



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

May 5, 2021

Maryanne Geisbush
Regulatory Consultant
Alligare, LLC
c/o Pyxis Regulatory Consulting Inc.
4110 136th St. Ct. NW
Gig Harbor, WA 98332

Subject: Registration Review Label Mitigation for Imazapic
Product Name: ALLIGARE PANORAMIC 2SL HERBICIDE
EPA Registration Number: 81927-19
Application Dates: February 14, 2020
Decision Numbers: 559822

Dear Ms. Geisbush:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the ALS-Inhibiting Herbicides Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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 copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

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EPA Reg. No. 81927-19
Decision No. 559822

If you have any questions about this letter, please contact Marisa Wright by phone at (703) 347-0463, or via email at wright.marisa@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Linda Arrington', with a stylized flourish at the end.

Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

Enclosure

ACCEPTED

May 05, 2021

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 81927-19

IMAZAPIC

GROUP

2

HERBICIDE

Alligare PANORAMIC 2SL

HERBICIDE

For use on Conservation Reserve Program (CRP) land, paved surfaces, and pasture and rangeland.

ACTIVE INGREDIENT:	% BY WT.
Ammonium salt of imazapic (+/- 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1 H imidazol-2-yl]-5-methyl-3-pyridinecarboxylic acid*)	23.3%
OTHER INGREDIENTS:	76.7%
	TOTAL 100.0%

Equivalent to 21.9%(+/-)2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1 H-imidazol-2-yl]-5-methyl-3-pyridinecarboxylic acid
1 gallon contains 2.0 pounds of active ingredient as the free acid

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID

IF IN EYES:	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15 to 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:	<ul style="list-style-type: none"> 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.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. 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 a 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.

[See] [inside] [label] [booklet] [for] [First Aid][.] [additional] [Precautionary Statements][.] [and] [Directions for Use] [including] [Storage and Disposal Instructions][.]

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes moderate eye irritation. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

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

MANUFACTURED FOR:

Alligare, LLC
1565 5TH Avenue
Opelika, AL 36801

EPA Reg. No. 81927-19

EPA Est. No.

NET CONTENTS: ___ GALLONS

USER SAFETY RECOMMENDATIONS

Users should:

- Wash thoroughly with soap and water after handling and 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.
- Wash outside of gloves then remove after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark.

Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

NON-TARGET ORGANISM ADVISORY STATEMENT: This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

GROUNDWATER ADVISORY STATEMENT: This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

SURFACE WATER ADVISORY STATEMENT: This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water.

This product is classified as having high potential for reaching surface water via runoff for several months or more after application.

A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of imazapic from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

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.

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 12 hours.

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

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

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.

Noncrop weed control is not within the scope of the Worker Protection Standard. See the definition on this label of noncrop sites.

Do not enter treated areas without protective clothing until sprays have dried.

RESISTANCE MANAGEMENT

For resistance management, Alligare Panoramic 2SL Herbicide is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to Alligare Panoramic 2SL Herbicide and other Group 2 herbicides. Weed species with acquired resistance to Group 2 herbicides may eventually dominate the weed population if Group 2 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Alligare Panoramic 2SL Herbicide or other Group 2 herbicides.

Suspected herbicide-resistant weeds may be identified by these indicators:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

To delay herbicide resistance:

- Avoid the consecutive use of Alligare Panoramic 2SL Herbicide or other target site of action Group 2 herbicides that might have a similar target site of action, on the same weed species.
- Use tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Base herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Scout fields prior to application to identify the weed species present and their growth state to determine if the intended application will be effective.
- Scout fields after application to verify that the treatment was effective.
- Contact your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

Report any incidence of non-performance of this product against a particular weed species to your Alligare LLC retailer, representative or call 888-252-4427. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemicals means to remove escapes, as practical, with the goal of preventing further seed production.

SPRAY DRIFT MANAGEMENT

Aerial Applications

- Do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1)
- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Applicators must use ½ swath displacement upwind at the downwind edge of the application site.
- Do not apply when wind speeds exceed 15 miles per hour at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

Ground Boom Applications

- User must apply with the release height recommended by the manufacturer, but no more than 3 feet above the ground or existing terrestrial vegetation unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- For applications prior to the emergence of target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).

- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

Boomless Ground Applications

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

- THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.
- BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.
- IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size - Ground Boom

 - Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
 - Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
 - Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size - Aircraft

 - Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.
- BOOM HEIGHT - Ground Boom

For ground equipment, the boom should remain level with the application site and have minimal bounce.
- RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift.
- SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.
- TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.
- TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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. Avoid applications during temperature inversions.
- WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

 - Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.
- Boom-less Ground Applications
 - Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

- Handheld Technology Applications
 - Take precautions to minimize spray drift.

GENERAL INFORMATION

NONCROP AND CONSERVATION RESERVE PROGRAM (CRP) USES

For weed control and/or turf height suppression, mix Alligare Panoramic 2SL Herbicide with water and an adjuvant and spray it on noncropland areas including those that may be grazed or cut for hay, on Federal Conservation Reserve Program (CRP) land, rangeland (see “Instructions for Rangeland Use” elsewhere in the label), and pastures.

Alligare Panoramic 2SL Herbicide may be applied to the following noncropland use sites:

- rights-of-way (railroad, utility, pipeline and highway)
- railroad crossings
- utility plant sites
- petroleum tank farms
- pumping installations
- non-agricultural fence rows
- storage areas
- non-irrigation ditch banks
- prairie sites
- airports
- turf areas (on industrial, golf courses, recreation and non-residential sites)

Alligare Panoramic 2SL Herbicide may be used for weed control in order to release certain legumes, wildflowers, crown vetch, native prairiegrass, wheatgrass, “wildtype” common Kentucky bluegrass, smooth brome grass, bahiagrass, bermudagrass and other grasses.

For weed control during the establishment of native prairiegrass and other grasses, use Alligare Panoramic 2SL Herbicide as described in the “Revegetation with Prairiegrasses and other Forage Grasses” part of the label.

Alligare Panoramic 2SL Herbicide kills plants because the herbicide inhibits the activity of the enzyme acetohydroxy acid synthase (AHAS or ALS). Plant leaves, stems and roots readily absorb Alligare Panoramic 2SL Herbicide and translocate it throughout the plant where it accumulates in the meristematic tissue. Treated plants stop growing soon afterwards. Chlorosis appears first in the newest leaves, and tissue death spreads from these points. It may require several days to several weeks for susceptible weeds to die. Knowing about the activity on the AHAS or ALS enzyme is important because some naturally occurring weed biotypes of labeled weeds may not be controlled by Alligare Panoramic 2SL Herbicide or other herbicides with the same inhibiting mode of action. If resistant weed biotypes are present in the field then Alligare Panoramic 2SL Herbicide and other herbicides with the same mode of action should be tank-mixed or applied sequentially with a registered herbicide with a different mode of action.

Soil moisture is critical for optimum Alligare Panoramic 2SL Herbicide weed control. With adequate soil moisture, Alligare Panoramic 2SL Herbicide will provide residual control of susceptible germinating weeds. Control of established weeds is dependent on the weed species and depth of the root system. Alligare Panoramic 2SL Herbicide is rainfast within one hour after application.

Alligare Panoramic 2SL Herbicide can be applied preemergence or postemergence to control annual and perennial grasses, broadleaf weeds and vine species and provide control of labeled weeds which germinate in the treated area. Direct application of Alligare Panoramic 2SL Herbicide to the foliage of certain brush species and ornamentals could lead to injury.

The best weed control is achieved when Alligare Panoramic 2SL Herbicide is applied as a postemergence application, especially on perennial species. Since Alligare Panoramic 2SL Herbicide must be taken up by the plant and translocated to the meristematic tissue before it becomes effective, weeds should be actively growing at the time of postemergence applications. All spray solutions should include an adjuvant (see “Spray Adjuvants for Postemergence Applications” section of this label). Applications may be made as broadcast treatments with ground spray equipment or as spot treatments with backpack sprayers.

Even though Alligare Panoramic 2SL Herbicide may be applied in the dormant or growing season, the weeds need to be actively growing for maximum control.

Alligare Panoramic 2SL Herbicide can cause injury to desirable grass species if the application is made to grasses that are under stress due to disease, insect damage and/or other causes. Some yellowing of desirable grasses may occur after an application of Alligare Panoramic 2SL Herbicide made during the growing season. This is dependent upon weather conditions and is usually short lived (2 to 4 weeks). Newly seeded or sprigged grass stands should not be treated with Alligare Panoramic 2SL Herbicide unless approved on this label (see "Revegetation with Prairiegrass and other Forage Grasses" section of this label) or authorized by Alligare, LLC in a supplemental label.

Important Precautions:

1. Do not apply Alligare Panoramic 2SL Herbicide to residential lawns.
2. Desirable trees and ornamental plants can be injured if rinseate from spray equipment used to apply Alligare Panoramic 2SL Herbicide is allowed to wash or move into contact with plant roots.
3. Do not apply Alligare Panoramic 2SL Herbicide to the inside of irrigation ditches.
4. Alligare Panoramic 2SL Herbicide may be applied to non-irrigation ditches and low lying areas as long as the water has drained.

Precautions and Restrictions to follow when making applications of Alligare Panoramic 2SL herbicide for weed control, native grass establishment, and turf growth, suppression on pastures, rangeland, and noncrop areas:

- Do not use Alligare Panoramic 2SL Herbicide on food or feed crops except as specified on this or supplemental labeling provided by Alligare, LLC.
- Do not cut treated area for hay within seven days after application.
- Do not use organophosphate insecticides on newly seeded areas treated with Alligare Panoramic 2SL Herbicide unless severe injury or loss of stand can be tolerated.
- Do not apply this product through any type of irrigation system.
- Do not exceed 12 ounces of Alligare Panoramic 2SL Herbicide (0.19 lb imazapic acid equivalent (ae)) per acre per year.
- When tank mixing with other products, read and carefully follow all applicable use directions, precautions, restrictions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive label limitations must apply.
- When making new plantings of prairiegrass or wildflowers, carryover from persistent herbicides such as sulfonyl-urea, imidazolinone, triazine, substituted urea, dinitroaniline, and other herbicides applied the previous year may result in compounded injury or death of desirable vegetation when treated with Alligare Panoramic 2SL Herbicide.
- When making applications around desirable trees or ornamental plants, small areas should be tested to determine the tolerance of a particular species to soil and/or foliar applications of Alligare Panoramic 2SL Herbicide. See section entitled "Tolerance of Trees and Brush to Alligare Panoramic 2SL Herbicide."

APPLICATION INSTRUCTIONS

Ground Application: Make a broadcast application of Alligare Panoramic 2SL Herbicide in a minimum of 2 gallons of spray per acre using ground application equipment. Calibrate the sprayer to deliver the recommended spray volume and pressure at the spray boom height to ensure proper coverage of foliage and/or soil surface. The actual minimum spray volume per acre is determined by the spray equipment used. Adequate spray coverage of weed foliage postemergence or soil surface preemergence is important for maximum weed control. A complete and even distribution of spray is necessary. Avoid overlaps when spraying. When applications are made using less than 10 gallons of spray mixture per acre, special application equipment designed to make low volume applications should be used. A spray pressure of 20 to 40 psi is recommended.

DO NOT apply Alligare Panoramic 2SL Herbicide through any type of irrigation system.

Aerial Application: Use 2 or more gallons of spray mix per acre. The actual minimum spray volume per acre is determined by the spray equipment used. Use adequate spray volume to provide accurate and uniform distribution of spray particles over the treated area and to avoid spray drift. Refer to the section entitled "Spray Drift Management" for additional precautions and restrictions. When making aerial applications, be especially careful to eliminate spray drift. Fixed wing aircraft and helicopters may be used to apply Alligare Panoramic 2SL Herbicide. Ensure appropriate buffer zones are maintained when using fixed wing aircraft.

Spot Treatment Application: In preparing the spray solution, mix thoroughly in water 0.25 to 1.5% v/v (0.3 to 1.9 oz./gal. solution)(0.005 – 0.03 lb ae/gal. solution) Alligare Panoramic 2SL Herbicide plus an adjuvant (see “Spray Adjuvants for Postemergence Applications” section of this label). A methylated seed oil at 1% v/v is the recommended spray adjuvant except when treating seedling prairiegrasses and wildflowers. When making spot applications, spray coverage should be sufficient to moisten the leaves but not to the point of runoff. Make sure the mixing container is opaque to sunlight or otherwise treated to shield for UV light. Alligare Panoramic 2SL Herbicide breaks down when mixed with water and exposed to sunlight. Mixtures of Alligare Panoramic 2SL Herbicide should be used within two days of being prepared to prevent breakdown of the active ingredient and maintain maximum effectiveness. See section on desired species and do not exceed the specified application rate per acre. Also see the sections entitled “Weeds Controlled” and “Special Weed Control.”

All Applications: Do not apply during windy or dusty conditions unless applications are being made with a drift control agent and/or an enclosed shielded spray system. Do not apply if rainfall is threatening. Rainfall within 1 hour of an Alligare Panoramic 2SL Herbicide application may reduce weed control. Uniformly apply specified rate and include a spray adjuvant (see “Spray Adjuvants for Postemergence Applications” section of this label). A foam reducing agent may be added at the recommended rate if needed. Aerial applications to target species growing under the canopy of trees and brush may not receive sufficient coverage for effective control. For fall applications, delaying aerial application until trees and brush have dropped their leaves can improve coverage. See “Special Weed Control” and Tolerance of Trees and Brush to Alligare Panoramic 2SL Herbicide” sections of this label for additional details. Avoid overlapping sprays.

Immediately and thoroughly clean all spray equipment, as prolonged exposure of this product to uncoated steel (except stainless steel) surfaces may cause corrosion and failure of the exposed part.

MIXING INSTRUCTIONS

Mixing with Water: Fill the spray tank at least one-half full of clean water. With the pump and agitator running, add the specified amount of Alligare Panoramic 2SL Herbicide using a calibrated measuring device. Fill the tank with the remaining water adding the surfactant near the end of the filling process. Add an antifoaming product if it is needed. Maintain agitation while spraying.

Mixing with Other Herbicide(s): Alligare Panoramic 2SL Herbicide may be tank-mixed with other herbicide(s) if the use is not prohibited by the label of the other herbicide(s). Read each label carefully and follow all label instructions regarding use rates, application methods, timing, restrictions, precautions, and weeds controlled. The most restrictive label is the one that must be followed. Do not tank-mix Alligare Panoramic 2SL Herbicide with any product that does not permit tank-mixing. Do not exceed label rates. Fill the spray tank at least one-half full of clean water. With the pump and agitator running, add the specified amount of Alligare Panoramic 2SL Herbicide using a calibrated measuring device. Add the tank-mix herbicide, fill the tank with the remaining water adding the nonionic surfactant, organosilicate adjuvant or crop oil concentrate near the end of the filling process. Add an antifoaming product if it is needed. Maintain agitation while spraying. When mixing Alligare Panoramic 2SL Herbicide with other tank-mix partners, always follow the following mixing sequence: add wettable powders, dispersible granules, or other dry formulations first, emulsifiable concentrates next, then Alligare Panoramic 2SL Herbicide next, and spray adjuvants next.

SPRAY ADJUVANTS FOR POSTEMERGENCE APPLICATIONS

To achieve control of weeds when Alligare Panoramic 2SL Herbicide is applied postemergence, a spray adjuvant must be added. Adjuvants vary in their contents and by selecting the correct adjuvant phytotoxicity to desirable vegetation can be reduced or eliminated. Low phytotoxic adjuvants are recommended. Adjuvants containing high amounts of alcohols, paraffin based petroleum oils and other compounds which can increase phytotoxicity should be avoided.

Methylated Seed Oils or Vegetable Oil Concentrate: The preferred spray adjuvant for use with Alligare Panoramic 2SL Herbicide is a methylated vegetable-based seed oil concentrate containing 5 to 20% surfactant and the remainder methylated seed oil (MSO). The rate of MSO should be 1 ½ to 2 pints per acre. Best results are achieved when MSOs are applied with Alligare Panoramic 2SL Herbicide in total spray volumes of 30 gallons per acre or less. The advantage of using the MSO decreases as the spray volume increases to higher volumes. If spray volumes above 30 gallons per acre are used, the MSO should be mixed with Alligare Panoramic 2SL Herbicide at a rate of 1% of the total spray volume. As an alternative, a non-ionic surfactant, as described below could be used when Alligare Panoramic 2SL Herbicide is applied at spray volumes above 30 gallons per acre. MSOs have been shown to aid in

the deposition and uptake of Alligare Panoramic 2SL Herbicide in hard-to-control perennials, in weeds with waxy leaf surfaces and in weeds under stressed conditions.

Do not use a MSO on newly emerged seedling prairiegrass or wildflowers as injury could occur.

Nonionic Surfactants (NIS): Use a NIS at 0.25% v/v (i.e. 1 quart/100 gallons) or higher in the spray solution. For best results, a NIS containing 60% surfactant in the formulated product and having a hydrophilic to lipophilic balance ratio (HLB) between 12 and 17 should be used. Do not use alcohols, fatty acids, oils, ethylene glycol, or diethylene glycol to meet these requirements.

In bermudagrass pastures and hay meadows best results will be achieved if a NIS is used with Alligare Panoramic 2SL Herbicide.

Silicone-Based Surfactants: Use caution if a silicone-based surfactant is used. Although a silicone-based surfactant may allow greater spreading on the leaf surface when compared to a conventional NIS, it may dry too quickly and limit the herbicide's uptake into the plant, or at higher spray volumes it may result in greater spray "run-off" from the plant. Review the specific rate instructions on the manufacturer's label.

Fertilizer/Surfactant Blends: Use of a nitrogen-based fertilizer in combination with the recommended rate of a NIS or MSO has been shown to improve the uptake of Alligare Panoramic 2SL Herbicide in plants with waxy leaf surfaces. A rate of 2 to 3 pints per acre of fertilizers such as 28% N, 32% N, 10-34-0, or ammonium sulfate in combination with the recommended rates of NIS or MSO will aid in the burndown control with Alligare Panoramic 2SL Herbicide. Injury to desired plant species and newly emerged seedling prairiegrass and wildflowers may also be increased with the use of a fertilizer in combination with Alligare Panoramic 2SL Herbicide. Weed control will likely be poor if Alligare Panoramic 2SL Herbicide is applied in combination with a fertilizer without a NIS or MSO. No additional spray adjuvant is required if the fertilizer is the spray carrier for Alligare Panoramic 2SL Herbicide.

TANK MIXES

For added control of late season annual grasses and certain broadleaf weeds in noncrop areas, tank-mix Alligare Panoramic 2SL Herbicide with Pendulum® herbicide. Alligare Panoramic 2SL Herbicide can be mixed with other herbicides for additional control in noncrop areas including Accord™, Roundup™ Pro, glyphosate, Arsenal® or Vegetation Manager® Imazapyr 2SL herbicide, Sahara® DG or Mohave™ 70 EG herbicide, diuron, Campaign™, Finale™, Garlon™ 3A or Vegetation Manager Triclopyr 3SL, MSMA, Vanquish™, Oust™ (or SFM 75), Escort™ (or Metsulfuron Methyl DF), Tordon™ (or Picloram 22K), or other labeled products. The compatibility of any other herbicides not listed with Alligare Panoramic 2SL Herbicide should be tested in a jar test. Mixing Alligare Panoramic 2SL Herbicide with 2,4-D or other phenoxy-type herbicides could lead to reduced control of perennial grass weeds.

Do not tank mix Alligare Panoramic 2SL Herbicide with organophosphate insecticides or use in the same year when using Alligare Panoramic 2SL Herbicide on newly planted areas. Tank-mix instructions for Alligare Panoramic 2SL Herbicide use on bermudagrass pastures is found in the "Directions for Use in Bermudagrass Pastures and Hay Meadows" part of this label. When tank-mixing, always consult manufacturer's labeling for rates and weeds controlled. Always follow the more restrictive label when using Alligare Panoramic 2SL Herbicide with a tank-mix partner.

FOR WEED CONTROL IN PASTURE AND RANGELAND

To control weeds in pasture and rangeland, a broadcast treatment of Alligare Panoramic 2SL Herbicide at 2 to 12 ounces (0.03 – 0.19 lb ae) per acre should be applied. For spot treatments, use Alligare Panoramic 2SL Herbicide at 0.25% to 1% solution with 1.0% methylated seed oil. Specific use directions are found below.

Rangeland Use Instructions: Apply Alligare Panoramic 2SL Herbicide to rangeland for the control of undesirable (non-native, invasive, and noxious) plant species in order to (1) aid in the establishment of desirable rangeland plant species; (2) aid in establishment of desirable rangeland vegetation after a fire; (3) aid in the reduction of vegetation that would fuel a wildfire; (4) aid in the release of existing desirable rangeland vegetation from the competitive pressure of undesirable plant species; and (5) aid in habitat improvement for wildlife.

Protection of threatened and endangered plants is important when applying Alligare Panoramic 2SL Herbicide to rangeland. Therefore, federal agencies must follow NEPA regulations to ensure protection of threatened or endangered plants, state agencies must work with the Fish and Wildlife Service or the Service's designated state conservation agency to ensure protection of threatened or endangered plants, and other organizations or individuals

must operate under Habitat Conservation Plan if threatened or endangered plants are known to be present on the land to be treated.

See the appropriate sections of this label for specific use directions for the vegetation management objective desired.

Do not apply Alligare Panoramic 2SL Herbicide to rangeland until specific weeds appear. A single application of Alligare Panoramic 2SL Herbicide may be used to control annual weeds such as cheatgrass, downy brome and medusahead rye as long as it is used in conjunction with available IPM practices. For rangeland applications to control cheatgrass, medusahead, annual mustards, etc., apply Alligare Panoramic 2SL Herbicide preemergence or early postemergence prior to planting. For best results for cheatgrass control, make a late summer or fall application of Alligare Panoramic 2SL Herbicide before cheatgrass emerges and prior to planting desirable species. Alligare Panoramic 2SL Herbicide may be used in this same manner as a site preparation before planting sagebrush seedlings. If making an application of Alligare Panoramic 2SL Herbicide in the spring when planting a tolerant grass species, use a rate of 2 to 4 ounces (0.03 – 0.06 lb ae) per acre. Rates above 4 ounces (0.06 lb ae) per acre may result in thinning or loss of stand, especially in seedling sideoats, blue grama or buffalograss. Perennial weeds like leafy spurge, Dalmation toadflax, and Russian knapweed can be controlled in most cases with a single broadcast application of Alligare Panoramic 2SL Herbicide. Spot treatments with Alligare Panoramic 2SL Herbicide may be necessary to control any weeds not controlled by the broadcast application. Long term weed control in rangeland is best achieved when Alligare Panoramic 2SL Herbicide is used in conjunction with land management practices that promote growth and sustainability of desired plant species.

DIRECTIONS FOR USE IN BERMUDAGRASS PASTURES AND HAY MEADOWS

For control of winter and summer annual and perennial grasses in bermudagrass pastures and hay meadows, use a postemergence application of Alligare Panoramic 2SL Herbicide at 4 to 12 ounces (0.06 – 0.19 lb ae) per acre. Specific rate and timing instructions are provided below. Use of Alligare Panoramic 2SL Herbicide is acceptable on common and coastal varieties of bermudagrass including, but not restricted to Tifton 44, 78, and 85, Alicia and Russell. It is possible that bermudagrass growth may be suppressed for 30 to 45 days depending on growth conditions after application. Be aware that Jiggs bermudagrass is more sensitive to Alligare Panoramic 2SL Herbicide than other bermudagrass types. If these growth responses are not acceptable, do not use Alligare Panoramic 2SL Herbicide on bermudagrass.

Complete spray coverage is necessary to achieve the desired level of weed control. Be sure to use a sprayer that is calibrated to deliver the recommended spray volume and pressure at the spray boom height to ensure complete coverage. Decreased weed control could result if boomless or flood type nozzles are used.

Use Restrictions: (1) Do not apply to drought stressed bermudagrass; (2) Do not apply during transitions from dormancy to full green-up; (3) Do not apply to newly aerated fields for 30 days after aerations; (4) Do not use for the establishment of sprigged or seeded bermudagrass; (5) Do not use on World Feeder varieties of bermudagrass.

Spring Applications and Bermudagrass Tolerance: Bermudagrass growth can be suppressed if Alligare Panoramic 2SL Herbicide is applied before the bermudagrass has reached 100% green-up. If Alligare Panoramic 2SL Herbicide is applied when the bermudagrass is in the transition from winter dormancy to 100% green-up, green-up and growth will be delayed. Carefully inspect the new bermudagrass growth in the field to be sure all stolons have begun to grow. Application of Alligare Panoramic 2SL Herbicide to a field that appears green, but where some to many stolons have not begun to grow, will still cause significant reductions in bermudagrass growth and development. It is important to delay application of Alligare Panoramic 2SL Herbicide until 100% green-up has been achieved.

General rate instructions: Make a postemergent application of Alligare Panoramic 2SL Herbicide at 4-6 ounces (0.06 – 0.09 lb ae) per acre to control most annual and some perennial weeds in bermudagrass pastures and hay meadows. Use the lower rate against target weeds that are small and the higher rate against target weeds that are older, larger or have been cut multiple times. Specific rate instructions are given in the table below.

Postemergence Control of Summer Annual and Perennial Grass Weeds: When bermudagrass has reached complete green-up and target weeds are at the growth stage desired, apply Alligare Panoramic 2SL Herbicide according to the rates and growth stages in the table below. Bermudagrass green-up and subsequent growth will be delayed if Alligare Panoramic 2SL Herbicide is applied too early during the transition between dormancy and full green-up. Some bermudagrass yellowing and stolon internode shortening may occur with specified rates of Alligare

Panoramic 2SL Herbicide. Bermudagrass recovery will be shortened if Alligare Panoramic 2SL Herbicide is applied with a nitrogen fertilizer (32-0-0 or 28-0-0) used as the spray carrier.

After complete bermudagrass green-up, apply Alligare Panoramic 2SL Herbicide postemergence at 4 to 6 ounces (0.06 – 0.09 lb ae) per acre for control of summer annual grasses (2 to 4 leaf stage). Use higher rates of 6 to 8 ounces (0.09 – 0.13 lb ae) per acre when target weeds are at or above the boot stage. A surfactant should always be used with Alligare Panoramic 2SL Herbicide except when the spray carrier is liquid fertilizer. Some preemergence control of some annual grasses will be obtained when Alligare Panoramic 2SL Herbicide is applied postemergence to target weeds.

Summer perennial grasses are controlled when Alligare Panoramic 2SL Herbicide is applied after complete bermudagrass green-up at the rate of 6 to 12 ounces (0.09 – 0.19 lb ae) per acre. If higher rates are necessary to control target weeds, make a fall application of Alligare Panoramic 2SL Herbicide before a killing frost occurs. If a fall application is planned and the bermudagrass is cut for hay, be sure the target weeds have adequate regrowth before making an application of Alligare Panoramic 2SL Herbicide. A surfactant should always be used with Alligare Panoramic 2SL Herbicide except when the spray carrier is liquid fertilizer.

Alligare Panoramic 2SL herbicide Rates for Postemergent Summer Annual Grass Control¹

Common Name	Species	Weed Height (inches) ²	Rate per Acre (fluid ounces)
Large crabgrass	<i>Digitaria sanguinalis</i>	≤4	4 (0.06 lb ae)
		>4	6 (0.09 lb ae)
Southern crabgrass	<i>Digitaria ciliaris</i>	≤4	4 (0.06 lb ae)
		>4	6 (0.09 lb ae)
Smooth crabgrass	<i>Digitaria ischaemum</i>	≤4	4 (0.06 lb ae)
		>4	6 (0.09 lb ae)
Giant foxtail	<i>Setaria faberi</i>		6 (0.09 lb ae)
Green foxtail	<i>Setaria viridis</i>	≤4	4 (0.06 lb ae)
		>4	6 (0.09 lb ae)
Yellow foxtail	<i>Setaria glauca</i>	≤4	4 (0.06 lb ae)
		>4	6 (0.09 lb ae)
Texas panicum	<i>Panicum texanum</i>		6 (0.09 lb ae)
Fall panicum	<i>Panicum dichotomiflorum</i>		6 (0.09 lb ae)
Broadleaf signalgrass	<i>Bracharia platyphylla</i>	≤4	4 (0.06 lb ae)
		>4	6 (0.09 lb ae)
Annual jewgrass	<i>Microstegium vimineum</i>	≤4	4 (0.06 lb ae)
		>4	6 (0.09 lb ae)
Barnyardgrass	<i>Echinochloa crus-galli</i>	≤4	4 (0.06 lb ae)
		>4	6 (0.09 lb ae)
Sandbur	<i>Cenchrus</i> spp.	≤4	4 (0.06 lb ae)
		>4	6 (0.09 lb ae)

¹ Be sure bermudagrass has completely greened up as an application of Alligare Panoramic 2SL Herbicide could delay green-up and subsequent growth if application is made too early before full green-up. If delayed green-up will be an issue, do not apply Alligare Panoramic 2SL Herbicide.

² Use the higher rate when the summer annual grasses are older, larger or have been subjected to multiple cuttings.

Alligare Panoramic 2SL Herbicide Rates for Postemergent Summer Perennial Grass Control¹

Common Name	Species	Weed Height (inches) ²	Rate per Acre (fluid ounces)
Johnsongrass	<i>Sorghum halepense</i>	18-24	8 (0.13 lb ae)
		>24	12 (0.19 lb ae)
Vaseygrass	<i>Paspalum urvillei</i>	4-8	6-8 (0.09 – 0.13 lb ae)
Nutsedge	<i>Cyperus</i> spp.	≤4	4 (0.06 lb ae)
		>4	6 (0.09 lb ae)
Bahiagrass	<i>Paspalum notatum</i>	4-8	6-8 (0.09 – 0.13 lb ae)
Dallisgrass ³	<i>Paspalum dilatatum</i>	4-8	8-12 (0.13 – 0.19 lb ae)
Smutgrass ³	<i>Sporobolus indicus</i>	4-8	8-12 (0.13 – 0.19 lb ae)

¹ Be sure bermudagrass has completely greened up as an application of Alligare Panoramic 2SL Herbicide could delay green-up and subsequent growth if application is made too early before full green-up. If delayed green-up will be an issue, do not apply Alligare Panoramic 2SL Herbicide.

² Use the higher rate when the summer annual grasses are older, larger or have been subjected to multiple cuttings.

³ Suppression

Postemergent Control of Winter Annual and Perennial Grass Weeds: When bermudagrass is dormant, make a postemergent application of Alligare Panoramic 2SL Herbicide at a rate of 6 to 12 ounces (0.09 – 0.19 lb ae) per acre. Be sure there is no green tissue at the root crown or on stolons because an application of Alligare Panoramic 2SL Herbicide to green tissue may delay bermudagrass green-up and subsequent growth. In the deep south where mild winters often occur, bermudagrass may not go completely dormant. Consequently, avoid making an application of Alligare Panoramic 2SL Herbicide if delayed green-up will be an issue. Control of larger winter annual and cool season perennial grasses will be improved if Alligare Panoramic 2SL Herbicide is applied with 16 to 24 ounces per acre of Roundup Ultra™ or glyphosate equivalent. A surfactant should always be used with Alligare Panoramic 2SL Herbicide except when the spray carrier is liquid fertilizer.

Alligare Panoramic 2SL Herbicide Rates for Postemergent Winter Annual and Cool Season Perennial Grass Control

Common Name	Species	Weed Height (inches)	Rate per Acre (fluid ounces)
Annual Ryegrass ¹	<i>Lolium multiflorum</i>	≤6	6 (0.09 lb ae)
		>6	10 (0.16 lb ae)
Tall Fescue	<i>Festuca arundinacea</i>		12 (0.19 lb ae)
Wild Oats	<i>Avena fatua</i>	≤6	6 (0.09 lb ae)
		>6	10 (0.16 lb ae)
Little Barley	<i>Hordeum pusillum</i>	≤6	4 (0.06 lb ae)
		>6	6 (0.09 lb ae)

¹Because AHAS and ALS resistant annual ryegrass occurs throughout the southeast, tank mix 16 to 24 ounces per acre of Roundup Ultra or glyphosate equivalent with Alligare Panoramic 2SL Herbicide when making applications to control annual ryegrass.

Spray Adjuvants: To promote the growth and recovery of bermudagrass, add 10 to 20 gallons per acre of liquid fertilizer (32-0-0 or 28-0-0) as the spray carrier with Alligare Panoramic 2SL Herbicide. Do not add additional spray adjuvant when liquid fertilizer is used as the spray carrier. For additional spray adjuvant recommendations, go to the “Spray Adjuvants for Postemergence Applications” part of this label. Do not use crop oil concentrates (COC) as a spray adjuvant with Alligare Panoramic 2SL Herbicide.

Tank Mixtures: Alligare Panoramic 2SL Herbicide may be tank mixed with a number of broadleaf herbicides for broadleaf weed control. Alligare Panoramic 2SL Herbicide may be tank mixed with Weedmaster®, Grazon™, Vegetation Manager Triclopyr 4E (or Remedy™), Redeem™, Metsulfuron Methyl DF (or Ally™), 2,4-D, and Roundup Ultra or glyphosate equivalent. Applications with tank mixes of 2,4-D that exceed one pound active ingredient per acre and applications with tank mixes of triclopyr amine, such as Vegetation Manager Triclopyr 3SL, that exceed 1½ pounds active ingredient per acre may reduce efficacy on target grass weed species.

FOR USE ON FEDERAL CONSERVATION RESERVE PROGRAM (CRP) LAND

Use Alligare Panoramic 2SL Herbicide at rates up to 12 ounces (0.19 lb ae) per acre per year for control of weeds on Federal Conservation Reserve Program (CRP) land. Specific instructions for each intended use can be found elsewhere in this label.

Minimum plant-back intervals vary with the rates of Alligare Panoramic 2SL Herbicide used. See the minimum plant-back intervals provided below.

Rotational Crop Restrictions: The following rotational crops may be planted after applying Alligare Panoramic 2SL Herbicide. Planting rotational crops earlier than the specified interval may result in crop injury.

Alligare Panoramic 2SL Herbicide Use Rate (ounce/A)	Minimum Plant Back Interval (Months After Alligare Panoramic 2SL Herbicide Application)				
	≤4 (0.06 lb ae)	12	12	18	26
5-8 (0.08 – 0.13 lb ae)	12	14	22	30	44
9-12 (0.14 – 0.19 lb ae)	12	18	24	36	48
Rotational Crops	Bahiagrass CLEARFIELD® corn hybrids Peanuts Rye Wheat	Snapbeans Southern peas Soybeans Tobacco	Barley Cotton ¹ Grain sorghum Oats	Field corn ² All crops not otherwise listed or included for use on this label ²	Canola ² Potatoes ² Red table beets ² Sugar beets ²

¹For Arizona, New Mexico, Oklahoma, and Texas only: In these states, cotton may be planted 18 to 24 months after Alligare Panoramic 2SL Herbicide application unless drought conditions develop in the year of application. If less than 15 inches of rainfall or irrigation are received from the time of Alligare Panoramic 2SL Herbicide application and November 1 of the same year, do not rotate to cotton at 18 to 24 months after application. If such drought conditions develop, wait to plant cotton until 26, 30, and 40 months after Alligare Panoramic 2SL Herbicide application at the rates provided in the above table.

² A field bioassay of the intended rotational crop must be completed for these selected crops and for all other crops not otherwise listed or included on this label after the minimum plant back interval has elapsed. The field bioassay consists of planting a test strip across the previously treated field and grow to maturity. Be sure the test strip is planted in low areas as well as high spots and on different soil types and soil pH levels across the field. The intended rotational crop may be planted the following year if there is no crop injury in the test strip.

It is impossible to eliminate all risks associated with the use of Alligare Panoramic 2SL Herbicide, therefore, plant-back crop injury is always possible even when label rates and use directions are followed. If crop injury is a concern after using Alligare Panoramic 2SL Herbicide, then a field bioassay with the desired crop is recommended prior to planting.

FOR FOLIAR AND SEEDHEAD SUPPRESSION OF BAHIAGRASS, COOL SEASON GRASSES, AND SUPPRESSION OF SOME ANNUAL WEEDS

Bahiagrass: In unimproved areas, apply Alligare Panoramic 2SL Herbicide at 2 to 6 ounces per acre (0.03 – 0.09 lb ae) to suppress growth and seedhead development in bahiagrass. For best results, apply Alligare Panoramic 2SL Herbicide after green-up. Use the lower rate of 2 ounces (0.03 lb ae) per acre in North and South Carolina because higher rates may result in turf thinning. Temporary turf discoloration may occur depending on the rate of Alligare Panoramic 2SL Herbicide used as well as other factors such as surfactant type and environmental conditions. Severe injury may occur if Alligare Panoramic 2SL Herbicide is applied to turf under any type of stress. If applied before mowing, remember that new growth will be suppressed so adjust the mower height to leave adequate existing foliage. If applied after mowing, adjust the mower to leave existing foliage or wait for re-growth before making the application. Do not use a methylated seed oil adjuvant with Alligare Panoramic 2SL Herbicide.

ALLIGARE PANORAMIC 2SL HERBICIDE	PHYTOTOXICITY	LENGTH OF SUPPRESSION
2 ounce (0.03 lb ae)	None to low	Partial to season long
3 to 6 ounce (0.05 – 0.09 lb ae)	Low to moderate	Season long

Use 8 ounces (0.13 lb ae) of Alligare Panoramic 2SL Herbicide for control of winter annual weeds. Make the application when weeds are actively growing but while the bahiagrass is still dormant. A subsequent application of Alligare Panoramic 2SL Herbicide at 3 to 4 ounces (0.05 – 0.06 lb ae) per acre may be made in the spring after bahiagrass green-up for the suppression of seedheads and foliage.

Cool Season Grasses: KY31 Tall Fescue and “Wildtype Common” Kentucky Bluegrass: For foliar and seedhead suppression of these cool season grasses, apply Alligare Panoramic 2SL Herbicide at 2 to 4 ounces (0.03 – 0.06 lb ae) per acre. Do not use a methylated seed oil adjuvant with Alligare Panoramic 2SL Herbicide on these grasses. Use of an adjuvant with the lower rate will enhance performance; however use of a surfactant with

the higher rate (4 ounces) could cause excessive injury or mortality of tall fescue. Application of Alligare Panoramic 2SL Herbicide to turf types of tall fescue and Kentucky bluegrass could result in severe injury or stand loss.

Wheatgrass: Alligare Panoramic 2SL Herbicide may be applied for foliar and seedhead suppression of crested wheatgrass and intermediate wheatgrass. Use 6 to 10 ounces (0.09 – 0.16 lb ae) per acre for crested wheatgrass and 6 to 12 ounces (0.09 – 0.19 lb ae) per acre for intermediate wheatgrass. Although other wheatgrass species may be suppressed, it is best to determine effectiveness by first applying Alligare Panoramic 2SL Herbicide to a limited area. Use of 2,4-D or products containing 2,4-D in a tank-mix with Alligare Panoramic 2SL Herbicide may decrease the desired effectiveness. The potential of turf injury may be reduced when Alligare Panoramic 2SL Herbicide is tank mixed with Garlon (Triclopyr 3SL or Triclopyr 4EC), Tordon (Picloram 22K), Transline™, and Vanquish. Severe injury may occur if Alligare Panoramic 2SL Herbicide is applied to turf under stress.

FOR THE CONTROL OF UNDERSIRABLE WEEDS IN BERMUDAGRASS NOT BEING GROWN FOR FORAGE OR HAY

Alligare Panoramic 2SL Herbicide will control summer and winter annual weeds as well as some perennial weeds in bermudagrass turf found along roadsides, utility rights-of-way, railroad crossings, at airports, in non-irrigation ditches. Tolerance to Alligare Panoramic 2SL Herbicide varies with different bermudagrass types. Therefore, some foliar, stolon and seedhead suppression may occur depending on turf type, application timing and herbicide rate. When applying Alligare Panoramic 2SL Herbicide to bermudagrass turf it is important to (1) make application only after full bermudagrass green-up otherwise a delay in green-up may occur; (2) add a surfactant; (3) do not apply to bermudagrass under stress; (4) allow time for bermudagrass foliage re-growth after mowing before making an application because some internode suppression (from simultaneously mow/spray operations) may prevent bermudagrass from quickly recovering from mowing.

Winter Annual Weed Control: Make application prior to winter weed germination or while winter weeds are actively growing. Use Alligare Panoramic 2SL Herbicide at 4 to 12 ounces (0.06 – 0.19 lb ae) per acre. A delay in bermudagrass green-up may occur if Alligare Panoramic 2SL Herbicide is applied too early in the spring.

Summer Annual Weeds: For best results, make application preemergence or early postemergence before weeds have reached a height of 6 inches. Use Alligare Panoramic 2SL Herbicide at 4 to 12 ounces (0.06 – 0.19 lb ae) per acre. Control of larger weeds may be possible depending on growing conditions, species susceptibility, adjuvant selection and tank-mix partner.

Perennial Weeds: Use Alligare Panoramic 2SL Herbicide at 8 to 12 ounces (0.13 – 0.19 lb ae) per acre postemergence after weeds are large enough for herbicide uptake. For control of a specific weed species, see the “Special Weed Control” part of this label. Increased control of perennial weeds may be achieved by tank mixing Alligare Panoramic 2SL Herbicide with Accord or Roundup Pro.

Bahiagrass Control: Make a postemergence application of Alligare Panoramic 2SL Herbicide at 8 to 12 ounces (0.13 – 0.19 lb ae) per acre. For control of a specific weed species, see the “Special Weed Control” part of the label. Increased control of perennial weeds may be achieved by tank mixing Alligare Panoramic 2SL Herbicide with Accord or Roundup Pro at 12 to 16 ounces per acre.

ALLIGARE PANORAMIC 2SL HERBICIDE RATES AND TIMINGS FOR SPECIFIC BERMUDAGRASS TYPES WITH REGARD TO WEED CONTROL AND TURF TOLERANCE

Common Bermudagrass: Common bermudagrass is very tolerant to Alligare Panoramic 2SL Herbicide. The weed control spectrum may be improved with tank-mixes of Alligare Panoramic 2SL Herbicide with Roundup Pro, Accord, or glyphosate, however these tank-mixes may also increase turf phytotoxicity by causing stolon internode shortening and seedhead suppression for the first 8 weeks after application.

Established Coastal Bermudagrass: The use of 2 to 12 ounces (0.03 – 0.19 lb ae) per acre of Alligare Panoramic 2SL Herbicide on coastal bermudagrass will control labeled weeds and provide foliar and seedhead suppression. Do not use Alligare Panoramic 2SL Herbicide on World Feeder varieties of bermudagrass. Activity of Alligare Panoramic 2SL Herbicide increases as the rate increases. Beware that applying a tank-mix combination of Alligare Panoramic 2SL Herbicide and Roundup Pro, Accord, or glyphosate on coastal bermudagrass may result in death or excessive injury.

Turf Type Bermudagrass: Tolerance to Alligare Panoramic 2SL Herbicide varies in turf type bermudagrass varieties. At rates of 2 to 6 ounces (0.03 – 0.09 lb ae) per acre, Alligare Panoramic 2SL Herbicide will provide some

annual weed control and foliar and seedhead suppression. Application of Alligare Panoramic 2SL Herbicide at rates above 6 ounces per acre could result in excessive injury or death.

FOR THE CONTROL OF UNDESIRABLE WEEDS IN UNIMPROVED CENTIPEDE GRASS

To control annual broadleaf and grass weeds in unimproved centipede grass, apply Alligare Panoramic 2SL Herbicide at 4 to 8 ounces (0.06 – 0.13 lb ae) per acre with a surfactant. Make the application after the centipede grass has reached full green-up and do not apply to grass that is under stress. Be sure to allow time for centipede grass foliage re-growth after mowing before making an application because some internode suppression (from simultaneously mow/spray operations) may prevent the centipede grass from quickly recovering from mowing.

FOR CONTROL OF UNDESIRABLE WEEDS IN SMOOTH BROMEGRASS, “WILDTYPE” COMMON KENTUCKY BLUEGRASS AND WHEATGRASSES

Smooth Bromegrass and “Wildtype” Common Kentucky Bluegrass: For control of labeled grass and broadleaf weeds (see “Weeds Controlled” and “Special Weed Control” sections of this label below) as well as growth suppression, apply Alligare Panoramic 2SL Herbicide at 4 to 8 ounces (0.06 – 0.13 lb ae) per acre in the spring after these grasses have reached 100% green-up. A delay in green-up may occur if application is made before full green-up. Higher rates of 8 to 12 ounces (0.13 – 0.19 lb ae) per acre may be applied in the spring, however excessive growth suppression may result. A fall application of Alligare Panoramic 2SL Herbicide at 8 to 12 ounces (0.13 – 0.19 lb ae) per acre may be made to control perennial weeds (see “Special Weed Control” section of this label below). Treatment of smooth bromegrass with Alligare Panoramic 2SL Herbicide may result in foliar height and seedhead suppression.

Wheatgrass: For control of labeled grass and broadleaf weeds apply Alligare Panoramic 2SL Herbicide at 4 to 12 ounces (0.06 – 0.19 lb ae) per acre. Foliar height and seedheads may be suppressed when wheatgrass is treated with Alligare Panoramic 2SL Herbicide.

FOR CONTROL OF UNDESIRABLE WEEDS IN CROWN VETCH

Newly Seeded Crown Vetch: To aid in stand establishment and reduce weed competition, apply Alligare Panoramic 2SL Herbicide at 4 ounces (0.06 lb ae) per acre to newly seeded beds.

Established Crown Vetch in Noncropland Areas: For control of labeled grass and broadleaf weeds (see the “Weeds Controlled and “Special Weed Control” sections of this label below for specific rates), apply Alligare Panoramic 2SL Herbicide at 8 to 12 ounces (0.13 – 0.19 lb ae) per acre to established crown vetch beds. Depending on time of application, some internode shortening and minor tip chlorosis may occur after application of Alligare Panoramic 2SL Herbicide.

To avoid potential injury, apply Alligare Panoramic 2SL Herbicide during winter dormancy or in the early spring. If applied after May, Alligare Panoramic 2SL Herbicide may cause increased injury or defoliation of crown vetch. Injury will be increased if a surfactant such as a crop oil concentrate or d-Limonene based product is used. If applied during the fall when crown vetch is actively growing, Alligare Panoramic 2SL Herbicide may cause severe injury or stand loss.

FOR USE IN REVEGETATION WITH PRAIRIEGRASSES AND OTHER FORAGE GRASSES

Alligare Panoramic 2SL Herbicide controls many annual and perennial grass and broadleaf weeds when applied at 2 to 12 ounces (0.03 – 0.19 lb ae) per acre in newly established and existing stands of prairiegrasses (see below for details and tolerant species) grown in such areas as pasture, rangeland (see “Instructions For Rangeland Use” section of this label), Federal Conservation Reserve Program (CRP) land and noncropland areas such as roadsides, industrial sites, prairie restoration sites, drainage ditch banks and other similar locations. Note that some local ecotypes or varieties of prairiegrasses may be suppressed by Alligare Panoramic 2SL Herbicide. Poor stands may also result from other factors such as poor soil, cool temperatures, poor seedling vigor, excessive moisture, dry weather after emergence and others. Herbicide residue, poor soils and other stress factors can also lead to poor seedling vigor, increased injury and possible mortality. Alligare, LLC cannot be held responsible for such unforeseen factors. If tolerance is not known, be sure to try Alligare Panoramic 2SL Herbicide on a small area first. Alligare Panoramic 2SL Herbicide reduces weed competition and allows grass seedlings to become established. Perennial noxious weeds in established grass stands may also be controlled with Alligare Panoramic 2SL Herbicide if the application is made postemergence as a foliar treatment.

Important Considerations:

1. Always add an adjuvant with Alligare Panoramic 2SL Herbicide.

2. Use of a methylated seed oil is only recommended on established grass stands.
3. A nonionic surfactant should be used on newly emerged seedling grasses.
4. Use of a liquid fertilizer as a carrier will reduce grass tolerance and should not be used on newly emerged seedling grasses.

Stand Establishment: Since newly emerged grasses can be sensitive to Alligare Panoramic 2SL Herbicide and/or the adjuvant used, best results in establishing mixed grass stands are attained when the application is made at planting before grass seedlings emerge. If grasses have started to emerge, the application of Alligare Panoramic 2SL Herbicide should be delayed until the grasses have reached the five-leaf stage. Use only a nonionic surfactant or silicone-based surfactant with Alligare Panoramic 2SL Herbicide on seedling grasses. Do not use a methylated seed oil at this timing as some injury could result. Annual weeds are controlled by Alligare Panoramic 2SL Herbicide applied either preemergence or early postemergence (See the “Weeds Controlled” section of this label for maximum height of weeds for control). Rates and timing are discussed in the section below. Some stand thinning may result from a postemergence application of Alligare Panoramic 2SL Herbicide because seedling grasses have varying tolerance to spray adjuvants. If the seedling grasses have reached the five-leaf stage, they are generally more tolerant to different spray adjuvants. Herbicide-carry-over can be a problem if grasses are planted into a field that was row cropped the previous year (see “Directions for Use” section of this label).

Rates and Control: Alligare Panoramic 2SL Herbicide will provide control and/or suppression of many annual grass and broadleaf weeds. Apply 2 to 6 ounces (0.03 – 0.09 lb ae) per acre for annual weed control in fields cropped the previous year and/or fields where grass/forb mixtures are planted. In dry climates of the northernmost U.S. and for late season plantings into clean seedbeds, use lower rates. Use Alligare Panoramic 2SL Herbicide as low as 2 ounces (0.03 lb ae) per acre when soil pH is greater than 7, there is a low CEC, or in a coarse texture soil with low clay or organic matter content. Higher rates should be used when there is high organic matter, high rainfall, heavy weed infestation and heavy plant residue and a long growing season (southern portions of Illinois, Indiana, Missouri, and Ohio, etc.). When controlling giant ragweed, or providing control/suppression of perennial weeds, use Alligare Panoramic 2SL Herbicide at 8 to 12 ounces (0.13 – 0.19 lb ae) per acre. These high rates may, however, result in stunting or stand thinning. The length and amount of suppression will be related to soil type, environmental conditions, weed pressure and chemical residue. Additional details are provided below for specific grass timings and tolerances.

Established Stands: Application of Alligare Panoramic 2SL Herbicide as an early postemergence treatment to annual grasses and broadleaf weeds will provide the best results. See the “Special Weed Control” section of this label for instructions for control of perennial weeds. Some foliar and/or seedhead height suppression may result in established grass stands when the high rates of Alligare Panoramic 2SL Herbicide are used. This is especially likely when there is few weeds, little rainfall, light soils and short growing seasons. Lower rates should be reserved for use on light weed infestations or when desirable wildflowers and legumes are mixed in the grass stands (the “Wildflower Establishment and Maintenance” section of this label provides rate tolerance information). Higher rates will broaden and lengthen the spectrum of weeds controlled.

Buffalograss: In newly sprigged buffalograss, apply Alligare Panoramic 2SL Herbicide at 2 to 4 ounces (0.03 – 0.06 lb ae) per acre for control or suppression of labeled weeds and to aid in stand establishment. Make the application immediately after planting to new growth or seedlings. Severe injury or death may occur when Alligare Panoramic 2SL Herbicide is applied to new growth and small seedlings. It is best to wait to apply Alligare Panoramic 2SL Herbicide to newly emerged buffalograss until the grass has at least five true leaves. It is also important to use only a nonionic or silicone-based surfactant and not to use a methylated seed oil. In established stands, Alligare Panoramic 2SL Herbicide should be applied at 2 to 8 ounces (0.03 – 0.13 lb ae) per acre. The higher rates may result in some turf discoloration and stunting. An application of Alligare Panoramic 2SL Herbicide to dormant buffalograss will control winter annual weeds. Note that some buffalograss types may show different tolerance to Alligare Panoramic 2SL Herbicide. Turf type buffalograss, for instance, may show a different tolerance to Alligare Panoramic 2SL Herbicide than the wild type buffalograss. Some turf types may tolerate low rates of Alligare Panoramic 2SL Herbicide applied at seeding. The seed dealer will provide details.

Sideoats and Blue Grama: Do not apply Alligare Panoramic 2SL Herbicide to monoculture stands of sideoats and blue grama if stand thinning or stand loss can not be tolerated. Once new seedlings of sideoats and blue grama have emerged and reached the five-leaf stage, an application of Alligare Panoramic 2SL Herbicide at 2 to 4 ounces (0.03 – 0.06 lb ae) per acre plus an adjuvant will aid in stand establishment. Stand thinning may occur if Alligare Panoramic 2SL Herbicide is applied at 4 ounces (0.06 lb ae) per acre with methylated seed oil as the adjuvant. Satisfactory weed control in early summer plantings of sideoats and blue grama may result when lower rates of

Alligare Panoramic 2SL Herbicide are used, especially in the states of Wisconsin, Michigan, Minnesota, South Dakota, North Dakota, Kansas, Oklahoma, Texas, and Nebraska, and other states where growing degree days are short. Although sideoats and blue grama have shown tolerance to Alligare Panoramic 2SL Herbicide at 2 to 4 ounces (0.03 – 0.06 lb ae) per acre when applied preemergence at planting, some stand thinning may occur. In established stands of sideoats and blue grama, Alligare Panoramic 2SL Herbicide should be applied at 4 to 10 ounces (0.06 – 0.16 lb ae) per acre. Alligare Panoramic 2SL Herbicide may be applied up to 12 ounces (0.19 lb ae) per acre, however depending on soil type, variety, environmental conditions, surfactant choice, etc., this may result in foliar and/or seedhead suppression, or in the injury of the sideoats or blue grama.

Switchgrass (*Panicum virgatum*): Alligare Panoramic 2SL Herbicide is not recommended for the establishment of pure switchgrass stands as severe injury or death may result. It may, however, be applied at 2 to 4 ounces (0.03 – 0.06 lb ae) per acre if switchgrass is planted in a mixed stand with tolerant species. Even then, some stand thinning or loss of stand may result. If reclaiming a mature switchgrass stand from certain perennial weeds like tall fescue, leafy spurge and Johnsongrass, etc., use Alligare Panoramic 2SL Herbicide at rates of 10 to 12 ounces (0.16 – 0.19 lb ae) per acre. Beware, however, that severe stunting and injury will occur. Do not apply Alligare Panoramic 2SL Herbicide to switchgrass if severe injury cannot be tolerated.

Eastern Gamagrass: Apply Alligare Panoramic 2SL Herbicide at 2 to 6 ounces (0.03 – 0.09 lb ae) per acre at planting prior to eastern gamagrass emergence only if some stand thinning or loss can be tolerated. Stand thinning and stunting will most likely result. Stand mortality could result if there are adverse conditions, poor soils or added stress to the eastern gamagrass. On established eastern gamagrass, Alligare Panoramic 2SL Herbicide should be applied at 2 to 8 ounces (0.03 – 0.13 lb ae) per acre while the eastern gamagrass is dormant. Injury in the form of stunting will occur as the rate of Alligare Panoramic 2SL Herbicide is increased. If applied during or after green-up, Alligare Panoramic 2SL Herbicide may result in foliar and/or seedhead suppression and possible mortality of weak plants.

Big Bluestem, Little Bluestem and Indiangrass: To control labeled weeds in these grasses at planting, or any time thereafter (including emerged seedlings and dormant or actively growing perennial stands), Alligare Panoramic 2SL Herbicide may be applied at the rate of 2 to 12 ounces (0.03 – 0.19 lb ae) per acre. See “Weeds Controlled” section of this label for the desired rate. Lower rates should be used in Wisconsin, Michigan, Minnesota, South Dakota, North Dakota, Kansas, Oklahoma, Texas, and Nebraska and higher rates should be used in areas of where there is more rainfall and a longer growing season.

Tall Fescue Control: Tall fescue can be controlled in established stands of, or in seed bed preparations for, big bluestem, little bluestem and indiangrass when Alligare Panoramic 2SL Herbicide is applied at 12 ounces (0.19 lb ae) per acre in combination with methylated seed oil at 2 pints per acre. Control may be aided with the addition of nitrogen fertilizer (see “Spray Adjuvants for Postemergence Applications” section of this label). Best results will be obtained if the tall fescue is actively growing. Application to tall fescue after it has reached the boot stage or summer dormancy will result in poor control. Tank-mix combinations with Alligare Panoramic 2SL Herbicide could result in improved control of existing tall fescue as well as new germinating seedlings. Best results will result from a fall application of Alligare Panoramic 2SL Herbicide at 6 to 12 ounces (0.09 – 0.19 lb ae) per acre plus 24 to 64 ounces per acre of Accord or Roundup Pro.

To control older, more mature fescue stands in the spring, use Alligare Panoramic 2SL Herbicide at the higher end of the 6 to 12 ounces (0.09 – 0.19 lb ae) per acre rate range plus a tank-mix with Accord or Roundup Pro at 32 to 64 ounces per acre. If planting forbs, use the lower end of the 6 to 12 ounces (0.09 – 0.19 lb ae) per acre rate range of Alligare Panoramic 2SL Herbicide plus a tank-mix with a glyphosate product. If Alligare Panoramic 2SL Herbicide is used at 8 ounces (0.13 lb ae) per acre with a glyphosate product in the fall, only 4 ounces (0.06 lb ae) per acre of Alligare Panoramic 2SL Herbicide should be applied in the spring at planting for annual weed and seedling fescue control. Where permitted, burning the fescue stand the following spring prior to green-up should help provide a better seedbed for planting and aid in control of seedling tall fescue. Several summer mowings of the fescue will weaken the root system and make the fescue more susceptible to herbicides. At least 10 inches of fescue re-growth is necessary following the last mowing before applying either the Alligare Panoramic 2SL Herbicide or glyphosate products. Both require adequate foliage present for uptake and maximum control.

TOLERANT GRASS SPECIES¹

Prairiegrass		Alligare Panoramic 2SL Herbicide Rate (ounce/acre) ²	
Common Name	Species	New Seeding	Established
Big Bluestem	<i>Andropogon gerardii</i>	2-12 (0.03 – 0.19 lb ae)	2-12 (0.03 – 0.19 lb ae)
Little Bluestem	<i>Schizachyrium scoparium</i>	2-12 (0.03 – 0.19 lb ae)	2-12 (0.03 – 0.19 lb ae)
Indiangrass	<i>Sorghastrum nutans</i> 2-12	2-12 (0.03 – 0.19 lb ae)	2-12 (0.03 – 0.19 lb ae)
Bushy Bluestem	<i>Andropogon glomeratus</i>	--*	2-12 (0.03 – 0.19 lb ae)
King Ranch Bluestem	<i>Bothriochloa ischaemum</i>	--	2-12 (0.03 – 0.19 lb ae)
Silver Beard Bluestem	<i>Bothriochloa saccharoides</i>	--	2-12 (0.03 – 0.19 lb ae)
Broomsedge	<i>Andropogon virginicus</i>	--	2-12 (0.03 – 0.19 lb ae)
Fingergrass, Rhodes grass	<i>Chloris</i> spp.	--	2-12 (0.03 – 0.19 lb ae)
Needlegrass	<i>Stipa</i> spp.	--	2-12 (0.03 – 0.19 lb ae)
Needleandthread	<i>Stipa comata</i>	--	2-12 (0.03 – 0.19 lb ae)
Kearny (Plains)Threeawn	<i>Aristida longespica</i>	--	2-12 (0.03 – 0.19 lb ae)
Prairie Threeawn	<i>Aristida oligantha</i>	--	2-12 (0.03 – 0.19 lb ae)
Prairie Sandreed	<i>Calamovilfa longifolia</i>	--	2-12 (0.03 – 0.19 lb ae)
Smooth Bromegrass	<i>Bromus inermis</i>	--	2-12 (0.03 – 0.19 lb ae)
Kentucky Bluegrass	<i>Poa pratensis</i>	--	2-12 ⁴ (0.03 – 0.19 lb ae)
Sandberg’s Bluegrass	<i>Poa sandbergii</i>	--	2-12 (0.03 – 0.19 lb ae)
Wheatgrasses	<i>Agropyron</i> spp.	--	2-12 (0.03 – 0.19 lb ae)
Bottlebrush Squirreltail	<i>Sitanion hystrix</i>	--	2-12 (0.03 – 0.19 lb ae)
Russian Wild Ryegrass	<i>Elymus junceus</i>	2-6 ² (0.03 – 0.09 lb ae)	2-12 (0.03 – 0.19 lb ae)
Sideoats Grama	<i>Bouteloua curtipendula</i>	2-8 ³ (0.03 – 0.13 lb ae)	2-8 (0.03 – 0.13 lb ae)
Blue Grama	<i>Bouteloua gracilis</i>	2-8 ³ (0.03 – 0.13 lb ae)	2-8 (0.03 – 0.13 lb ae)
Buffalograss	<i>Buchloe dactyloides</i>	2-4 (0.03 – 0.06 lb ae)	2-8 (0.03 – 0.13 lb ae)
Eastern Gamagrass	<i>Tripsacum dactyloides</i>	2-6 ³ (0.03 – 0.09 lb ae)	2-8 (0.03 – 0.13 lb ae)

¹ See individual grass sections for application timing.

² High rates may result in stunting and growth suppression.

³ Alligare Panoramic 2SL Herbicide preemergence applications to newly seeded sideoats, blue grama and Eastern gamagrass may result in thinning or loss of stand.

⁴ Some bluegrass varieties are sensitive to Alligare Panoramic 2SL Herbicide. Drought can delay recovery and may result in overgrazing of treated area.

*Tolerance unknown.

Tolerance of Established Grasses to 8 to 12 ounces (0.13 – 0.19 lb ae) of Alligare Panoramic 2SL Herbicide applied in the Fall

Grass Species ¹	Tolerant	Suppressed ²	Not Tolerant	Tolerance Unknown
Bermudagrass	X			
Bluegrass Kentucky		X		
Bluegrass, Sandberg’s	X			
Bluestem, big	X			
Bluestem,bushy	X			
Bluestem, King Ranch	X			
Bluestem, little	X			
Bluestem, silver beard	X			
Bromegrass, meadow		X	X	
Bromegrass, smooth		X		
Broomsedge	X			
Buffalograss	X	X		
Cheatgrass			X	
Creeping foxtail, Garrison				X
Downey brome			X	

Grass Species ¹	Tolerant	Suppressed ²	Not Tolerant	Tolerance Unknown
Fescue, Idaho	X			
Fescue, Tall			X	
Gamagrass, eastern		X		
Grama, blue	X	X		
Grama, sideoats	X	X		
Indiangrass	X			
Medusahead			X	
Needleandthread	X			
Needlegrass, green	X			
Orchardgrass		X		
Prairie cordgrass		X		
Prairie dropseed				X
Prairie sandreed	X			
Prairie threeawn	X			
Quackgrass		X		
Redtop		X	X	
Reed canarygrass		X	X	
Rhodes grass/Fingergrass	X			
Ryegrass, annual or Italian			X	
Ryegrass, perennial		X	X	
Squirreltail, bottlebrush	X			
Switchgrass		X	X	
Timothy			X	
Wheatgrass, bluebunch	X	X		
Wheatgrass, crested	X	X		
Wheatgrass, intermediate	X	X		
Wheatgrass, pubescent	X	X		
Wheatgrass, Siberian	X			
Wheatgrass, slender	X	X		
Wheatgrass, streambank	X	X		
Wheatgrass, western	X	X		
Wild ryegrass, Basin	X			
Wild ryegrass, Canada		X		
Wild ryegrass, Russian	X			
Wild ryegrass, Virginia		X		

¹ Species with an X in more than one column means tolerance will vary depending on variety, use rate, and environmental conditions.

² Suppression may be expressed as a reduction in number of seedheads, seedhead height suppression or foliage height reduction, however, full recovery of the grass can be expected.

WILDFLOWER ESTABLISHMENT AND MAINTENANCE

Tolerance among wildflowers to Alligare Panoramic 2SL Herbicide varies considerably because there are so many different genotypes, ecotypes and varieties and susceptibilities depending on soil types and environmental conditions. Do not use Alligare Panoramic 2SL Herbicide unless some stand thinning or mortality of wildflowers can be tolerated. The least amount of injury to tolerant species from a preemergence application of Alligare Panoramic 2SL Herbicide will result from the low rate of 2 ounces (0.03 lb ae) per acre. Because the use of Alligare Panoramic 2SL Herbicide applied postemergence can result in injury or death of some wildflower genotypes, it should only be used as a last resort when the wildflower stand is threatened by weed competition. Certain spray adjuvants used with Alligare Panoramic 2SL Herbicide may also increase injury and stand loss in wildflowers. Most legumes listed in the tolerance table are tolerant to Alligare Panoramic 2SL Herbicide at 4 ounces (0.06 lb ae) per acre, however some stand thinning can occur.

The instructions given in the tables below are for mixed grass/wildflower stands. Use on a monoculture stand could result in poor control and plant injury. A small area of the monoculture stand should be tested for injury before applying Alligare Panoramic 2SL Herbicide to a larger area of a monoculture stand.

For prairiegrass/wildflower mixtures: If wildflower injury (stand thinning, height suppression, etc.) can be tolerated, apply Alligare Panoramic 2SL Herbicide at the rate specified to achieve the weed control desired. Do not exceed the tolerance rate given in the table below. Preemergence applications of Alligare Panoramic 2SL Herbicide can reduce or eliminate wildflower injury. To minimize injury to tolerant species, apply Alligare Panoramic 2SL Herbicide at 2 to 4 ounces (0.03 – 0.06 lb ae) per acre. In low rainfall areas and areas where conditions are cool and dry, use the 2 ounces (0.03 lb ae) per acre rate of Alligare Panoramic 2SL Herbicide. If a postemergence application of Alligare Panoramic 2SL Herbicide is to be made to established prairiegrass/wildflower mixtures, the lowest rates allowed to achieve the weed control desired should be used (see “Weeds Controlled” section of this label). Postemergence application can result in stand thinning or death due to the great variation in seed sources, varieties, and genotypes of wildflowers. Test a small area to determine tolerance before making a full application to a large area. The rates listed below are for those species in which acceptable tolerance has been confirmed on the varieties/genotypes being treated.

Increased wildflower injury may result from an application of Alligare Panoramic 2SL Herbicide in conjunction with an organophosphate insecticide.

Seedling Wildflower and Legume Tolerance to Alligare Panoramic 2SL Herbicide (4 ounce (0.06 lb ae) per acre)¹ in Mixed Grass/Forb Stands

Common Name	Genus Species	PRE	POST
Alfalfa	<i>Medicago sativa</i>	No	Yes
Aster, New England	<i>Aster novae angliae</i>	No	Yes
Aster, Prairie	<i>Aster tanacetifolia</i>	No	Yes
Baby Blue Eyes	<i>Nemophila menziesii</i>	No	Yes
Beggar ticks	<i>Bidens frondosa</i>	No	Yes
Bird's eyes	<i>Gila tricolor</i>	No	Yes
Bishop's Flower	<i>Anuni majus</i>	No	Yes
Blackeyed Susan	<i>Rudbeckia hirta</i>	Yes	Yes
Blanketflower	<i>Gaillardia aristata</i>	No	Yes
Bundleflower, Illinois	<i>Desmanthus illinoensis</i>	Yes	Yes
Catchfly	<i>Silene armeria</i>	No	Yes
Chicory	<i>Cichorium intybus</i>	Yes	Yes
Clover, Crimson	<i>Trifolium incarnatum</i>	Yes	Yes
Clover, White	<i>Trifolium repens</i>	No	Yes
Coneflower, Purple	<i>Echinacea purpurea</i>	Yes	Yes
Coneflower, Upright Prairie	<i>Ratibida columnifera</i>	Yes	Yes
Coreopsis, Dwarf Red Plains	<i>Coreopsis tinctoria</i> var. <i>Gay Feather</i>	Yes	Yes
Coreopsis, Lance Leaved	<i>Coreopsis lanceolata</i>	Yes	Yes
Coreopsis, Plains	<i>Coreopsis, tinctoria</i>	Yes	Yes
Cornflower	<i>Centaurea cyanus</i>	No	Yes
Cosmos, Garden	<i>Cosmos bipinnatus</i>	Yes	Yes
Cosmos, Yellow	<i>Cosmos sulphureus</i>	Yes	Yes
Daisy, Ox-eye	<i>Chrysanthemum leucanthemum</i>	Yes	Yes
Daisy, Shasta	<i>Chrysanthemum maximum</i>	Yes	Yes
Five Spot	<i>Nemophila maculata</i>	No	Yes
Flax, Blue	<i>Linum perenne</i>	No	Yes
Hat, Mexican	<i>Ratibida columnifera</i>	Yes	Yes
Indian Blanket	<i>Gaillardia pulchella</i>	No	Yes
Indigo, Blue False	<i>Baptisia australis</i>	Yes	No
Johnny Jump-ups	<i>Viola cornuta</i>	Yes	Yes
Lemon Mint	<i>Monarda citriodora</i>	No	Yes
Lespedeza, Bicolor	<i>Lespedeza</i> spp.	Yes	Yes
Lespedeza, Korean	<i>Lespedeza stipulacea</i>	No	Yes
Lespedeza, Sericea	<i>Lespedeza cuneata</i>	No	Yes

Common Name	Genus Species	PRE	POST
Lupine, Perennial	<i>Lupinu perennis</i>	Yes	Yes
Partridgepea	<i>Cassia fasciculata</i>	Yes	Yes
Pea, Calico	<i>Pisum viganasinensis</i>	Yes	Yes
Pea, Flat	<i>Lathyrus sylvestris</i>	Yes	Yes
Pea, Perennial	<i>Lathyrus latifolius</i>	Yes	Yes
Phlox, Drummond	<i>Phlox drummondii</i>	Yes	No
Poppy, California	<i>Eschscholtzia californica</i>	Yes	No
Poppy, Corn	<i>Papaver rhoeas</i>	Yes	Yes
Poppy, Red Corn	<i>Papaver spp.</i>	Yes	Yes
Prairieclover, Purple	<i>Dalea purpurea</i>	Yes	Yes
Prairieclover, White	<i>Dalea candidum</i>	Yes	Yes
Tick-trefoil, Showy	<i>Desmodium canadense</i>	No	Yes
Trefoil, Birdsfoot	<i>Lotus corniculatus</i>	No	Yes
Vetch, Crown	<i>Coronilla varia</i>	Yes	--
Vetch, Hairy	<i>Vicia villosa</i>	Yes	--
Yarrow, Gold	<i>Achillea filipendulina</i>	No	Yes

¹ For legumes, at least three true leaves should be present before a postemergence application.

Established Wildflower and Legume Tolerance to Alligare Panoramic 2SL Herbicide (maximum rate¹, ounce per acre) in Mixed Grass/Forb Stands

Common Name	Genus Species	PRE	POST ²
Flax, Blue	<i>Linum perenne</i>	0	6 (0.09 lb ae)
Indian Blanket	<i>Gaillardia pulchella</i>	0	6 (0.09 lb ae)
Blanketflower	<i>Gaillardia aristata</i>	0	8 (0.13 lb ae)
Chickory	<i>Cichorium intybus</i>	4	6 (0.09 lb ae)
Daisy, Shasta	<i>Chrysanthemum maximum</i>	4	8 (0.13 lb ae)
Prairieclover, Purple	<i>Dalea, purpurea</i>	4	12 (0.19 lb ae)
Coneflower, Upright Prairie	<i>Ratibida columnifera</i>	6	6 (0.09 lb ae)
Hat, Mexican	<i>Ratibida columnifera</i>	6	6 (0.09 lb ae)
Poorjoe	<i>Diodia teres</i>	8	--
Lupine, Perennial ⁴	<i>Lupina perennis</i>	8	12 (0.19 lb ae)
Coneflower, Purple	<i>Echinacea purpurea</i>	8	8 (0.13 lb ae)
Daisy, Ox-eye ³	<i>Chrysanthemum leucanthemum</i>	8	8 (0.13 lb ae)
Leadplant	<i>Amorpha canescens</i>	8	8 (0.13 lb ae)
Lespedeza, Bicolor	<i>Lespedeza</i>	8	8 (0.13 lb ae)
Milkweed, Common	<i>Asclepias syriaca</i>	8	--
Pea, Prairie Scurf	<i>Psoralea esculenta</i>	8	8 (0.13 lb ae)
Yarrow, Gold ³	<i>Achillea filipendulina</i>	8	8 (0.13 lb ae)
Blackeyed Susan	<i>Rudbeckia hirta</i>	8	10 (0.16 lb ae)
Johnny Jump-ups	<i>Viola cornuta</i>	8	12 (0.19 lb ae)
Sweetclover	<i>Melilotus sp.</i>	12 (0.19 lb ae)	8 (0.13 lb ae)
Alfalfa	<i>Medicago sativa</i>	12 (0.19 lb ae)	12 (0.19 lb ae)
Bundleflower, Illinois	<i>Desmanthus illinoensis</i>	12 (0.19 lb ae)	12 (0.19 lb ae)
Lespedeza, Sericea	<i>Lespedeza cuneata</i>	12 (0.19 lb ae)	12 (0.19 lb ae)
Partridgepea	<i>Cassia fasciculata</i>	12 (0.19 lb ae)	12 (0.19 lb ae)
Sensitive vine	<i>Mimosa strigillosa</i>	12 (0.19 lb ae)	12 (0.19 lb ae)
Vetch, Crown	<i>Coronilla varia</i>	12 (0.19 lb ae)	12 (0.19 lb ae)
Violet, Wild	<i>Viola spp.</i>	12 (0.19 lb ae)	12 (0.19 lb ae)

¹Height suppression or stand reduction may occur at maximum use rate. For legumes, some yellowing and stunting can occur at higher use rates.

² Postemergence applications should be made early postemergence on the flowers to reduce injury and increase flower set.

³ Will not flower.

⁴Most native rangeland lupines are tolerant to Alligare Panoramic 2SL Herbicide at 12 ounces (0.19 lb ae) per acre postemergence.

Wildflower Establishment with Alligare Panoramic 2SL Herbicide 4 ounce (0.06 lb ae) per acre + PENDULUM Herbicide 2 pounds active ingredient per acre¹

Common name	Genus Species	PRE ²	POST ³
Blackeyed Susan	<i>Rudbeckia hirta</i>	Yes	Yes
Blanketflower	<i>Gaillardia aristata</i>	No	Yes
Bundleflower, Illinois	<i>Desmanthus illinoensis</i>	>50% thinning	Yes
Clover, Crimson	<i>Trifolium incarnatum</i>	>50% thinning	Yes
Coneflower, Clasping	<i>Dracopsis amplexicaulis</i>	Yes	Yes
Coneflower, Upright Prairie	<i>Ratibida columnifera</i>	No	OK
Coneflower, Purple	<i>Echinacea purpurea</i>	Yes	Yes
Coreopsis, Dwarf Red Plains	<i>Coreopsis tinctoria</i> var. <i>Gay Feather</i>	OK stunting	OK stunting
Coreopsis, Plains	<i>Coreopsis tinctoria</i>	OK stunting	Yes
Coreopsis, Lance Leaved	<i>Coreopsis lanceolata</i>	25% thinning	Yes
Cornflower	<i>Centaurea cyanus</i>	No	OK 20% thinning
Cosmos, Garden	<i>Cosmos bipinnatus</i>	OK 10% thinning	OK stunting
Cosmos, Yellow	<i>Cosmos sulphureus</i>	Yes	Yes
Daisy, Ox-eye	<i>Chrysanthemum leucanthemum</i>	25% thinning	Yes
Daisy, Shasta	<i>Chrysanthemum maximum</i>	Marginal-OK-20% thinning	Yes
Lupine, Perennial	<i>Lupinus perennis</i>	Yes	≤50% thinning
Partridgepea	<i>Cassia fasciculata</i>	25% thinning	Yes
Poppy, California	<i>Eschscholtzia californica</i>	Yes	25% injury, stunting, thinning
Yarrow, Gold	<i>Achillea filipendulina</i>	OK thinning	OK

¹ 2 lbs. active ingredient per acre = 2.4 quarts of Pendulum herbicide 3.3 EC or 3.3 lbs. of Pendulum herbicide WDG

² Preemergence at planting

³ Postemergence to seedlings

Yes= no injury

No = results in no wildflower germination or unacceptable injury to seedling flowers.

OK = can be used if thinning and/or stunting can be tolerated or if establishment is threatened by weed competition.

Beware that the response of wildflowers to Alligare Panoramic 2SL Herbicide could vary greatly because of the many species and varieties that exist. It is recommended that small areas be tested first to determine tolerance and whether potential injury is acceptable before treating larger areas.

If Alligare Panoramic 2SL Herbicide is to be used on a wildflower species that is not listed in the table below, a small area should be tested with no more than 12 ounces (0.19 lb ae) per acre per year to determine the injury that may result. Evaluate the wildflowers 1 to 2 months later for possible injury. The user assumes all responsibility for any damage or other liability.

WILDLIFE HABITAT MANAGEMENT

Alligare Panoramic 2SL Herbicide may be used to control exotic and other undesirable vegetation for purposes of wildlife habitat management and enhancement within terrestrial noncrop sites including riparian and tree areas. Applications can be made to control undesirable vegetation prior to the establishment of desirable species and to release desirable species that may be present in the soil, but suppressed by competitive vegetation. See specific sections of this label for weed control information.

SPECIAL WEED CONTROL

Always add an adjuvant to Alligare Panoramic 2SL Herbicide (see “Spray Adjuvants For Postemergence Applications” section of this label). Best control of perennial weeds is achieved when Alligare Panoramic 2SL Herbicide is mixed with a methylated seed oil. This is especially true when weeds have waxy leaves or with perennials and weeds under stress conditions. Use a methylated seed oil for best results against the weeds listed below because the use of a nonionic or silicone-based surfactant may result in less than acceptable control.

Johnsongrass and Itchgrass: When Johnsongrass and itchgrass have reached the whorl stage and 18 to 24 inches in height, apply Alligare Panoramic 2SL Herbicide at 8 to 12 ounces (0.13 – 0.19 lb ae) per acre. If treating dense stands, or after these grasses have reached the culm elongation stage, control with Alligare Panoramic 2SL Herbicide may be improved with the addition of Accord or Roundup Pro at the rate of 8 to 16 ounces per acre. The higher herbicide rates should be used as grass density increases. Sometimes, control of Johnsongrass and itchgrass at stages taller than described above are possible.

Dallisgrass, Bahiagrass, Vaseygrass, *Paspalum* spp., Smutgrass: Make a postemergence application of Alligare Panoramic 2SL Herbicide at 10 to 12 ounces (0.16 – 0.19 lb ae) per acre after grass has reached full green-up for control of dallisgrass, bahiagrass and smutgrass. Activity against dallisgrass and smutgrass may range from suppression to control depending upon the growth stage and growing conditions at the time of application. To control vaseygrass, make a postemergence application of Alligare Panoramic 2SL Herbicide at the rate of 4 to 6 ounces (0.06 – 0.09 lb ae) per acre after the grass has reached 100% green-up and is from 3 to 8 inches in height. Efficacy will be improved with the addition of Accord or Roundup Pro at the rate of 12 to 16 ounces per acre. Higher herbicide rates should be used as weed growth and density increases. A preemergence application of Alligare Panoramic 2SL Herbicide plus Pendulum herbicide will provide increased control of these grasses germinating from seed.

Leafy Spurge: Maximum control of leafy spurge may be obtained when Alligare Panoramic 2SL Herbicide is applied in late summer or fall at 8 to 12 ounces (0.13 – 0.19 lb ae) per acre in combination with a methylated seed oil at two pints per acre. The timing is generally August through October, but it can vary due to geography and altitude. Yearly applications will improve the residual control of leafy spurge. In some areas, cool season grasses may be injured by applications of Alligare Panoramic 2SL Herbicide at 12 ounces (0.19 lb ae) per acre in spring or fall, or 4 ounces (0.06 lb ae) applied in the fall followed by 8 ounces (0.13 lb ae) per acre in the spring. Nitrogen fertilizer (see “Spray Adjuvants For Postemergence Applications” section of this label) at two pints per acre may increase the control of leafy spurge, however it may also cause injury to grasses and forbs. Use of Alligare Panoramic 2SL Herbicide with a nonionic or silicone-based surfactant will not provide control of leafy spurge. The target timing for fall applications of Alligare Panoramic 2SL Herbicide for control of leafy spurge in North and South Dakota is late August through September. Further south in Nebraska and Iowa the target timing is mid-September through mid-October. This application should be made before a killing frost when there is good soil moisture present and the leafy spurge has not lost its milky sap flow. Check for milky sap flow by breaking the leafy spurge main stem and if milky sap flows from the break then Alligare Panoramic 2SL Herbicide may still be applied.

Tall Fescue Control: Apply Alligare Panoramic 2SL Herbicide at 12 ounces (0.19 lb ae) per acre plus methylated seed oil at 2 pints per acre to control tall fescue. Control will be aided by the addition of Accord, glyphosate, or Roundup Pro and/or Nitrogen fertilizer (see “Spray Adjuvants For Postemergence Applications” section of this label). Only apply Alligare Panoramic 2SL Herbicide when tall fescue is actively growing because application after tall fescue had reached summer dormancy will result in poor control.

Best control of existing tall fescue and germinating seedlings is obtained when Alligare Panoramic 2SL Herbicide is applied in the fall at 8 to 12 ounces (0.13 – 0.19 lb ae) per acre plus Accord or Roundup Pro at 24 to 64 ounces per acre. To control mature fescue stands in the spring, use Alligare Panoramic 2SL Herbicide at the higher end of the 6 to 12 ounces (0.09 – 0.19 lb ae) per acre rate range plus a tank-mix with Accord or Roundup Pro at 32 to 64 ounces per acre. If planting forbs, use the lower end of the 6 to 12 ounces (0.09 – 0.19 lb ae) per acre rate range of Alligare Panoramic 2SL Herbicide plus a tank-mix with a glyphosate product. If Alligare Panoramic 2SL Herbicide is used at 8 ounces (0.13 lb ae) per acre with a glyphosate product in the fall, only 4 ounces (0.06 lb ae) per acre of Alligare Panoramic 2SL Herbicide should be applied in the spring at planting for annual weed and seedling fescue control. Where permitted, burning the fescue stand the following spring prior to green-up should help provide a better seedbed for planting and aid in control of seedling tall fescue. Several summer mowings of the fescue will weaken the root system and make the fescue more susceptible to herbicides in the fall. At least 10 inches of fescue re-growth is necessary following the last mowing before applying either the Alligare Panoramic 2SL Herbicide or glyphosate products. Both require adequate foliage present for uptake and maximum control.

Russian Knapweed: To control Russian knapweed, a fall application of Alligare Panoramic 2SL Herbicide at 12 ounces (0.19 lb ae) per acre plus 1 quart per acre of methylated seed oil should be made during Russian knapweed senescence. Reduced control will result if the application is made before the initiation of senescence. Although control improves as senescence progresses, Russian knapweed control may still be obtained with Alligare Panoramic 2SL Herbicide if the application is made after full senescence.

Dalmation Toadflax: To control Dalmation Toadflax, a fall application of Alligare Panoramic 2SL Herbicide at 12 ounces (0.19 lb ae) per acre plus 1 quart per acre of methylated seed oil should be made when the top quarter of the plant is necrotic, usually after a hard front (late October through November). Reduced control will result if the application is made before this timing. Good control can be achieved as long as some green stem and/or leaf tissue is remaining. Adding ammonium sulfate at 2 to 3 pints per acre may improve control.

Resistant Biotypes: Herbicides that have the ALS/AHAS enzyme inhibiting mode of action such as Alligare Panoramic 2SL Herbicide, Oust and others may not control some weeds listed on this label if resistant biotypes are present. If ALS/AHAS resistant biotypes occur in the area to be sprayed, tank-mix Alligare Panoramic 2SL Herbicide, or make sequential applications, with a registered herbicide with a different mode of action.

RESIDUAL BAREGROUND WEED CONTROL

For total vegetation control in sensitive areas and around desirable vegetation, use Alligare Panoramic 2SL Herbicide at 12 ounces (0.19 lb ae) per acre in a tank-mix combination with labeled rates of Pendulum herbicide, Roundup Pro, Escort (or Vegetation Manager Metsulfuron Methyl DF), Karmex™, 2,4-D, diuron, Vegetation Manager Prodiamine 65 WDG (or Endurance™) or other labeled products to provide total vegetation control. Use 2 pints per acre of methylated seed oil as an adjuvant for maximum control.

To provide total weed control in bareground areas, apply Alligare Panoramic 2SL Herbicide at 12 ounces (0.19 lb ae) per acre in a tank-mix with Vegetation Manager Imazapyr 2SL (or Arsenal herbicide), Mohave 70 EG (or Sahara DG herbicide), Bromacil 40/40 (or Krovar™), SFM 75 (or Oust), Picloram K (or Tordon), Vanquish, or other labeled products to provide total bareground weed control. Use 2 pints per acre of methylated seed oil as an adjuvant for maximum control.

Spot treatments: For weed control in bareground or total vegetation, Alligare Panoramic 2SL Herbicide may be applied to small areas. In each gallon of water, mix Alligare Panoramic 2SL Herbicide at 0.3 to 5.4 ounces (0.005 – 0.08 lb ae) with 0.25 to 5% v/v methylated seed oil adjuvant.

USE UNDER PAVED SURFACES

Establish the final grade to the soil and then apply Alligare Panoramic 2SL Herbicide in sufficient water to obtain uniform wetting of the soil surface and shoulder area. The soil should not be moved after the application. Using clean water and constant agitation, mix Alligare Panoramic 2SL Herbicide at the rate of 12 ounces (0.19 lb ae) per acre. If the soil is not moist before application, weed control can be improved through incorporation of Alligare Panoramic 2SL Herbicide. Mechanical incorporation to a depth of two inches with a rototiller or disc is one method. Use of rainfall and/or irrigation (one inch/Acre) is another good method to incorporate Alligare Panoramic 2SL Herbicide. Treated soil should not be allowed to wash or move from the treated area.

TOLERANCE OF TREES AND BRUSH TO ALLIGARE PANORAMIC 2SL HERBICIDE

When Alligare Panoramic 2SL Herbicide is applied in and around desirable tree and brush species, follow these general instructions:

1. Alligare Panoramic 2SL Herbicide may not be used on nursery, orchard, ornamental plantings, new plantings, seedling trees or fiber farms unless such use is provided in supplemental labeling from Alligare, LLC.
2. Apply Alligare Panoramic 2SL Herbicide to a limited area to determine tolerance in the area.
3. Apply Alligare Panoramic 2SL Herbicide at rates up to 12 ounces (0.19 lb ae) per acre to control weeds in roadsides, prairies, and areas used for wildlife cover, erosion control and windbreaks and in and around established trees or pasture or rangeland (see "Instructions for Rangeland Use" section of this label).
4. Severe injury or death may result if Alligare Panoramic 2SL Herbicide is applied to tree and brush species that are under stress due to drought, insects or other factors that might make the plant more susceptible to injury.
5. Tip chlorosis and minor necrosis may be seen on some species.
6. Use application methods that decrease foliar contact as injury in the form of defoliation and terminal death may occur.
7. A list of tolerant tree and brush species to Alligare Panoramic 2SL Herbicide when it is applied under the canopy and/or to the foliage are presented below.

If making a fall application of Alligare Panoramic 2SL Herbicide, delay the application until after leaves have begun to senesce or drop to avoid potential foliar injury to tree and brush species. Fall applications can be made to conifer

species as they are generally tolerant to Alligare Panoramic 2SL Herbicide. Be sure to apply Alligare Panoramic 2SL herbicide in and around tree and brush species at the recommended timing for the target weeds.

Brush and Tree Species Tolerant to Alligare Panoramic 2SL Herbicide at 12 ounces (0.19 lb ae) per acre¹

Common Name	Species	Tolerance by Application Method ²	
		Directed Below Foliage	To Foliage
Apple	<i>Malus sylvestris</i>	Yes	NR
Ash, Blue	<i>Fraxinus quadrangulata</i>	Yes	NR
Ash, Green	<i>Fraxinus pennsylvanica</i>	No	No
Azalea	<i>Rhododendron</i> spp.	No	No
Basswood	<i>Tilia hetrophylla</i>	No	No
Boxelder	<i>Acer negundo</i>	Yes	Injury ⁵
Buckeye, Ohio	<i>Aesculus glabra</i>	Yes	NR
Cedar-juniper, Western	<i>Thuja plicata</i>	Yes	Yes
Cherry, Black ³	<i>Prunus serotina</i>	No	No
Cherry, Choke	<i>Prunus virginiana</i>	No	No
Cherry, Sweet ³	<i>Prunus avium</i>	No	NR
Cottonwood	<i>Populus deltoides</i>	Yes	Injury ⁵
Cottonwood, Narrow Leaf	<i>Populus</i> spp.	Yes	Injury ⁵
Currant species	<i>Ribes</i> spp.	Injury ⁵	No
Dogwood, Flowering	<i>Cornus</i> spp.	Yes	Yes
Dogwood, Grey	<i>Cornus racemosa</i>	Yes	Injury ⁵
Dogwood, Red Twig	<i>Cornus</i> spp.	Yes	Yes
Douglas Fir	<i>Pseudotsuga menziesii</i>	Yes	Yes ⁴
Elm, American	<i>Ulmus Americana</i>	Yes	Yes
Elm, Siberian	<i>Ulmus pumila</i>	Yes	No
Elm, Slippery	<i>Ulmus rubra</i>	Yes	Yes
Gooseberry	<i>Ribes</i> spp.	Injury ⁵	Injury ⁵
Hackberry	<i>Celtis occidentalis</i>	Yes	Yes
Hawthorn	<i>Crataegus</i> spp.	Yes	Injury ⁵
Juniper, Chinese	<i>Juniperus chinensis</i>	Yes	Yes
Juniper, Western	<i>Juniperus osteosperma</i>	Yes	Yes
Lilac	<i>Syringa</i> spp.	No	No
Linden, American	<i>Tilia americana</i>	No	No
Locust, Black	<i>Robinia pseudoacacia</i>	Yes	Yes
Locust, Honey	<i>Gleditsia triacanthos</i>	Yes	Yes
Maple, Red	<i>Acer rubrum</i>	Yes	Yes
Maple, Sugar	<i>Acer saccharum</i>	Yes	Yes
Mulberry, Red	<i>Morus rubra</i>	Yes	NR
Mulberry, White	<i>Morus alba</i>	Yes	NR
Oak, Black	<i>Quercus velutina</i>	Yes	NR
Oak, Live	<i>Quercus virginiana</i>	Yes	Yes
Oak, Southern Red	<i>Quercus falcate</i>	Yes	NR
Oak, White	<i>Quercus alba</i>	Yes	NR
Olive, Russian	<i>Elaeagnus angustifolia</i>	Yes	No
Osage Orange	<i>Maclura pomifera</i>	Yes	NR
Peach (var. Elberta) ³	<i>Prunus persica</i>	Yes	NR
Photinia, Red Tip	<i>Photinia fraseri</i>	Yes	Yes
Pine, Lodgepole	<i>Pinus Contorta</i>	Yes	Injury ⁴
Pine, White ⁴	<i>Pinus strobes</i>	Yes	Yes
Pittosporum, Japanese	<i>Pittosporum tobira</i>	Yes	Yes
Plum species	<i>Prunus</i> spp.	Yes	No
Poplar, Yellow (Tulip)	<i>Liriodendron tulipifera</i>	Yes	NR
Privet, Common	<i>Ligustrum vulgare</i>	Yes	Yes
Rabbitbrush species	<i>Chrysothamnus</i> spp.	Yes	Yes
Redbud	<i>Cercis canadensis</i>	Yes	Yes
Redcedar, Eastern	<i>Juniperus virginiana</i>	Yes	Yes

Common Name	Species	Tolerance by Application Method ²	
		Directed Below Foliage	To Foliage
Rose, Multiflora	<i>Rosa multiflora</i>	Yes ⁵	No
Sage, Big	<i>Artemisia tridentate</i>	Yes	Yes
Sage, Fringe	<i>Artemisia frigida</i>	Yes	Yes
Sage, Silver	<i>Artemisia cana</i>	Yes	Yes
Sagebrush, Big	<i>Artemisia tridentate</i>	Yes	Yes
Sagebrush, Fringed	<i>Artemisia frigida</i>	Yes	Yes
Saltcedar	<i>Tamarix</i> spp.	Yes	No
Serviceberry	<i>Amelanchier alnifolia</i>	Yes	NR
Snowberry, Western	<i>Symphoricarpos occidentalis</i>	Yes	Injury ⁵
Spruce species	<i>Picea</i> app.	Yes ⁴	Yes ⁴
Sugarberry	<i>Celtis laevigata</i>	Yes	Yes
Sycamore	<i>Plantanus occidentalis</i>	Yes	No
Tree of Heaven	<i>Ailanthus altissima</i>	Yes	Yes
Walnut, American Black	<i>Juglans nigra</i>	Yes	No
Willow	<i>Salix</i> spp.	Yes	Injury ⁵

¹ Not intended for nursery, orchard, ornamental plantings, new plantings, or seedling trees.

² Yes = Tolerant

No = Not tolerant, severe injury or death

NR = Not recommended due to insufficient tolerance data

³ Not for use on ornamental or fruit bearing trees

⁴ Applications made just before or during candling may cause candle injury or death

⁵ Possible defoliation and/or death. Some species may exhibit tip chlorosis and minor necrosis. If spray contacts foliage, then defoliation and terminal death may occur. Injury can be reduced or eliminated if applied in fall after color change or leaf drop.

WEEDS CONTROLLED

(With 4 to 6 ounces (0.06 – 0.09 lb ae) per acre Alligare Panoramic 2SL Herbicide)

Common Name	Species	PRE ¹	POST ²	ANNUAL/ BIENNIAL/ PERENNIAL ³
BROADLEAVES				
Bedstraw, Catchweed	<i>Galium aparine</i>	C	4	WA
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C	2	SA
Buffalobur	<i>Solanum rostratum</i>	--	C	SA
Buttercup, Bur	<i>Ranunculus testiculatus</i>	C	C	WA
Cocklebur, Common	<i>Xanthium strumarium</i>	S	6	SA
Lambsquarters, Common	<i>Chenopodium album</i>	C	2	SA
Halogeton	<i>Halogeton glomeratus</i>	C	C	SA
Morningglory, Entireleaf	<i>Ipomoea hederacea</i>	S	3	SA
Ivyleaf	<i>Ipomoea hederacea</i>	S	3	SA
Tall	<i>Ipomoea purpurea</i>	S	3	SA
Mustard, Wild	<i>Brassica kaber</i>	C	C	WA
Pigweed	<i>Amaranthus</i> spp.	C	6	SA
Queen Anne's Lace	<i>Daucus carota</i>	--	4	B
Radish, Wild	<i>Raphanus raphanistrum</i>	S	4	WA
Yellow Rocket	<i>Barbarea vulgaris</i>	C	4	WA
Sicklepod	<i>Senna obtusifolia</i>	C	4	SA
Sida, Prickly	<i>Sida spinosa</i>	C	2	SA
Smartweed, Ladysthumb	<i>Polygonum persicaria</i>	C	C	SA
Pennsylvania	<i>Polygonum pennsylvanicum</i>	C	C	SA
Swamp	<i>Polygonum coccineum</i>	C	C	SA
Starbur, Bristly	<i>Acanthospermum hispidum</i>	C	2	SA

Common Name	Species	PRE ¹	POST ²	ANNUAL/ BIENNIAL/ PERENNIAL ³
Velvetleaf	<i>Abutilon theophrasti</i>	C	6	SA
GRASS WEEDS				
Brome, Downy	<i>Bromus tectorum</i>	C	2	WA
Cheat	<i>Bromus secalinus</i>	C	2	WA
Crabgrass,				
Large (Hairy)	<i>Digitaria sanguinalis</i>	C	4	SA
Smooth	<i>Digitaria ischaemum</i>	C	4	SA
Foxtail,				
Giant	<i>Setaria faberi</i>	C	6	SA
Green	<i>Setaria viridis</i>	C	4	SA
Yellow	<i>Setaria glauca</i>	C	4	SA
Goatgrass, Jointed	<i>Aegilops cylindrica</i>	C	C	WA
Goosegrass	<i>Elusine indica</i>	S	2	SA
Johnsongrass (seedling)	<i>Sorghum halepense</i>	C	12	SA
Medusahead	<i>Taeniatherum caput-medusae</i>	C	2	WA
Panicum, Fall	<i>Panicum dichotomiflorum</i>	S	6	SA
Sandbur	<i>Cenchrus</i> spp.	S	C	A/P
Shattercane	<i>Sorghum bicolor</i>	C	12	SA
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>	C	C	SA
Stiltgrass, Japanese	<i>Microstegium vimineum</i>	C	4	A
Vaseygrass	<i>Paspalum urvillei</i>	--	8	P
SEDGES				
Nutsedge,				
Yellow	<i>Cyperus esculentus</i>	S	4S	P
Purple	<i>Cyperus rotundus</i>	S	4S	P
Sedge	<i>Juncus</i> spp.	S	4S	A/P
¹ C=control, S=suppression in northern US only				
² Maximum plant height in inches at time of application				
³ Growth habit: A=annual, SA=summer annual, WA=winter annual, B=biennial, P=perennial				

WEEDS CONTROLLED

(With 8 to 12 ounces (0.13 – 0.19 lb ae) per acre Alligare Panoramic 2SL Herbicide)

Common Name	Species	PRE ¹	POST ²	ANNUAL/ BIENNIAL/ PERENNIAL ³
BROADLEAVES				
Anoda, Spurred	<i>Anoda cristata</i>	C	6	SA
Baby's Breath ⁵	<i>Gysophila paniculata</i>	--	C	P
Bedstraw, Catchweed	<i>Galium aparine</i>	C	C	WA
Bedstraw, Marsh	<i>Galium</i> spp.	C	C	WA
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C	6	SA
Bindweed, Field	<i>Convolvulus arvensis</i>	--	C	P
Buffalobur	<i>Solanum rostratum</i>	--	C	SA
Burclover	<i>Medicago</i> spp.	--	4	SA
Chickweed, Common	<i>Stellaria media</i>	C	6	SA
Cocklebur, Common	<i>Xanthium strumarium</i>	C	6	SA
Cornsalad, Common	<i>Valerianella locusta</i>	--	C	WA
Crownbeard, Golden	<i>Verbisina encelioides</i>	C	2	SA
Dandelion	<i>Taraxacum officinale</i>	--	C	P
Dock, Curly	<i>Rumex crispus</i>	C	6	B
Fiddleneck	<i>Amsinckia</i> spp.	--	C	SA
Flax, Spurge	<i>Thymelaea passerina</i>	C	C	A
Fleabane, Annual	<i>Erigeron annuus</i>	--	C	A

Common Name	Species	PRE ¹	POST ²	ANNUAL/ BIENNIAL/ PERENNIAL ³
Geranium, Carolina	<i>Geranium carolinianum</i>	--	C	WA/B
Geranium, Cranesbill	<i>Geranium maculatum</i>	C	C	WA/B
Ground Cherry	<i>Physalis heterophylla</i>	--	C	P
Hemlock, Poison	<i>Conium maculatum</i>	C	6	B
Henbit	<i>Lamium amplexicaule</i>	C	3	WA/B
Hoary Cress	<i>Cardaria</i> spp.	--	C	P
Houndstongue, Bristly	<i>Cynoglossum officinale</i>	C	C	B
Indigo, Hairy	<i>Indigofera hirsute</i>	C	2	P
Jimsonweed	<i>Datura stramonium</i>	C	6	SA
Knapweed, Russian ⁶	<i>Centaurea repens</i>	--	C*	P
Knotweed, Prostrate	<i>Polygonum aviculare</i>	C	C	SA
Kochia*	<i>Kochia scoparia</i>	C	3	SA
Lambsquarters, Common	<i>Chenopodium album</i>	C	3	SA
Morningglory,				
Cypressvine	<i>Ipomoea quamoclit</i>	C	6	SA
Entireleaf	<i>Ipomoea hederacea</i>	C	6	SA
Ivyleaf	<i>Ipomoea hederacea</i>	C	6	SA
Pitted	<i>Ipomoea lacunose</i>	C	6	SA
Smallflower	<i>Jacquemontia tamnifolia</i>	C	6	SA
Tall	<i>Ipomoea purpurea</i>	C	6	SA
Mustard, Wild	<i>Brassica kaber</i>	C	C	WA
Onion, Wild	<i>Allium canadense</i>	C	C	P
Pepperweed, Perennial	<i>Lepidum latifolium</i>	--	C	P
Pigweed ⁴	<i>Amaranthus</i> spp.	C	6	SA
Plantain, Narrowleaf	<i>Plantago lanceolata</i>	C	C	B
Poinsettia, Wild	<i>Euphorbia heterophylla</i>	C	6	SA
Puncture Vine	<i>Tribulus terrestris</i>	--	C	SA
Purslane, Common	<i>Portulaca oleracea</i>	C	4	SA
Pusley, Florida	<i>Richardia scabra</i>	C	4	SA
Queen Anne's Lace	<i>Daucus carota</i>	C	C	B
Ragweed,				
Common	<i>Ambrosia artemisiifolia</i>	C	3	SA
Giant	<i>Ambrosia trifida</i>	S	6	SA
Western	<i>Ambrosia psilostachya</i>	--	C	A/P
Rocket, Yellow	<i>Barbarea vulgaris</i>	C	C	WA
Senna, Coffee	<i>Cassia occidentalis</i>	C	4	SA
Sicklepod	<i>Senna obtusifolia</i>	C	6	SA
Sida, Prickly	<i>Sida spinosa</i>	C	6	SA
Smartweed,				
Ladysthumb	<i>Polygonum persicaria</i>	C	C	SA
Pennsylvania	<i>Polygonum pennsylvanicum</i>	C	C	SA
Swamp	<i>Polygonum coccineum</i>	C	C	SA
Spurge,				
Leafy	<i>Euphorbia esula</i>	--	Fall*	P
Spotted	<i>Euphorbia maculata</i>	C	4	SA
Toothed	<i>Euphorbia dentate</i>	C	4	SA
Starbur, Bristly	<i>Acanthospermum hispidum</i>	--	6	SA
Sunflower	<i>Helianthus annuus</i>	--	18	SA
Tansymustard	<i>Descurainia pinnata</i>	C	C	WA
Teasel, Common	<i>Dipsacus fullonum</i>	--	C	B
Thistle,				
Bull	<i>Cirsium vulgare</i>	S	C	WA/B
Musk	<i>Carduus nutans</i>	--	S	B
Platt	<i>Cirsium canescens</i>	S	C	P

Common Name	Species	PRE ¹	POST ²	ANNUAL/ BIENNIAL/ PERENNIAL ³
Russian*	<i>Solsola iberica</i>	C	3	A
Toadflax, Dalmatian	<i>Linaria dalmatica</i>	--	C*	P
Velvetleaf	<i>Abutilon theophrasti</i>	C	C	A
Vervain, Blue	<i>Verbena hastata</i>	--	S	WA
Vervain, Prostrate	<i>Verbena bracteata</i>	--	C	P
Whitetop	<i>Cardaria</i> spp.	--	C	P
Willowherb	<i>Epilobium</i> spp.	--	C	P
Woodsorrel, Yellow	<i>Oxalis stricta</i>	C	C	P
GRASS				
Bahiagrass	<i>Paspalum notatum</i>	S	C*	P
Barley, Little	<i>Hordeum pusillum</i>	C	4	WA
Barley, Squirrel Tail	<i>Hordeum jubatum</i>	--	C	P
Barnyardgrass	<i>Echinochloa crus-galli</i>	C	6	SA
Cheat	<i>Bromus secalinus</i>	C	C	WA
Crabgrass	<i>Digitaria</i> spp.	C	6	SA
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	C	C	SA
Dallisgrass	<i>Paspalum dilatatum</i>	S	C*	P
Downy Brome	<i>Bromus tectorum</i>	C	--	WA
Dropseed, Tall	<i>Sporobolus cryptandrus</i>	S	C	A/P
Fescue, Tall	<i>Festuca arundinacea</i>	C	C*	P
Foxtail,				
Giant	<i>Setaria faberi</i>	C	C	SA
Green	<i>Setaria viridis</i>	C	C	SA
Knotroot	<i>Setaria geniculata</i>	S	6	SA
Purple Robust	<i>Setaria viridis</i>	S	S	SA
Yellow	<i>Setaria glauca</i>	C	4	SA
Garlic, Wild	<i>Allium vineale</i>	C	C	P
Goosegrass	<i>Elusine indica</i>	C	3S	SA
Itchgrass	<i>Rottboellia cochinchinensis</i>	--	C*	SA
Johnsongrass,				
Seedling	<i>Sorghum halepense</i>	C	C	SA
Rhizome	<i>Sorghum halepense</i>	--	C*	P
Medusahead	<i>Taeniatherum captu-medusae</i>	C	C	WA
Panicum,				
Fall	<i>Panicum dichotomiflorum</i>	C	C	SA
Texas	<i>Panicum texanum</i>	C	C	SA
Ryegrass, Annual (Italian)	<i>Lolium multiflorum</i>	C	C	WA
Ryegrass, Perennial	<i>Lolium perenne</i>	--	C	P
Sandbur	<i>Cenchrus</i> spp.	S	C	A/P
Shattercane	<i>Sorghum bicolor</i>	C	C	SA
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>	C	C	SA
Smutgrass	<i>Sporobolus indicus</i>	--	C	P
Stiltgrass, Japanese	<i>Microstegium vimineum</i>	C	C	A
Stinkgrass, Annual	<i>Eragrostis cilianensis</i>	C	2	SA
Torpedograss	<i>Panicum repens</i>	--	C	P
Vaseygrass	<i>Paspalum urvillei</i>		C	P
Wild Oats	<i>Avena fatua</i>	--	C	WA
SEDGES/RUSHES				
Nutsedge,				
Yellow	<i>Cyperus esculentus</i>	C	C	P
Purple	<i>Cyperus rotundus</i>	C	C	P
Rush	<i>Juncus</i> spp.	S	4	A/P

¹ C=control, S=suppression in northern US only

² Maximum plant height in inches at time of application

Common Name	Species	PRE ¹	POST ²	ANNUAL/ BIENNIAL/ PERENNIAL ³
<p>³ Growth habit: A=annual, SA=summer annual, WA=winter annual, B=biennial, P=perennial ⁴ Some species are tolerant and resistant biotypes are possible ⁵ For annual control. The addition of 1-2 pints of 2,4-D will aid in burndown ⁶ For best control apply in the fall *See "Special Weed Control" section of this label</p>				

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: KEEP FROM FREEZING. Do not store below 20°F.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: 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 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. 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 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. 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.

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.

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