OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION
WASHINGTON, D.C. 20460

February 11, 2026

Bonnie J Bieber
Regulatory Affairs Manager
Alligare, LLC
P.O. Box 967
Opelika, AL 36803
1565 5th Avenue
Opelika, AL 36801

Subject: Approval of Label Amendment; Only Indicated Changes Reviewed - The proposed label reflects a broad re-organization to allow for significantly improved clarity, flow, and format in support of easier customer understanding and use. There have been no added use sites or rates to the currently approved label however, some use sites have been separated, use directions have been rewritten for enhanced comprehension, tables have been reformatted for ease of use, and certain language within the currently approved label (i.e., product specific tank mix directions) has been replaced with a generic reference statement. Additionally, the order of the label as compared to the currently approved label has been significantly modified to allow for improved readability, flow and ease of use.
Product Name: Alligare MSM 60
EPA Registration Number: 81927-7
Application Date: 08/26/2025
Case Number: 00666326

Dear Bonnie J Bieber:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable. However, EPA reviewed only the label changes highlighted, marked, or otherwise indicated on the submitted label. Any other changes to the previously approved label that were not clearly highlighted, marked, or otherwise indicated in your submission were not reviewed and may form the basis of regulatory and/or enforcement action if later discovered by the Agency.

Further, submission of a label amendment application with unidentified changes may be considered a knowing submission of false information to the Agency. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

The label submitted with the application has been stamped "Accepted Only Indicated Revisions Reviewed" and is enclosed for your records.

This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 C.F.R. § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 C.F.R. § 152.3.

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 FIFRA and is subject to review by the Agency. If the website contains any false or misleading statement, design, or graphic, the product may be misbranded and unlawful to sell or distribute under FIFRA Sections 2(q)(1)(A) and 12(a)(1)(E). 40 C.F.R. § 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on the product label, claims made as part of the product's sale or distribution may not substantially differ from those claims approved through the registration process under FIFRA Section 12(a)(1)(B). 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 product will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of the product 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.

If you have any questions, please contact Celeste Bollini at bollini.celeste@epa.gov.

Sincerely,

Kable Bo Davis

Kable Bo Davis, Senior Advisor
Office of Pesticide Programs
Registration Division, Immediate Office

Enclosure

Note to Reviewer- Brackets [ ] indicate optional text

Alligare MSM 60

[Alternate Brand Name: Alligare PRO MSM 60 Herbicide]

GROUP	2	HERBICIDE

ACTIVE INGREDIENT:
Metsulfuron Methyl
Methyl 2-[[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]-carbonyl]amino] sulfonyl]benzoate..... 60.0%
OTHER INGREDIENTS..... 40.0%
TOTAL..... 100.0%

KEEP OUT OF REACH OF CHILDREN
CAUTION

FIRST AID	
If in eyes:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.	

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Causes moderate eye irritation. Harmful if absorbed through the skin. Avoid contact with skin, eyes, or clothing.

See [inside] [attached] [label] [booklet] [for] [First Aid][,] [additional] [Precautionary Statements][,] [and] [Directions for Use] [including] [and] [Storage and Disposal] [instruction] [instructions].

EPA Reg. No. 81927-7

EPA Est. No.

Manufactured for:
Alligare, LLC
1565 5th Avenue
Opelika, AL 36801

ACCEPTED
ONLY INDICATED
REVISIONS REVIEWED
02/11/2026

Net Weight:

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.
81927-7
No label revisions other than those indicated were reported to the Agency.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard [(40 CFR Part 170)] must wear:

- Long sleeved shirt and long pants
- Waterproof gloves
- 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.

USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

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 of equipment or disposing of equipment washwaters.

This herbicide is injurious to plants at extremely low concentrations. Nontarget plants may be adversely affected from drift and run-off.

Metsulfuron methyl is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

This product may impact surface water quality due to runoff of rainwater. 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 weeks 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 metsulfuron methyl from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

IMPORTANT

DO NOT USE ON FOOD OR FEED CROPS EXCEPT AS SPECIFIED BY THIS LABEL OR SUPPLEMENTAL LABELING. Injury to or loss of desirable trees or other plants may result from failure to observe the following: Do not apply Alligare MSM 60 (except as directed), or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend or in locations where the chemical may be washed or moved into contact with their roots. Do not use on lawns, walks, driveways, tennis courts, or similar areas. Prevent drift of spray to desirable plants. Do not contaminate any body of water, including irrigation water. Keep from contact with fertilizers, insecticides, fungicides and seeds.

Following a Alligare MSM 60 application, do not use sprayer for application to food or feed crops other than as directed by EPA registered label instructions. This is extremely important, as low rates of Alligare MSM 60 can kill or severely injure most crops (except small grains).

PRODUCT INFORMATION

Alligare MSM 60 is a dispersible granule that is mixed in water and applied as a spray. Alligare MSM 60 controls many annual and perennial weeds and woody plants in pasture and rangeland, noncrop areas, conifer and hardwood plantations including grazed areas on these sites.

,

Apply Alligare MSM 60 for weed and brush control, and for the control of certain noxious weeds on noncrop sites, ditch banks of dry drainage ditches, and for selective weed control in certain types of unimproved turf grass. Do not use on irrigation ditches.

Apply Alligare MSM 60 for the control of broadleaf weeds, brush and several woody vine species in forage grasses growing in pasture and rangeland.

Apply Alligare MSM 60 for controlling and suppressing undesirable weeds and hardwoods in conifer plantations, on land primarily dedicated to the production of wheat, barley, fallow, pasture, and rangeland and on irrigated or dry land grain sorghum in Colorado, Kansas, Nebraska, Oklahoma, and Texas (north of Interstate 20). Alligare MSM 60 can be used in most states. Check with your state before use. Alligare MSM 60 is not registered for use in Alamosa, Conejos, Costilla, Rio Grande, and Saguache counties of Colorado.

Alligare MSM 60 controls weeds and woody plants primarily by postemergence activity. Although Alligare MSM 60 has preemergence activity, best results are obtained when Alligare MSM 60 is applied to foliage after emergence or dormancy break. For the control of annual weeds, Alligare MSM 60 provides the best results when applied to young, actively growing weeds. For the control of biennial weeds application should be made from rosette stage up until bloom stage. For the control of perennial weeds, applications made at the bud/bloom stage or while the target weeds are in the fall rosette stage may provide the best results. The use rate depends upon the weed species and size at the time of application.

The degree and duration of control may depend on the following:

- Weed spectrum and infestation intensity
- Weed size at application
- Environmental conditions at and following treatment
- Soil pH, soil moisture, and soil organic matter

Alligare MSM 60 may be applied on conifer and hardwood plantations, and noncrop sites that contain areas of temporary surface water caused by the collection of water between planting beds, in equipment ruts, or in other depressions created by management activities. It is permissible to apply Alligare MSM 60 to marshes, swamps and bogs after water has receded as well as seasonally dry floodplains where surface water is not present, terrestrial areas of deltas and low lying areas where water is drained but may be isolated in pockets due to uneven or unlevel conditions. DO NOT APPLY to natural or man-made bodies of water such as lakes, reservoirs, ponds, streams and canals.

Alligare MSM 60 is noncorrosive, nonflammable, nonvolatile and does not freeze.

ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY

Alligare MSM 60 is absorbed primarily through the foliage of plants, and by the roots to a lesser degree. Plant cell division is generally inhibited in sensitive plants within a few hours following uptake. Two to 4 weeks after application, leaf growth slows followed by discoloration and tissue death. The final effects on annual weeds are evident about 4 to 6 weeks after application. The

ultimate effect on perennial weeds and woody plants occurs in the growing season following application.

Warm, moist conditions following treatment promote the activity of Alligare MSM 60, while cold, dry conditions may reduce or delay activity. Weeds and brush hardened off by cold weather or drought stress may not be controlled. Use a surfactant to enhance the control of susceptible plants, except where noted. Apply at a minimum rate (concentration) of ¼% volume/volume (1 qt. per 100 gal. of spray solution), or at the manufacturer's specified rate. Use only EPA approved surfactants containing at least 80% active ingredient. Certain types of surfactants, such as those incorporating acetic acid (i.e. LI-700), may not be compatible with Alligare MSM 60 and may result in decreased performance. Certain surfactants may not be suitable for use on desirable plants, such as turf and conifers, listed on this label. Consult the surfactant manufacturer's label for appropriate uses.

Weed and brush control may be reduced if rainfall occurs soon after application.

MSM 60 may be applied to labeled use sites that contain areas of temporary surface water caused by the collection of water between planting beds, in equipment ruts, or in other depressions created by management activities. It is permissible to treat intermittently flooded low lying sites, seasonally dry flood plains and transitional areas between upland and lowland sites when no water is present. It is also permissible to treat marshes, swamps and bogs after water has receded as well as seasonally dry flood deltas. Do not make applications to natural or man- made bodies of water such as lakes, reservoirs, ponds, streams, and canals.

.

WEED RESISTANCE MANAGEMENT

For resistance management, please note that Alligare MSM 60 contains a Group 2 herbicide. Any weed population may contain plants naturally resistant to Group 2 herbicides. The resistant individuals may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance, take one or more of the following steps:

- Avoid the consecutive use of Alligare MSM 60 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 provided 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 use sites before application to identify the weed species present and their growth state to determine if the intended application will be effective.
- Scout use sites after application to verify that the treatment was effective and to monitor weed populations for early signs of resistance development.
- 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.

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.

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.

INTEGRATED PEST MANAGEMENT

This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

SPRAY EQUIPMENT

Following an Alligare MSM 60 application, do not use the sprayer or mixing equipment for application to agricultural crops, except that it may be used to treat wheat, barley, fallow, pasture and rangeland. This is extremely important as low rates of Alligare MSM 60 can kill or severely injure most agricultural crops.

Before Spraying Crops Other Than Wheat, Barley, Fallow, Pasture or Rangeland carefully follow instructions below for cleaning the spray tank.

The selected sprayer should be equipped with an agitation system to keep Alligare MSM 60 suspended in the spray tank. Use a sufficient volume of water to thoroughly cover the foliage of undesirable weeds, generally 10 to 40 gallons per acre. Select a spray volume and delivery system that will deliver a uniform spray pattern. Be sure the sprayer is calibrated before use. Avoid overlapping and shut off spray booms while starting, turning, slowing or stopping to avoid injury to desired plants.

Refer to the brush control section of this label for information unique to that particular use.

MIXING INSTRUCTIONS

1. Fill the tank ¼ to 1/3 full of water.
2. While agitating, add the required amount of Alligare MSM 60.
3. Continue agitation until the Alligare MSM 60 is fully dispersed, at least 5 minutes.
4. Once the Alligare MSM 60 is fully dispersed, maintain agitation and continue filling tank with water. Alligare MSM 60 should be thoroughly mixed with water before adding any other material.
5. As the tank is filling, add tank mix partners (if desired) then add the necessary volume of nonionic surfactant. Always add surfactant last.
6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
7. Metsulfuron Methyl spray preparations are stable if they are pH neutral or alkaline and stored at or below 100°F.
8. If Alligare MSM 60 and a tank mix partner are to be applied in multiple loads, pre-slurry the Alligare MSM 60 in clean water before adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the Alligare MSM 60.

SPRAYER CLEANUP
Spray equipment must be cleaned before Alligare MSM 60 is sprayed. Follow the cleanup procedures specified on the labels of previously applied products. If no directions are provided, follow the six steps outlined below.

At the End of the Day
When multiple loads of Alligare MSM 60 herbicide are applied, at the end of each day of spraying, rinse the interior of the tank with fresh water and then partially fill. Flush boom and hoses. This will prevent the buildup of dried pesticide deposits that can accumulate in the application equipment.

Before Spraying Crops Other Than Wheat, Barley, Fallow, Pasture or Rangeland:
1. Drain tank; thoroughly rinse spray tanks, boom, and hoses with clean water. Loosen and physically remove any visible deposits.
2. Fill the tank with clean water and 1 gal of household ammonia* (contains 3% active) for every 100 gal of water. Flush the hoses, boom, and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 min. Flush the hoses, boom, and nozzles again with the cleaning solution, and then drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
4. Repeat step 2.
5. Rinse the tank, boom, and hoses with clean water.
6. If only Ammonia is used as a cleaner, the rinsate solution may be applied back to the crop(s) listed on this label. Do not exceed the maximum labeled use rate. If other cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.

*Equivalent amounts of an alternate-strength ammonia solution or other recommended cleaners can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your agricultural dealer, applicator, or extension agent for a listing of approved cleaners.

Notes:
- **Attention:** Do not use chlorine bleach with ammonia, as dangerous gases will form. Do not clean equipment in an enclosed area.
- Steam-clean aerial spray tank before performing the above cleanout procedure to facilitate the removal of any caked deposits.
- When Alligare MSM 60 is tank mixed with other pesticides, all required cleanout procedures should be examined and the most rigorous procedure should be followed.
- In addition to this cleanout procedure, all pre-cleanout guidelines on subsequently applied products should be followed as per the individual labels.
- Where spray equipment is frequently used for applications of this product and subsequent applications of other pesticides to sensitive crops during the same spray season, dedicate a sprayer to use only this product to further reduce the chance of crop injury.

USE PRECAUTIONS AND RESTRICTIONS
Injury to or loss of desirable trees or other plants may result from failure to observe the following.
- Do not drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.

- To reduce the potential for movement of treatment soil due to wind erosion, do not apply to powdery dry or light sandy soils until they have been stabilized by rainfall, trashy mulch, reduced tillage, or other cultural practices. Injury to immediately adjacent crops may occur when treated soil is blown onto land used to produce crops other than cereal grains or pasture/rangeland.
- Applications made where runoff water flows onto agricultural land may injure crops. Applications made during periods of intense rainfall, to soils saturated with water, surfaces paved with materials such as asphalt or concrete, or soils through which rainfall will not readily penetrate may result in runoff and movement of Alligare MSM 60. Do not spray Alligare MSM 60 onto snow covered or frozen soil. Treated soil should be left undisturbed to reduce the potential for Alligare MSM 60 movement by soil erosion due to wind or water.
- Do not use on lawns, walks, driveways, tennis courts or similar areas.
- Do not use on grasses grown for seed.
- Do not apply through any type of irrigation system. Do not use the equipment used to mix or apply Alligare MSM 60 on crops (except pasture, range and wheat). The mixing and application equipment may be used for noncrop areas and conifer plantations only.
- When used as directed, there is no grazing or haying restriction for use rates of 1 2/3 oz per acre and less.
- Do not use this product in the following counties of Colorado: Saguache, Rio Grande, Alamosa, Costilla and Conejos.
- Do not use this product in California.
- Do not apply to irrigated land where tailwater will be used to irrigate crops other than pastures, wheat and barley.
- Do not apply to frozen ground as surface runoff may occur.
- Do not apply to snow-covered ground.
- Wheat and barley varieties may differ in their response to various herbicides. Consult your state experiment station, universities, or extension agent as to sensitivity to any herbicide. If no information is available, limit the initial use of this product to a small area.
- Under certain conditions such as heavy rainfall, prolonged cold weather, or wide fluctuations in day/night temperatures before or soon after application, temporary discoloration and/or crop injury may occur. Do not apply to wheat or barley that is stressed by severe weather conditions, drought, low fertility, water-saturated soil, disease, or insect damage, as crop injury may result. Risk of injury is greatest when crop is in the 2 to 5-leaf stage. Severe winter stress, drought, disease, or insect damage following application also may result in crop injury.
- The combined effects of this product postemergence applied following use of preemergence wild oat herbicides may cause crop injury to spring wheat when crop stress (soil crusting, planting too deep, prolonged cold weather, or drought) causes poor seedling vigor.
- In the Pacific Northwest, to prevent cold weather-related crop injury, avoid making applications during winter months when weather conditions are unpredictable and can be severe.
- Do not apply to wheat, barley or pastures undersown with legumes, as injury to the forage may result.
- For ground applications applied to weeds when dry, dusty field conditions exist, control of weeds in wheel track areas may be reduced. The addition of 2,4-D of MCPA should improve weed control under these conditions.
- Preplant or preemergence applications of 2,4-D or herbicides containing 2,4-D made within 2 weeks of planting spring cereals may cause crop injury when used in conjunction with early postemergence applications of this product. For increased crop safety, delay treatment with Alligare MSM 60 until crop tillering has begun.

DIRECTIONS FOR USE

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

Alligare MSM 60 must be used only in accordance with directions on this label.

Alligare, LLC will not be responsible for losses or damages resulting from the use of this product in any manner not specifically directed by Alligare, LLC. User assumes all risks associated with such non-directed use.

For tank mixes, use the most restrictive limitations from the labeling of the products being mixed. Use only those tank mix partners that are labeled for the appropriate use site. Do not apply more than 4 oz of Alligare MSM 60 per acre per year. Do not use on food or feed crops except as specified by this label or supplemental 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 in your State responsible for pesticide regulation.

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 area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the Spray Drift Management section of this label.

WINDBLOWN SOIL PARTICLES

Alligare MSM 60 has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affect the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying Alligare MSM 60 if prevailing local conditions may be expected to result in off-site movement.

MANDATORY SPRAY DRIFT MANAGMENT

Aerial Applications:

- Do not release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications before the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ANSI/ASABE S641 MAY 2018).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ANSI/ASABE S641 MAY 2018).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site
- Do not apply during temperature inversions

Ground Boom Applications:

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy 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 crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ANSI/ASAE S572.3 FEB 2020).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ANSI/ASAE S572.3 FEB 2020).
- Do not apply when wind speeds exceed 10 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 (ANSI/ASAE S572.3 FEB 2020) for all applications.
- Do not apply when wind speeds exceed 10 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-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.

BOOM HEIGHT – Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT – Aircraft
Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

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.

SURFACTANTS

Unless otherwise specified, add a recommended nonionic surfactant having at least 80% active ingredient at 1 to 2 qt per 100 gal of spray solution (0.25 to 0.5% v/v).

> **Surfactant Rate Exceptions:** (1) On all spring wheat and spring or winter barley use 1/2 to 1 qt per 100 gal; (2) on Fescue pastures use 1/4 to 1/2 qt per 100 gal; (3) on Timothy pastures use 1/4 qt per 100 gal
>
> Consult your agricultural dealer, applicator, or extension agent for a listing of approved surfactants.

Antifoaming agent may be used if needed.

Do not use low rates of liquid fertilizer as a substitute for surfactant.

APPLICATION INFORMATION

Ground Application

For optimum spray coverage, use flat-fan or low volume flood nozzles.

For flood nozzles on 30" spacing, use at least 10 gallons spray solution per acre (GPA), nozzles no larger than TK 10 (or equivalent), and at least 30 pounds per square inch (psi). For 40" nozzle spacing, use at least 13 GPA; for 60" spacing, use at least 20 GPA. Overlap nozzles 100% for all spacings.

With Raindrop RA nozzles, use at least 30 GPA and ensure that nozzle spray patterns overlap 100%.

For flat-fan nozzles, use at least 3 GPA for applications to wheat or barley. Use at least 10 GPA for applications to pasture or rangeland. For grain sorghum, use 10-30 GPA and apply uniformly at 20-40 PSI with a properly calibrated low pressure boom sprayer using flat-fan nozzles. If applying to irrigated sorghum, delay first post-treatment irrigation for a minimum of 3 days after treatment. For the first post-treatment irrigation, do not exceed 1". Cultivate before treatment to cover exposed brace roots or grain sorghum. This will minimize injury from 2,4-D amine.

Use 50-mesh screens or larger.

Aerial Application

Use nozzle types and arrangements that provide optimum spray distribution and maximum coverage.

> **Wheat Barley and Fallow**-Use 1 to 5 GPA, use at least 3 GPA in Idaho, Oregon, or Utah.
>
> **Grain Sorghum**-apply at the rate of 2 to 5 GPA. If applying to irrigated sorghum, delay first post-treatment irrigation for a minimum of 3 days after treatment. For the first post-treatment irrigation, do not exceed 1". Cultivate before treatment to cover exposed brace roots of grain sorghum. This will minimize injury from 2,4-D amine.
>
> **Pasture and Rangeland** – Use 2 to 5 GPA.

When applying this product by air in areas adjacent to sensitive crops, use solid stream nozzles oriented straight back. Adjust the swath to avoid spray drift damage to sensitive crops downwind and/or use ground equipment to treat the border edge of fields.

See the **Spray Drift Management** section of this label.

Product Measurement
Measure precisely using scales calibrated in oz.

CROP ROTATION

Before using this product, carefully consider your crop rotation plans and options. For rotational flexibility, do not treat all of your wheat, barley, fallow, pasture or rangeland acres at the same time.

Minimum Rotation Intervals
Minimum rotation intervals* are determined by the rate of breakdown of Alligare MSM 60. Breakdown in the soil is affected by soil pH, soil microorganisms, soil temperature, and soil moisture. Low soil pH, high soil temperature, and high soil moisture speed up breakdown in soil, while high soil pH, low soil temperature, and low soil moisture slow breakdown.

Of these 3 factors, only soil pH remains relatively constant. Soil temperature and soil moisture can vary significantly from year to year and from area to area. For this reason, soil temperatures and soil moisture should be monitored closely when considering crop rotations.

*The minimum rotation interval represents the period of time from the last application to the earliest date of the next planting.

Soil pH Limitations
Do not use this product on soils having a pH above 7.9 as extended soil residual activity could require longer crop rotation intervals than usual. Under certain conditions, this product could remain in the soil for 34 months or more, injuring wheat and barley. In addition, other crops planted in high pH soil can be extremely sensitive to low concentrations of Alligare MSM 60.

Checking Soil pH
Before using this product, determine the soil pH of the areas of intended use. To obtain a representative pH value for the test area, take several 0” to 4” samples from different areas of the field and analyze them separately. Consult local extension publications for additional information on recommended soil sampling procedures.

Rotation Intervals for Cereals
All Areas-Following Use of Alligare MSM 60 at 1/10 oz per Acre

Crop	Soil pH	Minimum Cumulative Precipitation (inches)	Minimum Rotation Interval (months)
Winter and spring wheat	7.9 or lower	No restrictions	1
Durum wheat, barley,	7.9 or lower	No restrictions	10

Crop	Soil pH	Minimum Cumulative Precipitation (inches)	Minimum Rotation Interval (months)
spring/winter oat			

Rotation Intervals For Crops in Non-Irrigated Land
Following Use of Alligare MSM 60 at 1/10 oz per Acre on Wheat, Barley or Pasture

Location		Crop	Soil pH	Minimum Cumulative Precipitation (inches)	Minimum rotation Interval (months)
State	County or Area				
Colorado	Statewide	Grain sorghum, proso millet	7.9 or lower	No Restriction	10
		Flax, Sunflower, safflower	7.9 or lower	No Restriction	22
	Generally N. of I-70	Field Corn	7.9 or lower	15	12
Idaho	Southern Idaho	Flax, Safflower, Sunflower	7.9 or lower	No Restrictions	22
	Statewide	Peas, Lentils, Canola	6.8 or lower	18	10
		Peas	6.9 to 7.9	18	15
		Lentils	6.9 to 7.9	18	34
		Canola	6.9 to 7.9	18	22
Kansas	Statewide	Grain, sorghum, Proso millet	7.9 or lower	No Restrictions	10
		Flax, Safflower, Sunflower	7.9 or lower	No Restrictions	22
	Central and Western Kansas (West of the Flint hills)	Field Corn	7.9 or lower	15	12
	Western Kansas W. of Hwy. 183	Soybeans	7.5 or lower	22	22
			7.6 – 7.9	33	34
	Central Kansas- Generally E. of Hwy 183 and W. of the Flinthills	Soybeans	7.9 or lower	15	12

Location		Crop	Soil pH	Minimum Cumulative Precipitation (inches)	Minimum rotation Interval (months)
State	County or Area				
Montana	Statewide	Grain sorghum, Proso Millet, Field Corn	7.9 or lower	22	22
		Alfalfa	7.6 – 7.9	No Restrictions	34
		(hay only)	7.5 or lower	No	22
		Flax, Safflower, Sunflower	7.9 or lower	No Restrictions	22
Nebraska	Statewide	Grain sorghum, Proso millet	7.9 or lower	No Restrictions	10
		Flax, Safflower, Sunflower	7.9 or lower	No Restrictions	22
	Generally W. of Hwy 77 and E. of the Panhandle	Field Corn	7.9 or lower	15	12
		Soybeans	7.5 or lower	22	22
			7.6 – 7.9	33	34
New Mexico	Statewide	Grain sorghum, proso millet	7.9 or lower	No Restrictions	10
		Flax, Safflower, Sunflower	7.9 or lower	No Restrictions	22
	Eastern New Mexico	Cotton (dryland only)	7.9 or lower	30	22
North Dakota	W. of Hwy 1	Grain sorghum, Proso millet, Field corn, Dry beans, Flax, Safflower, Sunflower	7.9 or lower	22	22
	E. of Hwy. 1	Grain sorghum, Proso millet, Field corn, Dry beans, Flax, Safflower, Sunflower	7.9 or lower	34	34

Location		Crop	Soil pH	Minimum Cumulative Precipitation (inches)	Minimum rotation Interval (months)
State	County or Area				
Oklahoma	Statewide	Grain sorghum, Proso millet	7.9 or lower	No Restrictions	10
		Flax, Safflower, Sunflower	7.9 or lower	No Restrictions	22
		Field corn	7.9 or lower	15	12
	Panhandle	Cotton (dryland only)	7.9 or lower	30	22
	E. of the Panhandle	Cotton (dryland only)	7.9 or lower	25	14
Oregon	Statewide	Peas, Lentils, Canola	6.8 or lower	18	10
		Peas	6.9 to 7.9	18	15
		Lentils	6.9 to 7.9	18	34
		Canola	6.9 to 7.9	18	22
South Dakota	Statewide	Flax, Safflower, Sunflower	7.9 or lower	No Restrictions	22
	S. of Hwy. 212 & E. of the Missouri River & S. of Hwy 34 & W. of Missouri River	Grain sorghum, Proso millet	7.9 or lower	13	12
	Generally E. of Missouri River & S. of Hwy 14 & W. of Missouri River	Field corn	7.9 or lower	15	12
Texas	Statewide	Grain Sorghum, Proso millet	7.9 or lower	No Restrictions	10
		Flax, Safflower, Sunflower	7.9 or lower	No Restrictions	22
	Panhandle	Field corn	7.9 or lower	15	12
		Cotton (dryland only)	7.9 or lower	30	22

Location		Crop	Soil pH	Minimum Cumulative Precipitation (inches)	Minimum rotation Interval (months)
State	**County or Area**				
	N. Central Texas*	Field corn	7.9 or lower	15	12
		Cotton (dryland only)	7.9 or lower	25	14
*The counties of N. Central Texas are: Archer, Baylor, Bell, Bosque, Bowie, Callahan, Camp Cass, Clay Collin, Cooke, Coryell, Dallas, Delta, Denton, Eastland, Ellis, Falls, Fannin, Foard, Franklin, Grayson, Hardeman, Haskell, Hill, Hood, Hopkins, Hunt, Jack, Johnson, Kaufman, Knox, Lamar, Limestone, McLennan, Milam, Montague, Morris, Navarro, Palo Pinto, Parker, Rains, Red River, Robertson, Rockwall, Shackelford, Somervell, Stephens, Tarrent, Throckmorton, Titus, Upshur, Van Zandt, Wilbarger, Wichita, Williamson, Wise, Wood, Young.					
Utah	Statewide	Flax, Safflower, Sunflower	7.9 or lower	No Restrictions	22
Washington	Statewide	Peas, Lentils, Canola	6.8 or lower	18	10
		Peas	6.9 to 7.9	18	15
		Lentils	6.9 to 7.9	18	34
		Canola	6.9 to 7.9	18	22
Wyoming	Statewide	Flax, Safflower, Sunflower	7.9 or lower	No Restrictions	22
	Southern Wyoming	Grain sorghum, Proso millet	7.9 or lower	No Restrictions	10
	Southern Wyoming (Goshen, Laramie and Platte counties only)	Field corn	7.9 or lower	15	12
	Northern Wyoming	Grain Sorghum, Proso millet, Field corn	7.9 or lower	22	22

Rotation Intervals not covered above – The minimum rotation interval is 34 months with at least 28” of cumulative precipitation during the period:

-for any major field crop not listed (see the **Rotation Intervals** table);
-if the soil pH is not in the specified range;
-if the use rate applied is not specified in the table;
-or if the minimum cumulative precipitation has not occurred since application.

Before rotation to a major field crop at an interval shorter than specified, a field bioassay is required for that crop. A field bioassay is required before rotation to any minor crops (as determined by the USDA criteria). See section on **Field Bioassay** for further information.

Rotation Intervals in Pasture or Rangeland for Overseeding and Renovation
Minimum Rotation Intervals
(Pasture, Rangeland, and CRP for Overseeding and Renovation)

Location	Crop/Grass	Maximum Rate Used (oz/ac)	Minimum Rotation Interval (months)
AL, AR, FL, GA, KY, LA, MS, NC, OK, SC, TN, TX, VA, WV	Alfalfa, red clover, white clover, sweetclover, bermudagrass, bluegrass, ryegrass, tall fescue	1/10 to 3/10	4
	Wheat (except durum)	1/10 to 3/10	1
	Durum, barley, oats	1/10 to 3/10	10
All Other States	Red clover, white clover, sweetclover	1/10 to 2/10	12
	Bermudagrass, bluegrass, ryegrass	1/10 to 2/10	6
	Tall Fescue	1/10 to 2/10	18
	Wheat (except durum)	1/10 to 2/10	1
	Durum, barley, oats	1/10 to 2/10	10
All Areas with Soil pH of 7.5 or Less	Russian wildrye	1/10 to ½	1
	Green needlegrass, switchgrass, sheep fescue	1/10 to 1	1
	Meadow Brome, smooth brome, Alta fescue, red fescue, meadow foxtail, orchardgrass, Russian wildrye, timothy	1/10 to 1	2
All Areas with Soil pH of 7.9 or Less	Alkali sacaton, mountain brome, bluegrass, thickspike wheatgrass	1/10 to 1	1
	Sideoats grama, switchgrass	1/10 to ½	2
	Western wheatgrass	1/10 to 1	2
	Sideoats grama, switchgrass, big bluestem	1/10 to 1	3

Rotation Intervals not covered above – The minimum rotation interval for crops not listed is at least 34 months with at least 28" of cumulative precipitation during the period:

-for any major field crop or pasture crop not listed (see the **Rotation Intervals** table);
-if the use rate applied is not specified in the table

Before rotation to a major field crop at an interval shorter than specified, a field bioassay is required for that crop. A field bioassay is required to any minor crops (as determined by the USDA criteria). See section on **Field Bioassay** for further information.

BIOASSAY
A field bioassay is required before rotating to any crop not listed (see the Rotation Intervals table), or if the soil pH is outside the specified range, or if the use rate is outside those in the table, or if the minimum cumulative precipitation has not occurred since application.

Field Bioassay
To conduct a field bioassay, grow test strips of the crop(s) you plan to grow following treatment with this product. Crop response to the bioassay will indicate whether rotation to the crop(s) grown in the test strips is advisable.

If a field bioassay is planned, check with your local experts for information detailing the field bioassay procedure.

GRAZING
There are no grazing restrictions for Alligare MSM 60.

AGRICULTURAL USES

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 4 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
- Shoes plus socks

CONIFER PLANTATIONS

Application Information

Apply Alligare MSM 60 to control many species of weeds and deciduous trees on sites where conifers are growing or are to be planted. Apply by ground equipment or by air (helicopter only). Refer to the "Weeds Controlled" and "Brush Species Controlled" for a listing of susceptible species and an appropriate rate for control.

Application Timing

Apply Alligare MSM 60 after weeds have emerged or after undesirable hardwoods have broken winter dormancy and have reached the point of full leaf expansion.

Conifer Site Preparation

Application Before Transplanting
After consulting the "Weeds Controlled" and "Brush Species Controlled" tables apply the rates of Alligare MSM 60 listed for the most difficult to control species on the site.

Southeast--Apply up to 4 oz per acre for loblolly and slash pines. Transplant the following planting season.

Northeast and Lake States--Apply up to 2 oz per acre for red pine. Transplant the following planting season. Apply up to 2 oz per acre for black, white, red and Norway spruce. Transplant the following spring.

West--Apply up to 2 oz per acre before planting Douglas fir, Sitka Spruce, Western Red Cedar, Western Hemlock, Ponderosa Pine, and Grand Fir in the Coast Rangeland and western slope of the Cascades in Oregon and Washington. These conifer species listed can be planted any time after application. Other conifer species can be planted providing the user has prior experience indicating acceptable tolerance to soil residues of this product.

In the absence of prior experience, to avoid unacceptable injury, other species should be planted on a small scale to determine safety before large-scale plantings are made. Alligare, LLC will not be responsible for injury to any conifers not listed on this label.

Tank Mix Combinations

This product may be tank mixed with other suitable registered herbicides to control weeds listed under **Weeds Suppressed**, weeds resistant to this product, or weeds not listed under **Weeds Controlled**. Read and follow all manufacturer's label instructions for the companion herbicide. If those instructions conflict with this label, do not tank mix with this product.

Release

Hardwood Control and Suppression

Use Alligare MSM 60 for application over the top of established slash and loblolly pine to control the species listed in "Weeds Controlled" and "Brush Species Controlled" section of this label. Apply 1 to 4 oz per acre to control the species indicated, including kudzu.

Herbaceous Weed Control

Alligare MSM 60 may be applied to transplanted loblolly and slash pine for the control of herbaceous competition. Consult the "Weeds Controlled" section for a listing of the susceptible species and specific application rates. Best results are obtained when Alligare MSM 60 is applied just before weed emergence until shortly after weed emergence.

IMPORTANT PRECAUTIONS--CONIFER PLANTATIONS ONLY

- Applications of Alligare MSM 60 made to conifers that are experiencing loss of vigor caused by insects, diseases, drought, winter damage, animal damage, excessive soil moisture, planting shock, or other stresses may injure or kill the trees.
- Applications of Alligare MSM 60 made for herbaceous release should only be made after adequate rainfall has closed the planting slit and settled the soil around the roots following transplanting.
- Do not apply Alligare MSM 60 to conifers grown as ornamentals.
- Alligare MSM 60 applications may result in damage and mortality to other species of conifers when they are present on sites with those listed in the preceding directions for conifer plantations.

HARDWOOD PLANTATIONS

Application Information

Apply Alligare MSM 60 to control many species of weeds on sites where yellow poplar is growing or is to be planted, and on sites where red alder is to be planted. Apply at up to 2 oz per acre by ground equipment or by air (helicopter only). Refer to the "Weeds Controlled" sections of this label for a listing of susceptible species and appropriate rates for control.

Application Timing

This product may be applied as a site preparation treatment before planting red alder or yellow poplar, and may also be applied as a pre-planting site preparation treatment for red alder in tank mixes with other herbicides labeled for this use.

Alligare MSM 60 may also be applied over the top of planted yellow poplar seedlings after the soil has settled around the root systems but before the seedlings have broken dormancy (before bud break).

Release

Herbaceous Weed Control

Alligare MSM 60 may be applied to yellow poplar for the control of herbaceous competition. Consult the "Weeds Controlled" for a listing of the susceptible species and specific application rates. Best results are obtained when Alligare MSM 60 is applied just before weed emergence until shortly after weed emergence.

Tank Mix Combinations

This product may be tank mixed with other suitable registered herbicides to control weeds listed under **Weeds Suppressed**, weeds resistant to this product, or weeds not listed under **Weeds Controlled**. Read and follow all manufacturer's label instructions for the companion herbicide. If those instructions conflict with this label, do not tank mix with this product.

IMPORTANT PRECAUTIONS--HARDWOOD PLANTATIONS ONLY

- Application of VELPAR L and Alligare MSM 60 made to yellow poplar that are experiencing loss of vigor caused by insects, disease, drought, winter damage, animal damage, excessive soil moisture, planting shock or other stresses may injure or kill the seedlings.
- Applications of Alligare MSM 60 made for release should only be made after adequate rainfall has closed the planting slit and settled the soil around the roots following transplanting.
- Do not use a surfactant for applications made over the tops of trees.
- Careful consideration must be given by an experienced and knowledgeable forester to match the requirements of yellow poplar to the conditions of the site. Treatment of yellow poplar planted on a site inadequate to meet its requirements may injure or kill the seedlings.

GRAIN SORGHUM, WHEAT (including durum), BARLEY, AND FALLOW

Application Information

Use Rates

Wheat (including durum) and Barley
1/10 oz Alligare MSM 60 per acre.

Grain Sorghum (Irrigated or dry land, in Colorado, Kansas, Nebraska, Oklahoma, and Texas [north of Interstate 20] only)
1/20 oz Alligare MSM 60 per acre, plus 1/4 lb acid equivalent 2,4-D amine per acre. Do not use surfactant or crop oil when applying to grain sorghum.

Harvest aid (Wheat and Barley)
1/10 oz Alligare MSM 60 per acre in combination with 2,4-D or glyphosate aids in desiccation of many broadleaf weeds.

Fallow
1/10 oz Alligare MSM 60 per acre.

Application Timing

-Wheat and Barley

Dryland Wheat and Barley
(Except Durum or Wampum Variety)
Apply after the crop is in the 2-leaf stage but before boot.

Durum and Wampum Variety Spring Wheat

Apply after the crop is tillering but before boot. For durum and wampum varieties, use in combination with 2,4-D.

Irrigated Wheat and Barley
Apply after the crop begins tillering but before boot. For best results, delay post-treatment irrigation for at least 3 days after treatment and do not exceed 1 inch of water.

Wheat and Barley-Harvest Aid
Apply after reaching the hard dough stage, but no later than 10 days before harvest. See section of Harvest Aid Tank Mixtures.

Fallow
This product may be used as a fallow treatment in the spring or fall after weeds have emerged and are actively growing.

Do not apply during boot or early heading as crop injury may result.

Grain Sorghum
Crop Growth Stage: Apply with 2,4-D amine when grain sorghum is from 3 to 15 inches tall. If grain sorghum is taller than 10 inches to the top of the canopy, apply with drop nozzles and keep spray off foliage. Apply before boot stage only. Read and follow all other use instructions and precautions provided on companion herbicide labels.

NOTE: Sorghum varieties can vary in sensitivity to 2,4-D amine. Spray only those varieties that are known to be tolerant to 2,4-D amine. Contact the seed company of your Local County Extension Service for additional information.

Weed Growth Stage: Apply with 2,4-D amine when all or most of the weeds have germinated and emerged. Spray when weeds are a maximum of 6 inches tall for best results. Review the **WEEDS CONTROLLED** section below for specific weeds controlled and an appropriate rate..
Grain Sorghum Precautions:
Temporary growth stunting and/or crop yellowing may occur soon after application, especially when crops are under stress conditions. Do not use this product on grain sorghum that is grown for seed production or for syrup. Do not use on forage sorghum. Wait a minimum of 30 days before using for silage or forage. Do not include surfactant or crop oil when preparing tank mixes. Do not apply under cold, wet weather conditions or to grain sorghum that is under stress caused by weather, insects, or disease as crop injury may result. Do not apply to long season grain sorghum varieties. Do not apply to grain sorghum that is planted after July 1because crop injury or delayed maturity may occur. Do not apply to grain sorghum more than once per year. This product must be used in combination with 2,4-D on grain sorghum. If using in areas where 2,4-D is restricted, follow all applicable restrictions. Do not use this product on grain sorghum in areas where 2,4-D use is prohibited.

WEEDS CONTROLLED
Apply when weeds are less than 4” tall or in diameter and are actively growing. See specific directions for each weed type.

Effectiveness may be reduced if rainfall occurs within 4 hr after application.

Grain Sorghum **1/20 oz. per acre, plus 1/4 lb acid equivalent 2,4-D amine per acre**
Pigweed species
Puncture vine
Velvetleaf

Cereals and Fallow **1/10 oz per acre**	
Blue/purple mustard*	Miners lettuce
Bur buttercup (testiculate)	Pigweed (redroot, smooth, tumble)
Coast fiddleneck (tarweed)	Plains coreopsis
Common chickweed	Prickly lettuce*
Common purslane	Russian thistle*
Conical catchfly	Shepherd's purse
Cowcockle	Smallseed falseflax
False chamomile	Smartweed (green, ladysthumb, pale)
Field pennycress (fanweed)	Snow speedwell
Filaree	Tansymustard*
Flixweed*	Treacle mustard (Bushy Wallflower)
Groundsel (common)	Tumble/Jim Hill mustard
Henbit	Volunteer sunflower
Kochia*	Waterpod
Lambsquarters (common slimleaf)	Wild mustard
Mayweed chamomile	

Weed Suppressed* **Wheat, Barley, and Fallow** **1/10 oz per acre**	
Canada thistle*	Knotweed (prostrate)*
Common sunflower*	Sowthistle (annual)*
Corn gromwell*	Wild buckwheat*

*Weed suppression is a reduction in weed population and/or vigor as visually compared to an untreated area. The degree of suppression varies with the rate used, the size of the weeds, and the environmental conditions following treatment.

PASTURE, RANGELAND CONSERVATION RESERVE PROGRAM (CRP)

Application Information – Grass Establishment

Apply Alligare MSM 60 for the control or suppression of broadleaf weeds to aid in the establishment of the following perennial native or improved grasses planted in pasture and rangeland.

Blue Grama	Lovegrasses (Atherstone, Sand, Weeping, Wilman, Orchardgrass)
Bluestems (Big, Little, Plains, Sand, W W spar)	Sideoats grama
Buffalograss	Swirtchgrass - Blackwell
Green sprangletop	Wheatgrasses (bluebunch, crested, intermediate, pubescent, Siberian, slender, steambank, tall, thickspike, western)
Kleingrass	Wildrye grass - Russian

Maximize potential for grass establishment by consulting with the Natural Resource and Conservation Service of other government agencies or local experts concerning planting techniques and other cultural practices. Performance from Alligare MSM 60 may not always be satisfactory due to the inability of newly planted grass stands to sufficiently compete with weeds and the severeity of weed pressure in new grass stands. An additional herbicide application or mowing may be needed.

Use Rates – Grass Establishment

Do not use more than 1/10 oz/acre of Alligare MSM 60 for grass establishment in pasture and rangeland as crop injury could occur. Apply Alligare MSM 60 at 1/10 oz/acre on all labeled grasses except orchardgrass and Russian wildrye grass.

Application Timin – Grass Establishment

This product may be used on native and improved grasses such as bluestems, grama, bermudagrass, blue grass, orchardgrass, bromegrass, fescue and timothy, as follows:

Pasture Grass	**Minimum time from grass establishment to application**
Bermudagrass	**2 months**
Bluegrass, bromegrass, and orchardgrass	**6 months**
Timothy	**12 months**
Fescue	**24 months**

RESTRICTIONS

- **Do not apply Alligare MSM 60 preplant or preemergence to orchardgrass and Russian wildrye grass as severe crop injury may result.**

- **Do not apply this product to Ryegrass pasture (Italian or perennial) as injury to or loss of the pasture may result.**

Early postemergence to new planting

Apply Alligare MSM60 at 1/10 oz/acre plus a non-ionic surfactant at 2-4 pints/100 gallons on all labeled grasses anytime after grass emergence but only after the majority of grasses have at least 3 to 4 leaves because grass species vary in time of emergence.. Do not use a spray adjuvant other than non-ionic surfactant.

Postemergence to stands with 1-5 leaf grasses established the previous season

Apply Alligare MSM 60 at 1/10 oz/acre plus a non-ionic surfactant at 2-4 pints per 100 gallons of spray solution on all labeled grasses when most of the grasses have one or more leaves. Do not use a spray adjuvant other than non-ionic surfactant.

Application Information - Established Grasses

Apply Alligare MSM 60 up to 1 2/3 oz/acre to control or suppress broadleaf weeds in the following perennial native or improved grasses planted in pasture and rangeland.

Application Timing-Pasture Grasses

This product may be used on native and improved grasses such as bluestems, grama, bermudagrass, blue grass, orchardgrass, bromegrass, fescue and timothy, after grasses are established.

PRECAUTIONS

Fescue: This product may temporarily stunt fescue, cause it to turn yellow, or cause seedhead suppression. To minimize these symptoms, take the following precautions:

- Tank mix with 2,4-D.
- Use the lowest listed rate for target weeds.
- Use surfactant at 1/2 to 1 pt per 100 gal. of spray solution (1/16 to 1/8% v/v).
- Apply late in the spring or after the new growth is 5 to 6 inches tall, or in the fall.

Timothy: Timothy should be actively growing and at least 6” tall at application. Application under any other conditions may cause crop yellowing and/or stunting. To minimize these symptoms, take the following precautions:

- Tank mix with 2,4-D.
- Use the lowest listed rate for target weeds.
- Use surfactant at 1/2 pt per 100 gal. (1/16% v/v).
- Apply in the late summer or fall.

RESTRICTIONS

- Do not use surfactant when liquid nitrogen is used as a carrier.
- Do not use liquid fertilizer as the total carrier when spraying fescue pastures.

Other Pastures: Varieties and species of pasture grasses differ in their tolerance to herbicides. When using this product on a particular grass for the first time, limit use to one container. If no injury occurs throughout the season, larger acreage may be treated the following season. Broadleaf pasture species such as alfalfa and clover are highly sensitive to this product and will be severely stunted or injured.

Use Rates for Established Grasses in Pasture, Rangeland, and CRP

Apply up to 1 2/3 oz Alligare MSM 60 per acre as a broadcast application to established grasses in pasture, rangeland, and CRP. (**See Weeds Controlled table below for specific rates)**. For spot applications, use 1 oz per 100 gallons of water.

Do not apply more than 1 2/3 oz of Alligare MSM 60 per acre per year in pasture, rangeland, and CRP.

Refer to the Weeds Controlled section for a listing of the weeds controlled by Alligare MSM 60 and the appropriate use rate to obtain control.

Application Timing – Established Grasses in Pasture, Rangeland, and CRP

Apply Alligare MSM 60 to established native grasses such as bluestems and grama, and on other established grasses such as bermudagrass, bluegrass, orchardgrass, bromegrass, fescue and Timothy that were planted the previous growing season (or earlier) and are fully tillered, unless otherwise directed on this label.

Annual weeds: For best results, apply Alligare MSM 60 postemergence in Spring or early Summer to young, actively growing weeds or for winter annual weeds in late Summer or Fall.

Biennial weeds: For best results, apply Alligare MSM 60 to actively growing weeds from rosette up until bloom stages of growth.

Perennial weeds: For best results, apply Alligare MSM 60 when weeds are actively growing, at early flower, in Spring/Summer, or to regrowth in Fall.

RESTRICTION

- **Do not apply when ground is snow covered or frozen.**
- Do not apply Alligare MSM 60 to established Pensacola bahiagrass, ryegrass (Italian or perennial) and Garrison's creeping foxtail as severe injury to and/or loss of forage may occur.
- Do not use surfactant when liquid nitrogen is used as a carrier.
- Do not use spray adjuvant other than non-ionic surfactant.

Other Pasture and Rangeland Grasses

Varieties and species of forage grasses differ in their tolerance to herbicides. When using Alligare MSM 60 on a particular grass for the first time, limit use to a small area. If no injury occurs throughout the season, larger acreage may be treated the following season. Broadleaf forage species, such as alfalfa and clover, are highly sensitive to Alligare MSM 60 and will be severely stunted or injured by Alligare MSM 60.

SPOT TREATMENTS

Alligare MSM 60 may be used for use as spot treatment to control noxious and troublesome weeds on pasture, rangeland, and CRP.

TANK MIXTURES

This product may be tank mixed with other suitable registered herbicides to control weeds listed under **Weeds Suppressed**, weeds resistant to this product, or weeds not listed under **Weeds Controlled**. Read and follow all manufacturer's label instructions for the companion herbicide. If those instructions conflict with this label, do not tank mix with this product.

~~**Tank Mixtures in Pasture or Rangeland**~~

~~Apply a tank-mix combination with Gunslinger P+D, Triumph 22K, 2,4-D, Taskmaster, or Grassmaster in states where these products are labeled for postemergence control of the following weeds:~~

~~Annual marshelder~~
~~Burclover~~
~~Carolina horsenettle~~
~~Common cocklebur~~
~~Common milkweed~~
~~Common ragweed~~
~~Giant ragweed~~
~~Prickly lettuce~~
~~Western ragweed~~

~~For best results, apply this product at 1/10 to 2/10 oz per acre with one of the following products or generic equivalent.~~

~~**Product**~~	~~**Rate (fl oz/A)**~~
~~Gunslinger P+D~~	~~8 to 32~~
~~Triumph 22K~~	~~4 to 16~~
~~Taskmaster~~	~~8 to 32~~
~~Grassmaster~~	~~8 to 32~~
~~Triclopyr 4~~	~~8~~
~~2,4-D~~	~~8 to 16 (oz ae/A)~~

NON-AGRICULTURAL USES

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 industrial weed control and selective weed control in turf (industrial, unimproved only) are not within the scope of the Worker Protection Standard.

Keep unprotected persons out of treated area until sprays have dried.

NONCROP (INDUSTRIAL) SITES

Application Information

Apply Alligare MSM 60 for weed and brush control on private, public, or governmental noncrop and outdoor industrial sites such as airports, military installations, fence rows, roadsides and associated rights-of-way, petroleum tank farms, pipeline and utility rights-of-way, pumping stations, railroads, storage areas, plant sites. It also can be used to control certain noxious and troublesome weeds.

Consult the **Weeds Controlled** and **Brush Species Controlled** tables to determine the appropriate application rate.

Alligare MSM 60 may be applied in tank mixture with other herbicides labeled for use on noncrop sites. Fully read the entire label before using MSM 60 and follow all directions and restrictions.

Application Timing

Annual weeds: For best results, apply Alligare MSM 60 postemergence in Spring or early Summer to young, actively growing weeds or for winter annual weeds in late Summer or Fall.

Biennial weeds: For best results, apply Alligare MSM 60 to actively growing weeds from rosette up until bloom stages of growth.

Perennial weeds: For best results, apply Alligare MSM 60 when weeds are actively growing, at early flower, in Spring/Summer, or to regrowth in Fall.

Application may be made anytime of the year, except when the ground is snow-covered or frozen.

GRASS REPLANT INTERVALS

Following an application of Alligare MSM 60 to noncrop areas, the treated sites may be replanted with various species of grasses at the intervals listed below.

For soils with a pH of 7.5 or less observe the following replant intervals:		
Species	**Alligare MSM 60 rate (oz/ac)**	**Replant Interval (Months)**
Brome, Meadow	½ - 1	2
	1-2	2
Brome, Smooth	½ - 1	2
	1-2	4
Fescue, Alta	½ - 1	2
	1-2	4
Fescue, Red	½ - 1	2
	1-2	4
Fescue, Sheep	½ - 1	1
	1-2	4
Foxtail, Meadow	½ - 1	2
	1-2	4
Green Needlegrass	½ - 2	1
Orchardgrass	½ - 1	2
Russian wildrye	½ - 1	1
	1	2
	2	3
Timothy	½ - 1	2
	1-2	4
Wheatgrass, western	½ - 1	2
	1-2	3

For soils with a pH of 7.5 or greater observe the following replant intervals:		
Species	**Alligare MSM 60 rate (oz/ac)**	**Replant Interval (Months)**
Alkali sacaton	½ - 1	1
	1-2	3
Bluestem, Big	½ - 2	3
Brome, Mountain	½ - 1	1
	1-2	2
Grama, Blue	½ - 2	1
Grama, Sideoats	½	2
	>½	>3
Switchgrass	½	2
	>½	>3
Wheatgrass, Thickspike	½ - 2	1
Wheatgrass, Western	½ - 1	2
	1-2	3

The specified intervals are for applications made in the Spring to early Summer. Because Alligare MSM 60 degradation is slowed by cold or frozen soils, applications made in the late Summer or Fall should consider the intervals as beginning in the Spring following treatment.

Testing has indicated that there is considerable variation in response among the species of grasses when seeded into areas treated with Alligare MSM 60. If species other than those listed above are to be planted into areas treated with Alligare MSM 60 a field bioassay must be performed, or previous experience may be used, to determine the feasibility of replanting treated sites.

TURF, INDUSTRIAL (UNIMPROVED ONLY)

Application Information

Apply Alligare MSM 60 for selective weed control in unimproved industrial turf where certain grasses are well established and desired as ground cover. Alligare MSM 60 can also be used to control certain noxious and troublesome weeds in industrial turf.

In addition to conventional spray equipment, Alligare MSM 60 may also be applied with invert emulsion equipment. When using an invert emulsion, mix the prescribed rate of Alligare MSM 60 in the water phase.

Consult the **Weeds Controlled** table to determine those weeds controlled by the following directions.

Fescue and Bluegrass
Apply ¼ to ½ oz of Alligare MSM 60 per acre

Crested Wheatgrass and Smooth Brome
Apply ¼ to 1 oz of Alligare MSM 60 per acre

Bermudagrass
Apply ¼ to 2 oz of Alligare MSM 60 per acre.

Application Timing

Applications may be made at any time of the year, except when the soil is snow-covered or frozen. When a spring application is made on fescue or bluegrass, a second application may be made during the summer after full seedhead maturation.

Growth Suppression and Seedhead Inhibition (Chemical Mowing)

Application Information
Apply Alligare MSM 60 for growth suppression and seedhead inhibition in well-established fescue and bluegrass turf at the use rate of ¼ to ½ ounce per acre.

Application Timing

Application may be made after at least 2 to 3 inches of new growth has emerged until the appearance of the seed stalk.

PRECAUTIONS:

- This product may temporarily stunt tall fescue, cause it to turn yellow, or cause seedhead suppression. To minimize these symptoms, take the following precautions:
  - Use a tank mix with 2,4-D
  - Use the lowest specified rate for the target weeds
  - Use a non-ionic surfactant at ½ to 1 pint per 100 gallons of spray solution
  - Make application later in the spring after the new growth is 5 to 6 inches tall, or in the fall
- An application of Alligare MSM 60 may cause temporary discoloration (chlorosis) of the grasses. Use the lower specified rates for minimum discoloration.
- With fescue and bluegrass, sequential applications made during the same or consecutive growth periods (i.e. spring and fall) may result in excessive injury to turf.
- Excessive injury may result when Alligare MSM 60 is applied to turf that is under stress from drought, insects, disease, cold temperatures (winter injury) or poor fertility.

RESTRICTIONS:

- Do not use more than 4/10 oz of Alligare MSM 60 per acre in fescue
- Do not use a surfactant if liquid nitrogen is used as a carrier in fescue
- Do not use a spray adjuvant unless it is a non-ionic surfactant in fescue
- Do not use Alligare MSM 60 on bahiagrass.

NATIVE GRASSES

Apply Alligare MSM 60 for weed control and suppression in the establishment and maintenance of native grasses. It may be used where blue grama, bluestems (big, little, plains, sand, ww spar) bromegrasses (meadow), buffalograss, green sprangletop, Indiangrass, Kleingrass, lovegrasses (Atherstone, sand, weeping, Wilman), orchardgrass, sideoats grama, switchgrass (Blackwell), wheatgrass (bluebunch, intermediate, pubescent Siberian, slender, streamband, tall, thickspike, western), and Russian wildrye are established. It may also be applied over these species in the seedling stage, except for orchardgrass and Russian wildrye.

Application Information

Apply Alligare MSM 60 at the rate of 1/10 oz per acre **during establishment** for the control and suppression* of bur buttercup (testiculate), common purslane, common sunflower*, cutleaf eveningprimrose*, flixweed*, lambsquarters* (common and slimleaf), marestail*, pigweed (redroot and tumble), snow speedwell, tansymustard* and tumble mustard (Jim Hill mustard).

*Suppression is a visual reduction in weed competition (reduced population or vigor) as compared to untreated areas. Degree of suppression will vary with the size of weed and environmental conditions following treatment.

Application Timing

During establishment apply Alligare MSM 60 when weeds are in the seedling growth stage.

For seeded grasses, apply Alligare MSM 60 preplant or preemergence where the soil (seed bed) has been cultivated.

For established grasses, apply Alligare MSM 60 when weeds actively growing.

Annual weeds: For best results, apply Alligare MSM 60 postemergence in Spring or early Summer to young, actively growing weeds or for winter annual weeds in late Summer or Fall.

Biennial weeds: For best results, apply Alligare MSM 60 to actively growing weeds from rosette up until bloom stages of growth.

Perennial weeds: For best results, apply Alligare MSM 60 when weeds are actively growing, at early flower, in Spring/Summer, or to regrowth in Fall.

IMPORTANT PRECAUTIONS – NATIVE GRASSES

Grass species or varieties may differ in their response to this herbicide. Consult with your state experiment station, university, or extension agent or other local experts as to sensitivity to this herbicide. If inadequate information is available, limit the initial use of this product to a small area. The types of grass in a grass seed mixture will vary in tolerance to this product, so the grasses in the final stand may not reflect the same ratio as in the seed mix.

Do not apply to grass that is stressed by severe weather conditions, drought, low fertility, water-saturated soils, disease or insect damage as grass injury may result. Severe winter stress, drought, disease or insect damage before or following application also may result in grass injury.

BRUSH CONTROL

Application Information

Apply Alligare MSM 60 to control undesirable brush growing in noncrop areas. Applications may be made by air, high volume ground application, low volume ground application and ultra-low volume ground application. Except as noted for multiflora rose, Alligare MSM 60 should be applied as a spray to the foliage.

The application volume required will vary with the height and density of the brush and the application equipment used. Generally, aerial application will require 15 to 25 gallons of water per acre; high volume ground application will require 100 to 400 gallons of water per acre; low volume ground application will require 20 to 50 gallons of water per acre; and ultra-low volume ground application will require 10 to 20 gallons of water per acre.

Regardless of the application volume and equipment used, thorough coverage of the foliage is necessary to optimize results.

BRUSH SPECIES CONTROLLED		
Species	**High Volume Alligare MSM 60 Rate (oz/100 gal)**	**Broadcast Alligare MSM 60 Rate (oz/ac)**
Ash	1-2	1-3
Aspen	1-2	1-3
Black Locust	1-2	1-3
Blackberry	1-2	1-3
Camelthorn	1-2	1-3
Cherry	1-2	1-3
Cottonwood	1-2	2-3
Eastern Red Cedar	1-2	2-3
Elder	1-2	2-3
Elm	1-2	1-3
Firs	3	1-2
Hawthorn	1-2	1-3
Honeysuckle	1-2	½ - 1
Mulberry	1-2	2-3
Multiflora rose	1-2	1-3
Muscadine (wild grape)	1-2	2-3
Oaks	1-2	1-3
Ocean Spray (*Holodiscus*)	1-2	2-3
Osage orange	1-2	2-3
Red maple	1-2	2-3
Salmonberry	½ - 1	1-3
Snowberry	½ - 1	1-3
Spruce (black and white)	3	2-3
Thimbleberry	½ - 1	1-3
Tree of Heaven (*Ailanthus*)	1-2	1-2
Tulip Tree	½ - 1	1-3
Wild roses	½ - 1	1-3
Willow	½ - 1	1-3

For low volume and ultra-low volume ground applications, mix 4 to 8 oz of Alligare MSM 60 per 100 gallons of spray solution.

Application Timing
Make a foliar application of the specified rate of Alligare MSM 60 during the period from full leaf expansion in the spring until the development of full fall coloration on deciduous species to be controlled. Coniferous species may be treated at anytime during the growing season.

Tank Mix Combinations

This product may be tank mixed with other suitable registered herbicides to control weeds listed under **Weeds Suppressed**, weeds resistant to this product, or weeds not listed under **Weeds Controlled**. Read and follow all manufacturer's label instructions for the companion herbicide. If those instructions conflict with this label, do not tank mix with this product.

~~Glyphosate 5.4~~

~~After consulting the "Brush Species Controlled" table, tank mix the prescribed rate of Alligare MSM 60 with the rate of Glyphosate 5.4 (4 pound acid equivalent per gallon) indicated for the various application methods on the Glyphosate 5.4label. Refer to the Glyphosate 5.4 label for list of species controlled.~~

~~Ecomazapyr or Rotary~~

~~Combine 1 to 2 ozoz of Alligare MSM 60 with 1 to 4 pints of Ecomazapyr or Rotary per acre and apply as a broadcast spray. Aerial application should use a minimum of 15 gallon per acre spray volume. In addition to species listed above controlled by Alligare MSM 60, this combination controls black gum, hophornbeam, sassafras, sweetgum, Vaccinium species, dogwood, myrtle dahoon, hickories, and persimmon.~~

~~Triclopyr 3 or Triclopyr 4~~

~~After consulting the "Brush Species Controlled" table, tank mix the prescribed rate of Alligare MSM 60 with the rate of Triclopyr 3 or Triclopyr 4 indicated for the various application methods on the label. Refer to the Triclopyr 3 or Triclopyr 4 labels for list of species controlled.~~

~~Triumph 22K~~

~~After consulting the "Brush Species Controlled" table, tank mix the prescribed rate of Alligare MSM 60 with the rate of Triumph 22K indicated for the various application methods on the label. Refer to the Triumph 22K label for list of species controlled.~~

~~Triumph 22K* + Rotary or Ecomazapyr~~

~~Combine 1 to 1 ½ oz of Alligare MSM 60 with 2 to 8 fluid ozoz of Rotary or Ecomazapyr and 1 to 2 pints of Triumph 22K per 100 gallons of water. Apply as a high volume spray. The tank mix controls cherry, elms, box elder, maples, hackberry, redbud, ash, oaks (including shingle oak), black locust and sassafras.~~

~~*Triumph 22K is a restricted use pesticide.~~

Spotgun Basal Soil Treatment

For control of multiflora rose, prepare a spray suspension of Alligare MSM 60 by mixing 1 oz per gallon of water. Mix vigorously until the Alligare MSM 60 is dispersed and agitate periodically while applying the spray suspension. Apply the spray preparation with an exact delivery handgun applicator. Apply at the rate of 4 milliliters for each 2 feet of rose canopy diameter. Direct the treatment to the soil within 2 feet of the stem union. When treating large plants and more than one delivery is required, make applications on opposite sides of the plant. Applications should be made from early spring to summer.

IMPORTANT PRECAUTIONS--NONCROP BRUSH ONLY

When using tank mixtures of Alligare MSM 60 with companion herbicides, read and follow all use instructions, application rates, warnings and precautions appearing on the labels. Follow the most restrictive label instruction for each of the herbicides used.

WEEDS CONTROLLED

Alligare MSM 60 may be used to control many species of weeds, including noxious weeds, in forage grasses growing on pasture, rangeland, and CRP. Refer to the "Weeds Controlled" section of the package label or supplemental labeling for a listing of susceptible weed species. After the sprayer is calibrated, consult the package label or other supplemental labeling to select the application rate per acre of Alligare MSM 60 appropriate for the target weeds. Or mix one gram of Alligare MSM 60 per one gallon of water along with a suitable surfactant. Spray to the point of wetting the entire surface of the target weeds, approximately 40 gallons of solution per acre. When applied in this manner there is no grazing restrictions following the use of Alligare MSM 60. Applications may be made anytime of year, except when the soil is snow-covered or frozen.

Weeds (Pasture/Rangeland and Noncrop)

1/10 to 2/10 oz per acre	
Bitter sneezeweed Buttercup Carolina geranium Common broomweed Common mullein Curly dock Dandelion Marestail Plantain Wild garlic[1] Woolly croton[1]	
2/10 to 3/10 oz per acre	
Annual marshelder Blackeyed Susan Buckbrush[2] Burclover Common yarrow Dogfennel	Horsemint (beebalm) Musk thistle[1] Pensacola bahiagrass[1] Purple scabious Western snowberry[1] Wild carrot

1/3 to ½ oz per acre		
Annual sowthistle	Crown vetch	Sericea lespedeza
Aster	Dandelion	Shepherdspurse
Bahiagrass	Dogfennel	Silky crazyweed (locoweed)
Beebalm	False chamomile	Smallseed falseflax
Bittercress	Fiddleneck tarweed	Smooth pigweed
Bitter sneezeweed	Field pennycress	Sweetclover
Blackeyed-Susan	Flixweed	Tansymustard
Blue mustard	Goldenrod	Treacle mustard
Bur buttercup	Lambsquarters	Tumble mustard
Chicory	Marestail/horseweed[3]	Wild carrot
Clover	Maximillion sunflower	Wild garlic
Cocklebur	Miners lettuce	Wild lettuce
Common chickweed	Pennsylvania smartweed	Wild mustard
Common groundsel	Plains coreopsis	Wooly croton
Common purslane	Plantain	Wood sorrel
Common yarrow	Redroot pigweed	Yankeeweed
Conical catchfly	Redstem filaree	
Corn cockle	Rough fleabane	

½ to 1 oz per acre		
Blackberry	Dyer's woad	Plumeless thistle
Black henbane	Garlic mustard	Prostrate knotweed
Broom snakeweed[3]	Gorse	Rosering gaillardia
Buckhorn plantain	Halogeton	Seaside arrowgrass
Bull thistle	Henbit	Sericea lespedeza
Common crupina	Honeysuckle	Tansy ragwort
Common sunflower	Multiflora rose and other wild roses	Teasel
Curly dock	Musk thistle[3]	Wild caraway
Dewberry	Oxeye daisy	

1 to 2 oz per acre		
Common mullein	Old world climbing fern (Lygodium)	Salsify
Common tansy	Perennial pepperweed	Snowberry
Field bindweed[2]	Poison hemlock	St. Johnswort
Greasewood	Purple loosestrife	Sulfur cinquefoil
Gumweed	Purple scabious	Western salsify
Houndstongue	Scotch thistle	Whitetop (hoary cress)
Lupine	Scouringrush	Wild Iris

1 ½ to 2 oz per acre		
Canada thistle[2]	Russian knapweed[2]	Yellow toadflax[1]
Dalmatian toadflax[2]	Tall larkspur	
Duncecap larkspur	Wild parsnip	

3 to 4 oz per acre
Kudzu

[2] Suppression, which is a visual reduction in weed competition (reduced population or vigor) as compared to untreated areas. Apply as a full coverage spray for best performance.

[3] Apply in fall
**
[3] Certain biotypes of marestail/horsetail and musk thistle are resistant to Alligare MSM 60 and other ALS inhibitor herbicides and may be controlled by tank mixes with herbicides with a different mode of action.

Weeds/Brush Suppressed with Spot Application (Pasture/Rangeland)

1 oz per 100 Gal. of water	
Blackberry[1] Canada thistle[1]	Dewberry[1] Multiflora rosa[1]

~~SPECIFIC WEED PROBLEMS~~
~~Note: Thorough spray coverage is very important.~~

~~**Blue mustard, Flixweed, and Tansymustard:** For best results, apply this product in tank mixtures with 2,4-D or MCPA postemergence to mustards before bloom.~~

~~**Canada thistle and Sowthistle:** Apply this product with a surfactant, 2,4-D or MCPA in the spring after most thistles have emerged and are still small (rosette stage to 6" elongated stems) and actively growing to reduce the ability of emerged thistles to compete with the crop.~~

~~For spot applications to Canada thistle in pasture and rangeland, apply as foliar spray once plant is fully leafed. Apply to runoff and include a surfactant in the spray mix at 1 to 2 qt per 100 gal. of spray solution. Complete coverage of all foliage and stems is required for control. On tall, dense stands, it may be necessary to spray from both sides to obtain adequate coverage.~~

~~**Corn gromwell and Prostrate knotweed:** Apply this product with a surfactant when weeds are actively growing, are not larger than 2" tall and when crop canopy will allow thorough coverage. Tank mixing with 2,4-D or MCPA can improve results.~~

~~**Kochia, Russian thistle, Prickly lettuce:** Resistant biotypes of these weeds are known to occur. For best results, use in a tank mix with Taskmaster plus 2,4-D or bromoxynil plus 2,4-D (such as 3/4-1 pt Buctril + 1/4 – 3/8 lb active 2,4-D ester). Apply in the spring when kochia, Russian thistle, and prickly lettuce are less than 2" tall or 2" across and are actively growing. Refer to the Tank Mixtures section of this label for additional details.~~

~~**Sunflower (common/volunteer):** Apply with a surfactant, 2,4-D or MCPA after most sunflowers have emerged, are 2" to 4" tall and are actively growing. Use spray volumes of at least 3 gal./acre by air or 5 gal./acre by ground (10 gal/acre by ground in pastures).~~

~~**Wild buckwheat:** For best results, apply in a tank mix with MCPA when plants have no more than 3 true leaves (not counting the cotyledons). If plants are not actively growing, delay treatment until environmental conditions favor active weed growth.~~

Musk thistle: Apply at 2/10 to 3/10 oz per acre in the spring or early summer before flowering or in the fall after newly emerged plants have reached the rosette stage of growth. Fall applications should be made before the soil freezes.

Multiflora rose: For best control, apply as a broadcast application when multiflora rose is less than 3" tall. Application should be made in the spring, soon after multiflora rose is fully leafed.

For spot application in pasture and rangeland, apply as a foliar spray once plant is fully leafed. Apply to runoff. Include a surfactant in the spray mix at 1 to 2 qt per 100 gal of spray solution. Complete coverage of all foliage and stems is required for control. On tall, dense stands, it may be necessary to spray from both sides to obtain adequate coverage.

Blackberry and Dewberry: For spot applications in pasture and rangeland, apply as a foliar spray once plant is fully leafed. Apply to runoff and include a surfactant in the spray mix at 1 to 2 qt per 100 gal of spray solution. Complete coverage of all foliage and stems is required for control. On tall, dense stands, it may be necessary to spray from both sides to obtain adequate coverage.

Pensacola bahiagrass control in established bermudagrass pasture: Apply at 3/10 oz per acre plus surfactant after green-up in the spring but before bahiagrass seedhead formation. Apply when moisture is sufficient to enhance grass growth.

This product effectively removes bahiagrass from bermudagrass pastures. In highly infested pastures, Alligare MSM 60 clears the areas of useful forage until the bermudagrass has time to cover the area. Therefore, do not apply to an entire farm or ranch in one year. Treatments should be made to different areas of a farm over a period of years. Pastures may be reestablished more quickly by fertilization (particularly with nitrogen and potassium) and/or replanting.

Under heavy bahiagrass pressure, grazing pressure, or adverse weather conditions (heat and drought), some regrowth of weeds may occur.

Note: Do not use this product to control common or Argentine bahiagrass. Do not apply this product in liquid fertilizer solutions for Pensacola bahiagrass control, as poor control and/or regrowth may occur.

Sericea lespedeza: Apply at 4/10 oz per acre with a surfactant at 1 to 2 qt per 100 gal of total spray solution. For best results, make applications to sericea lespedeza beginning at flower bud initiation through the full bloom stage of growth.

Note: Do not use if drought conditions exist at intended time of applications.

Wild Garlic: Apply 1/10 to 2/10 oz per acre in early spring when wild garlic is less than 12" tall with 2" to 4" of new growth.

Wooly Croton: Apply 1/10 to 2/10 oz per acre in late spring or early summer at preemergence through 2 true leaf stage.

Tank Mix Combinations for Problem Weed Control

This product may be tank mixed with other suitable registered herbicides to control weeds listed under **Weeds Suppressed**, weeds resistant to this product, or weeds not listed under **Weeds Controlled**. Read and follow all manufacturer's label instructions for the companion herbicide. If those instructions conflict with this label, do not tank mix with this product.

~~**Dicamba + 2,4-D**~~

~~Combine ½ oz of Alligare MSM 60 with 8 fluid oz of dicamba and 16 fluid oz of 2,4-D to control kochia. Combine ½ oz of Alligare MSM 60 with 8 oz of dicamba and 16 fluid oz of 2,4-D to control spotted knapweed. Combine 1 oz of Alligare MSM 60 with 8 fluid oz of dicamba and 16 fluid oz of 2,4-D to suppression rush skeletonweed.~~

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store product in original container only. Store in a cool, dry place.
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. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. 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.

IMPORTANT: Read the information below before using this product. If the terms are not acceptable, you should return the unopened product container immediately for a complete refund.

LIMITED WARRANTY, TERMS OF SALE, AND LIMITATION OF LIABILITY

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. 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 should 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 permitted by law, all such risks are assumed by the user.

Limitation of Liability: 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 fullest extent permitted by 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.

Assert and Avenge are registered trademarks of BASF Corp..
Roundup is a registered trademarks of Monsanto Company.
Embark is a registered trademark of PBI Gordon Corporation.
Express, Harmony Extra, and Velpar are registered trademarks of FMC Corp..
Buctril is a registered trademark of Bayer Crop Science.
Raindrop is a registered trademark of Delevan Corp.

REV 012226