

U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505P) Ariel Rios Building 1200 Pennsylvania Ave., NW Washington, D.C. 20460 EPA Reg. Number:

Date of Issuance:

85588-13

APR - 12000

NOTICE OF PESTICIDE:

___ Registration ___ Reregistration (under FIFRA, as amended) Term of Issuance: unconditional

Name of Pesticide Product:

Agsurf MSM

Name and Address of Registrant (include ZIP Code):

Agsurf Corporation 1209 Orange Street Wilmington, DE 19801

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is registered in accordance with FIFRA provided that you:

- 1. Submit and/or cite all data required for registration review/reregistration of your product when the Agency requires all registrants of similar products to submit data.
- 2. Make the following label revisions:
 - a. Revise "EPA REG. NO.85588-xxx" to "EPA REG. NO. 85588-13"
 - b. Revise "Inert Ingredients" to "Other Ingredients" in the ingredient statement.
 - c. Add the word, "exist" after "If no such instructions for washables" on page 1.
 - d. Add the following statements to the 'User Safety Recommendations' box: "Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing."
 - "Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing."

Continued on Page 2	
Signature of Approving Official:	Date:
Jim Tompkins	
Project Manager 25	APR - 1 2010
Herbicide Branch	
Registration Division (7505P)	

- e. Revise the heading, "GENERAL INFORMATION" to "PRODUCT INFORMATION" as the term "General" is an implied safety claim that makes all associated text unenforceable.
- f. Revise "Agsurf MSM herbicide should be used only in accordance with recommendations on this label or in separate published Agsurf recommendations. Agsurf will not be responsible for losses or damages resulting from the use of this product in any manner not specifically recommended by Agsurf." to the following:
 - "Agsurf MSM herbicide <u>must</u> be used only in accordance with <u>directions</u> on this label or in separate published Agsurf <u>directions</u>. Agsurf will not be responsible for losses or damages resulting from the use of this product in any manner not <u>specified on this label</u>."
- g. Revise all instances of 'recommended rates' throughout the label to either 'specified' or 'listed' rate(s).
 - 1. See the third bullet under 'Fescue Precautions' and 'Timothy Precautions' sections
 - 2. First sentence under 'Application Information for Spot Applications'
 - 3. First sentence under 'Application Timing for Spot Applications'
- h. Revise "Read and follow all manufacturer's label recommendations for the companion herbicide. If those recommendations conflict with this label, ..." to the following:
 - "Read and follow all manufacturer's label <u>instructions</u> for the companion herbicide. If those <u>instructions</u> conflict with this label..."
- i. Add the container disposal and residue removal instructions per PR Notice 2007-4 to the Storage and Disposal section of the label.
- j. Revise the statement, "To the fullest extent permitted by law..." with "To the fullest extent consistent with applicable law..." throughout the warranty/liability section.
- 3. Submit one (1) copy of the revised final printed label for the record.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

AgsurfTM MSM

herbicide

Dry Flowable

For Use on Pastures, Rangeland or CRP

Active Ingredient			By Weight
Metsulfuron Methyl Methyl 2-[[[(4-methoxy-6-methyl			-
-1,3,5-triazin-2yl)amino]carbonyl]			
amino]sulfonyl]benzoate			60%
		···	40%
Inert Ingredients			
TOTAL			100%
EPA Reg. No. 85588-XXX			(
-	ACCEPTED		(
EPA Est. No.	with COMMENTS APR 1 - 2010		(((
	in EPA Letter Dated	((((((((
	Under the Federal Insecticide.		ſ
	Fungicide, and Rodenticide Act	,	
	as amended, for the pesticide	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(((((((((((((((((((
	registered under EPA Reg. No.	(re	(((((((((((((((((((
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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 five 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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-888-261-1410 for emergency medical treatment information.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION! Causes eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing dust or spray mist.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

Shoes plus socks.

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

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

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 equipment or when disposing of equipment washwaters.

IMPORTANT INFORMATION

PESTICIDE HANDLING

- · Calibrate sprayers only with clean water away from the well site.
- · Make scheduled checks of spray equipment.
- · Assure accurate measurement of pesticides by all operation employees.
- · Mix only enough product for the job at hand.
- · Avoid overfilling of spray tank.
- Do not discharge excess material on the soil at a single spot in the field or mixing/loading station.
- Dilute and agitate excess solution and apply at labeled rates/uses.
- · Avoid storage of pesticides near well sites.
- When triple rinsing the pesticide container, be sure to add the rinsate to the spray mix.

DIRECTIONS FOR USE

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

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

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 GFR part 170. This 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 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 contains 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.

AgsurfTM MSM herbicide should be used only in accordance with recommendations on this label or in separate published Agsurf recommendations.

Agsurf will not be responsible for losses or damages resulting from the use of this product in any manner not specifically recommended by Agsurf.

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

GENERAL INFORMATION

AgsurfTMMSM herbicide is recommended for use on land primarily dedicated to the production of pasture, rangeland or CRP.

AgsurfTM MSM herbicide is recommended for use on pastures, rangeland or CRP as well as selected uncultivated agricultural areas (fence rows, farmyards, and rights-of-way) directly adjacent to treated pastures or rangeland, where grazing or harvesting for animal feed may occur. Check with your state extension or Department of Agriculture before use, to be certain AgsurfTM MSM herbicide is registered in your state.

Do not use Agsurf™ MSM herbicide in the following counties of Colorado: Alamosa, Conejos, Costilla, RioGrande, and Saquache.

AgsurfTM MSM herbicide is a dry-flowable granule that controls or suppresses broadleaf weeds and brush in pasture, rangeland and CRP. AgsurfTM MSM herbicide is mixed in water or can be preslurried in water and added to liquid nitrogen carrier solutions and applied as a uniform broadcast spray. A spray adjuvant should be used in the spray mix unless otherwise specified on this label. AgsurfTM MSM herbicide is noncorrosive, nonflammable, nonvolatile, and does not freeze.

AgsurfTM MSM herbicide controls weeds by preemergence and postemergence activity. For best results, apply AgsurfTM MSM herbicide to young, actively growing weeds. Weeds hardened off by cold weather or drought stress may not be controlled. The

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use rate depends upon the weed spectrum and size of weeds at application. The degree and duration of control may depend on the following factors:

- · weed spectrum and infestation intensity
- · weed size at application
- · environmental condition at and following treatment

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.

Environmental Conditions and Biological Activity

AgsurfTM MSM herbicide is absorbed through the foliage and roots of broadleaf weeds, rapidly inhibiting their growth. Leaves of susceptible plants appear chlorotic from 1 to 3 weeks after application and the growing point subsequently dies. The final effects on annual weeds are evident about 4 to 6 weeks after application. The ultimate effects on perennial weeds and woody plants occur in the growing seasons following application.

One to two inches of rainfall or sprinkler irrigation (enough to wet the top 2-3 inches of soil profile) may be needed to move AgsurfTM MSM herbicide into the weed root zone before the next flush of weeds emerge. The amount of moisture required for sufficient activation increases with crop or weed residue and for finer textured soils. Without sufficient rainfall or sprinkler irrigation to move AgsurfTM MSM herbicide into the weed root zone, weeds that germinate after treatment will not be controlled.

Application of AgsurfTM MSM herbicide provides the best control in vigorously growing grasses that shede competitive weeds. Weed control in areas of thin grass may not be as satisfactory. However, a grass canopy that is too dense at application can intercept spray and reduce weed control.

AgsurfTM MSM herbicide is safe to grasses under normal conditions. However, grasses that are stressed from adverse environmental conditions (such as extreme temperatures or moisture), abnormal soil conditions, or cultural practices may be injured by applications of AgsurfTM MSM herbicide. In addition, different species of grass may be sensitive to treatment with AgsurfTM MSM herbicide under otherwise normal conditions. Application of AgsurfTM MSM herbicide to these species may result in injury.

In warm, moist conditions, the expression of herbicide symptoms is accelerated in weeds; in cold, dry conditions, expression of herbicide symptoms is delayed. In addition, weeds and brush hardened-off by drought stress are less susceptible to AgsurfTM MSM herbicide.

Weed and brush control or suppression may be reduced if rainfall, snowfall or sprinkler irrigation occurs within 4 hours after application.

APPLICATION INFORMATION FOR GRASS ESTABLISHMENT IN PASTURE, RANGELAND AND CONSERVATION RESERVE PROGRAM (CRP)

AgsurfTM MSM herbicide is recommended for the control or suppression of broadleaf weeds to aid in the establishment of the following perennial native or improved grasses planted in pasture, rangeland or acres enrolled in the Conservation Reserve Program (CRP):

```
Blue Grama
                                                                 Sideoats grama
Bluestems -
                                                                 Switchgrass -
  big
                                                                   blackwell
  little
                                                                 Wheatgrasses -
  plains
                                                                   bluebunch
  sand
                                                                   crested
  WW spar
                                                                   intermediate
Buffalograss
                                                                   pubescent
Green sprangletop
                                                                    Siberian
Indiangrass
                                                                   slender
Kleingrass
                                                                   streambank
Lovegrasses -
                                                                   tall
  atherstone
                                                                    thickspike
  sand
                                                                    western
  weeping
  wilman
                                                                 Wildrye grass -
Orchardgrass
                                                                   Russian
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Maximize potential for grass establishment by consulting with the Natural Resources and Conservation Service or other local experts concerning planting techniques and other cultural practices.

Due to the inability of newly planted grass stands to sufficiently compete with weeds, and the severity of weed pressure in new grass stands, performance from AgsurfTM MSM herbicide may not always be satisfactory. An additional herbicide application or mowing may be needed.

Use Rates and Application Timing for Grass Establishment in Pasture, Rangeland and CRP

Preplant (prior to planting) or Preemergence (after planting but before grass emergence)

Apply AgsurfTM MSM herbicide preplant or preemergence at 1/10 ounce/acre on all labeled grasses except orchardgrass and Russian wildrye grass. Do not apply AgsurfTM MSM herbicide preplant or preemergence to orchardgrass and Russian wildrye grass as severe crop injury may result.

Early postemergence to new plantings

Apply AgsurfTM MSM herbicide at 1/10 ounce/acre, plus a non-ionic surfactant at the rate of 2 to 4 pints/100 gallons of spray solution on all labeled grasses anytime after grass emergence.

Do not use a spray adjuvant other than non-ionic surfactant.

Because grass species differ in time of emergence, apply only after majority of grasses are in the 3 to 4 leaf stage.

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

Apply AgsurfTM MSM herbicide at 1/10 ounce/acre plus a non-ionic surfactant at the rate of 2 to 4 pints/100 gallons of spray solution, on all labeled grasses when the majority of the grasses have one or more leaves.

Do not use a spray adjuvant other than non-ionic surfactant.

APPLICATION INFORMATION FOR ESTABLISHED GRASSES IN PASTURES, RANGELAND AND CONSERVATION RESERVE PROGRAM (CRP)

Use Rates for Established Pastures, Rangeland and CRP

Apply 1/10 to 1 ounce AgsurfTM MSM herbicide per acre as a broadcast application to established grasses in pasture, rangeland and CRP. For spot applications, use 1 ounce per 100 gallons of water. Do not apply more than 1 2/3 ounces of AgsurfTM MSM herbicide per acre per year.

Application Timing—Established Pastures, Rangeland and CRP

AgsurfTM MSM herbicide may be applied to established native grasses such as bluestems and grama, and on other established pasture 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. Specific application timing information on several of these grass species follows:

Minimum time from grass establishment Pasture Grass to Agsurt™ MSM herbicide application	
Bermudagrass 2 months Bluegrass, bromegrass, and orchardgrass 6 months	
Finothy Fescue 24 months	

Fescue Precautions:

Note that AgsurfTM MSM herbicide may temporarily stunt fescue, cause it to turn yellow, or cause seedhead suppression. To minimize these symptoms, take the following precautions:

- do not use more than 4/10 ounce/A of Agsurf™ MSM herbicide
- tank mix Agsurf™ MSM herbicide with 2,4-D
- · use the lowest recommended rate for target weeds
- use a non-ionic surfactant at 1/2 to 1 pint per 100 gallons of spray solution (1/16 to 1/8% v/v)
- make application later in the spring after the new growth is 5 to 6 inches tall, or in the fall
- do not use surfactant when liquid nitrogen is used as a carrier
- · do not use a spray adjuvant other than non-ionic surfactant

The first cutting yields may be reduced due to seedhead suppression resulting from treatment with Agsurf™ MSM herbicide.

Timothy Precautions:

Timothy should be at least 6" tall at application and be actively growing. Applications of AgsurfTM MSM herbicide to timothy under any other conditions may cause crop yellowing and/or stunting. To minimize these symptoms, take the following precautions:

do not use more than 4/10 ounce/acre of Agsurf™ MSM herbicide

- tank mix AgsurfTM MSM herbicide with 2,4-D
- · use the lowest recommended rate for target weeds
- use a non-ionic surfactant at 1/2 pint per 100 gallons (1/16% v/v)
- · make applications in the late summer or fall
- · do not use surfactant when liquid nitrogen is used as a carrier
- · do not use a spray adjuvant other than non-ionic surfactant

Application of Agsurf™MSM herbicide to Pensacola bahiagrass; ryegrass (Italian or perennial) and Garrison's creeping foxtail may cause severe injury to and/or loss of pastures.

Other Pasture and Rangeland Grasses: Varieties and species of forage grasses differ in their tolerance to herbicides. When using AgsurfTM MSM herbicide 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 pasture species, such as alfalfa and clover, are highly sensitive to AgsurfTM MSM herbicide and will be severely stunted or injured by AgsurfTM MSM herbicide.

WEEDS AND BRUSH CONTROLLED OR SUPPRESSED IN PASTURES, RANGELAND OR CRP

Unless otherwise directed, treat when weeds are less than 4" tall or in diameter and are actively growing:

Before using AgsurfTMMSM herbicide, carefully consider your crop rotation plans and options. For rotational flexibility, do not treat all of your pasture, rangeland or CRP acres at the same time.

1/10 ounce per acre

Bitter sneezeweed Blue/purple mustard* Broomweed, common Bur buttercup (testiculate) Buttercup Canada thistle*‡ Carolina geranium Coast fiddleneck (tarweed) Common chickweed Common mullein Common purslane Conical catchfly Corn gromwell*‡ Cowcockle Curly dock Cutleaf evening primrose*‡ Dandelion False chamomile Field pennycress (fanweed) Filaree Flixweed* Groundsel (common) Henbit Kochia* Lambsquarters (common, slimleaf)

Mayweed chamomile Miners lettuce Pigweed (redroot, smooth, tumble) Plains coreopsis Plantain Prickly lettuce* Prostrate knotweed*‡ Russian thistle* Shepherd's purse Smallseed falseflax Smartweed (green, ladysthumb, pale) Snow speedwell Tansymustard* Treacle mustard (Bushy Wallflower) Tumble/Jim Hill mustard Volunteer sunflower* Waterpod Wild buckwheat*‡ Wild garlic* Wild mustard Wild sunflower*‡ Woolly croton*

Marestail

2/10 ounce per acre

Annual marshelder Blackeyed-Susan Buckbrush‡ Burclover Common yarrow Dogfennel Horsemint (beebalm) Musk thistle* Purple scabious Scotch thistle* Western snowberry‡ Wild carrot



3/10 to 1/2 ounce per acre

Annual sowthistle
Aster
Bittercress
Chicory
Clover
Cocklebur
Corn cockle
Crown vetch
Goldenrod
Maximillion sunflower
Multiflora rose*±

Pensacola bahiagrass*
Redstem filaree
Rough fleabane
Seaside arrowgrass
Sericea lespedeza*
Silky crazyweed
(locoweed)
Sweet clover
Wild lettuce
Wood sorrel
Yankeweed

1/2 to 1 ounce per acre

Pennsylvania smartweed

Black henbane
Blackberry
Broom snakeweed*
Buckhorn plantain
Common crupina
Dewberry
Dyer's woad
Gorse
Halogeton

Honeysuckle
Multiflora rose and other
wild roses*
Plumeless thistle
Rosering gaillardia
Spotted knapweed*
Teasel
Wild caraway
Yucca*‡

1 ounce per acre

Bull thistle Common tansy Field bindweed‡ Gumweed Houndstongue Perennial Pepperweed Poison hemlock Purple loosestrife Rush skeletonweed*‡
Salsify
Scouringrush
Snowberry
St. Johnswort
Western salsify
Whitetop (hoary cress)

- * See the Specific Weed Problems section.
- ‡ Weed suppression is a reduction in weed competition (reduced 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.

SPOT APPLICATIONS FOR THE SUPPRESSION‡ OF WEEDS AND BRUSH APPLICATION INFORMATION FOR SPOT APPLICATIONS

AgsurfTM MSM herbicide is recommended for the suppression of the following undesirable weed and brush species growing in pastures, rangeland or CRP using spot applications. Spot applications may be made by using equipment such as back pack sprayers or hand sprayers. AgsurfTM MSM herbicide should be applied as a spray to the foliage and stems. The application volume required will vary with the height and density of the brush and the application equipment used. Regardless of the application volume and equipment used, thorough coverage of the foliage and stems is necessary to optimize results. On tall, dense stands, it is often necessary to spray from both sides to obtain adequate coverage. Add a non-ionic surfactant having at least 80% active ingredient at 2-4 pints per 100 gallons of spray solution.

Use Rates for Spot Applications

Mix 1 ounce of AgsurfTM MSM herbicide per 100 gallons of water.

Application Timing for Spot Applications

Make a foliar application of the recommended rate of AgsurfTM MSM herbicide during the period from full leaf expansion in the spring until the development of full fall coloration.

Weed and Brush Species Suppressed with Spot Applications

Blackberry‡
Canada Thistle*‡

Dewberry‡ Multiflora Rose*‡

- * See the Specific Weed Problems section.
- ‡ Weed and brush suppression is a reduction in weed and brush competition (reduced 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.

SPECIFIC WEED PROBLEMS

Note: Thorough spray coverage of all weed species listed below is very important.

Blue/Purple Mustard, Flixweed, and Tansymustard: For best results, apply Agsurf™ MSM herbicide tank mixtures with 2,4-D or MCPA postemergence to mustards, but before bloom.

Broom Snakeweed: For best results, apply AgsurfTM MSM herbicide at 1/2 ounce/acre in the fall. Applications of AgsurfTM MSM herbicide in the spring will provide suppression only.

Canada Thistle: For suppression with broadcast applications, apply either AgsurfTM MSM herbicide or AgsurfTM MSM herbicide plus 2,4-D or MCPA in the spring after the majority of thistles have emerged and are small (rosette stage to 6" elongating stems) and actively growing. The application will inhibit the ability of emerged thistles to compete with grass. For suppression with spot applications, apply as a foliar spray once plant is fully leafed.

Corn Gromwell, Cutleaf Evening Primrose and Prostrate Knotweed: Apply AgsurfTM MSM herbicide when weeds are actively growing, are no larger than 2" tall, and when crop canopy will allow thorough coverage. Tank mixing 2,4-D or MCPA with AgsurfTM MSM herbicide can improve results.

Kochia, Russian thistle, Prickly lettuce: Naturally occurring resistant biotypes of these weeds are known to occur. For best results, use AgsurfTM MSM herbicide in a tank mix with dicamba (such as "Banvel" or "Clarity") and 2,4-D. AgsurfTM MSM herbicide should be applied in the spring when kochia, Russian thistle, and prickly lettuce are less than 2" tall or 2" across and are actively growing.

Multiflora Rose: For control with broadcast applications, apply AgsurfTM MSM herbicide at 1/2 ounce per acre as a broadcast application. For control with foliar applied spot applications, apply AgsurfTM MSM herbicide at 1 ounce per 100 gallons of water.

For suppression with broadcast applications, apply AgsurfTM MSM herbicide at rates of 3/10 up to 1/2 ounce per acre. Applications should be made in the spring, soon after multiflora rose is fully leafed and is less than 3 feet tall.

For control with Spotgun Basal Soil Treatment, prepare a spray suspension of AgsurfTM MSM herbicide by mixing 1 ounce per gallon water. Mix vigorously until the AgsurfTM MSM herbicide 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.

Musk Thistle, Scotch Thistle: Apply AgsurfTM MSM herbicide at 2/10 to 3/4 ounce per acre in the spring or early summer prior to flowering or in the fall after newly emerged plants have reached the rosette stage of growth. Certain biotypes of Musk and Scotch Thistles are less sensitive to AgsurfTM MSM herbicide and may not be controlled with AgsurfTM MSM herbicide rates less than 3/4 ounce per acre. Consult with your local Agsurf representative, dealer or applicator for specific use rate and tank mix recommendations for your area. Fall applications should be made before the soil freezes.

Pensacola bahiagrass control in established Bermudagrass pasture: Apply AgsurfTM MSM herbicide at 3/10 ounce per acre after green-up in the spring but before bahiagrass seedhead formation. Application should be made when moisture is sufficient to enhance grass growth.

AgsurfTM MSM herbicide is very effective for removal of bahiagrass from bermudagrass pastures. In highly infested pastures, the use of AgsurfTM MSM herbicide can clear the areas of useful forage until the bermudagrass has time to cover the area. Therefore, AgsurfTM MSM herbicide treatments should be spread out over a period of years. Do not apply to an entire farm or ranch in one year. Fertilization (particularly with nitrogen and potassium) and/or replanting may accelerate the process of reestablishment of bermudagrass.

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

AgsurfTM MSM herbicide should not be used for the control of common or Argentine bahiagrass. Also, AgsurfTM MSM herbicide should not be applied in liquid fertilizer solutions for Pensacola bahiagrass control, as poor control and/or regrowth may occur.

Rush skeletonweed: For best results, apply AgsurfTM MSM herbicide at 1 ounce per acre with 8 fluid ounces of dicamba (such as "Banvel" or "Clarity") and 16 fluid ounces of 2,4-D.

Sericea lespedeza: For best results, apply AgsurfTM MSM herbicide at 4/10 to 1/2 ounce per acre beginning at flower bud initiation through the full bloom stage of growth. Consult with your local Agsurf representative, dealer or applicator for specific use rate recommendations for your area. Do not make applications if drought conditions exist at intended time of application.

Spotted Knapweed: For best results, apply AgsurfTM MSM herbicide at 1/2 ounces per acre with 8 fluid ounces of dicamba (such as "Banvel" or "Clarity") and 16 ounces active ingredient per acre of 2,4-D.

Sunflower (wild or volunteer): Apply either AgsurfTM MSM herbicide or AgsurfTM MSM herbicide plus 2,4-D or MCPA after the majority of sunflowers have emerged, are 2" to 4" tall and are actively growing. Use spray volumes of at least 3 gallons by air or 10 gallons by ground.

Wild Buckwheat: For best results, apply AgsurfTM MSM herbicide plus 2,4-D or 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.

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

Woolly Croton: Apply 1/10 to 2/10 ounce per acre of AgsurfTM MSM herbicide in the late spring or early summer from cotyledon through 2 true leaf stage.

Yucca: For best results, apply AgsurfTM MSM herbicide at 1/2 to 3/4 ounce per acre plus 2,4-D, dicamba, dicamba plus 2,4-D, or "Remedy" from two weeks before blooming to two weeks after blooming.

Spray Adjuvants

Unless otherwise directed, applications of AgsurfTM MSM herbicide must include either a crop oil concentrate or a nonionic surfactant. In addition, an ammonium nitrogen fertilizer can be used unless specifically prohibited by tank mix partner labeling. Consult local Agsurf fact sheets, technical bulletins, and service policies prior to using other adjuvant systems. If another herbicide is tank mixed with AgsurfTM MSM herbicide, select adjuvants authorized for use with both products. Products must contain only EPA-exempt ingredients (40 CFR 1001).

Petroleum Crop Oil Concentrate (COC) or Modified Seed Oil (MSO)

- Apply at 1% v/v (1 gallon per 100 gallons spray solution) or 2% under arid conditions.
- MSO adjuvants may be used at 0.5% v/v (0.5 gallons per 100 gallons spray solution) if specifically noted on adjuvant product labeling.
- Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.

Nonionic Surfactant (NIS)

- Apply at 0.25% v/v (1 quart per 100 gallons spray solution) or 0.5% under arid conditions.
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12.

Ammonium Nitrogen Fertilizer

• Use 2 quarts/acre of a high-quality urea ammonium nitrate (UAN), such as 28%N or 32%N, or 2 pounds/acre of a spray grade ammonium sulfate (AMS). Use 4 quarts/acre UAN or 4 pounds/acre AMS under arid conditions.

Special Adjuvant Types

- Combination adjuvant products may be used at doses that provide the required amount of NIS, COC, MSO and/or ammonium nitrogen fertilizer. Consult product literature for use rates and restrictions.
- In addition to the adjuvants specified above, other adjuvant types may be used if they provide the same functionality and have been evaluated and approved by Agsurf. Consult separate Agsurf technical bulletins for detailed information before using adjuvant types not specified on this label.

Exceptions: (1) On Fescue pastures use 1/2 to 1 pint non-ionic surfactant per 100 gallons; (2) on Timothy pastures use 1/2 pint non-ionic surfactant per 100 gallons.

Antifoaming agents may be used if needed.

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

Ground Application

To obtain optimum spray distribution and thorough coverage, use flat fan or low-volume flood nozzles.

For flood nozzles on 30" spacings, use at least 10 gallons per acre (GPA), flood nozzles no larger than TK10 (or equivalent), and a pressure of at least 30 pounds per square inch (psi). For 40" nozzle spacings, use at least 13 GPA; for 60" spacings, use at least 20 GPA. It is essential to overlap the 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 10 GPA for broadcast applications to pasture, rangeland or CRP.

Use 50-mesh screens or larger.

Aerial Application

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

Use a minimum of 2 GPA. In Idaho, Oregon and Washington use a minimum of 3 GPA.

When applying AgsurfTM MSM herbicide 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

AgsurfTM MSM herbicide is measured using the AgsurfTM MSM herbicide volumetric measuring cylinder. The degree of accuracy of this cylinder varies by +/- 7.5%. For more precise measurement, use scales calibrated in ounces.

TANK MIXTURES

With Insecticides and Fungicides

AgsurfTM MSM herbicide may be tank mixed or used sequentially with insecticides and fungicides registered for use on pastures, rangeland or CRP.

However, under certain conditions (drought stress or cold weather), tank mixes or sequential applications of AgsurfTM MSM herbicide with organophosphate insecticides (such as parathion) may produce temporary grass yellowing or, in severe cases, grass injury.

The potential for grass injury is greatest when wide fluctuations in day/night temperatures occur just prior to or soon after application.

Test these mixtures in a small area before treating large areas.

Do not use AgsurfTM MSM herbicide plus Malathion, as grass injury will result.

With Herbicides

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

Herbicide Tank Mixtures for Pastures or Rangeland:

For postemergence control of the following weeds in pastures or rangeland:

Annual marshelder	Common milkweed
Burclover	Common ragweed
Carolina horsenettle	Giant ragweed
Common cocklebur	Western ragweed

Apply AgsurfTM MSM herbicide at 1/10 to 1 ounce per acre in a tank mix with one of the following products. Refer to companion herbicide labels to confirm that the product is labeled for control of the weeds listed above and is registered for use in your state.

Product Rate (ounce product/A)		
"Grazon" P+D	8 to 32	
"Tordon" 22K	4 to 16	
"Weedmaster"	* 8 to 32	
"Remedy"	8	
"Amber"	0.35*	

^{*} For suppression of Western Ragweed In Phenoxy Restricted and Herbicide Regulated Counties

Product Rate (ounce A.I./A)		
2,4-D	8 to 16	
Dicamba (such as "Banvel"	2 to 16	
or "Clarity")		
2,4-D + Dicamba	1 + 2.87 to	
•	4 + 11.48	

Herbicide Tank Mixtures for CRP:

Preplant

AgsurfTM MSM herbicide may be tank mixed with glyphosate (such as "Glyphosate" or "Roundup Ultra Max") as a pre-plant (prior to the planting of CRP grasses) treatment to control broadleaf and grassy weeds. When using a glyphosate tank mix, allow at least 7 days after application before planting grasses. Refer to glyphosate containing product fact sheets and labels for all use instructions, label rates, weed control claims, warnings and precautions.

Postemergence

For best weed control performance in CRP, use AgsurfTM MSM herbicide in a tank mix with 2,4-D (ester formulations perform best) or dicamba (such as "Banvel" or "Clarity").

AgsurfTM MSM herbicide can be tank mixed with 2,4-D at 1/4 pound a.i./A for all labeled grasses larger than the 5-leaf stage. For fully tillered stands, up to 1/2 pound a.i./A of 2,4-D may be used. A spray adjuvant may be added. However, the addition of spray adjuvant may increase the chance of grass injury.

AgsurfTM MSM herbicide can also be tank mixed with dicamba (such as "Banvel" or "Clarity"). Use not more than 1/8 to 1/4 pound a.i./A of dicamba plus AgsurfTM MSM herbicide after majority of grasses are in the 3-leaf stage. In established grasses (2nd year stands), use not more than 1/4 to 1/2 pound a.i./A dicamba plus AgsurfTM MSM herbicide. A spray adjuvant may be added. However, the addition of spray adjuvant may increase the chance of grass injury.

With Liquid Nitrogen Solution Fertilizer

Liquid nitrogen fertilizer solutions may be used as a carrier in place of water. Run a tank mix compatibility test before mixing AgsurfTM MSM herbicide in fertilizer solution.

AgsurfTM MSM herbicide must first be slurried with water and then added to liquid nitrogen solutions (e.g., 28-0-0, 32-0-0). Ensure that the agitator is running while the AgsurfTM MSM herbicide is added. Use of this mixture may result in temporary grass yellowing and stunting.

If using low rates of liquid nitrogen fertilizer (between 5% and 50% of the spray solution volume) in the spray solution, the addition of a non-ionic surfactant is necessary. Add surfactant at 1/4 pint per 100 gallons of spray solution (0.03% v/v).

Do not use a spray adjuvant other than non-ionic surfactant.

When using high rates of liquid nitrogen fertilizer (greater than or equal to 50% of the spray solution volume) in the spray solution, adding spray adjuvant(s) increases the risk of grass injury. Consult your agricultural dealer, consultant, fieldman, or Agsurf representative for a specific recommendation before adding an adjuvant to these tank mixtures.

If 2,4-D or MCPA is included with AgsurfTM MSM herbicide and liquid nitrogen fertilizer mixture, ester formulations tend to be more compatible (See manufacturer's label). Do not add spray adjuvants when using AgsurfTM MSM herbicide in tank mix with 2,4-D ester and liquid nitrogen fertilizer solutions greater than 5% of the spray volume.

The use of liquid nitrogen fertilizer solutions greater than 5% of the spray volume with AgsurfTM MSM herbicide rates greater than 0.5 ounce/acre may cause grass injury.

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

: Location	Crop or Grass Species	Maximum Agsurf TM MSM herbicide Rate on Pasture (ounce/acre	Minimum Rotation Interval (months)
AL, AR, FL, GA, KY, LA, MS, NC, OK, SC, TN, TX, VA, WV	Alfalfa, red clover, white clover, sweet clover, bermudagrass, bluegrass, ryegrass, tall fescue	1/10 to 3/10	4
	Wheat (except durum)	1/10 to 3/10	1
	Durum, barley, oat	1/10 to 3/10	10
ALL STATES NOT INCLUDED	Red clover, white clover, and sweet clover	1/10 to 2/10	12
ABOVE	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, oat	1/10 to 2/10	10
ALL AREAS WITH SOIL PH	Russian wildrye	1/10 to 1/2	1
OF 7.5 OR LESS	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 sacoton, mountain brome, blue grama thickspike wheatgrass	1/10 to 1	1
	Sideoats grama, switchgrass	1/10 to 1/2	2
	Western wheatgrass	1/10 to 1	2
	Sideoats grama, switchgrass, big bluestem	1/10 to 1	3
AL, AR, FL, GA, KS, KY, LA, MS,	STS soybeans	1/10 to 2/10	6
MO, NC, OK, SC, TN, TX, VA, WV WITH SOIL PH OF 7.0 OR LESS	Field corn	1/10 to 2/10	12

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

Do not use with liquid fertilizer solutions with a pH less than 3.0.

CROP ROTATION

Before using Agsurf^{1M} MSM herbicide; carefully consider your crop rotation plans and options. For rotational flexibility, do not treat all of your pasture, rangeland or CRP acres at the same time.

Minimum Rotational Intervals

Minimum rotation intervals* are determined by the rate of breakdown of AgsurfTM MSM herbicide applied. AgsurfTM MSM herbicide breakdown in the soil is affected by soil pH, presence of soil microorganisms, soil temperature, and soil moisture. Low soil pH, high soil temperature, and high soil moisture increase AgsurfTM MSM herbicide breakdown in soil, while high soil pH, low soil temperature, and low soil moisture slow AgsurfTM MSM herbicide breakdown.

Of these 3 factors, only soil pH remains relatively constant. Soil temperature, and to a greater extent, 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 regularly when considering crop rotations.

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

Soil pH Limitations

AgsurfTM MSM herbicide should not be used on soils having a pH above 7.9, as extended soil residual activity could extend crop rotation intervals beyond normal. Under certain conditions, AgsurfTM MSM herbicide could remain in the soil for 34 months or more, injuring wheat and barley. In addition, other crops planted in high-pH soils can be extremely sensitive to low concentrations of AgsurfTM MSM herbicide.

Checking Soil pH

Before using AgsurfTM MSM herbicide, 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.

BIOASSAY

A field bioassay must be completed before rotating to any crop or grass species/variety not listed in the Rotation Intervals Table, or if the soil pH is not in the specified range, or if the use rate applied is not specified in the table.

To conduct a field bioassay, grow test strips of the crop(s) or grass(es) you plan to grow the following year in fields previously treated with AgsurfTM MSM herbicide. Crop or grass response to the bioassay will indicate whether or not to rotate to the crop(s) or grass(es) grown in the test strips.

If a field bioassay is planned, check with your local Agricultural dealer or Agsurf representative for information detailing the field bioassay procedure.

GRAZING/HAYING

There are no grazing or having restrictions for Agsurf MSM herbicide

Coveralls, shoes plus socks must be worn if cutting within 4 hours of treatment.

MIXING INSTRUCTIONS

- 1. Fill the tank 1/4 to 1/3 full of water (If using liquid nitrogen fertilizer solution in place of water, see Tank Mixtures sections for additional details).
- 2. While agitating, add the required amount of AgsurfTM MSM herbicide.
- 3. Continue agitation until the AgsurfTM MSM herbicide is fully dispersed, at least 5 minutes.
- 4. Once the AgsurfTM MSM herbicide is fully dispersed, maintain agitation and continue filling tank with water. AgsurfTM MSM herbicide 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 spray adjuvants. Always add spray adjuvants last.
- 6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
- 7. Apply AgsurfTM MSM herbicide spray mixture within 24 hours of mixing to avoid product degradation.
- 8. If AgsurfTM MSM herbicide and a tank mix partner are to be applied in multiple loads, pre-slurry the AgsurfTM MSM herbicide in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the AgsurfTM MSM herbicide.

Do not use AgsurfTM MSM herbicide with spray additives that reduce the pH of the spray solution to below 3.0.

SPRAY EQUIPMENT

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For specific application equipment, refer to the manufacturer's recommendations for additional information on GPA, pressure, speed, nozzle types and arrangements, nozzle heights above the target canopy, etc.

Be sure to calibrate air or ground equipment properly before application. Select a spray volume and delivery system that will ensure thorough coverage and a uniform spray pattern with minimum drift. Use higher spray volumes to obtain better coverage when the crop canopy is dense. Avoid swath overlapping, and shut off spray booms while starting, turning, slowing, or stopping to avoid crop injury.

Do not make applications using equipment and/or spray volumes or under weather conditions that might cause spray to drift onto nontarget sites. For additional information on spray drift, refer to the **Spray Drift Management** section of the label. Continuous agitation is required to keep AgsurfTM MSM herbicide in suspension.

SPRAYER CLEANUP

Spray equipment must be cleaned before Agsurf™ MSM herbicide is sprayed. Follow the cleanup procedures specified on the labels of previously applied products. If no directions are provided, follow the six steps outlined in After Spraying Agsurf™ MSM herbicide section of this label.

At the End of the Day

When multiple loads of AgsurfTM MSM herbicide are applied, it is recommended that at the end of each day of spraying, the interior of the tank be rinsed with fresh water and then partially filled, and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits that can accumulate in the application equipment.

After Spraying Agsurf™ MSM herbicide and Before Spraying Crops Other Than Pasture, Rangeland or CRP

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of Agsurf MSM herbicide as follows:

- 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 gallon of household ammonia* (contains 3% active) for every 100 gallons 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) recommended 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 an Agsurf-approved cleaner can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your agricultural dealer, applicator, or Agsurf representative for a listing of approved cleaners.

Notes:

- 1. Attention: Do not use chlorine bleach with ammonia, as dangerous gases will form. Do not clean equipment in an enclosed area.
- Steam-cleaning aerial spray tanks is recommended prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.
- 3. When AgsurfTM MSM herbicide is tank mixed with other pesticides, all required cleanout procedures should be examined and the most rigorous procedure should be followed.
- 4. In addition to this cleanout procedure, all precleanout guidelines on subsequently applied products should be followed as per the individual labels.
- 5. Where routine spraying practices include shared equipment frequently being switched between applications of AgsurfTM MSM herbicide and applications of other pesticides to AgsurfTM MSM herbicide-sensitive crops during the same spray season, it is recommended that a sprayer be dedicated to AgsurfTM MSM herbicide to further reduce the chance of crop injury.

SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS! See Wind, Temperature and Humidity, and Temperature Inversions sections of this label.

Controlling Droplet Size - General Techniques

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

Controlling Droplet Size - Aircraft

- Number of Nozzles Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- Nozzle Type Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- Boom Length The boom length should not exceed 3/4 of the wing or rotor length longer booms increase drift potential.
- Application Height Application more than 10 ft above the canopy increases the potential for spray drift.

BOOM HEIGHT

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

WIND

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. AVOID GUSTY OR WINDLESS CONDITIONS.

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

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

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

WEED RESISTANCE

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes, it may be necessary to change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide recommendations available in your area.

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.

PRECAUTIONS

- Do not apply or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots extend, or in locations where the product may be washed or moved into contact with their roots, as injury or loss of desirable trees or other plants may result.
- Do not use on lawns, walks, driveways, tennis courts, golf courses, athletic fields, commercial sod operations, or other high-maintenance, fine turfgrass areas, or similar areas.
- · Do not use on grasses grown for seed.
- Do not apply to irrigated land where the tailwater will be used to irrigate crops.
- Do not apply to frozen ground as surface runoff may occur.
- · Do not apply to snow-covered ground.
- Grass species or varieties may differ in their response to various herbicides. Agsurf recommends that you first consult your state experiment station, university, or extension agent as to sensitivity to any herbicide. If no information is available, limit the initial use of AgsurfTM MSM herbicide to a small area. Components in a grass seed mixture will vary in tolerance to AgsurfTM MSM herbicide so the final stand may not reflect the seed ratio.
- Under certain conditions such as heavy rainfall, high pH, prolonged cold weather, or wide fluctuations in day/night temperatures prior to or soon after AgsurfTM MSM herbicide application, temporary discoloration and/or grass injury may occur. AgsurfTM MSM herbicide should not be applied to grass that is stressed by severe weather conditions, drought, low fertility, water-saturated soil, 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.
- Applications of Agsurf[™] MSM herbicide to pastures, rangeland or CRP undersown with legumes may cause injury to
 the legumes. Legumes in a seeding mixture may be severely injured or killed following an application of Agsurf[™] MSM
 herbicide.
- To reduce the potential for movement of treated 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 pasture, rangeland or CRP.
- 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 or MCPA should improve weed control under these conditions.
- Do not apply more than 1 2/3 ounces of AgsurfTM MSM herbicide per acre per year.

STORAGE AND DISPOSAL

Pesticide Storage: Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage.

Pesticide Disposal: Do not contaminate water, food, or feed by storage, disposal or cleaning of equipment. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: For Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. For Fiber Sacks: Completely empty fiber sack by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then dispose of sack in a sanitary landfill or by incineration if allowed by State and local authorities.

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- "Raindrop RA" is a trademark of Delavan Corp.
- "Amber" is a trademark of Syngenta Crop Protection Inc.
- "Roundup UtraMax" is a registered trademark of Monsanto Technology LLC"

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LIMITATION OF

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It is impossible to eliminate all risks associated with the use of this product. Such risks arise from weather conditions, soil factors, off target movement, unconventional farming techniques, presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of Agsurf. These risks can cause: ineffectiveness of the product; crop injury, or; injury to non-target crops or plants.

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Agsurf warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purpose stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions.

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