

66222-246

5/28/2014

1/24

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460



OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

Brooke Hedrick
Makhteshim Agan of North America, Inc.
3120 Highwoods Blvd., #100
Raleigh, NC 27604

MAY 28 2014

Subject: Label Amendment – Addition of Use on Cotton
Product Name: MANA 14201
EPA Registration Number: 66222-246
Application Date: November 5, 2013
Decision Number: 485251

Dear Ms. Hedrick:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable.

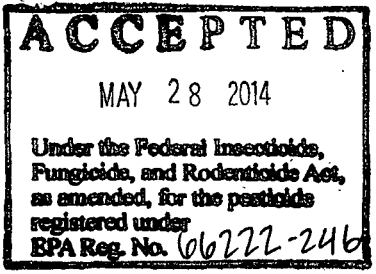
A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute 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 CFR 152.3.

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(e). If you have any questions, please contact Sarah Meadows by phone at 703-347-0505, or via email at meadows.sarah@epa.gov.

Sincerely,

Kathryn Montague, Product Manager 23
Herbicide Branch
Registration Division (7505P)
Office of Pesticide Programs

2/24



GROUP	14	HERBICIDE
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MANA 14201

(master label)

For control of Grass and Broadleaf Weeds in Cotton and Soybeans

[ABN: Rumble™]

ACTIVE INGREDIENT:

Sodium salt of fomesafen
5-[2-chloro-4-(trifluoromethyl)phenoxy]-N-(methylsulfonyl)-2 nitrobenzamide..... 22.1% *

OTHER INGREDIENTS: 77.9%

TOTAL: 100.0%

*Equivalent to 21.0% fomesafen or 1.88 lbs. fomesafen active ingredient per gal.

KEEP OUT OF REACH OF CHILDREN WARNING/AVISO

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

Manufactured for:
Makhteshim Agan of North America, Inc.
3120 Highwoods Blvd., Suite 100
Raleigh, NC 27604
How can we help? 1-866-406-MANA (6262).

EPA Reg. No. 66222-246

EPA Est. No. XXXXXXXXXX

FIRST AID	
IF SWALLOWED	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> • 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.
IF IN EYES	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
<p>Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact PROSAR at 1-877-250-9291 for emergency medical treatment information.</p>	

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
WARNING/AVISO**

Causes skin irritation. Causes moderate eye irritation. Harmful if absorbed through skin. Harmful if swallowed. Do not get on skin or on clothing. Avoid contact with eyes. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants.
- Chemical-resistant gloves such as barrier laminate, nitrile rubber, neoprene rubber, or Viton®.
- Chemical-resistant footwear plus socks.
- Chemical-resistant apron when cleaning equipment, mixing or loading.

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

ENVIRONMENTAL HAZARDS

For Terrestrial Uses Only: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate. Do not apply, when weather conditions favor drift from target area.

GROUNDWATER ADVISORY

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

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

DIRECTIONS FOR USE

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

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

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 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 over short-sleeved shirt and short pants.
- Chemical-resistant gloves such as barrier laminate, nitrile rubber, neoprene rubber, or Viton.
- Chemical-resistant footwear plus socks.

SPRAY DRIFT MANAGEMENT ADVISORY

~~AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.~~ 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 decisions.

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

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

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

The applicator should be familiar with and take into account the information covered in the AERIAL DRIFT REDUCTION ADVISORY.

SPRAY DRIFT REDUCTION ADVISORY INFORMATION

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

INFORMATION ON DROPLET SIZE

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

CONTROLLING DROPLET SIZE

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

BOOM LENGTH

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

APPLICATION HEIGHT

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

SWATH ADJUSTMENT

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

WIND

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

TEMPERATURE AND HUMIDITY

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

TEMPERATURE INVERSIONS

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

SENSITIVE AREAS

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

CHEMIGATION APPLICATION

Do not apply MANA 14201 through any type of irrigation system.

INTEGRATED PEST MANAGEMENT

MANA 14201 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. Application of this product should be based on IPM principles and practices including 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.

RESISTANCE

Naturally occurring biotypes of certain broadleaf species with resistance to MANA 14201 and related products (same mode of action) are known to exist. Selection of resistant biotypes, through repeated use of these herbicides, may result in control failures.

If poor performance cannot be attributed to adverse weather conditions or improper application methods, a resistant biotype may be present. In such a case, additional treatments with MANA 14201 or similar modes of action products are not recommended. Consult your local MANA representative or agricultural advisor for assistance.

PRODUCT INFORMATION

Read all label directions before using.

MANA 14201 is a selective herbicide which may be applied preplant, preemergence or postemergence for control or suppression of broadleaf weeds, grasses and sedges in soybeans. The most consistent weed control comes from contact activity when MANA 14201 is applied as a postemergence application. Thorough spray coverage of emerged weeds is very important. Although soybean leaves may have some crinkling, bronzing or spotting following a postemergence application of MANA 14201, the soybean plants will outgrow the effects and develop normally.

Apply MANA 14201 to young actively growing weeds that are not under stress (i.e., from lack of moisture, high temperature, low soil fertility, or chemical injury).

Certain germinating broadleaf weeds, grasses and sedges may be controlled or suppressed by soil residual activity from either preplant, preemergence or postemergence application if rainfall occurs shortly after application. The extent and consistency of soil activity is dependent upon soil characteristics, ground cover, amount of rainfall following application and the rate of MANA 14201 used.

Crop Uses: MANA 14201 is registered only for use on soybeans.

Grazing: Do not graze livestock in areas treated with MANA 14201 or harvest treated areas for forage or hay.

Crop Rotation: See the **Crop Rotation** section of this label for specific instructions on crop rotation. Crop injury may result if crop rotation guidelines are not followed.

Replanting: If replanting is necessary in fields previously treated with MANA 14201, the field may be replanted cotton, dry beans, snap beans or soybeans. Do not apply a second application of MANA 14201 or other fomesafen-containing product as crop injury or illegal residues may occur in harvested crops. If tank-mix combinations were used, refer to product labels for any additional replanting instructions.

Rainfastness: MANA 14201 requires a 1 hour rain-free period for best results when applied postemergence.

Cultivation: Cultivation prior to application is not recommended. Cultivation may put weeds under stress which could reduce control. A timely cultivation 1-3 weeks after application may increase weed control with MANA 14201.

Tank Mixtures: Tank mixes of MANA 14201 with other pesticides, fertilizers or any other additives, except as specified on this label or other approved MANA supplemental labels, may result in tank mix incompatibility, unsatisfactory performance and/or unsatisfactory crop injury.

SPRAY ADDITIVES

When using MANA 14201 as a postemergence application for broadleaf weed control, a spray additive should be used. Only spray additives cleared for use on growing crops under 40 CFR 180.1001 may be used in the spray mixture. For best postemergence control of broadleaf weeds in Regions 2, 3, 4 and 5 (see Regional Use Maps), use MANA 14201 with 1.0-2.5% v/v liquid nitrogen (28% or similar), or a minimum of 8.5 lbs ammonium sulfate per 100 gallons of spray volume.

For Postemergence Applications Always Add One of the Following: except in tank mix with products prohibiting spray additives - (See Tank Mix Directions for Use).

Crop Oil Concentrate (COC) or Methylated Seed Oil (MSO): Use a nonphytotoxic COC or MOS containing 15-20% approved emulsifier at 0.5-1% v/v (2-4 quarts per 100 gallons) of finished spray volume. COC or MSO can improve weed control; but may slightly reduce crop tolerance.

Nonionic Surfactant (NIS): Use a NIS containing at least 80% active ingredient at 0.25-0.5% v/v (2-4 quarts per 100 gallons) of finished spray volume (Region 1 and East of Interstates 79 and 77 for Regions 2 and 3).

Other Adjuvants: Adjuvants other than COC or NIS may be used providing the product meets the following criteria: (1) Is supported locally for use with MANA 14201 on soybeans through proven field trials from university and extension recommendations, (2) Contains only EPA exempt ingredients, (3) is compatible in mixture determined using a jar test, and (4) Does not injure soybeans.

Note: Spray additives are not needed for preplant or preemergence applications unless MANA 14201 is being applied for burndown weed control.

Recommended Mixing Order: (1) fill spray tank with half the required amount of water and begin agitation*, (2) add fertilizer (UAN, AMS), (3) add dry pesticide formulations, (4) add MANA 14201, (5) add liquid pesticide formulation, (6) add adjuvant (MSO, COC or NIS), (7) add remainder of water and then maintain constant agitation.

*Compatibility agent, 1 gallon per 500 gallons of water or 0.2% v/v, may be added as needed.

APPLICATION DIRECTIONS

Application Timing: When applying MANA 14201 for postemergence broadleaf weed control, the best broad spectrum control is achieved when the application is made to actively growing weeds. This usually occurs 14 to 28 days after planting. Refer to the weed control tables for specific recommendations on weed growth stages and rates.

Ground Application: Thorough spray coverage is important when using MANA 14201. If possible, use a minimum spray volume of 15 gallons per acre and 30-60 psi at the nozzle tip. On large weeds and/or dense foliage, use 60 psi and a minimum of 20 gallons per acre to ensure coverage of weed foliage. The use of flat fan nozzles will result in the most effective postemergence application of MANA 14201. Be sure the sprayer is calibrated to provide the proper volume and rate per acre. In addition, the boom and nozzle height must be adjusted to provide complete coverage of target weeds. DO NOT USE FLOOD TYPE OR OTHER SPRAY NOZZLES WHICH DELIVER LARGE, COARSE DROPLET.

Band Applications: Thorough weed coverage is important for postemergent control. Best coverage is obtained with a minimum of two nozzles, one directed to each side of the planted row. Application with a single nozzle directed over the top of the row is not recommended for postemergence applications but is suitable for preemergence applications. Cultivation of untreated areas may be needed following band applications. When making postemergence band applications and cultivating in the same operation, position nozzles in advance of the cultivation device. This will reduce dust in the spray area. Dust can intercept spray, reducing weed coverage, resulting in less than adequate weed control.

Calculate the amount of herbicide and water volume needed for postemergence band treatment by the following formulas:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Band herbicide rate per acre}$$

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast volume per acre} = \text{Band herbicide rate per acre}$$

Aerial Applications: Use sufficient spray volume and pressure to ensure complete coverage on the target. A minimum of 5 gallons per acre of spray mixture should be applied with a maximum of 10 gallons per acre to ensure coverage of weed foliage.

CROP ROTATION

Do not rotate to any food or feed crops following application of MANA 14201 other than those listed below in **Table 1** or injury could result.

Table 1. Time Interval Between Treatment With MANA 14201 and Planting Rotation Crops¹

Crop	Months
Dry bean, Snap bean, Soybean, Cotton	0
Small grains such as Wheat, Barley, Rye	4
Corn ¹ , Peanuts, Peas, Rice, Seed Corn	10
Alfalfa, Sunflower, Sugar beet, Sorghum ² or any other crops	18

¹ **Popcorn:** Use 12 month minimum rotation interval for popcorn in the states of Ohio, Kentucky, Illinois, Indiana, Iowa and Region 4 when applied at a rate of 1.0 pt./A or more. **Sweet corn:** Use 18 month minimum rotation interval for sweet corn in the states of Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont and Region 5.

² **Sorghum:** Sorghum may be planted back after 10 months in Region 1.

³ Do not graze rotated small grain crops or harvest forage or straw for livestock.

Table 2. Use Rate Table for MANA 14201 Application in Different Soybean Growing Regions

Region	Maximum Rate (Pints Per Acre)	Frequency of Use
1	1.6	Per year
2	1.6	Alternate years
3	1.3	Alternate years
4	1.0	Alternate years
5	0.75	Alternate years

9/
24

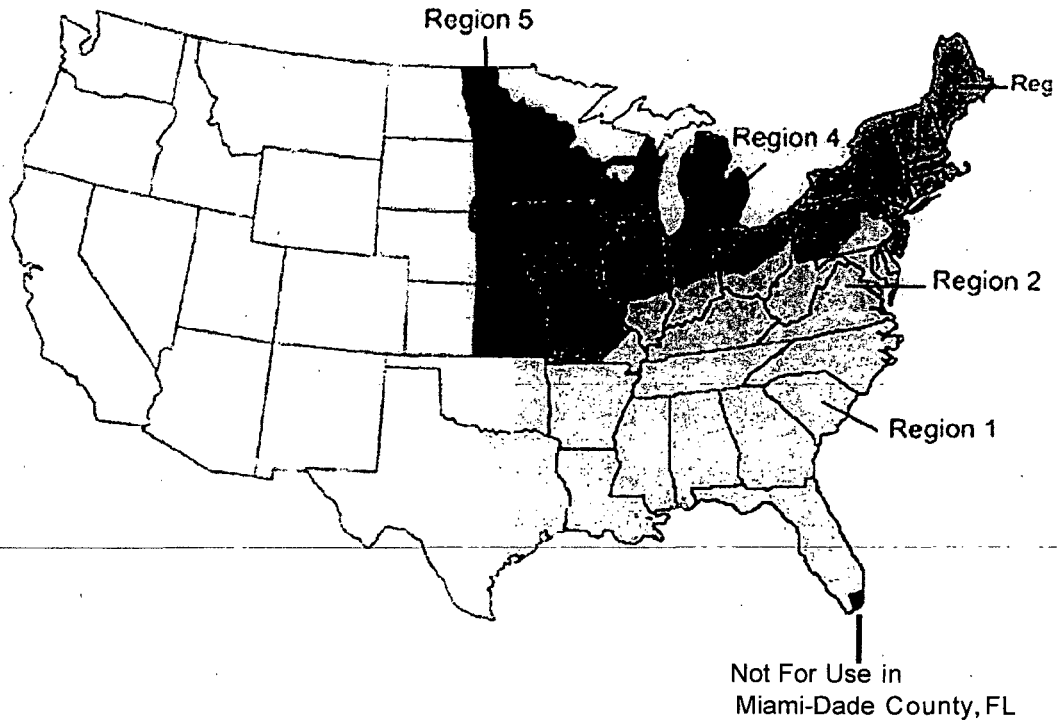
RESTRICTIONS AND PRECAUTIONS FOR USE OF MANA 14201 ON SOYBEANS

- A maximum of 1.6 pints of MANA 14201 (or a maximum of 0.375 lb ai/A of fomesafen from any product containing fomesafen: MANA 14201®, Vice™ Herbicide, or Reflex®) may be applied per acre per year in Region 1 (See **Region 1 Use Map**).
 - A maximum of 1.6 pints of MANA 14201 (or a maximum of 0.375 lb ai/A of fomesafen from any product containing fomesafen: MANA 14201®, VICE, or Reflex®) may be applied per acre in ALTERNATE years in Region 2 (See **Region 2 Use Map**).
 - A maximum of 1.3 pints of MANA 14201 (or a maximum of 0.313 lb ai/A of fomesafen from any product containing fomesafen: MANA 14201®, VICE, or Reflex®) may be applied per acre in ALTERNATE years in Region 3 (See **Region 3 Use Map**).
 - A maximum of 1 pint of MANA 14201 (or a maximum of 0.25 lb ai/A of fomesafen from any product containing fomesafen: MANA 14201®, VICE, or Reflex®) may be applied per acre in ALTERNATE years in
 - Region 4 (See **Region 4 Use Map**).
 - A maximum of 0.75 pint of MANA 14201 (or a maximum of 0.1875 lb ai/A of fomesafen from any product containing fomesafen: MANA 14201®, VICE, or Reflex®) may be applied per acre in ALTERNATE years in Region 5 (See **Region 5 Use Map**).
 - Avoid overlapping spray swaths, as injury may occur to rotational crops.
 - Do not graze treated areas or harvest for forage or hay.
 - Do not apply within 45 days of soybean harvest.
 - To provide adequate coverage, it is recommended that ground speed not exceed 10 mph during application.
 - Thoroughly clean the spray system with water and a commercial tank cleaner before and after each use.
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MANA 14201 - USE RATES AND WEEDS CONTROLLED

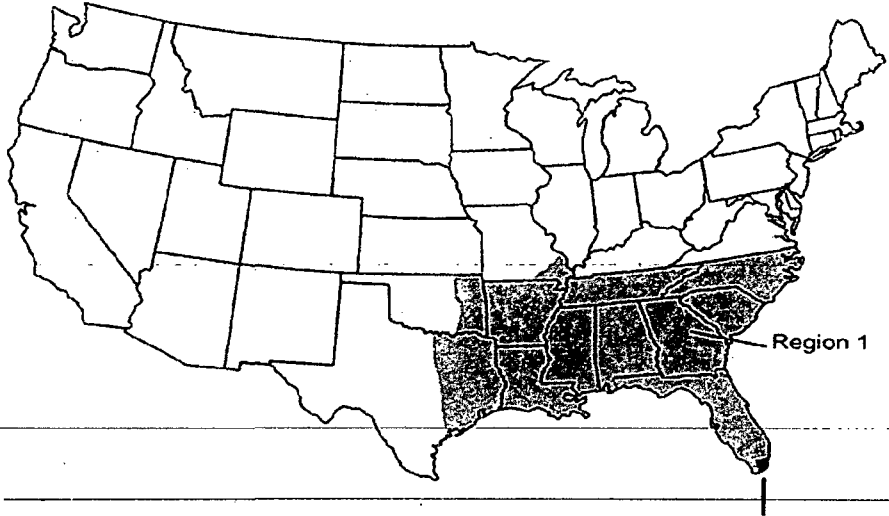
REFER TO MAP FOR DEFINITION OF SPECIFIED GEOGRAPHIC REGIONS

MANA 14201 REGIONAL USE MAP



REGION 1
(Maximum Rate 1.6 pints per acre per year)

REGION 1: Includes the following states or portion of states where MANA 14201 may be applied: Alabama, Arkansas, Florida (except Miami-Dade County), Georgia, Louisiana, Mississippi, Missouri (Counties of Bollinger, Butler, Cape Girardeau, Dunklin, Madison, Mississippi, New Madrid, Pemiscot, Perry, Ripley, Scott, Stoddard and Wayne), North Carolina, Oklahoma (East of U.S. Highway 75 and East of Indian Nation Parkway), South Carolina, Tennessee and Texas (all areas East of U.S. Highway 77 to State Road 239, including all of Calhoun County).

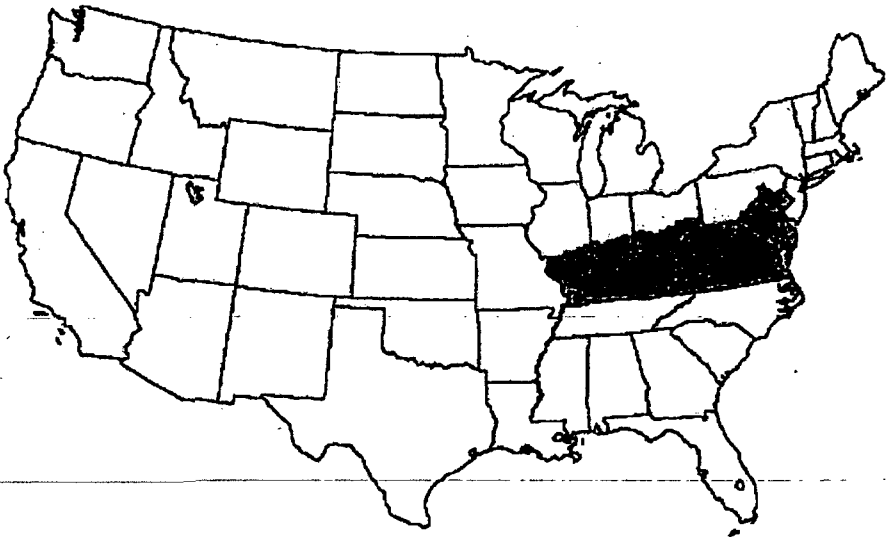


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12/
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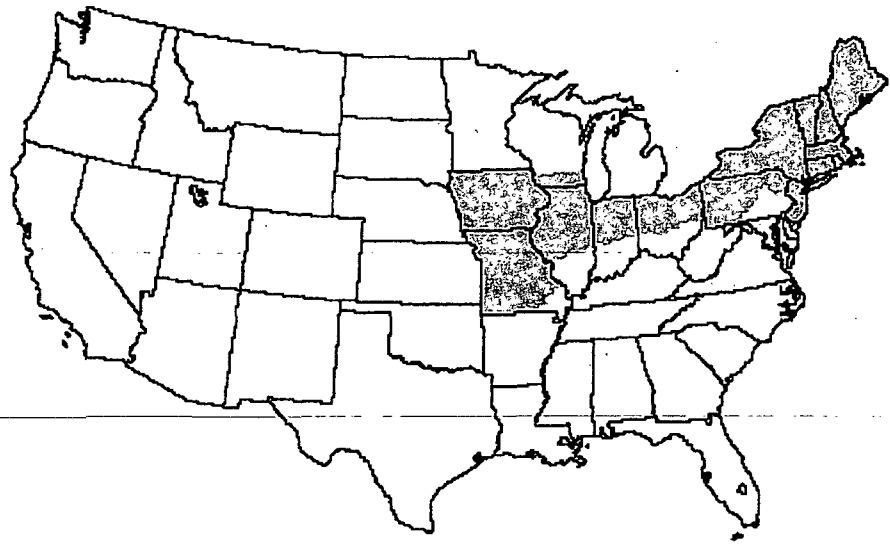
REGION 2
(Maximum Rate 1.6 pints per acre, alternate years)

REGION 2: Includes the following states or portion of states where MANA 14201 may be applied: Delaware, Kentucky, Maryland, Virginia and West Virginia. South of Interstate 70 in the following states: Illinois, Indiana and Ohio and in Pennsylvania (all areas South of Interstate 80 to the intersection of U.S. Highway 15 and East of U.S. Highway 15 and U.S. Highway 522).



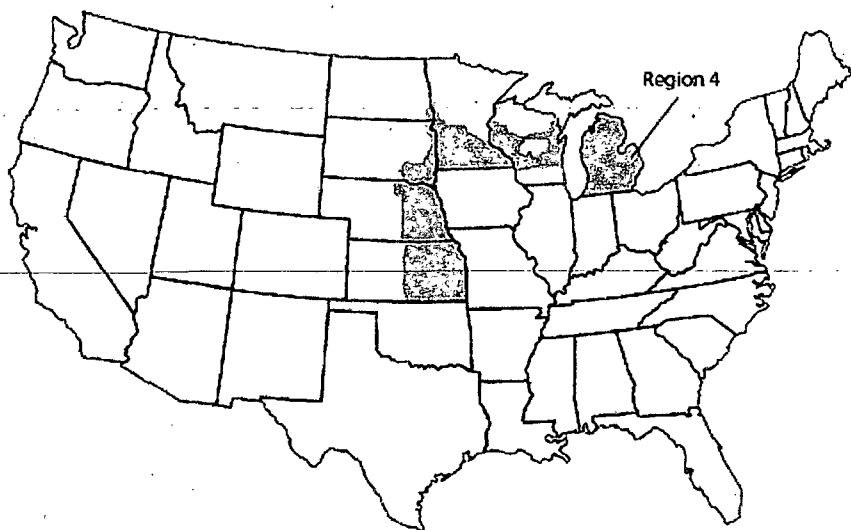
REGION 3
(Maximum Rate 1.3 pints per acre, alternate years)

REGION 3: Includes the following states or portion of states where MANA 14201 may be applied: Connecticut, Iowa, Maine, Massachusetts, Missouri (all counties except for those listed in Region 1), New Hampshire, New Jersey, New York, Pennsylvania (all areas except those listed in Region 2), Rhode Island, Vermont, Wisconsin (South of U.S. Highway 18 between Prairie Du Chien and Madison, and South of Interstate 94 between Madison and Milwaukee) and North of Interstate 70 in the following states: Illinois, Indiana and Ohio.



REGION 4
(Maximum Rate 1 pint per acre, alternate years)

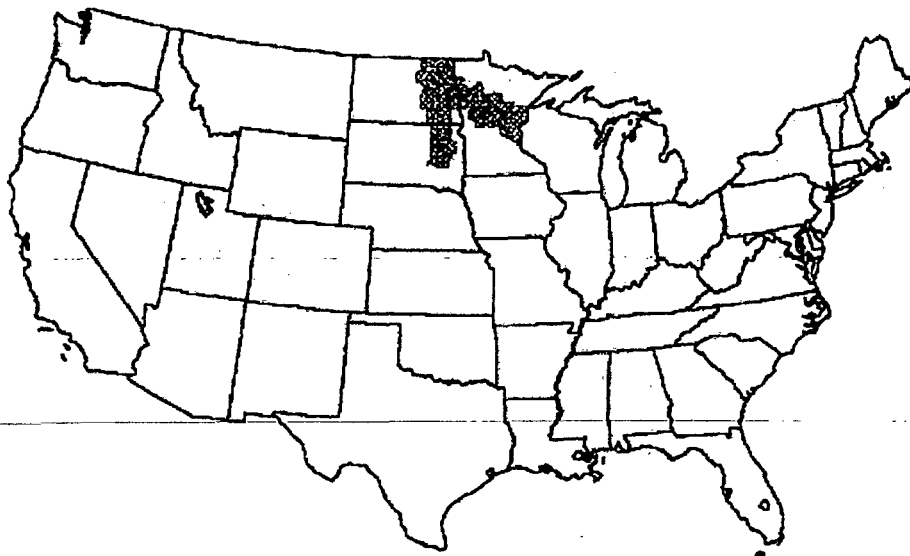
REGION 4: Includes the following states or portion of states where MANA 14201 may be applied: Kansas (all counties East of or intersected by U.S. Highway 281), Michigan (Southern Peninsula), Minnesota (all areas South of Interstate 94), Nebraska (all counties East of or intersected by U.S. Highway 281), and Wisconsin (all areas except those in Region 3, South of Interstate 94 from Minnesota state line to Eau Claire and South of U.S. Highway 29 from Eau Claire to Green Bay plus Barron, Chippewa, Clark, Door, Dunn, Eau Claire, Kewaunee, Marathon, Menominee, Oconto, Polk, Shawano, and St. Croix counties). The following counties are excluded: Adams, Marquette, Portage, Waupaca, Waushara and Wood). North Dakota (all areas East of Interstate 29 from Fargo South to the South Dakota state line), South Dakota (all areas East of Interstate 29 from the North Dakota state line to Watertown, all areas East of Highway 81 from Watertown to Madison and all areas East and South of State Road 34 and U.S. Highway 281 to the Nebraska state line).



15/
24

REGION 5
(Maximum Rate 0.75 pint per acre, alternate years)

REGION 5: Includes the following states or portion of states where MANA 14201 may be applied: North Dakota (all areas East of U.S. Highway 281 except those areas in Region 4), South Dakota (all areas East of U.S. Highway 281 except those areas in Region 4) and Minnesota (all areas South of U.S. Highway 2 except those areas in Region 4).



16/24

WEEDS CONTROLLED

Table 3: Application Rates for Weeds Controlled with MANA 14201 at Different Growth Stages.

Weed Controlled / Partially Controlled	Maximum Growth Stage (Number of True Leaves) for Control at the Specified Rate of MANA 14201			
	0.75 pint per acre	1 pint per acre	1.25 pints per acre	1.5 pints per acre
Anoda, Spurred	--	2*	2	2
Balloonvine	--	--	2	2
Carpetweed	--	8" Diameter Size	Unlimited Size	Unlimited Size
Citron (Wild Watermelon)	--	2	4	4
Cocklebur, Common	2	4	6	8
Copperleaf, Hophornbeam	--	4	4	6
Copperleaf, Virginia	--	4	4	6
Crotalaria, Showy	--	6	6	8
Croton, Tropic	--	4	4	6
Cucumber, Volunteer	--	4	6	8
Eclipta	--	2	4	4
Groundcherry, Cutleaf	--	4	6	8
Hemp	--	4	6	6
Horsenettle	--	2*	4*	4*
Jimsonweed	4	6	8	8
Ladysthumb	2*	2	4	6
Lambsquarters, Common	2*	2*	2*	2*
Mexicanweed	--	2*	2*	4
Morningglory spp.				
Cypressvine	2	4	6	6
Entireleaf var.	3*	3	4	5
Ivyleaf	3*	3	4	5
Purple Moonflower	3*	3	5	6
Red (Scarlet)	3*	3	6	6
Smallflower	3*	3	4	6
Pitted (Smallwhite)	4*	4	6	6
Tall (Common)	2*	2	3	5
Palmleaf (Willowleaf)	3	3	6	6
Mustard, Wild	4	6	8	6
Nightshade, Black	2	4	6	6
Nutsedge, Yellow	--	--	Suppression	Suppression
Pigweed, spp.				
Amaranth, Palmer	2	4	6	6
Amaranth, Spiny	2	2	4	6
Redroot	2	4	6	8
Smooth	2	4	6	6
Waterhemp, common	2*	2	4	6
Waterhemp, tall	2*	2	4	6
Poinsettia, Wild	--	2	4	6
Purslane, Common	--	Multi-Leaf 6" Diameter	Multi-Leaf 8" Diameter	Multi-Leaf 8" Diameter

Weed Controlled / Partially Controlled	Maximum Growth Stage (Number of True Leaves) for Control at the Specified Rate of MANA 14201			
	0.75 pint per acre	1 pint per acre	1.25 pints per acre	1.5 pints per acre
Pusley, Florida	--	2	2	4
Ragweed, Common	4*	4	6	8
Ragweed, Giant	4*	4	6	8
Redweed	--	--	2*	3*
Sesbania, Hemp	--	8	12	12
Sicklepod	--	--	Cotyledon*	Cotyledon*
Sida, Prickly	--	2*	2	4
Smartweed, Pennsylvania	4*	4	6	6
Smellmelon	--	2	2	4
Spurge, Prostrate	--	--	1" Diameter*	1" Diameter*
Spurge, Spotted	--	--	2*	2*
Starbur, Bristly	--	4	4	6
Sunflower, Common	--	--	2	4
Velvetleaf**	--	2	4	4
Venice Mallow	4	6	6	8
Witchweed	--	Multi-Leaf Up to 7"	Multi-Leaf Up to 10"	Multi-Leaf Up to 10"
Yellow Rocket	4	4	6	8

* Suppression of weeds with Flexstgar. Significant activity, but may not provide a level of control that is acceptable for commercial weed control.

MANA 14201 APPLICATION DIRECTIONS FOR SPECIAL WEED PROBLEMS

Suppression of Annual Grasses: A postemergence application of MANA 14201 at 1-1.5 pints per acre may suppress the grasses listed in Table 4. The same grasses may be controlled or suppressed by a preemergence application of MANA 14201 at 1-1.5 pints per acre. Consult Use Rate Table for maximum rate in each region. For full-season broad-spectrum annual grass control, Fusilade® OX or Fusion® herbicide should be used alone or in tank mix with MANA 14201. Consult Tank Mix section.

Table 4. Grasses Controlled or Suppressed by MANA 14201 Applied Preemergence or Postemergence

Barnyardgrass Broadleaf Signalgrass Crabgrass Foxtail (Giant, Green, Yellow)	Goosegrass Johnsongrass, Seedling Panicum, Fall Panicum, Texas
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Suppression of Perennial Weeds: A postemergence application of MANA 14201 at rates of 1-1.5 pints per acre will aid in suppressing the above-ground portions of the following weeds until crop canopy can assist in suppression: (1) Climbing milkweed, (2) honeyvine milkweed, (3) field bindweed, (4) hedge bindweed and (5) trumpetcreeper. These perennial weeds will continue to regrow from underground rootstocks even if above-ground foliage is temporarily controlled or retarded. Even though MANA 14201 and crop competition can suppress perennial weeds for a season, the rootstocks will continue to live and reestablishment will occur in subsequent years.

COTTON USE DIRECTIONS

Preemergence Application:

Apply MANA 14201 pre-emergence at 1–1.6 pts./A in cotton in Region 1 for control or partial control of the weeds listed in Table 1 of the container label. Apply as a pre-emergence treatment only to coarse-textured soils (sandy loam, loamy sand, sandy clay loam).

Do not apply as a pre-emergence treatment to medium- or fine-textured soils as crop injury will likely occur.

To broaden the weed control spectrum, MANA 14201 may be tank mixed with other preemergence herbicides such as Caparol®, Cotoran®, Direx®, Karmex®, Solicam®, or Staple®.

For control of emerged weeds, MANA 14201 may be tank mixed with a burndown herbicide such as Gramoxone, Inteon™, Parazone® 3SL or glyphosate brands (such as Touchdown®, Roundup®) labeled in cotton. In reduced tillage plantings, MANA 14201 can be applied up to 14 days prior to planting or at planting with a burndown herbicide. Refer to the tank-mix partner label for use directions, restrictions and limitations. The most restrictive product labeling applies.

Cotton plants are tolerant to pre-emergence applications of MANA 14201 when applied at recommended rates and to coarse textured soil types. Some crinkling or spotting of cotton foliage or stunting may occur, especially if heavy rainfall occurs during or soon after cotton emergence, but cotton plants normally outgrow these effects and develop normally.

Cotton foliage is not tolerant to MANA 14201. Do not apply MANA 14201 over the top of emerged cotton as unacceptable cotton injury will occur.

Post-Directed Application:

Apply MANA 14201 in emerged cotton as a post-directed treatment using precision post-directed, hooded or shielded application equipment to provide complete coverage of emerged weeds. Apply MANA 14201 at 1–1.6 pints per acre in a minimum of 10 gallons spray solution per acre.

Post-directed applications of MANA 14201 will provide contact control of labeled emerged weeds and residual pre-emergence control of labeled weeds (once activated by rainfall or irrigation). See container label sections for a list of weeds controlled, recommended application rates, weed growth stages, and application directions.

MANA 14201 should be applied with a non-ionic surfactant at 0.25 to 0.5% v/v, or crop oil concentrate at 1% v/v to emerged weeds. Do not add liquid nitrogen (28% or similar) to MANA 14201 or MANA 14201 tank mixes in cotton.

To broaden the weed control spectrum, post-directed applications of MANA 14201 may be tank mixed with other labeled post-directed herbicides such as Caparol, Direx, Dual MAGNUM®, Envoke®, Karmex, Layby™ Pro, Sequence®, or Suprend®. When applied with hooded or shielded sprayers, MANA 14201 and MANA 14201 tank mixes may be applied with burndown products such as Parazone® 3SL, Gramoxone Inteon, Sequence or glyphosate brands (such as Touchdown, Roundup) labeled for in-crop application in cotton. Refer to the tank-mix partner label for use directions, restrictions and limitations. The most restrictive product labeling applies.

Cotton foliage is not tolerant to MANA 14201 applications. Avoid contact to cotton foliage as unacceptable injury will occur. Application equipment should be calibrated (spray pressure, nozzle type and configuration, and orifice size) to avoid fine spray droplets contacting green cotton stems and foliage.

Post-Directed Application Timing In Cotton:

MANA 14201 may be applied to cotton at least 6 inches in height through lay-by as a post-directed application. All post-directed applications should avoid spray contact with any green non-barked parts of the cotton plant or foliage as unacceptable injury will occur. Follow the application timing recommendations below for post-directed applications in cotton.

Shield And Hooded Applications:

Make a precision post-directed MANA 14201 application to the base of the cotton plant avoiding contact with the cotton stem or foliage when cotton is at least 6 inches in height to avoid cotton injury. Use only hooded or shielded spray equipment to apply MANA 14201 in cotton that is 6 inches to 12 inches in height. Adjust nozzles to provide full coverage of emerged target weeds.

Layby Applications:

Make a post-directed MANA 14201 application to the base of the cotton plant avoiding contact with any non-

barked portion of the cotton plant or foliage. Use precision post-directed equipment or hooded or shielded sprayers on cotton that has developed a minimum of 4 inches of brown bark through layby. Application equipment should be configured to provide full coverage of emerged target weeds.

RESTRICTIONS FOR USE ON COTTON:

- Do not apply MANA 14201 later than 70 days before harvest.
- Do not apply more than 1.6 pints per acre of MANA 14201 in any year.
- Do not make more than one application of MANA 14201 per year.
- If two consecutive year applications are made, allow a 2-year interval before another application.

Special Use Directions for the Suppression of Woollyleaf Bursage (Lakeweed), Ambrosia gray, in Texas: Apply MANA 14201 to cultivated areas of cropland in the fall or spring as a spot treatment at a rate of 1.6 pints per acre and incorporate to a depth of 2 – 3 inches for suppression of woollyleaf bursage. Applications should be made with ground equipment.

The use of adjuvants, as specified under the Spray Additives section, will significantly improve the initial burndown of any emerged woollyleaf bursage, but this effect is only temporary. Therefore, an adjuvant may be used if desired, but is not necessary.

Significant suppression may not be seen until 6 – 8 months after application, but should then continue for at least 2 years after application.

Cotton or soybeans may be planted in treated areas. Under certain conditions, significant damage may occur to cotton planted within 18 months of application. A 3-year interval from last application to planting is required for all other crops.

TANK MIX AND SEQUENTIAL APPLICATIONS OF MANA 14201 FOR SOYBEANS

MANA 14201 can be used sequentially or in tank mix with one or more of the following products:

Assure II®, Basagran®, Butyrac®, Classic®, FirstRate®, Fusilade DX, Fusion, Ignite®, Glyphosate (such as Touchdown®, Roundup®, Glyphogan™), Gramoxone Inteon®, Harmony®, Parazone® 3SL, Poast®, Poast Plus®, Pursuit®, Raptor®, Resource® Scepter®, Select®, and Synchrony® STS®.

Under certain conditions, the mixture of MANA 14201 with one or more of the above mentioned broadleaf herbicides may cause a reduction in activity of any postemergence grass herbicide in the mixture.

For sequential applications allow 2-3 days after the application of the grass herbicide before applying MANA 14201 or MANA 14201 mixtures. Where MANA 14201 or the MANA 14201 mixture is applied first, apply the grass herbicide when grass weeds begin to develop new leaves (generally around 7 days).

Restrictions and Precautions for Use of MANA 14201 in Tank Mixtures on Soybeans

1. Tank mix applications can result in increased crop injury as compared to either product used alone.
2. Do not exceed 1 fl. oz. of Butyrac per acre in mixture with MANA 14201.
3. Do not exceed 0.25 oz./A of Synchrony STS herbicide in the tank with labeled rates of MANA 14201 on non-STS varieties. This tank mix can be applied postemergence to any soybean variety for additional broadleaf weed control. Refer to the Synchrony STS label for more information and crop rotation restrictions.
4. Always read and follow the recommendations, restrictions and limitations for all products whether used alone, sequentially or in a tank mix. The most restrictive labeling of any product used applies.

GLYPHOSATE TOLERANT SOYBEAN TANK MIXES

20/
24

MANA 14201 can be mixed with glyphosate products that are labeled for treatment of Roundup Ready soybeans (i.e. glyphosate tolerant). Examples of glyphosate products for Roundup Ready crops include Glyphogan, Glyphogan Plus, Roundup and Touchdown. MANA 14201 should be applied in the tank mix at a rate of 6-12 fluid ounces per acre. Tank mixing MANA 14201 with a Roundup Ready glyphosate product may improve postemergence control of a number of target weeds, including waterhemp, hemp sesbania, black nightshade and morningglory spp., i.e. species which have a tolerance to glyphosate products, but are susceptible to MANA 14201.

Read and follow the directions for the use of spray additives in the tank mix on the glyphosate product label.

Even very small quantities of this tank mix can cause death or severe crop damage to non-target species. Do not allow this tank mix to contact any vegetation other than that targeted.

Important: If this tank mix is applied postemergence to soybeans which do not contain the Roundup Ready gene, the result will be death or severe injury to the soybean crop.

Read and follow the directions and restrictions in all tank-mix partner labels. The most restrictive directions of those products must be followed.

APPENDIX

Table 5. Scientific names for those weeds referred to in the MANA 14201 label.

COMMON NAME	SCIENTIFIC NAME
Amaranth, Palmer	<i>Amaranthus palmeri</i>
Amaranth, Spiny	<i>Amaranthus spinosus</i>
Anoda, Spurred	<i>Anoda cristata</i>
Balloonvine	<i>Cadiospermum halicacabum</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bindweed, Field	<i>Convolvulus arvensis</i>
Bindweed, Hedge	<i>Calystegia sepium</i>
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>
Carpetweed	<i>Mollugo verticillata</i>
Citron (Wild Watermelon)	<i>Citrullus vulgaris</i>
Cocklebur, Common	<i>Xanthium strumarium</i>
Copperleaf, Hophornbeam	<i>Acalypha ostryifolia</i>
Copperleaf, Virginia	<i>Acalypha virginica</i>
Crabgrass	<i>Digitaria spp.</i>
Crotalaria, Showy	<i>Crotalaria spectabilis</i>
Croton, Tropic	<i>Croton glandulosus</i>
Cucumber, Volunteer	<i>Cucumis sativas</i>
Eclipta	<i>Eclipta prostrate</i>
Foxtail, Giant	<i>Setaria faberi</i>
Foxtail, Green	<i>Setaria viridis</i>
Foxtail, Yellow	<i>Setaria glauca</i>
Goosegrass	<i>Eleusine indica</i>
Groundcherry, Cutleaf	<i>Physalis angulata</i>
Hemp	<i>Cannabis sativa</i>
Horsenettle	<i>Solanum carolinense</i>
Jimsonweed	<i>Datura stramonium</i>
Johnsongrass, Seedling	<i>Sorghum halepense</i>
Ladysthumb	<i>Polygonum persicaria</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Mexicanweed	<i>Caperonia castaniifolia</i>
Milkweed, Climbing	<i>Sarcostemma cyanchoides</i>
Milkweed, Honeyvine	<i>Ampelamus albidus</i>
Morningglory, Cypressvine	<i>Ipomoea quamoclit</i>
Entireleaf var.	<i>Ipomoea hederacea var. integruscula</i>
Ivyleaf	<i>Ipomoea hederacea var. hederacea</i>
Purple Moonflower	<i>Ipomoea turbinata</i>
Red (Scarlet)	<i>Ipomoea coccinea</i>
Smallflower	<i>Jacquemontia tamnifolia</i>
Pitted (Smallwhite)	<i>Ipomoea lacunose</i>
Tall (Common)	<i>Ipomoea purpurea</i>
Palmleaf (Willowleaf)	<i>Ipomoea wrightii</i>
Mustard, Wild	<i>Brassica kaber</i>
Nightshade, Black	<i>Solanum nigrum</i>

Nutsedge, Yellow	<i>Cyperus esculentus</i>
Panicum, Fall	<i>Panicum dichotomiflorum</i>
Panicum, Texas	<i>Panicum texanum</i>
Pigweed, Redroot	<i>Amaranthus retroflexus</i>
Pigweed, Smooth	<i>Amaranthus hybridus</i>
Poinsettia, Wild	<i>Euphorbia heterophylla</i>
Purslane, Common	<i>Portulaca oleracea</i>
Pusley, Florida	<i>Richardia scabra</i>
Ragweed, Common	<i>Ambrosia artemisifolia</i>
Ragweed, Giant	<i>Ambrosia trifida</i>
Redweed	<i>Melochia corchorifolia</i>
Sesbania, Hemp	<i>Sesbania exaltata</i>
Sicklepod	<i>Cassia obtusifolia</i>
Sida, Prickly	<i>Sida spinosa</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Smellmelon	<i>Cucumis melo</i>
Prostrate	<i>Euphorbia humistrata</i>
Spurge, Spotted	<i>Euphorbia maculata</i>
Starbur, Bristly	<i>Acanthospermum hispidum</i>
Sunflower, Common	<i>Helianthus annuus</i>
Trumpetcreeper	<i>Campsis radicans</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Venice Mallow	<i>Hibiscus trionum</i>
Waterhemp, Common	<i>Amaranthus rudis</i>
Waterhemp, Tall	<i>Amaranthus tuberculatos</i>
Witchweed	<i>Striga asiatica</i>
Yellow Rocket	<i>Barbarea vulgaris</i>

STORAGE AND DISPOSAL

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

Prohibitions: Open dumping is prohibited. Do not reuse empty container.

PESTICIDE STORAGE: Store above 32°F in original containers only. If product freezes, return to room temperature and agitate to reconstitute. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth or synthetic absorbent. Remove to chemical waste area.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:

Nonrefillable Container (five gallons or less): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (greater than five gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container 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. ~~Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times.~~ Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Refillable Container: Refillable container. Refill this container with Fomesafen 2 SL. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. For final disposal, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state or local authorities.

CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER

LIMITATION OF WARRANTY AND LIABILITY

Read the entire directions for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following **CONDITIONS, DISCLAIMER OF WARRANTIES and LIMITATIONS OF LIABILITY.**

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Makhteshim Agan of North America, Inc. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Makhteshim Agan of North America, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Makhteshim Agan of

North America, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Makhteshim Agan of North America, Inc.'s election, the replacement of product.

For PRODUCT USE Information Call 1-866-406-MANA (6262).

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