1. Rapid to very rapid permeability.
- 2. Absence of well-defined organic layers or a textural B-horizon (restricting layer of fine-textured soil).
- 3. The water table of an underlying aguifer is shallow.

The maximum use rates for Alligare Tebuthiuron 80 WG in areas described above are:

- Less than 20 inches annual precipitation: Do not apply more than 1.25 lb/acre Alligare Tebuthiuron 80 WG.
- **Greater than 20 inches annual precipitation:** Do not apply more than 2.5 lb/acre Alligare Tebuthiuron 80 WG.

Refer to the Woody Plants Controlled section of this label for plant species controlled at these application rates.

The aquifer is defined as "an underground saturated, permeable, geologic formation capable of producing significant quantities of water to a well or spring." It is the saturated zone, or portion of that zone, to yield water which makes it an aquifer (American Chemical Society, 1983). Local agricultural agencies can provide further into fination on the type of soil in your area and the location of shallow ground water aquifers.

Do not apply Alligare Tebuthiuron 80 WG in areas where the water table is predominantly shallow (5 feet or less), such as marshy or sub-irrigated areas, or areas immediately adjacent to streams or lakes which are periodically flooded, unless such use is allowed under a state-

approved pesticide management program. Note: Also on such areas, woody plants rooted directly in a shallow water table are minimally affected by applications of tebuthiuron and poor woody plant control will result.

Do not apply Alligare Tebuthiuron 80 WG where bedrock is continuously exposed or in areas of bedrock overlain by soils that are shallow or discontinuous.

Do not apply Alligare Tebuthiuron 80 WG in areas adjacent to sinkholes or depressions lacking external drainage, which occur within areas of karst topography.

Do not apply Alligare Tebuthiuron 80 WG to high shrink/swell soils (vertisols) which develop deep cracks upon drying.

Do not apply Alligare Tebuthiuron 80 WG within areas identified by state or local authorities as protected groundwater recharge zones.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

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

#### **General Information**

Alligare Tebuthiuron 80 WG is a surface applied, soil-active product intended for total vegetation control in non-cropland and for woody plant control in non-cropland, rangeland and permanent pastures. Applied as a broadcast treatment, Alligare Tebuthiuron 80 WG is generally non-selective to (will control) annual grasses, annual and perennial broadleafs and broadleaf woody plants. Perennial warm-season grasses are generally tolerant to Alligare Tebuthiuron 80 WG, but may exhibit injury during the season following application. Cool season perennial grasses are not tolerant to broadcast applications of this product except at rates less than 0.5 lb active ingredient.

Applied as a banded treatment, Alligare Tebuthiuron 80 WG may be used to control woody plants in non-cropland, rangeland and pasture sites. With banded treatments, effects of herbaceous vegetations are confined mainly to the treated band, but may last more than one growing season. Dormant season application and keeping the treated band as narrow as possible is recommended to minimize herbicidal effects on perennial grasses and to lessen effects on other herbaceous plants.

Treatments become effective after sufficient rainfall has occurred to move the active ingredient in Alligare Tebuthiuron 80 WG into the root zone. Herbicidal symptoms appear more rapidly when applied just before seasonal rainfall. Susceptible herbaceous plants exhibit leaf chlorosis followed by browning before the plant dies. Woody plants exhibit leaf chlorosis and browning followed by defoliation. Woody plants may undergo several defoliation cycles, usually following significant rainfall before death occurs. Time required to achieve control of woody vegetation depends on susceptibility of target species, rainfall and soil conditions and may vary from a single growing season to several years. Lack of rainfall will delay herbicidal activity and lengthen the time required for control.

For best woody plant control results with Alligare Tebuthiuron 80 WG, despet disturb intact plants by practices such as wood cutting, chaining, or burning for two years after application. Resprouting or survival of woody plants is more likely to occur if plants are disturbed before complete control occurs.

#### **Use Precautions and Restrictions**

Read the entire label *before* using Alligare Tebuthiuron 80 WG to determine if this product is suitable for the desired purpose.

Not for sale, distribution, or use in Nassau and Suffolk Counties in New York State.

This product is not registered in the state of Florida.

#### Not for Residential Use.

Alligare Tebuthiuron 80 WG is an extremely active herbicide which will kill trees, shrubs, and other forms of desirable vegetations having roots extending into the treated area. Feeder roots of many species of desirable vegetation extend many feet beyond the drip line of the branches, and a very small amount of Alligare Tebuthiuron 80 WG in contact with one feeder root of a tree, shrub, or other desirable vegetation may cause serious injury or death to the entire plant.

**Recommended Treatment Setback:** Do not apply Alligare Tebuthiuron 80 WG in the vicinity of desirable plants. Exposure of even a small part of a plant root system to Alligare Tebuthiuron 80 WG may cause severe plant injury or death. Plant roots usually occupy an area much larger than the aerial portion of the plant. Treatment setback distance should be 2 times the height or width of adjacent non-target vegetation, whichever is greater. For example, if adjacent non-target vegetation is 25 feet tall, the treatment setback should be 50 feet.

An Arborculturist (tree expert) should be consulted to help you to determine if the area of proposed application is free of all roots of desirable vegetation. The effect of Alligare Tebuthiuron 80 WG on desirable vegetation may be irreversible and its presence in the soil may prevent growth of other desirable vegetation for some years after application.

Do not use Alligare Tebuthiuron 80 WG on areas such as walks, driveways, streets, lawns, patios, tennis courts, swimming pools, cemeteries, or other landscaped areas, or under asphalt or concrete pavement where future landscaping is planned. Do not apply on field crops. Do not apply on any area into which the roots of field crops or other desirable vegetations may extend. Roots of trees, shrubs, and other desirable vegetations may extend far beyond the drip line of the plant's branches.

Avoid non-target drift or product movement. Do not apply when winds are gusty or under any other condition which will allow drift or product movement. Do not apply to areas where soil movement by water erosion and/or natural or mechanical means is likely. Avoid treatment or areas susceptible to wind erosion such as single grain sands or disturbed soils that are loose and powdery dry. Under these conditions, treatment should be delayed until the soil surface has been stabilized by rainfall or irrigation. Before treatment of sandy soils in areas subject to wind erosion, the soil surface should first be stabilized with gravel mulch or other means of preventing physical movement of surface soil. Drift or any form of product movement from treated areas may cause damage to any vegetation to which treatment is not intended.

Do not apply Alligare Tebuthiuron 80 WG to interior ditchbanks (areas which slope toward the drainage). Do not apply to ditches used to transport irrigation to potable water.

Thoroughly clean all traces of Alligare Tebuthiuron 80 WG from application equipment after use. Do not empty residues cleaned from application equipment on areas where they may come in contact with the roots of desirable vegetation or the water source for such vegetation.

Alligare Tebuthiuron 80 WG may injure or suppress certain herbaceous vegetation in the treated area. Therefore, do not apply where such injury cannot be tolerated. Do not apply broadcast applications of Alligare Tebuthiuron 80 WG where forage or maintenance of grass cover is

desired. Injury to most herbaceous perennials is reduced if Alligare Tebuthiuron 80 WG is applied when this vegetation is dormant.

#### **Grazing Haying Restrictions**

If the treated area is to be used for haying or grazing, do not apply more than 5 pounds per acre of Alligare Tebuthiuron 80 WG, and do not apply the product more than once a year. There are no grazing restrictions following band or individual plant treatment application of Alligare Tebuthiuron 80 WG at 5 pounds per acre or less.

**Haying Restriction:** In areas receiving band or individual plant treatments of 5 pounds per acre or less of Alligare Tebuthiuron 80 WG, grass may be cut for hay one year after application.

### Frequency of Application and Maximum Use Rates

Vegetation Control by Ground Broadcast or Banded Application:

- The maximum use rate and frequency of application is 1.25 to 2.5 lb of Alligare Tebuthiuron 80 WG (1 to 2 lb a.i.) per acre once every three years for vulnerable sites where soils are sandy and depth to water table is shallow. (Refer to Environmental Hazards section under Use Restrictions for Ground Water Protection.)
- For all other areas, the maximum use rate and frequency of application is up to 5 lb. of Alligare Tebuthiuron 80 WG (4 lb a.i.) per acre once every three years; and no more than two treatments totaling 7.5 lb of Alligare Tebuthiuron 80 WG (6 lb a.i.) per acre in any 6 year period.

Total Vegetation Control and Maintenance of Bare Ground by Ground Broadcast Only: The maximum use rate and frequency of application is up to 5 lb of Alligare Tebuthiuron 80 WG (4 lb a.i.) per acre applied only once per year; however, no more than 7.5 lb of Alligare Tebuthiuron 80 WG (6 lb a.i.) per acre may be applied in any 3 year period.

Spot treatments (Hand-held Equipment): May be applied at rates up to 7.5 lbs of Alligare Tebuthiuron 80 WG (6 lb a.i.) per acre when needed.

## Rotation of Treated Areas to Plants other than Forage Grasses

It is intended that Alligare Tebuthiuron 80 WG be applied to rangeland, permanent pastures and non-cropland areas that will not be rotated to crop production, or other use involving planting or transplanting of herbaceous or woody plants susceptible to tebuthiuron. Do not rotate areas treated with this product to any seeded crop, planted or transplanted plant species other than forage grasses until an adequately sensitive field bioassay demonstrates that the level of tebuthiuron present in the soil will not adversely affect such plantings.

Field Bioassay Instructions: In areas where tebuthiuron was previously applied, plant test rows of the intended rotational crop or plant species across the original direction of application in a manner to sample variability in field conditions such as soil texture, soil organic matter, soil pH, or drainage. The field bioassay can be initiated one or more years following application of this product to rangeland, permanent pastures or non-crop areas. Observe the test planting for symptoms of herbicidal activity, such as poor stand (failure to establish) chlorosis (yellowing), and necrosis (dead leaves or shoots), or stunting (reduced growth). Observation of the test planting for an entire use season is recommended to evaluate the full range of conditions that may give rise to herbicidal symptoms. If herbicidal symptoms do not occur, the test crop or plant species can be grown. Practices that may hasten the degradation of tebuthiuron are establishment of perennial warm season grasses which are effective in the removal and metabolism of soil residues and supplemental irrigation.

### **Mixing Directions**

Thorough mixing and continuous agitation are important to ensure uniform application. Fill the spray tank half-full of water. Start agitation and continue agitation during entire mixing and spraying operation. Add the required amount of Alligare Tebuthiuron 80 WG and allow it to mix thoroughly while completing the spray tank filling. If additional product is a liquid, add slowly while filling remainder of tank with water.

Material must be kept in suspension at all times by continuous agitation. If bypass (hydraulic) agitation is used, the return flow should terminate at the bottom of the mixing tank to minimize foaming. Check the sprayer frequently before and during use to insure proper calibration and uniform application.

A master shut-off switch for the entire spraying system and nozzle check valves are recommended on commercial spray equipment.

If hand held or back pack type sprayers are used, determine the amount of water and chemical necessary to cover uniformly the area to be treated. Shake vigorously after filling and periodically during application to maintain product in suspension.

### **Application Methods**

## **Broadcast Application**

Apply Alligare Tebuthiuron 80 WG in a spray volume of 5 or more gallons of water per acre by ground. Apply before or during the period of active growth of plants to be controlled. Initial control is enhanced by rainfall.

In areas of low annual rainfall (less than 15 inches per year) Alligare Tebuthiuron 80 WG should be applied prior to the time of year when the predominant portion of that rainfall occurs. A minimum of 1 to 1 1/2 inches of rainfall is required to activate Alligare Tebuthiuron 80 WG and place it in the zone of weed seed germination.

Other products registered for use on the site to be treated may be applied in tank mix combination with Alligare Tebuthiuron 80 WG to provide broader spectrum weed control or provide initial top kill of existing vegetation. Consult the manufacturer's label for additional weeds controlled, directions for use, cautions and limitations before use. See detailed information for tank mixing in the General Information section of this label.

#### **Banded Application (Ground Application Only)**

Banded applications of Alligare Tebuthiuron 80 WG allow for woody plant control and preservation of grasses and other desirable herbaceous vegetation in rangeland and permanent pastures and in non-cropland areas (such as utility, railroad, and pipeline rights-of-way and fencerows). In banded applications, the rate per acre is equivalent to the broadcast rate, but the herbicide is concentrated into individual herbicide bands spaced 4 to 10 feet apart. Banded applications may be made using a spray volume of 5 or more gallons per acre. Actual herbicide bands should be kept as narrow as possible during application to minimize potential injury or loss of herbaceous vegetation. In areas such as brush-infested fencerows, a single band may be applied. Control is dependent upon root systems intercepting the herbicide in soil beneath treated bands.

Band spacing should be selected based on the size of the woody plants in the area to be treated and the amount of injury or loss of herbaceous vegetation that can be tolerated. Where control of young or seedling plants is desired, bands should be spaced closer together. This will achieve maximum exposure to their limited root systems. Where larger more mature woody

plants are to be controlled, bands should be spaced at the wider end of the recommended spacing range.

In addition to allowing adequate exposure of the more extensive root systems of these larger woody species for control, use of the wider spacings will further reduce injury or loss of herbaceous vegetation within the treated band.

Within the treated band nearly all vegetation, woody and herbaceous, will be killed. Some herbaceous vegetation close to the treated band with roots extending into it may be severely injured or killed. However, since root systems of herbaceous plants are less extensive most plants outside the treated band are unaffected.

When banded applications are made in an area where straight stream nozzles are positioned more than 5 feet above the soil surface or where woody plant foliage is dense, breakup of individual nozzle steams may occur. If conditions do not permit delivery of intact nozzle streams to the soil surface, efficacy may be reduced and injury of herbaceous vegetation will increase. For this reason, application in the dormant season when there is minimum foliage present is recommended. To avoid breakup of individual nozzle streams by interfering vegetation, applicators may also employ mechanical means to position spray nozzles close to the soil surface such as protected drop nozzles mounted at the end of weighted bars which maintain constant contact with the soil surface.

**Fencerow Applications:** For fencerow applications, a single spray band will cover a fencerow 4 to 10 feet wide. Use a rate appropriate to control the most difficult species to control in the fencerow. Use a straight stream nozzle and direct the nozzle stream at the soil surface in the center of the fencerow. For fencerows wider than 10 feet, separate bands may be applied on either side of the fencerow.

Rate example: Assuming the desired rate of Alligare Tebuthiuron 80 WG is 5 pounds per acre and the fencerow is 10 feet wide, 5 pounds of Alligare Tebuthiuron 80 WG will treat 4356<sup>†</sup> linear feet of fencerow. Determine the delivery rate for the nozzle at the desired spray pressure and the walking speed of the applicator. If the length of the area to be treated is 4356 ft long and walking speed is 3 mph (264 ft/minute) it would take 16.5 minutes to walk the length of the treatment area. If the delivery rate of the nozzle is 0.6 gallons per minute, the treatment would require approximately 10 gallons (0.6 gallon per minute X 16.5 minute = 10 gallons) of spray solution.

 $^{\dagger}$ 1 acre = 43560 sq ft (43560 sq ft ÷ 10 ft = 4356 ft)

#### **Individual Plant Treatment**

**ATTENTION:** Do not use this treatment method in any area where there are desirable species in close proximity to plants to be eliminated. A small amount of Alligare Tebuthiuron 80 WG in contact with the roots of desirable trees or other woody species may cause severe injury or death. See Use Precautions and Restrictions section for precautions for avoiding damage to non-target plants.

Alligare Tebuthiuron 80 WG may be applied in high or low volumes of water for selective control of individual woody plants. Recommended rates will vary depending upon site conditions, with the higher rates needed for difficult to control species, large plants, heavier soils, fall applications and cut brush. Refer to Factors in Herbicidal Response of Woody Plants section for further information.

For high volume applications, mix 1 pound of Alligare Tebuthiuron 80 WG in enough water to make 10 gallons of solution. Apply 10 ounces of material to the soil per every 2 to 4 inches of stem diameter.

For low volume applications, mix 1 pound of Alligare Tebuthiuron 80 WG in enough water to make 1 gallon of solution. Apply 1 ounce of material to the soil per very 2 to 4 inches of stem diameter.

When treating large stems, apply the multiple treatments (spots or bands) in even spacing around the stem.

Two types of equipment are suggested for applying Alligare Tebuthiuron 80 WG using banded or individual plant treatment methods: the Solo Model 425 back pack sprayer (or equivalent) for both banding and individual plant treatment, and the Spot Gun for individual plant treatment.

The Solo sprayer is prepared for spraying by adding the pre-slurried contents of 4 pounds of Alligare Tebuthiuron 80 WG and water to the tank. Fill to capacity with additional water and shake vigorously. Equip the Solo sprayer with a 0003-SS straight stream nozzle and the Solo pressure regulator with the green (10 psi) pressure limiting spring. To band Alligare Tebuthiuron 80 WG at 5 pounds per acre, walk at 3 mph (264 feet per minute) with the Solo on continuously and space the bands 5 feet apart. Adjust the rate and walking speed according to the brush species and conditions encountered. For individual plant treatment with the Solo, apply a 1.5 second shot for every 1 to 2 inches of stem diameter at the base of unwanted woody plants.

The Spot Gun is prepared for individual plant treatment by mixing 2 pounds of Alligare Tebuthiuron 80 WG in sufficient water to obtain 1 gallon of spray solution. Set the Spot Gun to deliver 8 milliliters of this solution for every 1 to 2 inches of stem diameter at the base of the unwanted woody plants. For application on steep slopes or other sensitive areas, the Spot Gun can be equipped with a soil probe to inject the Alligare Tebuthiuron 80 WG solutions beneath the soil surface. Placement at a soil depth of 2 to 4 inches will eliminate any surface movements and reduce injury to herbaceous vegetation.

At the prescribed rates, 4 pounds of Alligare Tebuthiuron 80 WG will treat approximately 950 stems 1 to 2 inches in diameter. Because of its non-volatile nature and low potential for drift, this Alligare Tebuthiuron 80 WG application technique can be used for treating unwanted woody plants in non-cropland areas adjacent to sensitive crops (see Precautions and Restrictions section). Use of a colored marker or dye in spray mixtures will aid in inspection of the completed work.

#### **Aerial Application**

Aerial application of Alligare Tebuthiuron 80 WG on rights-of-way is limited to helicopter only. Helicopter or fixed-wing aircraft may be used for establishment of herbicidal firebreaks on rangeland or areas adjacent to rights-of-way.

Apply in 5 or more gallons per acre when using aerial application equipment. Because Alligare Tebuthiuron 80 WG is a soil active herbicide, maximum soil deposition is desirable. This may be achieved by application of extremely large droplets. Large straight stream nozzles, minimum nozzle pressure and spray thickening agents may be used to achieve the maximum possible droplet size and minimize the potential for drift. Foliar deposition from large droplets is also more likely to be washed from foliage to the soil surface during initial rainfall events.

**Precautions for Avoiding Spray Drift:** Avoid spray drift at the application site. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. Users are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

- 1. The distance of the outer most operating nozzles on the boom must not exceed 90% of the wingspan or rotor width.
- 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.

### **Spray Drift Management**

**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 produced 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 90% 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 largest 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 local, low level 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 the 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.

## **Factors in Herbicidal Response of Woody Plants**

Alligare Tebuthiuron 80 WG has little or no foliar activity, but when applied to the soil is readily absorbed by the plant roots along with soil moisture. Effects will not become apparent until there is sufficient rainfall to move the herbicide into the root zone. The time required to achieve control is dependent on soil type, amount and timing of rainfall, and rooting depth of target species. Some species may go through several defoliations and refoliations over a period of approximately two or three years before dying.

### Soil Texture, Soil Depth, and Organic Matter

Poor control or erratic results are likely to occur if banded treatments are applied to soils containing more than 5% organic matter or more than 30% clay. Do not apply to "blackland" or other heavy clay soils that crack extensively upon drying. Other deep, medium, and fine-textured soils supporting deep-rooted woody plant species require higher rates within rate ranges for consistent control. Woody plants growing in shallow, coarse, or rocky soils with low organic matter are normally more susceptible due to increased soil availability of the herbicide and shallow rooting depth. Application rates at the low end of the rate range may be used under these conditions.

#### **Woody Plant Size and Density**

The height and density of woody vegetation is a reliable indicator of soil conditions. Woody vegetation is generally taller and denser where soils are deep and/or of medium to fine texture and where soil moisture conditions are more favorable. Higher rates in the rate range are required on such sites. Woody vegetation will be smaller and less dense on sites with coarse, shallow, or rocky soils with less favorable soil moisture conditions. Lower rates in the rate range may be used on such sites. Where a high level of woody plant control is required and application rates cannot be adjusted for changes in soils, plant size, or density, apply Alligare Tebuthiuron 80 WG at a rate sufficient to control the tallest and most dense woody vegetation in the treatment area

## **Application Timing**

Alligare Tebuthiuron 80 WG may be applied anytime except when the soil is frozen or is saturated with moisture. For optimum results, applications should be made prior to the resumption of active seasonal growth in the spring or before expected seasonal rainfall. In areas receiving greater than 25 inches of annual rainfall, late summer and fall applications may require a higher application rate in the indicated rate range to achieve consistent control.

Banded application of Alligare Tebuthiuron 80 WG is recommended for control of brush regrowth after dozing or shredding, provided the regrowth has reached an average height of five feet or more prior to application. Alligare Tebuthiuron 80 WG works best when there is an abundance of active leaf area to stimulate soil moisture and herbicide uptake during the season following application. Taller regrowth will tend to respond with faster and more consistence brush control.

Alligare Tebuthiuron 80 WG may cause temporary herbicidal symptoms to appear on perennial grasses. Dormant season application is recommended to minimize herbicidal effects on desirable forage grasses.

## **Effect of Shallow Groundwater on Woody Plant Control**

Do not apply Alligare Tebuthiuron 80 WG to areas where the water table is predominantly shallow (5 feet or less), such as marshy or sub-irrigated areas, or areas immediately adjacent to streams or lakes which are periodically flooded. On such sites, where roots extend directly to a shallow water table, woody plants are minimally affected by applications of tebuthiuron and poor control will result.

**Note:** Refer to the Use Restrictions for Ground Water Protection in the Environmental Hazards section for other rate limitations on "vulnerable" sites.

## WOODY PLANT CONTROL IN RANGELAND, PERMANENT PASTURES, FENCEROWS AND CLEARINGS FOR WILDLIFE HABITAT

Alligare Tebuthiuron 80 WG is recommended as a ground-applied band application for control of woody plants in rangeland and permanent pastures, for establishment of clearings for enhancement of wildlife habitat, and for control of trees and brush in fencerows.

## **Grazing Management**

In rangelands and permanent grass pastures, measures to minimize injury to, and maximize growth response of, desirable grasses and other forage species are recommended. These include:

- application during seasons when forage species are not actively growing,
- application in narrow bands using straight stream nozzles to minimize potential injury to desirable herbaceous cover, and,
- utilizing the maximum width between bands that will still allow for optimal woody plant control (refer also to the General Information section above)

For optimum perennial forage grass response, desirable species should be present in the area to be treated at a minimum of 10% of normal plant density (density = plants per unit area) compared to similar rangeland or pasture sites not dominated by woody plants. To encourage forage response, grazing should be deferred during the entire active growing season following application. Poor vegetative vigor or inadequate rainfall may necessitate additional grazing deferment during periods of active forage growth. Light to moderate grazing after forage grasses are mature and seed has set will not harm grasses and can aid in seed dispersal. Forage grass production usually increases as woody plant competition for water and nutrients is reduced. However, increased forage production is also dependent on adequate rainfall and a sound grazing management program.

## Woody Plants in Rangeland, Permanent Pastures and Fencerows Controlled by Banded Applications

## Apply Alligare Tebuthiuron 80 WG at 0.95 to 1.25 lb per acre on the following woody plant species:

Note: On rangeland and pastureland, apply 0.95 to 1.25 lb/acre of Alligare Tebuthiuron 80 WG where a higher degree of control is required (see Factors in Herbicidal Response of Woody Plants section of this label). Alligare Tebuthiuron 80 WG may be applied at rates as low as 0.63 Ib per acre on sites with shallow, rocky and coarse textured soils having low organic matter content, or where partial control is desired.

**Common Name** 

**Scientific Name** 

ceniza

Leucophyllum frutescens

creosotebush

Larrea tridentata

mimosa, catclaw

Mimosa pigra

(wait-a-minute-bush)

Paloverde sagebrush, big sagebrush, sand Cercidium spp. Artemisia tridentata Artemisia filifolia

snakeweed, broom

Gutierrezia sarothrae

(density less than 1/sq ft)

tarbush whitethorn Flourensia cernua Acacia constricta

### Apply Alligare Tebuthiuron 80 WG at 0.63 to 2.5 lb per acre on the following woody plant species;

**Common Name** 

**Scientific Name** 

oak, sand shinnery<sup>™</sup>

Quercus havardii

\*Note: A wide range is provided to accommodate the broad range of soil and climatic variations which occurs in areas occupied by sand shinnery. Use the lowest application rate only on shallow sands in southern part of species range or where partial control is desired. Use a higher dose in indicated rate range for deeper sands and dunes, and on shinnery varieties with tall and dense growth habit which become more prevalent in the mid-to-northern part of the species range (see Factors in Herbicidal Response of Woody Plants section of this label).

## Apply Alligare Tebuthiuron 80 WG at 1.25 to 2.5 lb per acre on the following woody plant species:

**Common Name** 

**Scientific Name** 

oak, bigelow<sup>†</sup>

Quercus durandi

(partial control)

oak, mohr<sup>†</sup>

Quercus mohriana

(partial control)

oak, running live<sup>†</sup>

Quercus virginiana

(partial control)

whitebrush

Aloysia lycoides

wolfberry, Berlandier

Lycium berlanderi

<sup>†</sup>**Note:** Use a higher dosage in indicated rate range on tall and dense stands.

## Apply Alligare Tebuthiuron 80 WG at 2.5 to 5 lb per acre on the following woody plant species:

Common Name

Scientific Name

acacia, blackbrush

Acacia rigidula

buckbrush Symphoricarpos orbiculatus

cherry, bitter Prunus emarginata dogwood, roughleaf Cornus drummondii elm, American Ulmus americana elm, winged Ulmus alata guajillo Acacia berlanderi Psidium guajava guava hackberry, spiny (granjeno) Celtis palida hackberry, western Celtis occidentalis Crataegus spp. hawthorn huckleberry Gaylussacia spp. koa haole Leucaena leucophylla

locust, black

manzanita Arctostaphylos spp. Morus rubra mulberry, red oak, black Quercus velutina oak, blackjack Quercus marilandica Quercus douglasii oak, blue oak, bur Quercus macrocarpa oak, post Quercus stellata Quercus turbinella oak, shrub live oak, southern red Quercus falcata Quercus, alba

oak, white Rosa multiflora rose, multiflora sage, black Salvia melifera sumac, dwarf Rhus copallina Rhus microphylia sumac, littleleaf Rhus trilobata sumac, skunkbush sumac, smooth Rhus glabra sumac, staghorn Rhus typhina Datura discolor thornapple, desert llex vomitoria yaupon

yaupon, desert Schaefferia cuneifolia

## Apply Alligare Tebuthiuron 80 WG at 5 lb per acre on the following woody plant species:

Robinia pseudoacacia

Common Name Scientific Name

alder, red Alnus rubra alder, speckled Alnus rugosa

aspen, bigtooth
beech, American
blackberry

Populus grandidentata
Fagus grandifolia
Rubus spp.

boxelder Acer negundo

chamise Adenostoma fasciculatum

cherry, black Prunus serotina chokecherry, common Prunus virginiana

colubrina, Texas cottonwood, eastern creeper, Virginia dogwood, flowering

douglas fir fir, balsam guayacan hardhack

hickory, bitternut hickory, black hickory, pignut hickory, shagbark

huisache

kidneywood, Texas

kudzu leatherstem lotbush (condalia) maple, bigleaf maple, sugar melaleuca

mountain mahogany,

birchleaf

oak, California scrub oak, live oak, pin oak, red oak, white pine, Australian

pine poplar, balsam raspberry, black rose, Macartney

spruce, white sweetgum

tamarack trumpetcreeper

willow

Colubrina texensis Populus deltoides

Parthenocissus quinquefolia

Cornus florida

Pseudotsuga menziesii

Abies balsamea
Porlieria angustifolia
Spiraea tomentosa
Caraya cordiformis
Caraya texana
Caraya glabra
Caraya ovata
Acacia farnesiana
Eysenhardtia texana
Pueraria lobata

Jatropha dioica
Ziziphus obtusifolia
Acer macrophyllum
Acer saccharum

Melaleuca quinquenervia

Cercocarpus betuloides

Quercus dumosa Quercus virginiana Quercus palustris Quercus rubra Quercus alba Casuarina spp. Pinus spp.

Populus balsamifera Rubus occidentalis Rosa bracteata Picea glauca

Liquidambar styraciflua

Larix Iaricina Campsis radicans

Salix spp.

## ESTABLISHMENT OF HERBICIDAL FIREBREAKS\* (\*Not registered for this use in California)

Alligare Tebuthiuron 80 WG may be used for establishment of firebreaks in annual grasslands adjacent to frequently traveled areas or areas with a history of repeated wildfires. Application of Alligare Tebuthiuron 80 WG provides residual preemergence control of annual grasses and broadleaf weeds and prevents annual buildup of combustible fuel. Treated strips 40 to 50 feet wide may be established parallel to highways or frequently traveled areas or in a broad-scale grid pattern. Strategic placement of firebreaks can prevent fires from spreading from frequently traveled areas or lightning fires can be confined to the area within a single grid block. Herbicidal firebreaks can also serve as a means of safe passage in case of entrapment during fire-fighting efforts.

This practice is intended for use in rangelands dominated by annual grasses such as *Bromus* and other annual grass species and certain broadleaf weeds prevalent in the Great Basin and Pacific Northwest. When surface applied from mid-summer to early fall, Alligare Tebuthiuron 80 WG provides residual preemergence control of susceptible annual grasses and broadleaf weeds from early fall through the spring growth period. Depending on application rate, a single application may provide effective annual grass and broadleaf control for 2 years or more. Desirable perennial grasses within treated strips may be temporarily injured, but if not overgrazed, will increase in vigor and density with time.

**Annual Weeds Controlled:** Includes *Bromus* spp., downy bromegrass or cheatgrass (*Bromus tectorum*), ripgut brome (*Bromus diandrus*), annual mustards, bur buttercup (*Ranunculus testiculatus*) and other annual species.

Application Timing: Alligare Tebuthiuron 80 WG may be applied from mid-summer through early fall (July 15 through October 15). Application should occur prior to or immediately after the onset of germination of target annual weeds. Alligare Tebuthiuron 80 WG may be applied 2 to 3 months before germination of target weeds without loss of herbicidal activity. The treatment becomes herbicidally active when there is sufficient rainfall to move the herbicide into the surface soil where germination occurs. Control will be reduced if Alligare Tebuthiuron 80 WG is applied after the root systems of target weeds are established and can obtain soil moisture from below the zone of herbicidally active surface soil.

**Broadcast Application Rates:** Apply Alligare Tebuthiuron 80 WG at a rate of 0.38 to 0.75 lb/acre (0.3 to 0.6 lb a.i./acre) in a minimum spray volume of 5 gallons per acre for ground equipment. Use low pressure large droplet herbicide nozzles. Use the lower end of the rate range in areas with coarse to medium textured soils with low organic matter and the higher end of the rate range in areas with medium to fine textured soils, areas with higher organic matter, or where a longer period of control is desired.

**Woody plant control:** With time, application rates greater than 0.4 lb/acre of Alligare Tebuthiuron 80 WG may provide sagebrush control within treated strips.

**Application Techniques and Equipment**: Herbicidal firebreaks may be applied with ground equipment. Ground equipment using cluster nozzles may be preferable to conventional ground spray booms in areas of rough terrain. Adjust spray boom to deliver a uniform swath approximately 40-50 feet wide. Treat strips of sufficient width to contain a wild fire in annual grass vegetation normally observed in the area.

Repeat applications may be made at a reduced rate within previously treated strips or application may occur adjacent to treated strips to widen the zone of reduced fuel in case of fire. By treating strips adjacent to previously treated strips, desirable changes in herbaceous perennial vegetation within previously treated strips may be preserved.

#### NON-CROPLAND TOTAL VEGETATION CONTROL

Alligare Tebuthiuron 80 WG may be used for preemergence and postemergence total vegetation control in such non-cropland areas as: airport runways, utility substations and rights-of-way, road shoulders where no vegetation is desired, under asphalt and concrete pavements where no future landscaping is planned, at the base of highway guardrails, sign posts and markers, at the base of transmission towers and poles, around industrial buildings, lumberyards, railroad yards, firebreaks, and fencerows.

Note: Refer to General Information section for limitations on maximum use rates, frequency of application and total application rates allowed during a given period of time. Refer to the

Restrictions for Ground Water Protection under the Environmental Hazards section for other rate limitations on "vulnerable" sites.

For total vegetation control in areas **not treated the previous season** with tebuthiuron or other residual herbicides, apply Alligare Tebuthiuron 80 WG prior to or just after emergence of plants as follows:

## At 5 pounds per acre, Alligare Tebuthiuron 80 WG will control the following:

Alfalfa	Hemlock, poison
Aster, heath	Henbit
Aster, white heath	Honeysuckle, Japanese
Barley, little	Horseweed
Bedstraw	Knapweed
Bluegrass, annual	Kochia
Bluegrass, Kentucky	Lambsquarters
Bouncingbet	Lupine
Bromegrass, downy	Medic, black
Bromegrass, ripgut	Morningglory
Bromegrass, smooth	Mullein, common
Broomsedge	Nightshade, silverleaf
Buffalograss	Oat, wild
Burclover	Panicum, Texas
Buttercup, smallflower	Pepperweed, Virginia
Camphorweed	Pigweed
Carrot, wild	Plantain, buckhorn
Catsear, spotted	Puncturevine
Cheat	Ragweed, giant
Chickweed	Raspberry, red
Clover, red	Ryegrass, Italian
Cocklebur	Sedge, annual
Creeper, Virginia	Shepherdspurse
Crowfootgrass	Sida, prickly
Dock, curly	Sowthistle, annual
Dogfennel	Spikeweed
Fescue	Spurge
Fescue, rattail	Spurge, spotted
Fiddleneck, coast	Starthistle, yellow
Filaree	Strawberry
Filaree, redstem	Sunflower, common
Fleabane, annual	Telegraphplant
Foxtail	Timothy
Gaillardia, rosering	Trumpetcreeper
Geranium, Carolina	Velvetgrass
Goldenrod	Vetch
Grape	Witchgrass
Gumweed	

For the maintenance of total vegetation control in non-cropland areas east of the Rocky Mountains which were treated the previous season with tebuthiuron or other residual herbicides, apply Alligare Tebuthiuron 80 WG prior to or just after emergence of plants as

follows (some of the species listed may show erratic control depending on the time between applications and weed germination):

### At 3 pounds per acre, Alligare Tebuthiuron 80 WG will control the following:

	1 0	I
Goldenrod	Spurge	
Ooldeliiod	Obulde	I

## At 2 pounds per acre, Alligare Tebuthiuron 80 WG will control the following:

Bluegrass, annual	Parsnip, wild
Bluegrass, Kentucky	Pepperweed
Carrot, wild	Pigweed
Chickweed, common	Ragweed, common
Croton	Smartweed, Pennsylvania
Fleabane, annual	Sweetclover
Horseweed	Thistle, Canada
Mullein	Woodsorrel, yellow
Panicum, fall	

In areas of rainfall greater than 25 inches per year, the 3 pounds per acre maintenance rate should be used for all weed species listed above.

For the **maintenance of total vegetation control** in non-cropland areas **west of the Rocky Mountains** which were treated the previous season with tebuthiuron or other residual herbicides, apply Alligare Tebuthiuron 80 WG prior to or just after emergence of plants as follows (some of the species listed may show erratic control depending on the time between applications and weed germination):

## At 1.5 pounds per acre, Alligare Tebuthiuron 80 WG will control the following:

Bassia, fivehook	Pigweed	
Cheat	Plantain	
Cudweed	Ryegrass, annual	
Foxtail	Saltbush	
Lettuce, prickly	Shepherdspurse	
Oat, wild	Witchgrass	
Oxtongue, bristly		

## At 2 pounds per acre, Alligare Tebuthiuron 80 WG will control the following:

Buttercup	Mustard
Canarygrass, reed	Ragweed, western
Knapweed, Russian	Starthistle, yellow
Knotweed	Telegraphplant
Mallow	

## At 3 pounds per acre, Alligare Tebuthiuron 80 WG will control the following:

Barley	Sida, alkali
Gumweed	Smartweed, swamp
Puncturevine	

In areas of rainfall greater than 25 inches per year, the 3 pounds per acre maintenance rate should be used for all weed species listed above.

#### NON-CROPLAND CONTROL OF WOODY PLANTS AND VINES

For the control of woody plants and vines, apply the following rates of Alligare Tebuthiuron 80 WG. These rates can vary depending upon soil type, rainfall, time of application and size/density of the woody plants.

## Apply Alligare Tebuthiuron 80 WG at 1.25 to 2.5 lb per acre on the following woody plant species:

Common Name	Scientific Name
Burroweed	Haplopappus tenuisectus
Creosotebush	Larrea tridentata
Wait-a-minute-bush	Mimosa biuncifera

## In addition to those species controlled at 1.25 lb per acre, the following species will be controlled at the rate of 2.5 lb per acre:

Common Name	Scientific Name
Blueberry	Vaccinium spp.
Buckbrush	Symphoricarpos orbicalatus
Ceniza (Texas silverleaf)	Leucophyllum frutenscens
Cherry, bitter	Prunus emarginata
Elm, American	Ulmus americana
Hackberry, western	Celtis occidentalis
Huckleberry	Gaylussacia spp.
Locust, black	Robinia pseudoacacia
Pine	Pinus spp.
Pine, western white	Pinus monticola
Rose, multiflora	Rosa multiflora
Sage, purple	Salvia leucophylla
Sagebrush, big	Artemisia tridentata
Sumac, smooth	Rhus glabra
Thornapple, desert	Datura discolor
Tree-of-heaven	Ailanthus altissima
Whitebrush	Aloysia lycioides
Wolfberry, berlandier	Lycium berlandieri

## In addition to those species controlled at 2.5 lb per acre, the following species will be controlled at the rate of 3.75 lb per acre:

Common Name	Scientific Name
Alder, speckled	Alnus rugosa
Birch, gray	Betula populifolia
Cottonwood, eastern	Populus deltoides
Elm, winged	Ulmus alata
Fir, balsam	Abies balsamea
Granjeno	Celtis pallid
Hardhack	Spiraea tomentosa
Huisache	Acacia farnesiana
Condalia, lotebush	Condalia obtusifolia
Maple, sugar	Acer saccharum
Oak, blackjack	Quercus marilandica
Oak, blue	Quercus douglasii

Common Name	Scientific Name
Oak, post	Quercus stellat
Poplar, balsam	Populus balsamifera
Spruce, white	Picea glauca
Tamarack	Larix Iaricina
Willow	Salix spp.
Yaupon	
Yaupon, desert	Schaefferia cuneifolia

# In addition to those species controlled at 3.75 lb per acre, the following species will be controlled at the rate of 5 lb per acre:

Common Name	Scientific Name
Common Name	
Acacia, blackbrush	Acacia rigidula
Acacia, catclaw	Acacia greggii
Acacia, twisted	Acacia tortuosa
Alder, red	Alnus rubra
Aspen, bigtooth	Populus grandidentata
Beech, American	Fagus grandifolia
Blackberry, Allegheny	Rubus allegheniensis
Boxelder	Acer negundo
Chamise	Adenostoma fasciculatum
Chokecherry, common	Prunus virginiana
Colubrina, Texas	Colubrina texensis
Condalia, bluewood	Condalia obovata
Creeper, Virginia	Parthenocissus quinquefolia
Dogwood, roughleaf	Cornus drummondii
Douglas fir	Pseudotsuga menziesii
Guajillo	Acaia berlandieri
Guayacan	Porlieria angustifolia
Hawthorn	Crataegus spp.
Hickory, black	Carya texana
Hickory, pignut	Carya glabra
Hickory, shagbark	Carya ovate
Kidneywood, Texas	Eysenhardtia texana
Kudzu	Pueraria lobata
Leatherstem	Jatropha dioica
Maples	Acer spp.
Mountain-mahogany	Cetcocarpus betuloides
(birchleaf)	
Oak, California scrub	Quercus dumosa
Oak, live	Quercus virginiana
Oak, pin	Quercus palustris
Oak, red	Quercus rubra
Oak, white	Quercus alba
Pine, Australian	Casuarina spp.
Pines	Pinus spp.
Salvia, shrubby blue	Salvia ballotaeflora
Sumac, staghorn	Rhus typhina
Sweetgum	Liquidambar stryaciflua
Trumpetcreeper	Campsis radicans

## Individual (Spot) Application

# Alligare Tebuthiuron 80 WG may be applied, using hand-held equipment at up to 7.5 pounds per acre, to the following species by individual (spot) application only:

Common Name	Scientific Name
Ash, green	Fraxinus pennsylvanica
Ash, white	Fraxinus americana
Blackberry, evergreen	Rubus laciniatus
Ceanothus, wedgeleaf	Ceanothus cuneatus
Chaparral, whitehorn	Ceanothus leucodermis
Cherry, black	Prunus serotina
Dogwood, flowering	Cornus florida
Elm, Chinese	Ulmus parvifolia
Elm, slippery	Ulmus rubra
Greenbrier, common	Smilax rotundifolia
Groundsel tree	Baccharis spp.
Hawthorn, cockspur	Crataegus crus-galii
Lantana	Lantana camara
Manzanita, greenleaf	Arctostaphylos patula
Maple, bigleaf	Acer macrophyllum
Maple, Norway	Acer platanoides
Maple, silver	Acer saccharium
Maple, vine	Acer circinatum
Melaleuca	Maleuca quinquenervia
Oak, white	Quercus alba
Peppertree, Brazilian	Schinus terebinthifolius
Pine, Australian	Casuarina spp.
Pine, jack	Pinus banksiana
Pine, red	Pinus resinosa
Pine, shortleaf	Pinus echinata
Pine, Virginia	Pinus virginiana
Privet	Ligustrum spp.
Raspberry, black	Rubus occidentalis
Redcedar, eastern	Juniperus virginiana
Russian olive	Elaeagnus angustifolia
Salal	Gaultheria shallon
Sumac, laurel	Rhus laurina
Sycamore, American	Platanus occidentalis
Tallow tree	Sapium sebiferum
Tuliptree	Liriodendron tulipifera

### STORAGE AND DISPOSAL

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

**Pesticide Storage**: The herbicidal properties of Alligare Tebuthiuron 80 WG require caution in handling, storage, and transportation of this product. Store in original container only. In case of leak or spill, contain material and dispose as waste.

**Pesticide Disposal**: Open dumping is prohibited. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**Container Disposal**: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of empty bag 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. To the extent consistent with applicable law, 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.

<u>Terms of Sale:</u> 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.

<u>Limitation of Liability:</u> 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. 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.

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