66222-256 4/3/2014 1/61

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Washington, D.C. 20460

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

April 3, 2014

Kristen Knox
Makhteshim Agan of North America, Inc.
3120 Highwoods Blvd., Suite 100
Raleigh, NC 27604

Subject: Notification per PR Notice 98-10 (tank mix footnote correction, update weeds table, and minor typos)
MANA 31301
EPA Reg. No. 66222-256
Application Dated March 24, 2014

Dear Ms. Knox:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the subject product. Our review of this request finds that the action falls within the scope of PRN 98-10. The label submitted with the application has been date-stamped "Notification" and placed in our records.

If you have any questions, please contact Mindy Ondish at (703)605-0723 or at ondish.mindy@epa.gov.

Sincerely,

Mindy Ondish, for

Kable Bo Davis
Product Manager 25
Herbicide Branch
Registration Division (7505P)
Office of Pesticide Programs

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Please read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060. Approval expires 05-31-98

EPA

United States
Environmental Protection Agency
Washington, DC 20460

- [ ] Registration
- [ ] Amendment
- [x] Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
Makhteshim Agan of North America, Inc./66222-256	Kable (Bo) Davis	[x] None [ ] Restricted
4. Company/Product (Name) Makhteshim Agan of North America, Inc./ MANA 31301	**PM#** 25	

5. Name and Address of Applicant *(Include ZIP Code)*
Makhteshim Agan of North America, Inc.
3120 Highwoods Blvd., Suite 100
Raleigh, NC 27604

[ ] *Check if this is a new address*

6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:
EPA Reg. No. _____
Product Name _____

Section - II

- [ ] Amendment - Explain below.
- [ ] Resubmission in response to Agency letter dated _____
- [x] Notification - Explain below.
- [ ] Final printed labels in response to Agency letter dated _____
- [ ] "Me Too" Application.
- [ ] Other - Explain below.

NOTIFICATION
APR 03 2014

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification to add additional weeds controlled and correct typographical errors. Please see cover letter.

For communication via email please use this address: kknox@manainc.com

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
[ ] Yes* [ ] No	[ ] Yes [ ] No	[ ] Yes [ ] No	[ ] Metal [ ] Plastic [ ] Glass [ ] Paper [ ] Other (Specify) _____
* *Certification must be submitted*	If "Yes" Unit Packaging wgt. / No. per container	If "Yes" Package wgt / No. per container	

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
[ ] Label [ ] Container		[ ] On Label [ ] On Labeling accompanying product

6. Manner in Which Label is Affixed to Product [ ] Lithograph [ ] Paper glued [ ] Stenciled [ ] Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Kristen B. Knox	Federal Regulatory Manager	919-256-9337

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature	3. Title	6. Date Application Received (Stamped)
Kristen B Knox	Federal Regulatory Manager	
4. Typed Name Kristen B. Knox	**5. Date** March 24, 2014	

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REGISTRATION ACTION:
NOTIFICATION
FEE CATEGORY: N/A
REGISTRATION FEE: No fee associated with this action.

March 24, 2014

Mr. Kable (Bo) Davis, Product Manager 25
Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
One Potomac Yard, 2777 South Crystal Drive
Arlington, VA 22202-4501

Subject: MANA 31301, EPA Reg. No. 66222-256
Notification to correct typos and add pests (weeds)

Dear Mr. Davis:
Makhteshim Agan of North America Inc. is submitting this notification to list additional weeds controlled and correcting typographical errors within the MANA 31301 label. Per an e-mail correspondence with the Agency (Mindy Ondish) dated March 19, 2014 these items qualify as a notification.

Enclosed in the submission please find:

- Application for Pesticide Registration (EPA Form 8570-1)
- Two (2) copies of the annotated label
- Copy of the above-referenced e-mail correspondence.

This notification is consistent with the provisions of PR Notice 98-10 and the EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling. I understand that it is a violation of 18 U.S. C. Sec. 1001 to willfully make any false statements to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Should you have any questions or comments regarding this submission, please feel free to contact me via email at kknox@manainc.com or via phone at 919-256-9337.

Best regards,

Kristen B. Knox
Federal Regulatory Manager

MANA Crop Protection
3120 Highwoods Blvd.
Suite 100
Raleigh, NC 27604
P: (919) 256-8300
F: (919) 256-8308
www.manainc.com

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GROUP 5 HERBICIDE

MANA 31301

NOTIFICATION

APR 03 2014

(Alternate Brand Name: Glory® 4L)

For control of certain grasses and broadleaf weeds.

ACTIVE INGREDIENT:	**% BY WT.**
Metribuzin: 4-Amino-6-(1,1-dimethylethyl)-3-(methylthio)-1,2,4-triazin-5(4H)-one	41.0%
OTHER INGREDIENTS:	59.0%
TOTAL:	100.0%

MANA 31301 is a suspension concentrate cContaining ~~s~~ 3.8 lbs. of Metribuzin per gallon.
~~Formulation type suspension concentrate.~~

KEEP OUT OF REACH OF CHILDREN
CAUTION / PRECAUCION

Si usted no entiende la etiqueta, busque a alquien 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. 66222-256 **EPA Est. No.** [redacted]

NET CONTENTS: ____

FIRST AID

IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
Note to Physician: Treat the patient symptomatically. Symptoms of Poisoning. The compound does not cause any definite symptoms that would be diagnostic. Poisoning is accompanied by breathing difficulties and sedation.	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency medical treatment information, call Prosar 24 hours a day at 1-877-250-9291.	

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, and clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

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

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

ENGINEERING CONTROLS STATEMENTS

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the 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 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.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

GROUND WATER ADVISORY: Metribuzin is a chemical which can travel (seep or leach) through soil and can contaminate ground water which may be used as drinking water. Metribuzin has been found in ground water as a result of agricultural use. Users are advised not to apply metribuzin where the water table (ground water) is close to the surface, and where the soils are very permeable, i.e., well drained soils such as loamy sands. Contact your local agricultural agencies for further information on the type of soil in your area and the location of ground water.

PHYSICAL OR CHEMICAL HAZARDS

Do not mix or allow to come into contact with oxidizing agents. Hazardous chemical reaction may occur.

DIRECTIONS FOR USE

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

Read entire label before using this product. This label must be in the possession of the user at the time of pesticide application.

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

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and

exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

- Coveralls
- Chemical-resistant gloves
- Shoes plus socks

PRODUCT INFORMATION

MANA 31301 is a Group 5 herbicide for use on a broad spectrum of grass and broadleaf weeds in a wide variety of crops, as listed in this label. MANA 31301 can be used pre- and post- emergence for foliar and soil applications, with residual weed control.

RESTRICTIONS:

Do not use on other crops grown for food or forage. Apply this product only as specified on this label.

Do not allow sprays to drift onto adjacent desirable plants.

Observe all cautions and limitations on labeling of all products used in mixtures.

For all uses: Low-pressure and high volume hand-wand equipment is prohibited

RESISTANCE MANAGEMENT

MANA 31301 is a Group 5 herbicide based on the mode of action classification system of the Weed Science Society of America and a C1 photosynthesis photosystem II inhibitor as classified by the Herbicide Resistant Action Committee (HRAC). Any weed population may contain or develop plants naturally resistant to MANA 31301 and other Group 5 herbicides. Weed species with natural or acquired resistance to Group 5 may eventually dominate the weed population if Group 5 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. Such resistant weed plants may not be effectively managed using Group 5 herbicides but may be effectively managed utilizing another herbicide alone or in mixtures from a different Group and/or by using cultural or mechanical practices. However, the herbicide mode of action classification by itself may not adequately address specific weeds that are resistant to specific herbicides.

To delay herbicide resistance, consider using diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides:

- Avoid the consecutive use of MANA 31301 or other target site of action Group 5 herbicides that have a similar target site of action on the same weed species.
- Using tank-mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or premix rate on the weed(s) of concern.
- Base herbicide use on a comprehensive Integrated Pest Management (IPM) and Integrated Resistance Management (IRM) program.
- Use labeled rate and directions for use to delay selection for resistance.
- Monitor treated weed populations to facilitate the early identification of weeds shifts and/or weed resistance development (also provides direction on future weed management practices).
- Control escaped weeds by implementing measures to avoid allowing weeds to reproduce by seed or to proliferate vegetatively is one of the best ways to contain resistant populations.
- Contact your local extension specialist, certified crop advisor, and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

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APPLICATION PROCEDURES

MANA 31301 cannot be applied with low-pressure or high-volume hand-wand equipment.

Use a standard low pressure (20 to 40 psi.) herbicide boom sprayer equipped with suitable nozzles and screens no finer than 50-mesh in nozzle and in-line strainers. Agitate thoroughly before and during application with bypass agitation.

Ground Application: Apply the proper rate of MANA 31301 in a minimum of 10 to 40 gallons of spray mixture per acre broadcast.

Banded Application: Use proportionally less MANA 31301 per acre in a band versus a broadcast application. For band application use 1/4 to 1 gallon of spray mix per inch of band width regardless of row spacing.

For band applications, calculate amount to be applied per acre as follows:

$$\frac{\text{Band width in inches}}{\text{Row spacing in inches}} \times \text{Broadcast rate per acre} = \text{Amount needed per acre of field}$$

Aerial Application: Where permitted, apply specified rate in a minimum of 2 to 10 gallons of spray mixture per acre. Do not apply aerially when wind speed is greater than 10 mph.

NOTE: Do not apply aerially when MANA 31301 is tank mixed with Lasso.

For All Applications of MANA 31301: Sprayer must be accurately calibrated before applying MANA 31301. Check sprayer during application to be sure it is working properly and delivering a uniform spray pattern. As the volume of spray mixture decreases per acre, the importance of accurate calibration and uniform application increases. Avoid over application, misapplication, and boom and spray swath overlapping that will increase spray dosage. (Crop injury may occur as a result). Avoid spray skips and gaps which allow weeds to grow in untreated soil.

Do not apply when weather conditions favor spray drift and/or when sensitive or cool season crops, such as cole crops, onions, peas, or strawberries are present in adjacent fields or in areas where wheat is growing in coarse textured soils.

SOIL TEXTURE: As used on this label, "Coarse soils" are loamy sand or sandy loam soils. "Medium soils" are loam, silt loam, silt, sandy clay, or sandy clay loam. "Fine soils" are silty clay, silty clay loam, clay, or clay loam. Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

APPLICATION OF MANA 31301 IN FLUID FERTILIZERS

MANA 31301 may be applied in fluid fertilizer solutions to alfalfa and soybeans by following the appropriate mixing procedures and compatibility check. When using tank mix combinations, be sure all components are compatible.

Compatibility checks of MANA 31301 and tank mix combinations which include MANA 31301 should be made for each batch of fluid fertilizer because of the variability of these fertilizers.

Compatibility Check:

1. Pre-mix 2 teaspoons of MANA 31301 with 8 teaspoons of water (1:4 ratio) in a quart jar by adding the water first and follow with MANA 31301. Mix thoroughly. If a second herbicide is to be used, double the amount of water (1:8 ratio) and add the second herbicide after mixing MANA 31301 first.
2. Then pour 1 pint of fluid fertilizer into the quart jar and shake well.
3. Allow to stand for 5 minutes.

THIS COMPATIBILITY CHECK SHOULD ONLY BE USED WHEN MIXING WITH FLUID FERTILIZERS.

Interpretation of Results: If the solution in the jar appears to be uniform, without signs of agglomeration, or without a separation of an oily film on top of the fertilizer, the mixture may be used. If not, repeat the compatibility check using twice the amount of water or add a compatibility agent to the water. If separation

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occurs, but the mixture can be resuspended by shaking, then application is possible with good agitation in the spray tank.

Tank Mixing Guidelines:

1. Add the required amount of water and compatibility agent (if required) to the tank. Start agitation system while adding MANA 31301 and follow by adding the fluid fertilizer and agitate.
2. If a second herbicide is to be used, follow as above in 1, but use twice the amount of water. Start agitation and add MANA 31301 and follow by adding the second herbicide, and then continue filling the tank with fluid fertilizer.
3. Maintain continuous agitation to assure uniform spray mixture until the tank is emptied.

COMMERCIAL IMPREGNATION AND APPLICATION OF MANA 31301 ON DRY BULK FERTILIZER

Dry bulk fertilizer may be impregnated or coated with MANA 31301 for application to established alfalfa and soybeans. All recommendations, cautions, and special precautions on this label must be followed along with state regulations relating to dry bulk fertilizer blending, impregnating and labeling.

Impregnation: To impregnate, use a system consisting of a belt, conveyor, or closed drum which is used for dry bulk fertilizer blending. Any commonly used fertilizer can be impregnated with MANA 31301 except ammonium nitrate, or fertilizers containing ammonium nitrate, potassium nitrate, or sodium nitrate. Do not use on powder limestone.

Apply using a minimum of 200 lbs dry bulk fertilizer per acre and up to a maximum of 450 lbs per acre. To impregnate or coat dry bulk fertilizer, mix MANA 31301 with sufficient water to form a sprayable slurry. The delivery nozzles must be directed to deliver a fine spray toward the fertilizer for thorough coverage while avoiding spray contact with mixing equipment. Uniform impregnation of MANA 31301 to dry bulk fertilizer will vary and if the absorptivity is not adequate, an adsorptive powder may be added to produce a dry, free-flowing mixture. Micro-Cel E (Johns-Manville Product Corporation) is the recommended absorbent powder. When another herbicide is used with MANA 31301, mix and impregnate immediately.

Apply immediately after impregnation unless experience has shown that impregnated fertilizer can be stored without becoming lumpy and difficult to spread.

Rates: Select the indicated rate of MANA 31301 per acre from the appropriate section of this label and refer to the formula below to determine the amount of MANA 31301 which is to be impregnated on a ton of dry bulk fertilizer based on the amount of fertilizer which will be distributed on one acre.

$$\frac{\text{Pt MANA 31301}}{\text{Per Acre}} \times \frac{\text{2000 lb Fertilizer}}{\text{A Acre}} = \frac{\text{Pt MANA 31301}}{\text{Ton of Fertilizer}}$$

APPLICATION: Uniform application is essential for satisfactory weed control. Accurate calibration of fertilizer application equipment is essential for uniform distribution to the soil surface. Apply half the labeled rate and overlap 50 percent, or to double, apply by splitting the middles to obtain the best distribution pattern.

If fertilizer materials are excessively dusty, use diesel oil or other suitable additive to reduce dust prior to impregnation as dusty fertilizer will result in poor distribution during application. Crop injury and/or poor weed control may occur where the impregnated fertilizer is not uniformly applied.

INCORPORATION AND COMBINATION USES: When MANA 31301 is to be used in combination with another herbicide, follow directions on this label for combinations, rates, crops, incorporation, and special precautions.

CHEMIGATION

MANA 31301 can be applied through sprinkler irrigation equipment to potatoes, tomatoes, soybeans and asparagus as directed on this label. Refer to the crop sections of this label for use rates, weeds controlled or suppressed, restrictions, and special precautions.

Apply this product only through sprinkler (including center pivot, lateral move, or solid set) irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

Calibration: (Center Pivot and Self-Propelled Lateral Move Systems): Sprinkler irrigation systems must be accurately calibrated for application of MANA 31301. Greater accuracy in calibration (and distribution) will be achieved by injecting a larger volume of a more dilute mixture of product and water per hour. Follow the steps below to calibrate center pivot and lateral move systems:

1. Determine number of minutes required to make one complete revolution while applying 1/4 to 3/4 inch of water per acre.
2. With the system at operating pressure determine the exact number of minutes required to inject one gallon of water.
3. Divide the time required for one revolution (step 1) by the time required to inject one gallon (step 2). This gives total gallons of product-water mixture to be added to nurse tank.
4. Add required amount of water to nurse tank and start the agitation system. Then add sufficient MANA 31301 at the listed rate (See BROADCAST APPLICATIONS) to the nurse tank.

EXAMPLE: If 20 hours (1200 minutes) were required for one revolution and if 2 minutes were required to inject one gallon, then a total of 600 gallons of product-water mixture are required (1200 /2 = 600); to treat 135 acres at 1 pint/acre, 135 pints (16 gallons and 7 pints) of MANA 31301 are required.

If you have questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Maintain continuous agitation in the injection nurse tanks during the herbicide application, sufficient to keep herbicide in suspension.

Apply specified dosage in 1/4 to 3/4 inch of water (1/4- to 1/2-inch of water on sandy soils) per acre as a continuous injection in center pivot and lateral move systems or in the last 15 to 30 minutes of set in permanent solid set sprinkler systems. Application of more than the quantity of irrigation water indicated on this label may result in decreased product performance by removing the chemical from the zone of effectiveness. Where sprinkler distribution patterns do not overlap sufficiently unacceptable weed control may result.

Where sprinkler distribution patterns overlap excessively crop injury may result. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. To insure that lines are flushed and free of remaining pesticide, an indicator dye may be injected into the lines to mark the end of the application period.

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Use a minimum of 1 part water to 1 part herbicide for injection. The use of a larger volume of water will insure greater accuracy and more uniform distribution.

Consult State Agricultural Experiment stations or State Agricultural Extension Service for additional information as the time of applications needed will vary with the local conditions.

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator and the grower. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions regarding spraying.

The following spray drift management requirements must be followed to avoid off target drift 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.

For aerial applications:

- The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or 90% of the rotor blade diameter. Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45°.

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 ***Spray Drift Management*** section.

To avoid spray drift, do not apply under windy conditions. Avoid spray overlap as crop injury may result.

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 listed pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream 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 lowest drift.

Boom Length

For some use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is indicated 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 cross-wind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

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Wind

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

Temperature and Humidity

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

Temperature Inversions

Applications should not occur during a 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, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas.)

MIXING PROCEDURES

Any tank mix containing MANA 31301 should be kept agitated and sprayed out immediately.

Do not allow tank mixes to stand for prolonged periods of time.

The proper mixing procedure for MANA 31301 alone or in tank mix combinations with other herbicides is:

1. Be sure sprayer is clean and not contaminated with any other materials or crop injury or sprayer clogging may result. Examine strainers and screens to be sure the sprayer is clean from previously used pesticides.
2. Fill the spray tank 1/4 to 1/3 full with clean water.
3. Start agitation.
4. Be certain that the agitation system is working properly and creates a rippling or rolling action on the liquid surface.
5. Add listed rate of MANA 31301 while recirculating and with agitator running.
6. Mix thoroughly and add clean water to fill spray tank to desired level.
7. Add the tank herbicide(s) and agitate thoroughly.
8. Continue agitation during application and until sprayer tank is empty.

When an adjuvant is to be used with this product, Makhteshim Agan of North America, Inc. suggests the use of a Chemical Producers and Distributors Association (CPDA) certified adjuvant.

CLEANING

Do not use the same sprayer without thoroughly cleaning on sensitive crops, as even small residues of MANA 31301 in the tank may cause injury to these crops.

Wash sprayer and spray equipment thoroughly with clean water immediately after use. Drain any remaining spray solution of MANA 31301 from the spray tank and dispose of according to label disposal instructions. Rinse the spray tank and refill with water, adding a heavy-duty detergent at the rate of one cup per 20 gallons of water. Recycle this mixture through the equipment for 5 minutes and spray out. Repeat this procedure twice. Fill the spray tank with clean water, recycle for 5 minutes, and spray out. Clean pump and nozzle screens thoroughly. Wash away any spray mixture from the outside of spray tank, nozzles or spray rig. All rinse water must be disposed of in compliance with local, state, and Federal guidelines.

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SOYBEANS (Except California)

MANA 31301 tank mix combinations can be used for preplant incorporated applications, preemergence surface applications, split-shot application and extended split-shot application. MANA 31301 can also be used as an overlay application following a preplant incorporated application of a grass herbicide and alone as a preemergence surface application. All these applications can be applied with ground equipment, and some can be applied with aerial spray equipment. In addition, MANA 31301 can be applied as a post emergence directed spray to soybeans in certain states.

SPECIAL PRECAUTIONS:

Injury to soybeans may occur when MANA 31301 is used under the following conditions:

- When soils have a calcareous surface area or a pH of 7.5 or higher.
- Due to the sensitivity of certain soybean varieties, consult your MANA representative or your seed supplier for information on the tolerance of newly released soybean varieties, prior to use of MANA 31301.
- When applied in conjunction with soil-applied organic phosphate pesticides.
- Over application or boom overlapping may result in stand loss and soil residues.
- Uneven application or improper incorporation can decrease the level of weed control and/or increase the level of injury.
- When applied to any soil with less than 1/2% organic matter.
- Soil incorporation deeper than indicated.
- When sprayers are not calibrated accurately.
- When heavy rains occur soon after application, especially in poorly drained areas where water may stand for several days
- When soybeans are planted less than 1 1/2 inches deep, particularly in preemergence application.

Activation: A minimum amount of soil moisture is required to activate MANA 31301. In areas of low rainfall, preemergence applications to dry soil should be followed with light irrigation of 1/4 acre inch of water. Do not apply heavy irrigation immediately after application. As with many surface applied herbicides, weed control and crop tolerance may vary with rainfall and/or soil texture.

Grazing and Feeding Treated Vines: Treated vines may be grazed or fed to livestock 40 days after application when MANA 31301 is applied alone or with Treflan®, Dual®, Prowl® or Lasso®.

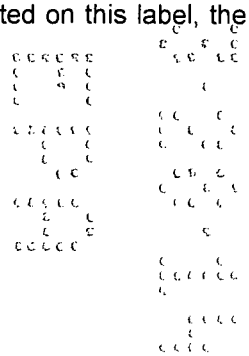
Do not use treated vines for feed or forage when MANA 31301® is applied with Sonalan®, linuron plus Lasso or linuron plus Dual.

Rate Ranges: Where a rate range is shown, use a lower rate on soils that are coarse textured or low in organic matter. Use a higher rate on soils that are relatively fine textured or high in organic matter.

Replanting: If replanting is necessary in fields treated with MANA 31301 as directed on this label, the field may be replanted to soybeans.

Minimize tillage to prevent crop injury.

Do not apply a second treatment as injury to soybeans may occur.



WEEDS CONTROLLED BY MANA 31301 TANK-MIX COMBINATIONS

C = Control — **S = Suppression or Erratic Control**
P = Poor or No Control — **0 = No information (Control may range from poor to excellent)**
1 = MANA 31301 Alone — **4 = MANA 31301 plus Dual** — **7 = Extended Split Shot**
2 = MANA 31301 Split-Shot — **5 = MANA 31301 plus Prowl** — **8 = MANA 31301 plus Sonalan**
3 = MANA 31301 plus Treflan — **6 = MANA 31301 plus Lasso** — **9 = MANA 31301 plus linuron plus (Lasso or Dual~~-~~ ~~or Dual)~~**

ANNUAL BROADLEAF WEEDS	1	2	3	4	5	6	7	8	9
Black Nightshade *(Solanum nigrum)*	P	P	P	C	P	C	C	P	S
Bristly Starbur *(Acanthospermum hispidum)*	C	C	C	C	C	C	C	C	C
Buffalobur *(Solanum rostratum)*	C	C	P	P	P	P	C	P	0
Carpetweed *(Mollugo verticill/ata)*	C	C	C	C	C	C	C	C	C
Cocklebur *(Xanthium pensylvanicum)*	S	C	S	S	S	S	C	S	S
Copperleaf. Hophornbeam *(Acalypha ostryaefolia)*	C	C	C	C	C	C	C	C	C
Florida Beggarweed *(Desmodiumtortuosum)*	C	C	C	C	C	C	C	C	C
Florida Pusley *(Richardia scabra)*	C	C	C	C	C	C	C	C	C
Galinsoga *(Galinsoga* spp.)	C	C	C	C	C	C	C	C	C
Horseweed. Marestail *(Conyza canadensis)*	0	0	0	0	0	0	C	0	0
Jimsonweed *(Datura stramonium)*	C	C	C	C	C	C	C	C	S
Knotweed *(Polygonum* spp.)	C	C	C	C	C	C	C	C	C
Kochia *(Kochia scoparia)*	C	C	C	C	C	C	C	C	C
Lambsquarters *(Chenopodium* spp.)	C	C	C	C	C	C	C	C	C
Morningglory. Ivyleaf *(Ipomoea hederacea)*	P	P	S	P	P	P	P	P	P
Morningglory. Pitted *(Ipomoea lacunosa)*	P	P	S	P	P	P	P	P	P
Morningglory. Smallflower *(Jacquemontia tamnifolia)*	P	P	C	P	P	P	P	P	P
Morningglory. Tall *(Ipomoeapurpurea)*	P	P	S	P	P	P	P	P	P
Pigweeds *(Amaranthus* spp.)	C	C	C	C	C	C	C	C	C
Prickly Sidal Teaweed *(Sida spinosa)*	C	C	C	C	C	C	C	C	C
Purslane *(Portulaca oleracea)*	C	C	C	C	C	C	C	C	C
Ragweed. Common *(Ambrosia artemisiifolia)*	C	C	C	C	C	C	C	C	C
Redweed *(Melochia corchorifolia)*	C	C	C	C	C	C	C	C	C
Russian Thistle *(Salsola iberica)*	C	C	C	C	C	C	C	C	C
Sesbania *(Sesbania* spp.)	C	C	C	C	C	C	C	C	C
Shepherdspurse (*Capsella bursa-pastoris)*	C	C	C	C	C	C	C	C	C
Sicklepod *(Cassia obtusifolia)*	C	C	S	C	S	C	C	S	S
Smartweeds *(Polygonum* spp.)	C	C	C	C	C	C	C	C	S
Spotted Spurge *(Euphorbia maculata)*	C	C	P	C	P	C	C	P	0
Spurred Anoda *(Anoda cristata)*	C	C	C	C	C	C	C	C	0
Sunflower *(Helianthus* spp.)	C	C	S	S	S	S	C	S	P
Velvetleaf *(Abutilon theophrastl)*	C	C	C	C	C	C	C	C	C
Venice Mallow *(Hibiscus trionum)*	C	C	C	C	C	C	C	C	C
Wild Mustards *(Brassica* spp.)	C	C	C	C	C	C	C	C	C

WEEDS CONTROLLED BY MANA 31301 TANK-MIX COMBINATIONS									
C = Control ——— S = Suppression or Erratic Control P = Poor or No Control ——— 0 = No information (Control may range from poor to excellent)									
1 = MANA 31301 Alone ——— 4 = MANA 31301 plus Dual ——— 7 = Extended Split Shot 2 = MANA 31301 Split-Shot ——— 5 = MANA 31301 plus Prowl ——— 8 = MANA 31301 plus Sonalan 3 = MANA 31301 plus Treflan ——— 6 = MANA 31301 plus Lasso ——— 9 = MANA 31301 plus linuron plus (Lasso or Dual)									
ANNUAL BROADLEAF WEEDS	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Barnyardgrass *(Echinochloa crus-galil)*	S	C	C	C	C	C	C	C	C
Bluegrass, Annual *(Poa annua)*	C	C	C	C	C	C	C	C	C
Broadleaf Signalgrass *(Brachiaria platyphylla)*	C	C	C	C	C	C	C	C	0
Browntop Millet *(Panicum ramosum)*	C	C	C	P	C	S	C	0	0
Crabgrass *(Digitaria* spp.)	C	C	C	C	C	C	C	C	C
Crowfootgrass *(Dactyloctenium aegyptium*J	C	C	C	C	C	C	C	0	0
Cupgrass *(Eriochloa gracilis)*	P	C	P	P	P	P	C	0	0
Foxtails *(Setaria* spp.)	S	C	C	C	C	C	C	C	C
Goosegrass *(Eleusine indica)*	C	C	C	C	C	C	C	C	C
Johnsongrass, Seedling *(Sorghum halepense)*	C	C	C	C	C	C	C	C	0
Junglerice *(Echinochloa colonum)*	C	C	C	C	C	C	C	C	0
Nutsedge, Yellow *(Cyperus esculentus)*	P	P	P	C	P	C	C	P	0
Panicum, Fall *(Panicum dichotomiflorum)*	P	C	C	C	C	C	C	C	C
Panicum, Texas *(Panicum texanum)*	P	C	C	P	C	S	S	C	0
Red Rice *(Oryza sativa)*	P	C	C	C	P	C	C	0	0
Sandbur *(Cenchrus* spp.)	P	C	C	P	C	S	S	0	0
Shattercane(*Sorghum bicolor}*	P	C	C	P	P	P	P	C	0
Sorghum, *Volunteer(Sorghum* SIIP}	P	C	C	P	P	P	P	0	P
Sprangletop *(Leptochloa* spp.)	P	C	C	P	P	P	P	0	P
Stinkgrass *(Eragrostis* spp.)	P	C	C	P	P	P	P	0	P
Wheat, Volunteer *(Triticum* spp.)	P	P	P	P	P	P	P	0	P
Witchgrass *(panicum capi/lare)*	P	C	C	C	C	C	C	C	0

MANA 31301 ALONE

MANA 31301 (Alone) Preemergence Application: The following rates of MANA 31301 may be applied preemergence to soybeans through center pivot or lateral move sprinkler irrigation systems that apply water in a uniform manner. Refer to the *Chemigation* section of this label for directions.

MANA 31301 can be applied broadcast or banded. This application may be made during planting or as a separate operation after planting but before crop emergence. See the *PRODUCT INFORMATION* section in the front of this label.

Do not apply to sand soils, or to sandy loam or loamy sand soils containing less than 2% organic matter. Do not incorporate into soil or apply more than once per season.

PINTS OF MANA 31301 PER ACRE			
SOIL TEXTURE	**ORGANIC MATTER**		
	Less than 2%	**2 to 4%**	**Over 4%**
COARSE SOILS —(sandy loam, loamy sand)	**DO NOT USE**[3]	**¾**	**1**
MEDIUM SOILS[1] —(Loam, silt loam, silt, sandy —clay, sandy clay loam)	**¾ ~~TO~~to 1**	**1 ~~TO~~to 1 ¼**	**1 ¼ ~~TO~~to 1 ½**
FINE SOILS[1] —(Silty clay, silty clay loam[2] —clay, clay loam)	**1 ~~TO~~to 1 ¼**	**1 ¼ ~~TO~~to 1 ½**	**1 ½ ~~TO~~to 1 ¾**
Mississippi Delta Only	**1 ½**	**1 ¾**	**2**

[1] For control of lambsquarters, redroot pigweed and wild mustard, and for suppression of green, yellow and giant foxtails on alkaline (calcareous) soils in Nebraska, Minnesota, South Dakota and North Dakota only, apply MANA 31301 at rates of ½ pt/acre on medium soils and ½ to ¾ pt/acre on fine soils regardless of soil organic matter percentage (use ¾ pt only where soil pH is less than 7.5 and weed pressure is heavy). The ½ pt/acre rate of MANA 31301 alone can be applied regardless of soil pH. For control of other weeds listed on this label use MANA 31301 at full rates indicated in the table above, but note that crop injury may occur on soils having a calcareous surface area or a pH of 7.5 or higher.

[2] Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

[3] Refer to the appropriate section of this label for use of MANA 31301 on soybeans in coarse soils with 0.5% or more organic matter in certain states.

USES OF MANA 31301 IN COMBINATION WITH OTHER HERBICIDES

SEQUENTIAL APPLICATION OF SCEPTER® FOLLOWING MANA 31301

If needed, application of MANA 31301® alone or in a registered tank mix according to directions on this label, may be followed by an early postemergence application of Scepter herbicide (1.5 lb/gal liquid or 70 DG) for control of cocklebur. Apply 1/6 to1/3 pint of Scepter (0.7 to 1.4 ounces of Scepter 70 DG) in a minimum of 20 gallons of water per acre. Use 1/6 pint of Scepter (0.7 ounce of Scepter 70 DG) if cockleburs are less than 3 inches tall or have fewer than 3 leaves and are actively growing. For cockleburs less than 6 inches tall and actively growing use 1/3 pint of Scepter (1.4 ounces of Scepter 70 DG) per acre. Do not use Scepter when soybeans or cockleburs have been subjected to stress conditions such as temperature or moisture extremes. Do not exceed a total of 2/3 pint of Scepter (2.8 ounces of Scepter 70 DG) per acre in one season. Wait at least 10 days after application of Scepter before cultivating.

When preparing the spray mixture with Scepter, add 2 pints of nonionic surfactant approved for use on growing crops and containing at least 80% active ingredient per 100 gallons of mixture. Apply crop oil concentrate (COC) at the rate specified on the COC label.

Use Scepter only in the states where it is registered as listed on the product label.

Apply Scepter at least 90 days before harvest of soybeans. Do not graze or feed soybean forage, hay, or straw to livestock.

Refer to the Scepter label for additional cautions and precautions, directions, limitations, and information on environmental hazards and planting of rotational crops.

SPLIT-SHOT APPLICATION

A preplant incorporated application of MANA 31301 tank mixed with either Treflan, Lasso, Dual, Prowl or Sonalan and followed by a preemergence surface application of MANA 31301 alone after planting but prior to soybean emergence, will control more broadleaf and grass weeds in soybeans than when either herbicide is used alone.

Refer to the Treflan, Lasso, Dual, Prowl or Sonalan labels, and to appropriate sections of this label for directions on soil preparation, herbicide application, incorporation techniques, herbicide rates, weed species

controlled, and restrictions for using tank mix combinations of MANA 31301. Carefully observe the *Special Precautions* section concerning the use of MANA 31301 in tank mix combinations on soybeans.

When a Split-Shot application of MANA 31301 with Prowl, Treflan, or Sonalan is used, the preplant incorporated tank mix may be applied up to 21 days prior to planting soybeans; with Dual or Lasso, the preplant incorporated tank mix may be applied up to 14 days prior to planting.
On medium and fine textured soils with greater than 2% organic matter, a rate range is available for the MANA 31301 preemergence overlay application. The higher rate should be used (a) in fields with a history of severe broad leaf weed pressure, (b) when the time between preplant incorporated tank mix and preemergence overlay applications approaches the maximum stated above, and/or (c) when the organic matter content of the soil is at the upper end of the indicated range.
For black nightshade control, refer to the appropriate sections of the Lasso, Dual, or Sonalan labels for specific instructions.

SPLIT-SHOT APPLICATION						
Preplant Incorporated Tank-Mix Application – FOLLOWED BY – Preemergence Overlay Application						
SOIL TEXTURE[1]	**Rate of Combination Product/Acre**	**Plus**	**Rate of MANA 31301 Pt/Acre**	**Rate of MANA 31301 Pt/Acre ORGANIC MATTER**		
				Less than 2%	**2 to 4%**	**Over 4%**
COARSE (Light) Sand, loam sand, sandy loam	Treflan 1 pt ~~OR~~or Lasso 2 to 2 ½ qt ~~OR~~or Dual 1 ¼ to 1 ½ pt ~~OR~~or Prowl 1 ½ pt ~~OR~~or Sonalan 1 ¼ to 2 pt	~~p~~Plus	½ Followed by	¼	¼	¼ to ½
MEDIUM Loam, silt loam, sandy clay loam, silt, sandy clay	Treflan 1 ½ pt ~~OR~~or Lasso 2 ½ to 3 qt ~~OR~~or Dual 1 ½ pt ~~OR~~or Prowl 1 ½ pt ~~OR~~or Sonalan 1-¾ -to 2 ½ pt	Plus	¾ Followed by ~~O~~or ½ [2] Followed by	¼ ½	¼ to ½ ½ to ¾	½ to ¾ (¾ to 1)[3] ~~(3/4 to 1)~~[3]
FINE (Heavy) Silty clay loam*, clay loam, silty clay, clay	Treflan 2 pt ~~OR~~or Lasso 2 ½ to 3 qt ~~OR~~or Dual 2 to 2 ½ pt ~~OR~~or Prowl 1 ½ to 2 pt ~~OR~~or Sonalan 2 ¼ to 3 pt	Plus	1.0 Followed by ~~O~~or ¾ [2] Followed by	¼ ½	¼ to ½ ½ to ¾	½ to ¾ (¾ to 1)[3]

* Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

[1] On **coarse textured** soils, do not use on sand soils with less than 1 % organic matter, or on loamy sand or sandy loam soils with less than 0.5% organic matter. However, on coarse textured soils **with a calcareous surface area or a pH of. 7.5 or higher**, do not use on sand soils with less than 2% organic matter, or on loamy sand or sandy loam soils with less than 1 % organic matter.

[2] Use this lower rate of MANA 31301 in the preplant incorporated tank mix **on soils having a calcareous surface area or a pH of 7.5 or higher**, and in those situations where soils within a field vary extremely in texture or organic matter content.

[3] Reduce this preemergence overlay rate of MANA 31301 by 1/4 pt/acre when using SPLIT-SHOT application on **soils with over 4% organic matter and which have a calcareous surface area or a pH of 7.5 or higher.**

EXTENDED SPLIT-SHOT APPLICATION
(Includes No-Till, Reduced-Till, Ridge-Till, Strip-Till, Mulch-Till)
An early preplant (surface-applied or shallow incorporated) application of MANA 31301 tank mixed with either Dual or Lasso, followed by a preemergence surface application of MANA 31301 tank mixed with Dual

or Lasso after planting but prior to soybean emergence, will control more broad leaf and grass weeds in soybeans than either herbicide used alone.

An Extended Split-Shot application will decrease the need for tillage and/or contact herbicides for the control of existing vegetation prior to planting, while providing residual control of weeds after planting.

When an Extended Split-Shot application of MANA 31301 with Dual or Lasso is used, the preplant tank mix combination may be applied 15 to 30 days prior to planting soybeans. Follow directions on the label accompanying the product for Split-Shot applications from 0 to 14 days before planting.

Where a rate range is listed, the higher rates should be used:

(a) in fields with a history of severe weed pressure,
(b) when the time between early preplant tank mix and preemergence overlay applications approaches the maximum 30 days,
(c) when the organic matter content of the soil is at the upper end of the indicated range,
(d) when heavy crop residues are present on the soil surface, and/or
(e) when the early preplant tank mix application is shallow incorporated (e.g. use 2 to 2 1/2 qt Lasso in the early preplant tank mix when surface applied and use 21/2 to 3 qt Lasso when the tank mix is to be lightly incorporated).

When weeds exceed 1 to 1 1/2 inches in height or diameter at application, use a contact herbicide, such as Roundup® or Gramoxone®.

Refer to the Dual or Lasso label, and to appropriate sections of this label for additional information on soil preparation, herbicide application, weeds controlled, precautions, restrictions, limitations and sprayer clean up.

EXTENDED SPLIT-SHOT APPLICATION									
Early Preplant Tank Mix Application (Surface-Applied or Shallow Incorporated)				**Followed By**	**Preemergence Overlay Application**				
SOIL TEXTURE[1]	**Rate of Combination Product/Acre**	**Plus**	**Rate of MANA 31301 Pt/Acre**		**Rate of Combination Product/Acre**	**Plus**	**Rate of MANA 31301 Pt/Acre ORGANIC MATTER**		
							½ to 2%	**2 to 4%**	**Over 4%**
COARSE (Light)(Sand, loamy sand, sandy loam)	Dual 1 1/3 pt or Lasso 1 ½ to 2 qt	Plus	½ to ¾	Dual or Lasso	2/3 pt 1 ½	Plus	¼	¼ to ½	½
MEDIUM (Loam, silt loam, sandy clay loam, silt, sandy clay)	Dual 1 ¾ pt or Lasso 2 to 3 qt	Plus	[2] ¾ -to 1	Dual or Lasso	¾ pt 1 to 2 qt	Plus	½	½ to ¾	¾ to 1
FINE (Heavy)(Silty clay loam* clay loam, silty clay, clay)	Dual 1 ¾ pt or Lasso 2 to 3 qt	Plus	[2] 1 to 1 ¼	Dual or Lasso	1 pt 1 to 2 qt	Plus	½	½ to ¾	¾ to 1

* Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

[1] On coarse textured soils, do not use on sand soil with less than 1% organic matter. However, on coarse textured soils with a calcareous surface area or a pH of 7.5 or higher, do not use on sand soils with less than 2% organic matter, or on loamy sand or sandy loam soils with less than 1% organic matter.

[2] Use the lower rate of MANA 31301 in the early preplant tank mix on soils having a calcareous surface

area or a pH of 7.5 or higher, and in those rare situations where soils within a field vary extremely in texture or organic matter content.

MANA 31301 ~~PLUS~~ *plus* SONALAN

MANA 31301 plus Sonalan Overlay Application: MANA 31301 may be applied as a preemergence overlay application following a preplant incorporated application of Sonalan 3 EC. Consult the Sonalan label for specific directions on use, recommendations, restrictions and any additional weeds not specified on this label.

MANA 31301 plus Sonalan Tank Mix Application: Incorporate the tank mixture into the top 1 to 2 inches of soil within 21 days before planting according to label directions for Sonalan.

Apply MANA 31301 plus Sonalan preplant incorporated if furrow irrigation is used or when a period of dry weather after application is expected. If soybeans are planted on beds, apply and incorporate the tank mixture after bed formation.

Mixing: Refer to the *Product Information* section in the front of this label.

Application: Sonalan should be uniformly applied and thoroughly mixed into the soil within 2 days after application. For specific application information, refer to the *Product Information* section in the front of this label.

BROADCAST RATES		
SOIL TEXTURE	**MANA 31301 Pt/Acre**	**Sonalan 3EC Pt/Acre**
COARSE[1] (Sandy loam, loamy sand)	½	1 ¼ to 2
MEDIUM[3] (Loam, silt loam, silt, sandy clay, sandy clay loam)	¾	1 ¾ to 2 ½
FINE[3] (Silty clay, silty clay loam[2], clay, clay loam)	1	2 ¼ to 3

[1] Do not use on coarse soils with less than 1 % organic matter.

[2] Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

[3] For control of lambsquarters, red root pigweed, wild mustard, and green and yellow foxtails on alkaline (calcareous) soils in Minnesota, Nebraska, South Dakota, and North Dakota only, apply MANA 31301 at rates of ½ pt/acre on medium soils and ½ to ¾ pt/acre on fine soils regardless of soil organic matter percentage (use 3/4 pt only where soil pH is less than 7.5 and weed pressure is heavy). The ½ pt rate of MANA 31301 in tank mix combination with Sonalan can be applied regardless of soil pH. For control of other weeds not listed on the label, use MANA 31301 at full rates listed in the table above, but note that crop injury may occur on soils having a calcareous surface area or a pH of 7.5 or higher.

SPECIAL PRECAUTIONS (MANA 31301 plus Sonalan):

- For additional precautions, restrictions, limitations, incorporation, and sprayer clean-up information, refer to the appropriate sections of this label and the Sonalan label.
- For black nightshade control; refer to the Sonalan label for specific rates and application instructions.

MANA 31301 ~~PLUS~~ *plus* TREFLAN

MANA 31301 and Treflan Overlay Application: MANA 31301 may be applied as a preemergence broadcast or band overlay application following a pre-plant incorporated treatment of Treflan. Consult the Treflan label for specific directions for use, recommendations restrictions and any additional weeds not specified on this label.

MANA 31301 plus Treflan Tank Mix Application: A single application of a tank mix combination of MANA 31301 and Treflan EC will control more broadleaf and grass weeds in soybeans than when either herbicide is used alone.

Prepare the soil surface by deep plowing, offset disking or tandem disking prior to the application of the herbicide combination. The soil surface should be well prepared and free of clods and trash.

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This MANA 31301 plus Treflan tank mix combination may be applied and incorporated into the soil up to 10 days before planting.

Mixing: Refer to the *Product Information* section in the front of this label.

Application: For specific application information refer to the *Product Information* section in the front of this label.

Apply MANA 31301 plus Treflan to the soil surface and incorporate in the same operation, if possible. Variable weed control may result from delayed incorporation if MANA 31301 plus Treflan are applied to a wet, warm soil surface or if the wind velocity is 10 miles per hour or higher. Use machinery that mixes MANA 31301 plus Treflan thoroughly with the soil. Incorporation may be delayed up to 24 hours after application. Shallow incorporation with implements set to cut less than 2 inches deep may result in erratic weed control. Do not use spike or spring-tooth harrows alone for incorporation.

BROADCAST RATES		
SOIL TEXTURE	**MANA 31301 Pt Per Acre**	**Treflan EC Pt Per Acre**
COARSE[1](Sandy loam, loamy sand)	½	1
MEDIUM (Loam, silt loam, silt, sandy clay, sandy clay loam)	¾	1 ½
FINE (Silty clay, silty clay loam[2], clay, clay loam)[3]	1	2

[1] Do not use on coarse soils with less than 1% organic matter.
[2] Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.
[3] For control of lambsquarters, redroot pigweed, wild mustard, and green and yellow foxtails on alkaline (calcareous) soils in Minnesota, Nebraska, South Dakota, and North Dakota only, apply MANA 31301 at rates of ½ pt/acre on medium soils and ½ to ¾ Pt/acre on fine soils regardless of soil organic matter percentage (use *3/4* pt only where soil pH IS less than 7.5 and weed pressure is heavy). The ½ pt rate of MANA 31301 in tank mix combination with Treflan can be applied regardless of soil pH. For control of other weeds listed on the label use MANA 31301 at full rates listed in the table above, **but note that crop injury may occur on soils having a calcareous surface area or a pH of 7.5 or higher.**

Incorporation Equipment:
Set PTO driven equipment (tillers, cultivators, hoes) to cut 2 to 3 inches deep and space rotors to provide a clean sweep of the soil.
PTO equipment should not be operated at a speed greater than 4 miles per hour. Set disk to cut 4 to 6 inches deep and operate twice in different directions at 4 to 6 miles per hour. Set mulch treader and other similar disk-type implements to cut 3 to 4 inches deep and operate twice in different directions at 5 to 8 miles per hour.
For Coarse and Medium Textured Soils Only:
Set rolling cultivator to cut 2 to 4 inches deep and operate twice at 6 to 8 miles per hour. Set bed conditioner (DO-All) to cut 2 to 4 inches deep and operate at 4 to 6 miles per hour.

SPECIAL PRECAUTIONS (MANA 31301 plus Treflan):

- Seedling disease, cold weather, excessive moisture, high salt concentration or drought may weaken soybean seedlings and increase possibility of damage from the tank mix. Do not plant soybeans deeper than 2 inches.
- Do not rotate any crop not listed on this label for 18 months after the tank-mix application.
- For additional precautions, restrictions, limitations and sprayer clean-up information refer to the appropriate section of this label.
- Do not use this tank mix combination on soils containing charcoal in Arkansas, Louisiana and Mississippi.

MANA 31301 ~~PLUS~~ *plus* DUAL
MANA 31301 plus Dual Overlay Application: Apply a preplant incorporated treatment of Dual BE as directed on that product label for use on soybeans. Follow with a preemergence treatment of MANA 31301 as directed on this label for use on soybeans.

MANA 31301 PLUS DUAL TANK MIX APPLICATIONS

Preplant Incorporated Application: Incorporate the tank mixture into the top 2 inches of soil within 14 days before planting using a disk, harrow, rolling cultivator, or similar implement.
Apply MANA 31301 plus Dual preplant incorporated if furrow irrigation is used or when a period of dry weather after application is expected, If soybeans are planted on beds, apply and incorporate the tank mixture after bed formation.

Preemergence Application: Dry weather following preemergence application of MANA 31301 plus DUAL tank mixture may reduce effectiveness. If weeds develop, cultivate uniformly with shallow tillage equipment such as a rotary hoe that will not damage soybeans.

Mixing Instructions: Refer to the *Product Information* section in the front of this label.

For information on applying MANA 31301 in fluid or dry fertilizer refer to the *Application of MANA 31301 in Fluid Fertilizers* or *Commercial Impregnation and Application* of *MANA 31301 on Dry Bulk Fertilizer* under the *Product Information* section in the front of this label.

BROADCAST RATES MANA 31301 Plus Dual Tank Mix Preemergence Applications		
0.5% to 3% ORGANIC MATTER		
SOIL TEXTURE	**MANA 31301 Pt/Acre**	**DUAL 8E Pt/Acre**
COARSE[1] (Loamy sand, sandy loam)	½	1 ¼
MEDIUM (Loam, silt loam, silt)	¾	1 ½
FINE (Silty clay loam[2], sandy clay loam, silty clay, sandy clay, clay loam, clay)	1	2
MISSISSIPPI DELTA ONLY (Silty clay, clay)	1 ½	2
Over 3% ORGANIC MATTER		
COARSE[1] (Loamy sand, sandy loam)	¾	1 ½
MEDIUM (Loam, silt loam, silt)	1 to 1 ¼	2 to 2 ½
FINE (Silty clay loam[2], sandy clay loam, silty clay, sandy clay, clay loam, clay)	1 ½	2 to 2 ½
MISSISSIPPI DELTA ONLY (Silty clay, clay)	1 ½	2 to 2 ½

[1] Do not use on sand soils. Do not apply MANA 31301 and Dual overlay or tank mix preemergence on loamy sand with less than 2% organic matter.
[2] Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

BROADCAST RATES MANA 31301 Plus Dual Tank Mix Preemergence Applications		
0.5% to Less Than 3% ORGANIC MATTER		
SOIL TEXTURE	**MANA 31301 Pt/Acre**	**DUAL 8E Pt/Acre**
COARSE[1] (Loamy sand, sandy loam)	½	1 ¼
MEDIUM (Loam, silt loam, silt)	¾	1 ½
FINE (Silty clay loam[2], sandy clay loam, silty clay, sandy clay, clay loam, clay)	1	2
MISSISSIPPI DELTA ONLY (Silty clay, clay)	1 to 1 ¼	2
Over 3% or Greater ORGANIC MATTER		
COARSE[1] (Loamy sand, sandy loam)	½	1 ½
MEDIUM (Loam, silt loam, silt)	¾	2
FINE (Silty clay loam[2], sandy clay loam, silty clay, sandy clay, clay loam, clay)	1	2 to 2 ½
MISSISSIPPI DELTA ONLY (Silty clay, clay)	1 to 1 ¼	2 to 2 ½

[1] Do not use on sand soils. Do not apply MANA 31301 and Dual overlay or tank mix preemergence on loamy sand with less than 2% organic matter.
[2] Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

SPECIAL PRECAUTIONS (MANA 31301 and Dual):

- For additional precautions, restrictions, limitations, and sprayer clean up information refer to the appropriate sections of this label and the Dual label.

MANA 31301 ~~PLUS~~ *plus* PROWL

MANA 31301 plus Prowl Overlay Application: Apply a preplant incorporated treatment of Prowl as directed on that product label for use on soybeans. Follow with a preemergence treatment of MANA 31301 as directed on this label for use on soybeans.

MANA 31301 plus Prowl Tank Mix Application

Preplant Incorporated Application: Prepare the soil by plowing or disking to mix previous crop residues into the soil to a depth of 4 to 6 inches. For specific application information refer to the "Product Information" section in the front of this label.

Incorporate the tank mixture into the top 1 or 2 inches of soil within 7 days after application according to label directions for Prowl. Mechanical incorporation is not required if a rain of one-quarter inch or more occurs within 7 days after application. Soybeans must be planted no later than 7 days after application of the tank mixture.

Preemergence Application: Except for minimum and no- tillage systems, the seed bed should be firm and free of trash and clods.

For specific application information refer to the "Product Information" section in the front of this label. Do not apply Prowl preemergence north of Interstate 80.

This application must be made after planting and before crop emergence. Do not incorporate.

If cultivation is necessary because of soil crusting, soil compaction or weed germination before rain or irrigation, use shallow tilling equipment such as a rotary hoe that does not damage soybeans.

Mixing Instructions: Refer to the "Product Information" section in the front of this label.

For information on applying MANA 31301 in fluid or dry fertilizer refer to the "Application of MANA 31301 In Fluid Fertilizers" or "Commercial" Impregnation and Application of MANA 31301 on Dry Bulk Fertilizer" under the "Product Information" section in the front of this label.

PREPLANT INCORPORATED: For specific application information refer to the "Product Information" section in the front of this label.

Apply MANA 31301 plus Lasso preplant incorporated if furrow irrigation is used or when a period of dry weather after application is expected. If soybeans are planted on beds, apply and incorporate the tank mixture after bed formation. Apply within 7 days prior to planting and shallowly incorporate into the upper 1 to 2 inches of soil.

APPLICATION RATES MANA 31301 Plus Lasso Tank Mix Preplant Incorporated Applications (Broadcast Rates)		
SOIL TEXTURE	**MANA 31301 Pt/Acre**	**Lasso Qt/Acre**
COARSE[1] (Loamy sand(over 2% organic matter), sandy loam)	½	2 to 2 ½
MEDIUM (Loam, silt loam, silt)	¾	2 ½ to 3
FINE (Silty clay loam[2], sandy clay loam, silty clay, sandy clay, clay loam, clay)	1	2 ½ to 3
MISSISSIPPI DELTA ONLY (Silty clay, clay)	1 to 1 ¼	2 ½ to 3
[1] Do not use MANA 31301 plus Lasso on sand or loamy sand soils with less than 2% organic matter. [2] Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S. Do not use on muck soils.		

SPECIAL PRECAUTIONS (MANA 31301 Plus Lasso):

- For additional precautions, restrictions, limitations and sprayer clean up information, refer to the appropriate sections of this label and the Lasso label.

MANA 31301 ~~PLUS~~ *plus* COMMAND®

MANA 31301 may be applied in combination with Command 4EC as a preplant or shallow incorporated application for the control of certain weeds in soybeans. Consult the Command label for specific directions on use, recommendations restrictions and any additional weeds not specified on this label.

Mixing: Refer to the "Product Information" section in the front of this label.

Application: MANA 31301 plus Command may only be applied with ground equipment as a preplant or shallow incorporated application. MANA 31301 plus Command should be immediately incorporated into the top 1 to 3 inches after application unless surface is dry. On dry soils, incorporate into the top 1 to 3 inches within 3 hours of tank mix application.
Do not apply this tank mix within 1000 feet of towns and subdivisions, commercial vegetable, fruit, nurseries or greenhouse operations.

A minimum of 15 gallons spray volume per acre is required with appropriate nozzle types and sizes to produce a coarse spray droplet. Use an approved agricultural drift-reducing additivefor application volumes of 15 to 40 gallons per acre. The use of an approved agricultural drift reducing additive is required at spray volumes of 10 to 15 gallons per acre.

NOTE: Off-site movement of Command spray drift or vapors can cause foliar whitening or yellowing of some vegetation. Prior to application of Command, read and strictly follow all precautions and application instructions as set forth in that label.

For additional information on application, refer to the "Product Information" section in the front of this label and the Command label.

Weeds Controlled: Bristly Starbur, Carpetweed, Copperleaf, Florida Beggarweed, Florida Pusley, Galinsoga, Jimsonweed, Knotweed, Lambsquarters, Pigweeds, Prickly SidafTeaweed, Purslane, Common Ragweed, Redweed, Sesbania, Smartweeds, Spurred Anoda, Velvetleaf, Venice Mallow, Wild Mustards, Barnyardgrass", Bluegrass, Broadleaf Signalgrass, Crabgrass", Foxtails (Green, Giant, Yellow", Robust Purple), Goosegrass, Johnsongrass (seedling)*, Fall Panicum*, Texas Panicum, and witchgrass.

- **Use 2 pt/A Command 4EC on coarse and medium textured soils with high populations of these weeds.**

APPLICATION RATES MANA 31301 Plus COMMAND 4EC Tank Mix Preplant Incorporated Application (Broadcast Rates)		
0.5% to 3% ORGANIC MATTER		
SOIL TEXTURE[1]	**MANA 31301 Pt/Acre**	**COMMAND 4EC Pt/Acre**
COARSE[2] (Loamy sand, sandy loam)	½	1 ¼
MEDIUM (Loam, silt loam, silt)	¾	1 ½
FINE (Silty clay loam[3], sandy clay loam, silty clay, sandy clay, clay loam, clay)	1	2
MISSISSIPPI DELTA ONLY (Silty clay, clay)	1 to 1 ¼	2
Over 3% or Greater ORGANIC MATTER		
COARSE[2] (Loamy sand, sandy loam)	½	1 ½
MEDIUM (Loam, silt loam, silt)	¾	2
FINE (Silty clay loam[3], sandy clay loam, silty clay, sandy clay, clay loam, clay)	1	2 to 2 ½
MISSISSIPPI DELTA ONLY (Silty clay, clay)	1 to 1 ¼	2 to 2 ½

[1] Crop injury may occur on soils having a calcareous surface area or a pH of 7.1 or higher.
[2] Do not use on coarse soils with less than 1% organic matter.
[3] Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

SPECIAL PRECAUTIONS (MANA 31301 Plus Command):

- Do not rotate to wheat. barley, alfalfa or seed corn in the fall of the year of application or in the spring of the following year as crop injury may occur. Do not rotate any crop not listed on this label for 18 months following application of MANA 31301.
- Do not apply when weather conditions favor drift. Do not use treated vines for feed or forage.
- Do not apply aerially or through irrigation equipment.

MANA 31301 ~~PLUS~~*plus* COMMENCE®

MANA 31301 Plus Commence Tank Mix Early Preplant Incorporated Application: MANA 31301 in a tank mix with Commence 5.25 EC may be applied broadcast preplant incorporated up to 30 days before planting soybeans for the control of certain broad leaf weeds and grasses. Refer to the Commence herbicide label for additional directions for use, weeds controlled, restrictions and limitations not specified on this label.

Mixing: Refer to the "Product Information" section on this label.

Application: For information on applying MANA 31301, refer to the "Product Information" section on this label.

APPLICATION RATES MANA 31301 Plus Commence 5.25 EC Tank Mix Early Preplant Incorporated Application[1]		
½ to 3% ORGANIC MATTER		
SOIL TEXTURE	**MANA 31301 Pt/Acre**	**Commence 5.25 EC Pt/Acre**
COARSE[2]	¾	1 1/3 to 2
MEDIUM	1	2 to 2 ¼
FINE	1	2 2/3
Over 3% or Greater ORGANIC MATTER		
COARSE[2]	¾	1 1/3 to 2
MEDIUM	1	2 to 2 ¼
FINE	1 ½	2 2/3
[1] Crop injury may occur on soils having a calcareous surface area or a pH of 7.5 or lower. [2] Do not use on coarse soils with less than 1% organic matter.		

SPECIAL PRECAUTIONS:

- Do not apply aerially or through irrigation equipment.
- Do not apply when weather conditions favor drift. Do not allow sprays to drift on to adjacent desirable plants.
- Do not use treated vines for feed or forage.
- Do not rotate to wheat, barley, alfalfa or seed corn in the fall of the year of application or in the spring of the following year as crop injury may occur. Do not rotate any crop not listed on this label for 18 months following application of MANA 31301.

MANA 31301 plus Commence Tank Mix Preplant Incorporated: MANA 31301 may be tank mixed with Commence 5.25 EC for preplant incorporated application to control certain weeds in soybeans. Refer to the "Product Information" section of this label for information on mixing, application, restrictions, special precautions and weeds controlled by MANA 31301. See appropriate sections of the Commence 5.25 EC herbicide label for additional precautionary statements, directions for use, and additional weeds controlled.

APPLICATIONS RATES MANA 31301 Plus COMMENCE Tank Mix Preplant Incorporated Application[1] (Broadcast Rates)		
0.5% to 3% ORGANIC MATTER		
SOIL TEXTURE	**MANA 31301 Pt/Acre**	**COMMENCE 5.25 EC Pt/Acre**
COARSE[2] (Loamy sand, sandy loam)	½	1 1/3 to 2
MEDIUM (Loam, silt loam, silt, sandy clay, sandy clay loam)	½ to ¾	2 to 2 ¼
FINE (Silty clay, silty clay loam[3], clay, clay loam)	½ to ¾	2 2/3
Over 3% ORGANIC MATTER		
COARSE[2] (Loamy sand, sandy loam)	½	1 ½
MEDIUM (Loam, silt loam, silt, sandy clay, sandy clay loam)	½ to ¾	2
FINE (Silty clay loam[3], sandy clay loam, silty clay, sandy clay, clay loam, clay)	¾ to 1	2 2/3
[1] Crop injury may occur on soils having a calcareous surface area or a pH of 7.1 or higher. [2] Do not use on coarse soils with less than 1% organic matter. [3] Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.		

SPECIAL PRECAUTIONS (MANA 31301 plus Commence):

- Do not rotate to wheat, barley, alfalfa or seed corn in the fall of the year of application or in the spring of the following year as crop injury may occur. Do not rotate any crop not listed on this label for 18 months following application of MANA 31301.

- Do not apply when weather conditions favor drift. Do not use treated vines for feed or forage. Do not apply aerially or through irrigation equipment.
- Do not allow sprays to drift on to adjacent desirable plants.

MANA 31301 ~~PLUS~~ *plus* FREEDOM®™

MANA 31301 may be tank mixed with Freedom 3 EC for preplant incorporated application to control weeds in soybeans. Refer to the "Product Information" section of this label for information on mixing, application, restrictions, special precautions and weeds controlled by MANA 31301. See appropriate sections of the Freedom 3 EC herbicide label for additional precautionary statements, directions for use, recommendations and additional weeds controlled.

APPLICATION RATES MANA 31301 Plus FREEDOM Tank Mix Preplant Incorporated Application (Broadcast Rates)			
0.5% to 3% ORGANIC MATTER			
SOIL TEXTURE	**MANA 31301 Pt/Acre**	**PLUS**	**FREEDOM 3EC QT/ACRE**
COARSE[1] (sandy loam)	½	Plus	2 ¾ to 3 ½
MEDIUM[2] (Loam, silt loam, silt, sandy clay, sandy clay loam)	¾	Plus	2 ¾ to 3 ½
FINE[2] (Silty clay, silty clay loam[3], clay, clay loam)	1	Plus	3 ½ to 4
MISSISSIPPI DELTA ONLY (silty clay to heavy clay)	2	Plus	3 ½ to 4 ½
GREATER THAN 3% ORGANIC MATTER			
COARSE[1] (sandy loam)	¾	Plus	3 to 3 ½
MEDIUM[2] (Loam, silt loam, silt, sandy clay, sandy clay loam)	1	Plus	3 ½ to 4
FINE[2] (Silty clay, silty clay loam[3], clay, clay loam)	1 to 1 ¼	Plus	3 ½ to 4 ½
MISSISSIPPI DELTA ONLY (silty clay to heavy clay)	2	Plus	3 ½ to 4 ½

[1] Do not use MANA 31301 plus Freedom on sand or loamy sand soils with less than 2% organic matter.

[2] For control of lambsquarters, red root pigweed, wild mustard, green and yellow foxtails on alkaline (calcareous) soils in Minnesota, Nebraska, South Dakota, and North Dakota only, apply MANA 31301 at rates of ½ pt/acre on medium soils and ½ to ¾ pt/acre on fine soils regardless of soil organic matter percentage (use *3/4* pt only where soil pH is less than 7.5 and weed pressure is heavy). The ½ pt/acre rate of MANA 31301 in tank mix combination with Freedom can be applied regardless of soil pH. For control of other weeds use MANA 31301 at full rates indicated in the table above, but note that crop injury may occur on soils having a calcareous surface area or a pH of 7.5 or higher.

[3] Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

SPECIAL PRECAUTIONS (MANA 31301 plus Freedom):

- Do not use on muck soils.
- Do not allow sprays to drift on to adjacent desirable plants.

MANA 31301 ~~PLUS~~ *plus* CANOPY ~~PLUS~~ *plus* A GRASS HERBICIDE

A tank mix combination of MANA 31301 plus Canopy 75 DF plus a registered and compatible grass herbicide (Dual, Lasso, Prowl, Sonalan or Treflan) is necessary for control of the following weeds in soybeans:

WEEDS CONTROLLED

Annual Grasses			
Barnyardgrass	Browntop Millet	Foxtails	Panicum, Fall
Bluegrass	Crabgrass	Goosegrass	Witchgrass
Broadleaf signalgrass	Crowfootgrass	Johnsongrass (seedling)	
Annual Broadleaves			
Bristly Starbur	Knotweed	Ragweed, Common	Smartweeds
Carpetweed	Kochia	Redweed	Spotted spurge
Cooperleaf,	Lambsquarters	Russian Thistle	Spurred Anoda
Hophornbeam	Pigweeds	Sesbania	Velvetleaf
Florida Beggarweed	Prickly sida/Teaweed	Shepherdspurse	Venice mallow
Florida Pusley	Purslane	Sicklepod	Wild Mustards
Galinsoga			
Jimsonweed			

MANA 31301 and Command plus Treflan, Lasso, Dual, Prowl or Sonalan will provide suppression (reduce the competition) of cocklebur and sunflower.

APPLICATION RATES
MANA 31301 ~~PLUS~~ *plus* COMMAND ~~PLUS~~*plus* A GRASS HERBICIDE (BROADCAST RATES)

PRODUCT	**SOIL TEXTURE[1]**		
	COARSE	**MEDIUM**	**FINE**
MANA 31301 (Pt/Acre)	½	½ to ¾ [2]	¾ to 1[2]
Command 4EC[3] (Pt/Acre)	½ to ¾	½ to ¾	½ to ¾
Treflan (Pt/Acre)	1	1 ½	2
Dual (Pt/Acre)	1 ¼ to 1 ½	1 ½ to 2	2 to 2 ½
Prowl (Pt/Acre)	1 ½	1 ½ to 2	1 ½ to 2 ½
Lasso (Qt/Acre)	2 to 2 ½	2 ½ to 3	2 ½ to 3
Sonalan (Pt/Acre)	1 ¼ to 2	1 ¾ to 2 ½	2 ¼ to 3

[1]Refer to "Soil Texture" paragraph on this label for specific soil classification. On coarse textured soils **with a calcareous surface area or a pH of 7.5 or higher,** do not use on loamy sand or sandy loam soils with less than 1 % organic matter.
[2]The higher rate of MANA 31301 is required for the control of sicklepod and hemp sesbania. Use the lower rate of MANA 31301 in the preplant incorporated tank mix **on soils having a calcareous surface area or a pH of 7.5 or higher,** and in those situations where soils within a field vary extremely in texture or organic matter content
[3] Higher rate is required under moderate to heavy weed infestations.

MANA 31301 ~~PLUS~~ *plus* SCEPTER ~~PLUS~~ *plus* A GRASS HERBICIDE
MANA 31301 may be applied with Scepter herbicide and a grass herbicide (Treflan, Lasso, Dual, Prowl or Sonalan) for the control of certain broadleaf weeds and grasses in soybeans. MANA 31301 and Scepter plus Treflan or Sonalan may be applied preplant incorporated broadcast. MANA 31301 and Scepter plus Lasso, Dual or Prowl may be applied preplant incorporated, preemergence broadcast or in a band application. Consult the Scepter, Treflan, Lasso, Dual, Prowl or Sonalan labels for specific directions for use, recommendations restrictions and additional weeds controlled not specified on this label.

Mixing: Refer to the "Product Information" section in the front of this label.

Application: For specific application information, refer to the "Product Information" section in the front of this label.

Weeds Controlled: MANA 31301 plus Scepter plus Treflan, Lasso, Dual, Prowl or Sonalan will control the following broad leaf weeds and grasses:

WEEDS CONTROLLED

Annual Grasses			
Barnyardgrass Bluegrass Broadleaf signalgrass	Browntop Millet Crabgrass Crowfootgrass	Foxtails Goosegrass Johnsongrass (seedling)	Panicum, Fall Witchgrass
Annual Broadleaves			
Bristly Starbur Buffalobur Carpetweed Cocklebur Coffee Senna Cooperleaf, Hophornbeam Florida Beggarweed Florida Pusley	Galinsoga Jimsonweed Knotweed Kochia Lambsquarters Morningglory, pitted Morningglory, smallflower Pigweeds	Prickly Sida/Teaweed Purslane Ragweed, Common Redweed Russian Thistle Sesbania Shepherdspurse Sicklepod	Smartweeds Spotted spurge Spurred Anoda Velvetleaf Venice mallow Wild Mustards

MANA 31301 and Scepter plus Treflan, Lasso, Dual, Prowl or Sonalan will suppress (reduce the competition of) ivyleaf and tall morningglory, and red rice.

APPLICATIONS RATES
MANA 31301 ~~PLUS~~ *plus* SCEPTER ~~PLUS~~ *plus* A GRASS HERBICIDE (BROADCAST RATES)

PRODUCT	SOIL TEXTURE[1]		
	COARSE	MEDIUM	FINE
MANA 31301 (Pt/Acre)	½	½ to ¾ [2]	¾ to 1[2]
Scepter (1.5 lb/gal liquid[3] Pt/Acre) Or	1/3 to ½	1/3 to ½	1/3 to ½
Scepter 70 DG[3] (Oz/Acre)	1.4 to 2.1	1.4 to 2.1	1.4 to 2.1
Treflan (Pt/Acre)	1	1 ½	2
Dual (Pt/Acre)	1 ¼ to 1 ½	1 ½ to 2	2 to 2 ½
Prowl (Pt/Acre)	1 ½	1 ½ to 2	1 ½ to 2 ½
Lasso (Qt/Acre)	2 to 2 ½	2 ½ to 3	2 ½ to 3
Sonalan (Pt/Acre)	1 ¼ to 2	1 ¾ to 2 ½	2 ¼ to 3

[1]Refer to "Soil Texture" paragraph on this label for specific soil classification. On coarse textured soils **with a calcareous surface area or a pH of 7.5 or higher**, do not use on loamy sand or sandy loam soils with less than 1% organic matter.
[2]The higher rate of MANA 31301 is recommended for preemergence tank mix application and for the control of sicklepod and hemp sesbania. Use the lower rate of MANA 31301 in the preplant incorpoarated tank mix **on soils having a calcareous surface are or a pH of 7.5 or higher**, and in those situations where soils within a field vary extremely in texture or organic matter content.
[3]Higher rate is recommended under moderate to heavy weed infestations.

MANA 31301 ~~PLUS~~ *plus* PURSUIT™® AND A GRASS HERBICIDE

MANA 31301 may be tank mixed with Pursuit herbicide and a registered and compatible grass herbicide (Dual, Lasso, Prowl, Sonalan or Treflan) for control of certain broadleaf and grass weeds in soybeans. Refer to the product labels for Pursuit, Dual, Lasso, Prowl, Sonalan or Treflan for additional directions for use, restrictions and limitations not included on this label.

Tank mix combinations of MANA 31301, Pursuit and Dual, Lasso or Prowl can be applied broadcast preemergence or preplant incorporated. When the grass herbicide used is Sonalan or Treflan, apply the tank mix broadcast preplant incorporated.

Mixing and Application: Refer to the "Product Information" section of this label for directions on mixing and application of MANA 31301.

APPLICATION RATES MANA 31301 ~~PLUS~~ *plus* PURSUIT AND A GRASS HERBICIDE*		
SOIL TEXTURE	**MANA 31301 (PT/ACRE)**	**PURSUIT (OZ/ACRE)**
COARSE	½	4
MEDIUM	3/5 ~~TO~~to ¾	4
FINE	¾ ~~TO~~to 1	4
*For control of grass weeds, include Dual, Lasso, Prowl, Sonalan or Treflan at label rates in the tank mix with MANA 31301 and Pursuit herbicides.		

SPECIAL PRECAUTIONS:

- Do not apply this tank mix with aerial or irrigation equipment.
- Do not apply when weather conditions favor drift, or allow sprays to drift onto adjacent desirable plants.
- Do not use treated vines for feed or forage. Refer to appropriate sections of the Pursuit herbicide label for restrictions on use area and rotational crops.

MANA 31301 ~~PLUS~~*plus* PURSUIT ~~PLUS~~ *plus* HERBICIDE

MANA 31301 may be tank mixed with Pursuit Plus herbicide for broadcast preemergence or preplant incorporated application to soybeans for control of certain broad leaf and grass weeds. Refer to the Pursuit Plus herbicide label for additional directions for use, recommendations restrictions and limitations not included on this label.

Mixing and Application: Refer to the "Product Information" section of this label for directions on mixing and application of MANA 31301.

APPLICATION RATES MANA 31301 ~~PLUS~~ *plus* PURSUIT (BROADCAST RATES)		
SOIL TEXTURE	**MANA 31301 (PT/ACRE)**	**PURSUIT (PT/ACRE)**
COARSE	½	2 ½
MEDIUM	3/5 ~~TO~~to ¾	2 ½
FINE	¾ ~~TO~~to 1	2 ½

Restrictions and Limitations:

- Do not apply this tank mix with aerial or irrigation equipment. Do not apply when weather conditions favor drift, or allows sprays to drift on to desirable plants.
- Do not use treated vines for feed or forage.
- Refer to appropriate sections of the Pursuit Plus herbicide label for restrictions on use area and rotational crops.

MANA 31301 ~~PLUS~~ plus LINURON ~~PLUS~~ plus (LASSO OR DUAL)

MANA 31301 plus linuron plus (Lasso or Dual) Tank Mix Application: MANA 31301 may be applied in combination with linuron 50 DF or 4L and Lasso 4 or Dual 8 EC as a preemergence application for the control of certain weeds in soybeans. Consult the linuron, Lasso, or Dual labels for specific directions for use, recommendations restrictions and any additional weeds not specified on this label.

Mixing: Refer to the "Product Information" section in the front of thjs label.

Application: Applications can be made only with ground spray equipment in accordance with specified soil types and dosage rates.
For specific application information, refer to the "Product Information" section in the front of this label.

MANA 31301 ~~PLUS~~*plus* LINURON ~~PLUS~~*plus* (LASSO OR DUAL) BROADCAST RATES (0.5 TO 3% ORGANIC MATTER ONLY)			
Product	**SOIL TEXTURE**		
	COARSE[1] (Sandy, loamy sand, sandy loam)	**MEDIUM (Loam, silt loam, silt, sandy clay, sandy clay loam)**	**FINE (Silty clay, silty clay loam[2], clay, clay loam)**
MANA 31301 (ptlacre)	¼ to 3/8	3/8 to ½	½ to ¾
Linuron 50 DF (lb/acre) Or Linuron 4L (pt/acre)	1/3 to ½	½ to ¾	¾ to 1 ½
Lasso 4 (qt/acre)	¾ to 1	1 to 1 ½	1 ¼ to 2
Or			
Dual 8EC (pt/acre)	1 to 1 ¼	1 ¼ to 1 ½	1 ½ to 2
[1] Do not use MANA 31301 plus linuron plus (Lasso or Dual) on sand soils with less than 1% organic matter. [2] Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.			

SPECIAL PRECAUTIONS (MANA 31301 plus Linuron plus (Lasso or Dual): For additional precautions, restrictions, limitations, and sprayer clean-up information; refer to the appropriate sections of this label and the Linuron label and the Lasso or Dual labels.

FOR USE IN COARSE (LIGHT) SOILS IN Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.

MANA 31301 can be used alone or in combination with Treflan, Lasso or Dual for use in coarse-textured, low organic matter soils in the states listed above for the control of certain weeds in soybeans. Refer to the appropriate sections of this label and the Treflan, Lasso or Dual labels for specific directions for use, restrictions and any additional weeds not specified on this label.

Mixing: Refer to the "Product Information" section in the front of this label.

Application: For specific application information, refer to the "Product Information" section in the front of this label.

MANA 31301 (Alone) Preemergence Application (Broadcast Rates)		
SOIL TEXTURE	**ORGANIC MATTER**	**MANA 31301 Pt/ACRE**
COARSE (LIGHT) SOILS Sand[1], Loamy, sand, Sandy Loam	0.5% or Above	½ to ¾ [2]
[1] Do not use on sand with less than 1 % organic matter. [2] Use the higher rate under heavy weed pressures and/or on soils higher in organic matter.		

MANA 31301 in Combination with Other Herbicides: MANA 31301 can be used in a tank mix combination with Treflan as a preplant incorporated application or as a preemergence overlay application following a preplant incorporated application of Treflan. MANA 31301 can also be used as a preemergence application in combination with Lasso or Dual.

FOR USE IN COARSE (LIGHT SOILS) 0.5% or Above ORGANIC MATTER (Broadcast Rates)			
SOIL TEXTURE	**COMBINATION PRODUCT/CARE**	**PLUS**	**MANA 31301 PT/ACRE**
COARSE (LIGHT) SOIL Sand[1], Loamy sand, Sandy loam	Preplant Incorporated Treflan 4EC 1 pt	Plus	½ to ¾ [2]
	Preemergence Lasso 4E 1 ½ to 2 qt Dual 8E 1 ¼ to 1 ½ pt	Plus	½ to ¾ [2]
[1] Do not use on sand with less than 1 % organic matter. [2] Use the higher rate under heavy weed pressures and/or on soils higher in organic matter.			

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SPECIAL PRECAUTIONS:

- Do not use on sand soils with less than 1% organic matter, or on sandy loam or loamy sand soils with less than 0.5% organic matter.
- For additional precautions, restrictions, limitations and sprayer clean-up information, refer to the appropriate sections of this label and the Treflan, Lasso or Dual labels.

BURN DOWN WEED CONTROL - FIELD CORN AND SOYBEANS

MANA 31301 can be used as part of a herbicide program for burndown of existing vegetation prior to crop emergence in conservation tillage systerns. MANA 31301 may be tank mixed with 2,4-D low volatile ester (LVE), Gramoxone Extra, or Roundup / Roundup Ultra / Touchdown® for control of emerged weeds prior to field corn or soybean emergence.

MANA 31301 tank mixes with 2,4-D, Fusion, Poast® Plus or Select® may also be used in soybeans for control of emerged weeds prior to crop emergence. MANA 31301 burndown tank mixes can be applied before planting or prior to crop emergence in the following areas:

Field Corn:
Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, Ohio, South Dakota, and Wisconsin
Soybeans:
All areas for all products except Fusion tank mixes - see Fusion section of this label for applicable states.

Application: MANA 31301 may be applied up to 30 days prior to planting or preemergence. Apply only by ground equipment when MANA 31301 is used for burndown of existing vegetation in conservation tillage systems. MANA 31301 and tank mix partner burndown rates are listed in the following three tables.

MANA 31301 BURN DOWN RATES - FIELD CORN AND SOYBEANS		
CROPS	**APPLICATION TIMING**	**MANA 31301 RATE (Pt/A)**
Field Corn Iowa Kansas Missouri Nebraska South Dakota	Preplant (0 to 30 days) Preemergence	3 to 8
Field Corn	Preplant (10 to 30 days)	3 to 8
Illinois Indiana Kentucky Michigan Minnesota Ohio Wisconsin	Preplant (0 to 9 days) Preemergence	3 to 6
Soybeans	Preplant (0 to 30 days) Preemergence	3 to 8

MANA 31301 ~~PLUS~~*plus* TANK MIX PARTNER BURN DOWN RATES - FIELD CORN OR SOYBEANS		
PRODUCT	**RATE**	**DIRECTIONS AND REMARKS**
MANA 31301 + 2,4-D LVE	3 to 8 fl oz/A* + ¼ to 1 lb ai/A	In soybeans, apply at least 7 days preplant when using 2,4-D LVE at ¼ to ½ lb ai/A and at least 30 days preplant with rates greater than ½ lb ai/A. Include crop oil concentrate (COC) at the rate of 1 gal/100 gal of spray solution (1% v/v). In corn, apply at least 7 days preplant or at least 3 days after planting but before corn emergence.
MANA 31301 + Gramoxone Extra	3 to 8 fl oz/A* + 24 to 48 fl oz/A	Must be applied prior to crop emergence. Use 24 to 32 fluid ounces of Gramoxone Extra for weeds less than 4 inches in height and 32 to 48 fluid ounces when weeds are 4 to 6 inches in height. Apply in 20 to 60 gallons of water per acre. Include either nonionic surfactant at 1 quart per 100 gallons (0.25% v/v) or crop oil concentrate at 1 gallon per 100 gallons (1% v/v) of spray solution.
MANA 31301 + Gramoxone Extra + 2,4-D LVE	3 to 8 fl oz/A* + 24 to 48 fl oz/A + ¼ to 1 lb ai/A	For this tank mix follow the Directions and Remarks Sections above for MANA 31301 + 2,4-D LVE and MANA 31301 + Gramoxone Extra, paying special attention to crop planting restrictions with 2,4-D LVE. Include either nonionic surfactant or crop oil concentrate in this tank mix.
MANA 31301 + Roundup/Roundup Ultra Or Touchdown	3 to 8 fl oz/A* + 12 to 24 fl oz/A or 8 to 16 fl oz/A	Must be applied prior to crop emergence. Use the higher rates as weeds approach the maximum weed heights listed in the "weeds Controlled" section below. Apply in 10 to 20 gallons of water per acre. With Roundup and Touchdown, include nonionic surfactant at 2 quarts per 100 gallons (0.5% b/b) and ammonium sulfate (spray grade) at 17 pounds per 100 gallons of spray solution. With Roundup Ultra, include ammonium sulfate (spray grade) at 17 pounds per 100 gallons of spray solution. Any glyphosate formulation registered and labeled for use in field corn or soybeans may be tank mixed with MANA 31301.
MANA 31301 + Roundup/Roundup Ultra Or Touchdown + 2,4-D LVE	3 to 8 fl oz/A* + 12 to 24 fl oz/A or + ¼ to 1 lb ai/A	For this tank mix follow the Directions and Remarks Section above for Metribuzin + 2,4-D LVE and MANA 31301 + Roundup / Roundup Ultra / Touchdown, paying special attention to planting restrictions with 2,4-D LVE. Use the adjuvant recommendations under the MANA 31301 + Roundup / Roundup Ultra / Touchdown tank mix. Do not use crop oil concentrate.
* If applied to field corn grown in Illinois, Indiana, Kentucky, Michigan, Minnesota, Ohio and Wisconsin, refer to Table 1 for correct MANA 31301 rate based on application timing.		

MANA 31301 ~~PLUS~~ *plus* TANK MIX PARTNER BURNDOWN RATES - SOYBEANS ONLY		
PRODUCT	**RATE**	**DIRECTIONS AND REMARKS**
MANA 31301 + 2,4-DB	3 to 8 fl oz/A + 1/8 to 7/32 lb ai/A	Apply preplant or before soybean emergence. Include nonionic surfactant at 2 quarts per 100 gallons (0.5% v/v) of spray solution.
MANA 31301 + Fusion + 2,4-D LVE	3 to 8 fl oz/A + 4 to 8 fl oz/A + ¼ to 1 lb ai/A	For use only in Delaware, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Pennsylvania, South Dakota, Virginia, West Virginia, and Wisconsin. For this tank mix follow the planting restrictions under the Directions and Remarks Section above for MANA 31301 + 2,4-D LVE. Fusion rates of 4, 6, and 8 fl. Ounces will control certain grasses up to 2, 4 and 8 inches in height, respectively. Include either crop oil concentrate at 1 gallon per 100 gallon (1.0% v/v) or nonionic surfactant at 1 to 2 quarts per 100 gallons (0.25 – 0.5% v/v) of spray solution. Refer to the Fusion label for additional information.
MANA 31301 + Poast Plus + 2,4-D LVE	3 to 8 fl oz/A + 8 to 12 fl oz/A + ¼ to 1 lb ai/A	For this tank mix follow the planting restrictions under the Directions and Remarks Section above for MANA 31301 + 2,4-D LVE. The 8 and 12 fl oz rate of Poast Plus will control certain grasses up to 2 and 3 inches in height, respectively. Include either crop oil concentrate at the rate of 1 gallon per 100 gallons of spray solution (1% v/v) or Dash HC at 1 pint per acre. Refer to the Poast Plus label for additional information.
MANA 31301 + Select + 2,4-D LVE	3 to 8 fl oz/A + 3 to 4 fl oz/A + ¼ to 1 lb ai/A	For this tank mix follow the planting restrictions under the Directions and Remarks Section above for MANA 31301+ 2,4-D LVE. The 3 and 4 fluid ounce rates of Select will control certain grasses up to 3 and 4 inches in height, respectively. Include crop oil concentrate at the rate of 1 quart per acre and 28% UAN (urea ammonium nitrate) at a rate of 1-2 quarts per acre. Refer to the Select label for additional information.

Special Precautions: Do not apply these treatments after crop emergence. Observe all precautions and limitations on the labeling of all products used in tank mixtures. Refer to the Product Information section of this label for additional information, precautions, and limitations.

Field Corn:

- Do not apply on coarse textured soils with less than 1.5% organic matter.
- Do not apply more than 6 fl oz of MANA 31301 per acre on soils with less than 2% organic matter.
- Do not apply on soils having pH 7.0 or greater.
- Do not apply more than 8 fl oz MANA 31301 (0.25 pound active ingredient) per acre per growing season.
- Corn seed should be planted a minimum of 1-1/2 inches deep.
- MANA 31301 may only be used in hybrid seed corn production fields if both inbred parents are known to be tolerant to MANA 31301.

Soybeans:

- Apply only 2,4-D low volatile ester formulations which are registered for preplant or burndown use in soybeans.

Do not apply tank mixtures containing 2,4-D L VE if wind is blowing toward desired susceptible plants (i.e. cotton, tobacco, tomato, etc.) or when wind speeds exceed 6 miles per hour.

Feeding restrictions: Corn treated with MANA 31301 may be harvested for silage or grain 60 days after treatment. Soybean vines or hay treated with MANA 31301 may be grazed or fed to livestock 40 days after application. Do not feed hay, forage, fodder or graze 2,4-D, Select, or Fusion treated vegetation. Follow the most restrictive preharvest interval of all products used in a tank mixture.

Weeds controlled: MANA 31301 in tank mixtures with the above herbicides will provide burndown control of the weeds listed below.

WEEDS CONTROLLED BY BURNDOWN RATES OF MANA 31301									
	MANA 31301 *plus* ~~PLUS~~								
WEEDS CONTROLED	2,4-D LVE	Poast Plus + 2,4-D LVE	Select + 2,4-D LVE	Fusion + 2,4-D LVE	Roundup/ Roundup Ultra/ Touchdown	Roundup/ Roundup Ultra/ Touchdown + 2,4-D LVE	Gramoxone Extra	Gramoxone Extra + 2,4-D LVE	2,2,4-DB
BROADLEAVES	MAXIMUM BURNDOWN HEIGHT (INCHES)								
Buffalobur	-				6	6	4 to 6	4 to 6	-
Chickweed, common	6				6	8	4 to 6	4 to 6	2
Cocklebur, common	6				6	8	4 to 6	4 to 6	6
Dandelion, common	6 dia[a]				2 dia[b]	6 dia[a]	4 dia[d]	6 dia[a]	2 dia
Henbit	4				4	4	4 to 6	4 to 6	-
Horseweed/marestail	6[ac]				4[b]	6	3	6[a]	2[c]
Jimsonweed	6				6	6	4 to 6	4 to 6	2
Kochia*	4[ac]				4	4	4	4	-
Ladysthumb	6				6	8	4 to 6	4 to 6	3
Lambsquarters, common	6				6	8	4 to 6	4 to 6	2
Lettuce, prickly	6				4	6	4 to 6	4 to 6	2
Mallow, Venice	6				6	6	4 to 6	4 to 6	-
Morningglory spp.	6				2	4	2	4	4
Mustard spp.	6				6	8	4 to 6	4 to 6	2
Pennycress, field	6				6	6	4 to 6	4 to 6	2
Pigweed, spp. (annual)	6				6	8	4 to 6	4 to 6	3
Ragweed, common	6				6[b]	8	4 to 6	4 to 6	2
Ragweed, giant	6[ac]				4[b]	6	4	6	2
Shepherds purse	6				6	6	4 to 6	4 to 6	-
Sida, prickly	6				4	4	4	4	1
Smartweed, Pennsylvania	6				6	8	4 to 6	4 to 6	3
Sunflower, common	6				6	6	4 to 6	4 to 6	4
Thistle, Russian	4[ac]				2 to 4[bc]	6	4	4 to 6	3[c]
Velvetleaf	6				6	8	4 to 6	4 to 6	3
Waterhemp spp.	6				6	8	4 to 6	4 to 6	3

[a] Use 2,4-D LVE at 0.5 pound active ingredient per acre.
[b] Use a minimum Roundup/Roundup Ultra: rate of 16 fl oz/A and a minimum Touchdown rate of 10.6 fl oz/A.
[c] Use MANA 31301 at 6 fl oz/A for optimum control.
[d] Suppression only.
* Does not control triazine resistant biotypes.

WEEDS CONTROLED	2,4-D LVE	Poast Plus + 2,4-D LVE	Select + 2,4-D LVE	Fusion + 2,4-D LVE	Roundup/ Roundup Ultra/ Touchdown	Roundup/ Roundup Ultra/ Touchdown + 2,4-D LVE	Gramoxone Extra	Gramoxone Extra + 2,4-D LVE	2,4-DB
WEEDS CONTROLLED BY BURNDOWN RATES OF MANA 31301 ~~(continued)~~									
MANA 31301 *plus* ~~PLUS~~									
ANNUAL GRASSES	**MAXIMUM BURNDOWN HEIGHT (INCHES)**								
Barley	Does not control these species	-	-	-	8		4 to 6		Does not control these species
Barnyardgrass		2 to 3	3 to 4	-	6		4 to 6		
Crabgrass spp.		2 to 3	-	-	6		4 to 6		
Foxtail spp.		2 to 3	3 to 4	2 to 6	8		4 to 6		
Johnsongrass, seedling		2 to 3	-	-	8		4 to 6		
Panicum, fall		2 to 3	3	2 to 6	6		4 to 6		
Sandbur, field		-	-	-	8		4 to 6		
Shattercane		2 to 3	-	-	8		4 to 6		
Wheat, volunteer		-	-	-	6		4 to 6		
Witchgrass		2 to 3	-	-	6		4 to 6		

RESIDUAL WEED CONTROL

MANA 31301 burndown programs can be used as part of a full season weed control program in both field corn and soybeans when, 1) applied as a tank mixture with residual herbicides, or 2) followed with a postemergence weed control program, which is registered for use on that crop.

For residual control, MANA 31301 burndown programs may include tank mixes with the following herbicides or combination of herbicides:

Field Corn

Alachlor	Bullet®	Harness Xtra	Pursuit[a]
Atrazine	Clarity	Lariat®	Pursuit Plus
Banvel®	Cycle	Linex	Simazine
Bicep®	Dual	Linuron	Surpass®
Bicep II	Dual II	Lorox®	Surpass 100
Bicep Lite	Frontier	Marksman®	Topnotch
Broadstrike + Dual	Guardsman	Prowl	
Broadstrike Plus	Harness		

[a] Use only Pursuit resistant/tolerant corn hybrids.

Soybeans

Alachlor	Dual	Lorox Plus	Pursuit Plus
Broadstrike + Dual	Dual II	Preview	Scepter
Canopy	Frontier	Prowl	Sencor
Command	Gemini	Pursuit	Squadron
Detail®	Linuron		

[b] MANA 31301 used (alone and in tank-mixes) on soybeans at higher labeled rates than those listed for burndown weed control will also provide residual control of those weeds listed in the "Weeds Controlled by MANA 31301 and MANA 31301 Tank Mix Combinations" section of the MANA 31301 label.

Refer to the individual product labels for additional information, precautions, and limitations.

SOUTHERN AND SOUTHEASTERN STATES ONLY POSTEMERGENCE DIRECTED SPRAY APPLICATIONS

MANA 31301 can be applied in postemergence directed sprays to soybeans for control of certain weeds which escape preplant or preemergence herbicide applications and for control of additional flushes of weeds that may occur after soybeans have emerged.

Postemergence directed sprays of MANA 31301 can be applied to soybeans in addition to a preemergence or preplant application of MANA 31301 according to label directions.

Weeds Controlled: MANA 31301, applied postemergence to soybeans as a directed spray according to directions on this label, will control the following at rates shown (broadcast basis) when grasses and common ragweed are less than 1-inch tall and other broadleaves are less than 3-inches tall:

½ Pt/Acre	Florida beggarweed (*Desmodium tortuosum*) Pigweeds (*Amaranthus* spp.) Carpetweed (*Mollugo verticillata*) Cocklebur (*Xanthium strumarium*) Dayflower (*Commelina* spp.)	Mexicanweed (*Caperonia castaniifolia*) Purslane (*Portulaca oleracea*) Sicklepod (*Cassia obtusifolia*) Velvetleaf (*Abutilon theophrasti*) Crabgrass (*Digitaria* spp.)
½ to 1 Pt/Acre	Sesbania (*Sesbania* spp.)	Prickly sida, Teaweed (*Sida spinosa*)
1 Pt/Acre	Ragweed, common *(Ambrosia artemisiifolia)*	

At the rate of 1/2 pt/acre morningglory species, *(Ipomoea* spp.) horsenettle, *(Solanum* spp.) Florida pusley, *(Richardia scabra)* spotted spurge *(Euphorbia maculata)* and wild poinsettia *(Euphorbia heterophylla)* are suppressed when MANA 31301 is applied before these weeds are 3 inches tall. The 1 pt/acre rate will suppress broadleaf signalgrass *(Brachiaria platyphylla)* up to 1 inch tall.

MANA 31301 POSTEMERGENCE DIRECTED SPRAY

CROP APPLICATIONS	
CROP	**MANA 31301 PT/ACRE**
Soybeans (Alabama, Arkansas, Florida, Georgia; Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee and Texas)	½ ~~TO~~to 1 (Broadcast Basis)
Apply proper dosage using 10 to 40 gallons of water per acre as a directed spray in a 6 to 8 inch band on each side of the row after soybeans are 8 inches tall and before broad leaf weeds are 3 inches tall and before grasses and common ragweed are 1 inch tall. For best results the spray must cover weed foliage with minimum or no contact with soybean foliage. Add a non ionic surfactant such as Ortho X-77 to the spray mixture to obtain better wetting of weed leaf surfaces. To determine the correct dosage of MANA 31301 for a band application see "Banded Application" under the "Product Information" section in the front of this label. If necessary, a second postemergence directed spray application Can be made after 7 days. Do not feed or graze green soybean vines. Do not harvest soybeans or use dry soybean vines for feed or forage within 70 days of last application.	

SPECIAL PRECAUTIONS (Directed Postemergence):

- Do not apply directly to soybeans or serious crop injury will occur.
- Do not allow spray to contact more than the lower 1/4 to 1/3 of soybean plants. Soybean leaves contacted by the spray will be killed.
- Do not apply MANA 31301 postemergence to sensitive soybean varieties. See "Special Precautions" in the front of this label.
- To avoid injury to other crops or desirable plants from spray drift, sprayer pressure must not exceed 30 psi and the sprayer must be fitted with nozzles no smaller than 8002 T-Jet (or equivalent). Do not apply under weather conditions which favor drift.

POTATOES

MANA 31301 can be used in ground, aircraft or specified chemigation equipment as a preemergence and/or postemergence application to potatoes. Early maturing smooth skinned white and all red skinned varieties may be injured with postemergence applications. The varieties Atlantic, Bellchip, Centennial, Chipbelle and Shepody are sensitive to MANA 31301. Avoid postemergence applications on these varieties. Preemergence applications on these varieties may cause crop injury under adverse weather conditions, on coarse soils, under high soil pH, with higher rates per acre and with mechanical incorporation.

Ground Application: MANA 31301 can be used with ground spray equipment applied as a preemergence and/or postemergence application for control of the listed grass and broadleaf weeds in potatoes. Apply as a uniform broadcast spray at 20 or more gallons per acre.

Aerial Application: MANA 31301 may be applied in aerial spray equipment as a preemergence and/or postemergence application at 5 or more gallons per acre.

Chemigation: MANA 31301 may be applied preemergence and/or early postemergence to potatoes using center pivot, solid set and lateral roll systems. Apply specified dosage in 1/4 to 3/4 inch of water per acre (1/4 to 1/2 inch on sandy soil) as a continuous injection in self-propelled systems or apply in the last 15 to 30 minutes of the set in other systems. Be sure all the MANA 31301 has been flushed from the lines before shutting down the system.

WEEDS CONTROLLED

MANA 31301 applied to potatoes according to directions, will provide economic control of the following weeds. For optimum control, applications should be made before weeds are 1 inch tall. (See NOTE)

BROADLEAVES			
Carpetweed, common[1]	Mustard, Indian[1]	Pigweed, redroot[1, 2]	Sicklepod[1]
Cocklebur, common[1, 2]	Mustard, tansy[1]	Pigweed, smooth[1, 2]	Smartweed, Pennsylvania[1, 2]
Jimsonweed[1]	Mustard, tumble[1]	Ragweed, common[1, 2]	Sunflower, common[3]
Kochia[3]	Mustard, wild[1]	Shepherdspurse[1]	Thistle, Russian[2]
Lambsquarters, common[1, 2]	Pennycress, field[1, 2]		
GRASSES			
Barnyardgrass[3]	Foxtail, giant[1]	Foxtail, yellow[1]	Panicum, fall[1]
Crabgrass, large[1]	Foxtail, green[1]	Johnsongrass, seedling[1]	Signalgrass, broadleaf[1]
Crabgrass, smooth[1]			

[1] Weeds controlled with preemergence applications.
[2] Weeds controlled with postemergence applications.
[3] Weeds requiring two applications for control.

HARD TO CONTROL WEEDS

Although MANA 31301 may not provide commercially acceptable control in every instance, it will suppress growth of the following weeds and reduce their competition with potato plants.

BROADLEAVES			
Kochia	Nightshade, hairy	Purslane, common	Sunflower, common
GRASSES			
Barnyardgrass	Nutsedge, yellow		

NOTE: Where triazine-resistant weeds are present, MANA 31301 alone may not provide adequate control.

BROADCAST APPLICATIONS	
CROP	**MANA 31301 Pt/acre**
Potatoes	1/2 to 2
PREEMERGENCE: Apply specified dosage as a broadcast spray. Do not mechanically incorporate into soil. Use the 1/2 to 1 pint/acre rate for control of wild mustard (Brassica sp.) only. On sand soils or sensitive varieties, do not exceed 1 pint/acre.	
Potatoes (Except early maturing smooth skinned, red skinned, and other specified varieties.)	1/2 to 1

POSTEMERGENCE: Apply specified dosage as a broadcast spray over the tops of potato plants.* Use rates of 1/2 to 1 pint/acre for control of redroot pigweed and common lambsquarters only. Apply the 1 pint/acre rate for control of other weeds listed on this label.

SPLIT APPLICATIONS: This product may be applied once preemergence and once postemergence as directed above.* Do not exceed 2 pint total per acre per season.

IDAHO, OREGON AND WASHINGTON ONLY: Two postemergence applications can be made as broadcast sprays over the tops of potato plants if SENCOR 4 is not applied preemergence. Use 1/2 to 1 pint/acre for control of redroot pigweed and lambsquarters only. On coarse (sandy) soils with low organic matter do not exceed 3/4 pint/acre per application. On medium and heavy soils only, use 1 pint/acre per application for control of other weeds listed on this label and for suppression of hairy nightshade. Make the first application early in the season while weeds are still small. Allow at least 14 days before the second application. Do not apply after June 30 if treated land is to be planted to crops other than potatoes.

* Refer to Restrictions and Special Precautions - below.

TANK MIXES: MANA 31301 may be tankmixed with the following herbicides: Dual/Dual II, Eptam®, Prowl 3.3 EC and Matrix. In addition, three-way tankmix combinations may be used for MANA 31301 plus Dual/Dual II, Eptam or Prowl 3.3 EC plus Matrix when applied preemergence. Refer to each product's label for precautionary statements, restrictions, application information and weeds controlled.

Dual/Dual II: MANA 31301 may be applied in a tank mix combination with Dual/Dual II as a preemergence broadcast application. Apply MANA 31301 at 3/4 to 2 pints per acre and Dual/Dual II at 1.5 to 3 pints per acre according to the respective labels for use of each product alone on potatoes.

Eptam: MANA 31301 may be tankmixed with Eptam at rates and uses permitted on each product's label.

Prowl 3.3 EC: MANA 31301 may be applied in tankmix combination with Prowl as a preemergence or early postemergence broadcast application. As a preemergence mix, apply MANA 31301 at 1 to 2 pints per acre and Prowl at 1.2 to 3.6 pints per acre. As an early postemergence spray, apply MANA 31301 at 1/2 to 1 pint per acre and Prowl at 1.2 to 3.6 pints per acre before the crop is in the 6-inch growth stage.

Matrix (except the following counties in Colorado: Almosa, Conejos, Costilla, Rio Grande and Saguache): MANA 31301 may be applied in tankmix combination with Matrix as a preemergence and/or early postemergence application for improved control on weeds such as Russian thistle, kochia and common lambsquarters. As a preemergence mix, apply MANA 31301 at 1/2 to 1.125 pints per acre and Matrix at 1 to 1-1/2 oz. product per acre. As an early postemergence spray, apply MANA 31301 at 1/2 to 1 pint per acre and Matrix at 1 to 1-1/2 oz. product per acre. Use a nonionic surfactant at a rate of 0.125% v/v (1 pt./100 gallon of water). Apply before the crop exceeds 14 inches in height. Postemergence applications of Matrix treatments should be made prior to June 30.

RESTRICTIONS:

- Do not use MANA 31301 on potatoes in Kern County, California.
- Do not apply more than a total of 2 pints MANA 31301 per acre in a single crop season regardless of the method of application.
- Do not apply MANA 31301 within 60 days of harvest.
- Do not make postemergence applications prior to rainfall or irrigation on recently cultivated potatoes, nor within 3 days after periods of cool, wet cloudy weather or injury may occur.
- Do not use air blast sprayers.
- Do not apply to sweet potatoes or yams.

Do not plant sensitive crops such as onions, lettuce, cole crops and cucurbits during the next growing season following MANA 31301 applications.

SPECIAL PRECAUTIONS:

- Postemergence applications may cause some chlorosis or minor necrosis. These symptoms may be more severe if seed-piece decay is occurring or if growing conditions favor crop stress.
- Postemergence applications may be made only on russet or white skinned varieties that are not early maturing.
- Potato varieties may vary in their response to herbicide application. When using MANA 31301 for the first time on a particular variety, always determine crop tolerance before using on a field scale.
- Certain cereal varieties are sensitive to MANA 31301 (see cereal section of this label for sensitive varieties) and should not be planted during the next growing season unless the following cultural practices occur:
- Potato vines left in rows as a result of harvest must be uniformly distributed over the soil surface prior to plowing and,
- Plow with a moldboard plow to a depth sufficient to mix the upper 8 inches of soil.

ALFALFA AND SAINFOIN

MANA 31301 can be used in alfalfa and sainfoin in the following areas:

1. Alfalfa and sainfoin (Including mixed stands with grasses) (all areas except California).
2. Alfalfa and sainfoin (Including mixed stands with grasses) (California only).
3. Alfalfa - Tank Mix Combination with Gramoxone (Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming, and the following California counties: Del Norte, Lassen, Modoc, Nevada, Plumas, Shasta, Sierra, and Siskiyou).
4. Alfalfa - Post Dormant Application of MANA 31301 Impregnated on Dry Fertilizer Only (Connecticut, Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Nebraska, New Mexico, New York, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, Texas and Wisconsin).

MANA 31301 can be used in aerial or ground spray equipment as a broadcast surface application to established crops of alfalfa and sainfoin for the control of certain grass and broadleaf weeds.

APPLICATION: Refer to "Product Information" in the front of this label for detailed information on the application of MANA 31301. For information on applying MANA 31301 in fluid or on dry fertilizer refer to the "Application of MANA 31301 In Fluid Fertilizers" or "Commercial Impregnation and Application of MANA 31301 on Dry Bulk Fertilizer" under the "Product Information" section of this label.

SPECIAL PRECAUTIONS:

- Use MANA 31301 only on established alfalfa and sainfoin. Do not apply MANA 31301 after growth begins in the spring or before growth ceases in the fall, except as specified on this label.
- Do not graze or harvest within 28 days after application.

For best weed control, apply MANA 31301 when weeds are less than 2 inches tall or before weed foliage is 2 inches in diameter. Reduced weed control may occur when extended dry conditions follow application of MANA 31301.

Crop injury may occur when:

1. Crop is under stress conditions such as diseases, insect infestations, poorly drained soils, drought or winter injury at time application;
2. Crop is treated within 12 months after seeding;
3. There is excessive irrigation or rainfall immediately after application. Do not apply more than ½ inch of water in the first irrigation after MANA 31301 is applied.

ALFALFA and SAINFOIN (All Areas Except California) BROADCAST APPLICATION RATES	
CROP	**MANA 31301 Pt/Acre**
Alfalfa and Sainfoin (Except California)	1/2 to 2
Select the proper dosage according to weeds known to be and present in field to be treated. On loamy sand soils in Oregon and Washington, do not apply more than 1 pt of MANA 31301 per acre.	

FOR USE ON MIXED STANDS OF ALFALFA AND GRASSES:
Rates of 1 to 1-1/2 pt of MANA 31301 per acre will provide partial reduction of forage grass stands. These rates may be used to reduce forage grass stands to prevent crowding out of alfalfa. Higher rates will severely reduce forage grass stands. MANA 31301 should not be used on sand soils. In areas west of the Rocky Mountains, avoid using MANA 31301 on soils with calcareous surface area, high levels of lime or sodium, or a pH greater than 8.2.

ALFALFA and SAINFOIN Weeds Controlled (Except California)		
1/2 to 3/4 Pt MANA 31301/Acre		
Chickweed, Common (*Stellaria media*)		
3/4 to 1 Pt MANA 31301/Acre		
Cheat (*Bromus secalinus*) Deadnettle, Purple (*Lamium purpureum*) Downy brome (*Bromus tectorum*)	Japanese brome (*Bromus japonicus*) Pennycress (*Thlaspi arvense*)	Rescuegrass (*Bromus catharticus*) Shepherdspurse (*Capsella bursa pastoris*)
1 to 2 Pt MANA 31301 ~~555531301313013130131301~~/Acre		
Broadleaves Fleabane, Rough (*Erigeron strigosus*) Flixweed (*Descurainia sophia*) Henbit (*Lamium amplexicaule*) Kochia (*Kochia scoparia*) Lambsquarters, Common (*Chenopodium album*)	Marestail (Horseweed) (*Hippuris vulgaris*) Meadow Salsify (*Tragopogon pratensis*) Mustard, Blue (*Chorispora tenella*) Mustard, Jim Hill (tumble) (*Sisymbrium altissimum*) Mustard, Tansy (*Descurainia pinnata*) Pepperweed (*Lepidium virginicum*)	Pigweed, Redroot (*Amaranthus retroflexus*) Prickly Lettuce (*Lactuca serriola*) White Cockle (*Melandrium album*) Wild Buckwheat (*Polygonum convolvulus*) Yellow Rocket (*Barbarea vulgaris*)
Grasses Foxtail, Green (Setaria viridis)	Little Barley (*Hordeum pusillum*) Smooth Brome (*Bromus*	Wild Oats (*Avena fatua*)
2 Pt MANA 31301/Acre		
Broadleaves Chickweed, Mousear (*Cerastium vulgatum*)	Dandelion (*Taraxacum officinale*)	Ragweed, Common (*Ambrosia artemisiifolia*)
Grasses Barnyardgrass (*Echinochloa crus-galli*)	Bluegrass (*Poa annua*)	Foxtail Barley (*Hordeum jubatum*)

Weeds Partially Controlled: At the rate of 2 pt/acre MANA 31301 may be used to reduce the competition from curly dock (*Rumex crispus*). At 1 to 2 pt/acre, MANA 31301 may be used to reduce the competition of German Moss or knawel (*Scleanthus annus*).

ALFALFA AND SAINFOIN (California Only)
(Including Mixed Stands with Grasses)

MANA 31301 can be used in aerial or ground spray equipment as a broadcast surface application to dormant established crops of alfalfa and sainfoin.

APPLICATION: MANA 31301 can be used in aerial or ground spray equipment as a broadcast surface application to dormant established crops of alfalfa and sainfoin for control of certain grass and broadleaf weeds. Do not apply MANA 31301 after growth begins in the spring or before growth ceases in the fall. Do not apply to either alfalfa or sainfoin during the first growing season after seeding.

For information on applying MANA 31301 in fluid fertilizer solutions to alfalfa, refer to the appropriate section of this label.

For information on commercial impregnation and application of MANA 31301 on dry bulk fertilizer, refer to the appropriate section of this label.

Weeds Controlled		
3/4 to 1 Pt MANA 31301/Acre		
Cheatgrass (downy brome) (*Bromus secalinus*)		
1 to 2 Pt MANA 31301/Acre		
Broadleaves Chickweed, Common (*Stellaria media*) Flixweed (*Descurainia sophia*) Henbit (*Lamium amplexicaule*) Kochia (*Kochia scoparia*)	Meadow Salsify (*Tragopogon pratensis*) Mustard, Blue (*Chlorispora tenella*) Mustard, Tansy (*Descurainia pinnata*) Pepperweed, Virginia (*Lepidium virginicum*)	Shepherdspurse (*Capsella bursa-pastoris*) White Cockle (*Melandrium album*) Wild Buckwheat (*Polygonum convolvulus*) Yellow Rocket (*Barbarea vulgaris*)
Grasses Smooth Brome (*Stellaria media*)	Wild Oats (*Avena fatua*)	
2 Pt MANA 31301/Acre		
Broadleaves Dandelion (*Taraxacum officinale*)		
Grasses Barnyardgrass (*Echinochloa crus-galli*)	Bluegrass (*Poa annua*)	Foxtail Barley (*Hordeum jubatum*)

BROADCAST APPLICATION RATES	
CROP	**MANA 31301 Pt/Acre**
Alfalfa and Sainfoin (California Only)	3/4 to 2
Select the proper dosage according to weeds known to be present in the field to be treated. Apply specified dosage in 20 to 40 gallons of water per acre with ground spray equipment or 3 to 10 gallons of water per acre with aerial spray equipment fitted with nozzles suitable for broadcast applications of herbicides. Treat only dormant established crops of alfalfa and sainfoin. Injury may occur to alfalfa if MANA 31301 is applied earlier than 12 months after seeding. Do not apply after Spring growth begins or before growth ceases in the Fall. Do not graze or harvest within 28 days after application.	

FOR USE ON MIXED STANDS OF ALFALFA AND GRASSES: Rates of 1 to 1-1/2 pt of MANA 31301 per acre will provide partial reduction of forage grass stands. These rates may be used to reduce forage grass stands to prevent crowding out of alfalfa. Higher rates will severely reduce forage grass stands.

Do not apply with aerial spray equipment when wind speed is greater than 10 mph. Do not apply when weather conditions favor spray drift and/or when sensitive cool season crops, such as cole crops, onions, peas, or strawberries, are present in adjacent fields. Applications should not be made when weather conditions favor spray drift, especially in areas where wheat is growing on coarse textured soils in adjacent fields, or injury may occur.

ALFALFA

MANA 31301 ~~Plus~~ *plus* Gramoxone Extra Tank Mix

Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming and the following California counties: Del Norte, Lassen, Modoc, Nevada, Plumas, Shasta, Sierra, and Siskiyou.

APPLICATION: MANA 31301 plus Gramoxone Extra herbicide tank mix application can be used, during the dormant season, in aerial or ground spray equipment as a broadcast surface application to established alfalfa for the control of certain grass and broadleaf weeds. Do not apply MANA 31301/Gramoxone Extra tank mix to growth that is more than 2 inches tall. Apply once per season. Do not apply following cuttings during growing season. Use a minimum of 10 gallons of water per acre with aerial spray equipment and a minimum of 20 gallons of water per acre with ground spray equipment. Add a non-ionic spreader at label rates to the spray solution.

Weeds Controlled: MANA 31301 plus Gramoxone Extra (1-1/2 to 2-1/2 pints/acre) tank mix application will control established weeds. Gramoxone controls weeds by contact activity.

1/2 to 3/4 pt of MANA 31301 per acre

Common Chickweed			

3/4 to 1-1/2 pt of MANA 31301 per acre

Bluegrass	Downy brome	Henbit	Rescuegrass
Cheat	Field pennycress	Japanese brome	Shepherdspurse

1 to 1-1/2 pt of MANA 31301 per acre

Blue mustard	Kochia	Redroot pigweed	Tansy mustard
Common lambsquarters	Little barley	Rough fleabane	White cockle
Flixweed	Marestail (Horseweed)	Ryegrass	Wild oats
Green foxtail	Meadow salsify	Smooth brome	Wild buckwheat
Groundsel	Pepperweed	Sow thistle	Yellow rocket
Jim Hill mustard	Prickly lettuce		

APPLICATION RATES	
DOSAGE/ACRE	
MANA 31301 1/2 to 1-1/2 Pt Plus Gramoxone Extra 1-1/2 to 2-1/2 Pt	Apply specified dosages of MANA 31301 and Gramoxone Extra in at least 10 gallons of water per acre with aerial equipment or at least 20 gallons of water per acre with ground equipment. Do not apply this tank mix to alfalfa growth if more than 2 inches tall. For best weed control, apply when broadleaf weeds and grasses are 1-6 inches tall and are actively growing. Care should be taken to avoid overlaps. Do not apply more than 1 pt of MANA 31301 per acre on loamy sand soils. Reduced weed control may occur when extended dry conditions follow application of MANA 31301. Crop injury may occur if alfalfa is under stress conditions such as diseases, insect infestations, drought or winter injury or if MANA 31301 is applied to alfalfa earlier than 12 months after seeding.

FOR USE ON MIXED STANDS OF ALFALFA AND GRASSES: Rates of 1 to 1-1/2 pt of MANA 31301 per acre will provide partial reduction of forage grass stands. These rates may be used to reduce forage grass stands to prevent crowding out of alfalfa.

Do not graze or harvest within 42 days after application.

In areas west of the Rockies, avoid the use of MANA 31301 on soils with calcareous surface, soils with high levels of lime or sodium, and with a pH greater than 8.2.

Do not apply when weather conditions favor spray drift. Aerial application should not be made when wind speed is greater than 10 mph. Do not use on sand soil.

Refer to the Gramoxone Extra label for additional directions, weed species controlled and precautions.

Post Dormant Application of MANA 31301 Impregnated on Dry Fertilizer Only

MANA 31301 may be applied after dormancy has broken, but prior to three inches of new alfalfa shoot growth, only when impregnated on dry fertilizer in Connecticut, Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Nebraska, New Mexico, New York, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, Texas and Wisconsin.

Apply at rates of 1-1/2 to 2 pt per acre as directed on this label for application during dormancy. Apply only when alfalfa foliage is dry or crop injury may occur. When using this application method, do not harvest or graze treated alfalfa for 60 days after application.

ASPARAGUS (Established)

MANA 31301 can be used in ground spray equipment or sprinkler irrigation (center pivot, lateral move, or solid set) systems as a single preemergence broadcast application or as a split application consisting of a preemergence broadcast application followed by a post harvest broadcast application.

Refer to the "Product Information" section of this label for directions.

Weeds Controlled: MANA 31301, applied to established asparagus according to directions, will effectively control:

Broadleaves		
Chickweed, Common (*Stellaria media*) Jimsonweed (*Datura stramonium*) Lambsquarters (*Chenopodium album*)	Pigweed, Redroot (*Amaranthus retroflexus*) Ragweed, Common (*Ambrosia artemisiifolia*)	Smartweed, Pennsylvania (*Polygonum pensylvanicum*) Sorrel, Red (*Rumex acetosella*) Velvetleaf (*Abutilon theophrasti*)
Grasses		
Crabgrass (*Digitaria* spp.)	Foxtails (*Setaria* spp.)	Sandbur, Field (*Cenchrus pauciflorus*)

BROADCAST APPLICATION RATES	
CROP	**MANA 31301 Pt/Acre**
Asparagus	2 to 4
	PREEMERGENCE APPLICATION ONLY Make a single surface application in early Spring before asparagus spears or ferns emerge. If the field is to be disked, apply MANA 31301 after disking but before the crop emerges. Use the lower rate for control of the broadleaf weeds listed above. Use the higher rate in fields with a history of severe infestations of grasses and for maximum residual control. Do not apply within 14 days of harvest.
	1 to 2 preemergence plus 2 to 3 post harvest
	SPLIT APPLICATION PREEMERGENCE AND POST HARVEST **Preemergence Application:** Apply before asparagus spears or ferns emerge. If the field is to be disked, apply after disking but prior to crop emergence. Do not apply within 14 days of harvest. **Post Harvest Application**: Apply after last harvest of the season but prior to emergence. The lower combination rates may be used for control of common ragweed, lambsquarters, redroot pigweed, and red sorrel. Use the higher combination rates for other weeds listed or in fields with severe grass infestations or for maximum post harvest control of emerged weeds.
IMPORTANT: The total amount of MANA 31301 applied in one crop season must not exceed 4 pt per acre.	

RESTRICTIONS:

- Aerial application is prohibited.
- Do not use on newly seeded asparagus nor on young plants during the first growing season after setting crowns.
- DO NOT APPLY POST HARVEST APPLICATIONS UNTIL AFTER THE LAST HARVEST OF SPEARS.

FIELD CORN

POSTEMERGENCE APPLICATION

MANA 31301 can be used for control of selected broad leaf weeds when applied as a tank mix combination with certain broadleaf herbicides presently registered for postemergence use in field corn. Herbicides which may be tank mixed with MANA 31301 include:

2,4-D Atrazine Banvel Basagran®	Buctril®/Buctril Gel Laddok S-12 Marksman	Buctril + atrazine (Premix) Clarity® Pursuit*	Resource® Scorpion III Tough®
*Use only on Pursuit resistant/tolerant corn hybrids (IMI (CLEARFIELD)- Corn).			

APPLICATION: MANA 31301 may be applied to field corn after crop emergence until just prior to tasseling. Broadcast applications may be made with ground or aerial equipment. For optimum weed control, apply treatments when weeds are small and actively growing, but before reaching the maximum heights listed in the Weeds Controlled table.

POSTEMERGENCE BROADCAST APPLICATION

Ground Application: adjust nozzle height above crop and weed canopy to ensure uniform spray coverage. Gallonage should be increased with increasing weed size and population density.

For tank mixes of MANA 31301 plus atrazine, Basagran, Laddok S-12, Buctril, Buctril + atrazine, Pursuit, Resource, Tough or 2,4-D amine formulations, useflat fan nozzles spaced a maximum of 20 inches apart. Best results are achieved using a minimum spray volume of10 gallons per acre and spray pressure from 20 to 40 psi.

For MANA 31301 tank mixes with Banvel, Clarity, Marksman, or 2,4-D low volatile ester formulations, use drift-reducing nozzles which are specifically designed to produce coarse sprays and reduce the amount of driftable fines. Additional measures which will help avoid potential drift to sensitive crops and plants include using a minimum spray volume of 20 gallons per acre and keeping spray pressures at or below 20 psi unless otherwise specified by the nozzle manufacturer.

For further precautions and additional instructions consult the tank mix partner's label.

Aerial Application: Apply in a minimum spray volume of 3 gallons per acre. For optimum spray coverage and distribution, use a minimum of 5 gallons per acre and a maximum pressure of 40 psi. Use a boom and nozzle configuration which will provide a uniform deposition pattern and coverage with low drift potential. Avoid overlaps to prevent potential crop injury. Do not apply near sensitive crops or sensitive plants growing near the treated area. Do not apply when wind speed is greater than 10 mph or when Winds are rnoving toward sensitive crops or plants. To avoid drift hazards, applicator must follow the most restrictive labeling of the products used in a tank mix. Refer to the appropriate tank mix partner's label for further precautions and instructions.

POST DIRECTED APPLICATION

MANA 31301 in tank mix combinations with Banvel, 2,4-D, Buctril, or Scorpion III may be applied post directed to field corn. Use drop nozzles and appropriate spacing to direct spray below the corn whorl and upper leaves. The top of the target weed canopy must be sufficiently below the whorl and upper leaves of the crop to permit this application and provide adequate spray coverage. The height differential required between the crop and weed canopy will depend on the specific equipment used. Apply before tassel emergence.

For further precautions and additional instructions refer to the appropriate tank mix partner's label.

ADJUVANTS

The adjuvant types listed below may be utilized with certain MANA 31301 tank mix combinations. Consult the tank mix section for the appropriate adjuvant and rate. Use of non-listed adjuvants or rates may result in severe leaf burn, crop stunting, and/or stand reduction. Use only adjuvants which are EPA-exempt from tolerance requirements.

UAN (urea ammonium nitrate) is commonly referred to as 28, 30, or 32% N.

Ammonium sulfate (spray grade) may be used as an alternative to UAN with certain tank mix combinations.

Non-ionic surfactants should contain at least 80% active ingredient.

DO NOT USE crop oil concentrate (COC) or any adjuvant containing vegetable or petroleum oils with any MANA 31301 tank mixtures as severe leaf burn, crop stunting, and/or stand reduction may occur.

RAINFASTNESS
MANA 31301 will not reduce rainfastness of the listed tank mix partners. Refer to the individual product labels for indications of rainfastness.

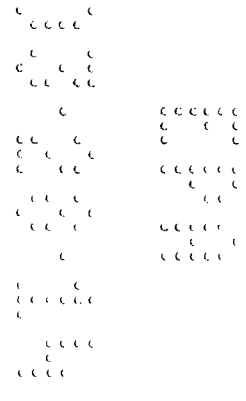
SPRAYER CLEANUP
Refer to each tank mix partner's label and the Sprayer Cleanup section of the MANA 31301 label for specific instructions on cleaning spray equipment. Special attention should be given to the required cleanup procedures for 2,4-0, Banvel, Clarity; and Marksman.

RESTRICTIONS:

- Do not apply more than 0.25 pounds a.i. metribuzin (8 fl oz MANA 31301) per acre per use season
- Do not use on corn grown for seed, sweet corn, popcorn, or white corn.
- Do not apply when field corn is under stress (see Stress statement below).
- Do not use aerial applications if sensitive crops or plants are growing in the vicinity of the area to be treated.
- Do not allow spray drift onto sensitive crops or plants.
- Do not use on sand, loamy sand or sandy loam soils that have less than 0.5% organic matter.
- Do not use on sand or loamy sand soils in Washington, Oregon or Idaho or crop injury may occur.
- Observe all precautions and limitations on labeling of all products used in the tank mixtures.

Stress is any condition or combination of conditions which impairs normal crop growth. Weather, disease, insect damage, fertility or other factors may cause stress. Applications made before or after the corn is under stress from these factors or from periods of prolonged cool, wet and cloudy weather or widely fluctuating day and nighttime temperatures, may result in temporary leaf burn, yellowing and/or stunting of the crop. Recovery from damage is generally rapid with no lasting effects on new growth. Under extreme stress, stand reductions may occur.

Feeding Restrictions: Field corn treated with MANA 31301 may be grazed or harvested for silage or grain 60 days after treatment. Follow the most restrictive preharvest interval on the labels of the products used in the tank mixtures.



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TANK MIX COMBINATIONS

The MANA 31301 tank mixtures listed below can be utilized for control of certain annual broadleaf weeds

MANA 31301 POST DIRECTED INSTRUCTIONS		
PRODUCT	**RATE**	**DIRECTIONS AND REMARKS***
MANA 31301 + 2,4-D Amine ~~O~~or 2,4-D LVE	3 to 4.5 fl oz/A + ¾ to 1 ½ pt/A[1] ~~O~~or ½ to ¾ pt/A[1]	For corn greater than 8 inches tall, apply as a directed spray with drop nozzles before tassel emergence. Apply only to varieties known to be tolerant to 2,4-D. **DO NOT USE ADJUVANTS.** 2,4-D may cause injury to nearby sensitive crops. 2,4-D applications may result in brittle corn stalks, and winds or cultivation may cause stalk breakage. To reduce damage, delay cultivation 8 to 10 days after application.
MANA 31301 + Banvel	3 to 4.5 fl oz/A + ½ pt/A	For corn 8 to 36 inches tall, apply as a directed spray with drop nozzles. Applications may be made up to 15 days prior to corn tasseling. If growing conditions are dry and plants are stressed, addition of a non-ionic surfactant (1 qt/100 gal of spray solution) may improve weed control. For corn grown on coarse textured soils, apply Banvel at 0.5 pt/acre, regardless of application method. Application may cause injury to nearby sensitive crops or plants. Application may result in temporary leaning of corn plants. Delay cultivation until plants return to normal growth patterns to avoid stalk breakage.
MANA 31301 + Buctril ~~O~~or Buctril Gel	3 to 4.5 fl oz/A + 1 to 1 ½ pt/A ~~O~~or ½ to ¾ pt/A	Apply as directed spray with drop nozzles before tassel emergence. **DO NOT USE ADJUVANTS**. Occasional temporary corn leaf burn may occur and is similar to that observed from liquid fertilizers. Recovery is generally rapid with no lasting effect. To reduce potential for crop damage, application should be made to dry corn foliage when weather conditions are not extreme.
MANA 31301 + Scorpion III	3 to 4.5 fl oz/A + 4 oz/A	For corn 8 to 24 inches tall, apply as a directed spray with drop nozzles. Include nonionic surfactant (1 qt/100 gal) plus UAN (2.5 gal/100 gal) for optimum weed control.

* Consult the appropriate tank mix partner's label for additional recommendations or restrictions. The most restrictive labeling applies to tank mixes with MANA 31301.

[1] Application rate is based on, but not restricted to, 4 pounds active ingredient per gallon of 2,4-D.

MANA 31301 POST EMERGENCE BROADCAST INSTRUCTIONS		
PRODUCT	**RATE**	**DIRECTIONS AND REMARKS***
MANA 31301 + 2,4-D Amine ~~O~~or 2,4-D LVE	3 fl oz/A + ½ to 1 pt/A[1] ~~O~~or 1/3 to ½ pt/A[1]	Apply as a broadcast spray during the interval from corn emergence until corn is 8 inches tall. Apply only to varieties known to be tolerant to 2,4-D. **DO NOT USE ADJUVANTS**. 2,4-D may cause injury to nearby sensitive crops. 2,4-D applications may result in brittle corn stalks, and winds or cultivation may cause stalk breakage. To reduce damage, delay cultivation 8 to 10 days after application.
MANA 31301 + Atrazine	3 fl oz/A + ½ to 1 ½ lb ai/A	Apply as a broadcast spray during the interval from corn emergence until corn is 12 inches tall. A non-ionic surfactant (1 qt/100 gal of spray solution) may be added to improve weed control. Atrazine is a restricted use herbicide. Follow all state and federal label and restrictions pertaining to atrazine applications.
MANA 31301 + Banvel ~~O~~or Clarity	3 fl oz/A + ½ to 1 pt/A ~~O~~or ½ to 1 pt/A	Apply as a broadcast spray during the interval from corn emergence through the five leaf stage or when corn is 8 inches tall, whichever occurs first. For Banvel applications to corn greater than 8 inches in height, consult the Banvel label for use rates and restrictions. If growing conditions are dry and plants are stressed, addition of a non-ionic surfactant (1 qt/100gal of spray solution) may improve weed control. For corn grown on coarse textured soils, apply Banvel or Clarity at 0.5 pt/A, regardless of application method. Application may cause injury to nearby sensitive crops or plants. Application may result in temporary leaning of corn plants. Delay cultivation until plants return to normal growth patterns to avoid stalk breakage.
MANA 31301 + Basagran	3 fl oz/A + 1 pt/A	Apply as a broadcast spray after corn emergence but before ~~com~~corn exceeds 30 inches in height and the crop canopy closes the row. Adjuvants such as UAN (0.5 to 1 gal/A), ammonium sulfate (17 lbs/100 gal of spray solution), or non-ionic surfactant (1 qt/100 gal of spray solution) may improve weed control.
MANA 31301 + Buctril ~~O~~or Buctril Gel	1.4 to 3 fl oz/A + 1 pt/A ~~O~~or ½ pt/A	Apply as a broadcast spray when ~~com~~corn is in the fourth true leaf stage or later but before the crop canopy closes the row. **DO NOT USE ADJUVANTS**. Occasional temporary ~~com~~corn leaf burn may occur and. is similar to that observed from liquid fertilizers. Recovery is generally rapid with no lasting effect. To reduce potential for crop damage, application should be made to dry corn foliage when weather conditions are not extreme.
MANA 31301 + Buctril + Atrazine (Premix)	2.4 to 3 fl oz/A + 1 ½ to 2 pt/A	Apply as a broadcast spray during the interval from corn emergence until ~~com~~corn is 12 inches tall. **DO NOT USE ADJUVANTS**. Occasional temporary ~~Com~~Corn leaf burn may occur and is similar to that observed from liquid fertilizers. Recovery is generally rapid with no lasting effect. To reduce potential for crop damage, application should be made to dry ~~com~~corn foliage when weather conditions are not extreme.
MANA 31301 + Marksman	3 fl oz/A + 1 ½ to2 pt/A	Apply as a broadcast spray during the interval from ~~com~~corn emergence through the five-leaf stage or when corn is 8 inches tall, whichever occurs first. **DO NOT USE ADJUVANTS.** Application may cause injury to nearby sensitive crops or plants. Application may result in temporary leaning of corn plants. Delay cultivation until plants return to normal growth patterns to avoid stalk breakage. Marksman contains atrazine, and is a restricted use product. Follow all state and federal label recommendations and restrictions pertaining to atrazine.
MANA 31301 + Pursuit	3 fl oz/A + 2 to 4 pt/A	Use only on designated IMI-Corn hybrids (hybrids which are resistant/ tolerant to Pursuit. Apply the 4.0 ounce rate of Pursuit if grasses are present or broadleaf weeds are near the maximum heights shown. Apply in combination with a non-ionic surfactant (1qt/100 gal of spray solution) and UAN (1 to 2 qt/A).
MANA 31301 + Resource	3 fl oz/A + 4 to 6 fl oz/A	Apply as a broadcast spray to field corn from 2-leaf through 10-leaf (visible leaf collars) stage. Adjuvants such as nonionic surfactant (0.25% v/v), UAN (2% v/v) or ammonium sulfate (2.5lbs/A) may improve weed control.
MANA 31301 + Tough	3 fl oz/A + 1 to 2 pt/A	Apply as a broadcast spray after ~~com~~corn emergence but before ~~com~~corn height exceeds 30 inches and the crop canopy closes the row. A non-ionic surfactant (1 *qU100* gal of spray solution) may be added to improve weed control. Use the higher rates of Tough as weeds approach the maximum height listed or are found in high density. Tough may improve control on triazine/ALS resistant weeds.

* Consult the appropriate tank mix partner's label for additional recommendations or restrictions. The most restrictive labeling applies to tank mixes with MANA 31301.

[1] Application rate is based on, but not restricted to, 4 pounds active ingredient per gallon of 2,4-D.

WEEDS CONTROLLED – POSTEMERGENCE BROADCAST APPLICATION
~~(continued)~~

These tank mixtures with MANA 31301 will control the following annual weeds up to the maximum weed heights listed:

COMMON WEED NAMES	MANA 31301 +								
	Atrazine	Banvel/ Clarity	Basagran	Buctril/ Buctril+atrazine	2,4-D	Marksman	Pursuit	Resource	Tough
	MAXIMUM WEED HEIGHT IN INCHES*								
Amaranth, Palmer									
Buckwheat, wild	3	3	3	3	2	3	2	4	
Buffalobur	4	4		4		4	1		
Burcucumber		4		4	2	4			4
Carpetweed	2	2	2	2	2	2	2	3	4
Cocklebur, common	8	8	8	8	8	8	8[b]	3	6
Eclipta	3	3	3	3	3	3			3
Henbit	3	3	2	2	2	4	3		4
Horseweed, marestail	3	4	1	1	3			3	
Jimsonweed	5	5	6	5	5	5	5	3	5
Knotweed	6	6	6	4	2	6	4		4
Kochia	2[a]	2	1[a]	2[a]	2[a]	2	2		4
Ladysthumb	6	6	6	6	4	6	4	4	6
Lambsquarters, common	6[a]	6	1	6	6	6	4	4	4
Lettuce, prickly	4	4		3	4	5			
Mallow, Venice	2	2	2	2	2	2	2		
Morningglory, entireleaf	3	3	1	3	3	3	2		
Morningglory, ivyleaf	3	3	1	3	3	3	2		
Morningglory, pitted	3	3	1	3	3	3	2		
Morningglory, tall	3	3	1	3	3	3	2		
Mustard, tansy	4	4	4	4	4	4	4		
Mustard, wild	4	4	4	4	4	4	4		4
Nightshade, black	6	6		6	1	6	3		4
Nightshade, eastern black	6	6		6	1	6	3		4
Pigweed, redroot	6[a]	6	2[a]	6[a]	6	6	8[b]	4	6
Pigweed, smooth	6[a]	6	2[a]	6[a]	6	6	8[b]	4	6
Poorjoe	3	3	3	3	3	3	3		
Purslane, common	1	3					1		3
Pusley, Florida	3	3	3	3	3	3		3	
Ragweed, common	5	5	3	5	5	5	3	3	
Ragweed, giant	4	5	2	4	3	3	4		
Sicklepod	3	3	3	3	3	3	3		2
Sida, prickly	1	1	3	1	1	1	1	2	1
SmartWeed, Pennsylvania	6	6	6	6	4	4	4	4	
Sunflower, common	6	6	6	6	6	6	5		5
Thistle, Russian	1	3		3	1	1	1		3
Velvetleaf	6[a]	6	6	6	4	4	5	6	
Waterhemp, spp.	5[a]	5	2[a]	5[a]	5	5	4[b]	4	5

* When weeds are approaching the maximum height listed or found in high densities, use the higher rate of MANA 31301 and the selected tank mix partners.

[a] These treatments will not control triazine resistant biotypes.

[b] These treatments will not control ALS resistant biotypes.

WEEDS CONTROLLED – POST DIRECTED APPLICATION				
COMMON WEED NAME	MANA 31301 +			
	2,4-D	Banvel	Buctril	Scorpion III
	MAXIMUM WEED HEIGHT IN INCHES*			
Amaranth, Palmer	12	12	6	8
Cocklebur, common	12	12	12	15
Jimsonweed	12	10	10	8
Ladysthumb	6	8	6	6
Lambsquarters, common	12	12	10	12
Morningglory, entire leaf	18	18	6	12
Morningglory, ivyleaf	18	18	6	12
Morningglory, pitted	18	18	6	12
Morningglory, tall	18	18	6	12
Nightshade, black	10	8	8	6
Nightshade, eastern black	10	8	8	6
Pigweed, red root	12	12	6	8
Pigweed, smooth	12	12	6	8
Ragweed, common	8	8	8	10
Ragweed, giant	12	12	8	15
SmartWeed, Pennsylvania	6	8	6	6
Sunflower, common	12	12	12	12
Velvetleaf	10	8	8	8
Waterhemp, tall	12	12	6	8
* When weeds are approaching the maximum height listed or found in high densities, use the higher rate of MANA 31301 and the selected tank mix partners.				

PERENNIAL WEED SUPPRESSION

The following MANA 31301 tank mixtures will provide top growth burndown and in season suppression of the following perennial weeds; however, regrowth may occur. For the best performance on these weeds, use the maximum rates of MANA 31301, Banvel, Buctril, Buctril+ atrazine, Clarity, Marksman, 2,4-D LVE or Pursuit specified for these tank mixtures.

MANA 31301 + Banvel or Clarity

Bindweed, field; Dandelion, common; Dock, curly; Smartweed, swamp; Thistle, Canada.

MANA 31301 + Buctril or Buctril + atrazine

Thistle, Canada.

MANA 31301 + 2.4-D L VE

Bindweed, field; Dandelion, common; Dock, curly; Smartweed, swamp; Thistle, Canada.

MANA 31301 + Marksman

Bindweed, field; Dandelion, common; Dock, curly; Smartweed, swamp; Thistle, Canada.

MANA 31301 + Pursuit

Thistle, Canada

PREPLANT AND PREEMERGENCE APPLICATIONS

(Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, Ohio, South Dakota and Wisconsin)

MANA 31301 can be used for additional residual control of certain broad leaf weed species in corn when applied as a tank mix combination with both grass and broadleaf herbicides registered for use in field corn. MANA 31301 can be tank mixed with the following herbicides:

Alachlor	Bullet	Harness Xtra	Pursuit*
Atrazine	Clarity	Lariat	Ramrod
Banvel	Cycle	Linex®	Ramrod/Atrazine
Bicep	Dual	Linuron	Siniazine
Bicep II	Dual II	Lorox	Surpass
Bicep Lite	Extrazine II	Marksman	Surpass 100
Bladex	Frontier	Pentagon	Topnotch®
Broadstrike + Dual	Guardsman®	Prowl	
Broadstrike Plus	Harness®	Pursuit Plus*	
* Use only on Pursuit resistant/tolerant corn hybrids (IMI corn).			

Application: MANA 31301 may be applied to field corn preplant without incorporation up to 30 days prior to planting or preemergence.

Applications may be made by either ground or aerial equipment. For tank mixes, follow the most restrictive application methods of all products used.

RESTRICTIONS:

- Do not apply more than 8 fluid ounces MANA 31301 (0.25 pound active ingredient) per acre per growing season.
- Corn treated with MANA 31301 may be harvested for silage or grain 60 days after treatment. For tank mixes, follow the most restrictive preharvest interval of all products used.

SPECIAL PRECAUTIONS:

- Do not apply on soils having pH 7.0 or greater.
- Corn seed should be planted a minimum of 1-1/2 inches deep.
- MANA 31301 may only be used in hybrid seed corn production fields if both inbred parents are known to be tolerant to MANA 31301.
- Do not use on muck soils as reduced weed control may result.
- Observe all precautions and limitations on labeling of all products used in tank mixes.

Weeds Controlled: MANA 31301 will aid in the residual preemergence control of the following weed species when tank mixed with other registered grass and/or broad leaf corn herbicides:

Horseweed/marestail	Pigsweeds spp.	Smartweed, Pennsylvania	Velvetleaf
Ladysthumb	Ragweed, common	Sunflower	Waterhemp, Tall
Lambsquarters, common			
*For control of emerged weeds refer to the" Burndown Weed Control" section of the MANA 31301 label			

LENTILS AND PEAS

(Idaho, Oregon, and Washington)

MANA 31301 can be used as a preemergence and postemergence application for the suppression of certain broadleaf weeds in lentils and peas.

Common Chickweed**	Henbit**	Prostrate Knotweed*
Corn Spurry	Lambsquarters	Redroot Pigweed*
Dog Fennel	Pennsylvania Smartweed	Shepherdspurse**
Field Pennycress	Pineapple Weed	Wild Mustard*
* Suppression is a reduction in weed size and growth compared to a non-treated area in the same field.		
** Preemergence application only.		

PREEMERGENCE APPLICATION: Make a single preemergence application of MANA 31301 at 3/8 to 3/4 pint per acre per crop year. Apply in 10 or more gallons of water per acre with ground spray equipment or 5 or more gallons of water per acre with aerial spray equipment. Apply MANA 31301 before or after planting. Thorough incorporation, either by rainfall or by mechanical means, is essential for weed suppression. Under dry conditions, incorporate MANA 31301 into the top 1 to 2 inches of soil with spike harrows, or similar shallow incorporation equipment, then cross harrow to ensure uniform soil incorporation. Where soil surface is moist at the time of application and rain follows before weed emergence, a broadcast application should provide adequate weed suppression.

Use the higher rate on fine-textured soils (high in clay or organic matter) and in fields with a history of high weed populations.

MANA 31301 may be applied pre- or post plant incorporated as a tank mix combination with FARGO 4EC. Follow the Directions for Use statements on both product labels.

POSTEMERGENCE APPLICATION: One postemergence application may be made per season. Use 1/4 to 1/2 pint of MANA 31301 per acre on lentils and spring peas. On winter peas, use 3/8 to 1/2 pint of MANA 31301 per acre. For suppression of dog fennel, use 1/2 pint MANA 31301 per acre. Apply specified dosage in 20 or more gallons of water per acre with ground spray equipment or 5 or more gallons of water per acre with aerial spray equipment. Do not exceed 40 psi with ground spray equipment. Apply as a broadcast spray when weeds are small (less than 2 inches in height or diameter) and before crop is 6 inches tall.

Temporary chlorosis of the crop may occur. There is an added risk of crop injury if a postemergence application is made following a previous preemergence or post plant incorporated MANA 31301 application.

Do not apply over very moist soils or wet crop foliage. Do not apply postemergence within 3 days after periods of cool, wet, or cloudy weather or crop injury may occur.

Do not apply within 24 hours of treatment with other pesticides.

RESTRICTIONS:

- Do not apply more than 1 pint of MANA 31301 per acre per year.
- Do not apply within 50 days of harvest of peas, or within 75 days of harvest of lentils.
- Do not graze or feed treated vines to livestock within 40 days after application.
- Do not use on coarse-textured soils, sandy soils or soils with less than 1.5% organic matter.
- Do not apply to "Estin" lentils.
- Do not use on clay knobs or poorly covered subsoils.
- Do not apply on shallow seedlings less than 2 inches deep (preemergence only).

SPECIAL PRECAUTIONS:

- Crop injury may result if crop is under stress conditions caused by cold weather, low fertility, disease or insect damage.
- Crop injury may also result if application is followed by heavy rain.

Maintain continuous spray tank agitation to keep material in suspension. Avoid overlapping and shut off spray booms while turning, slowing or stopping, or crop injury will occur.

NOTE: This treatment may cause some chlorosis or minor necrosis. Because lentil and pea varieties may vary in their susceptibility to
MANA 31301, determining crop tolerance prior to adoption as a field scale practice is suggested to prevent possible injury.

For additional precautions, restrictions, limitations, and sprayer clean-up information refer to the appropriate sections of this label.

TOMATOES

Apply MANA 31301 herbicide with ground equipment to seeded and transplanted tomatoes as specified below under "Application Rates".

For effective control of grasses and broadleaf weeds with postemergence applications, apply MANA 31301 before weeds are 1-inch tall. Thorough spray coverage on weed foliage is essential for adequate control with postemergence applications.

Do not use air blast or other high pressure spray equipment to make postemergence applications of MANA 31301. Refer to the appropriate section of this label for additional information regarding spray equipment, dilution rates, mixing, sprayer cleanup, restrictions, container disposal and cautions.

For specific application information see the "Product Information" section in the front of this label.

WEEDS CONTROLLED		
PREPLANT INCORPORATED APPLICATIONS FOR TRANSPLANT TOMATOES ONLY **Broadcast Sprays - 1/2 to 1 Pt MANA 31301/Acre**		
Broadleaves Galinsoga (*Galinsoga* spp.) Lambsquarters (*Chenopodium album*)	*Pigweed, Redroot (*Amaranthus retroflexus*)	*Purslane, Common (*Portulaca oleracea*)
Grasses *Goosegrass (*Eleusine indica*)		
Preplant incorporated applications applied as directed will suppress foxtails, panicums and barnyardgrass. **MANA 31301/Trifluralin Tank Mix**: This tank mix combination applied preplant incorporated as directed on this label will control the weeds listed above plus those weeds listed on the Trifluralin label.		
* For optimum control of these weeds, use the highest rate indicated on the label for the type of application to be made. Repeat postemergence applications may be needed for best control.		

WEEDS CONTROLLED		
POSTEMERGENCE APPLICATION RATES FOR ESTABLISHED TOMATOES For effective control of weeds with postemergence applications, apply MANA 31301 before weeds are 1-inch tall.		
Broadcast Sprays - 1/2 to 1 Pt MANA 31301/Acre		
Broadleaves Carpetweed (*Mollugo verticillata*) Fumitory (*Fumaria officinalis*) Galinsoga (*Galinsoga* spp) *Jimsonweed (*Datura stramonium*)	*Ladysthumb (*Polygonum persicaria*) Lambsquarters (*Chenopodium album*) Mustard, Wild (*Brassica kaber*) Pigweeds (*Amaranthus* spp.) Purslane (*Portulaca oleracea*)	*Ragweed, Common (*Ambrosia artemisiifolia*) *Smartweed, Pennsylvania (*Polygonum pensylvanicum*) Toadflax (*Linaria* spp.) *Velvetleaf (*Abutilon theophrasti*)
Directed Sprays -1 to 2 Pt MANA 31301/Acre		
Grasses *Foxtail, Yellow (*Setaria glauca*)	Goosegrass (*Eleusine indica*)	**Plus Weeds Listed Under Broadcast Sprays**
* For optimum control of these weeds, use the highest rate listed on the label for the type of application to be made. Repeat postemergence applications may be needed for best control. Postemergence applications as directed on this label will suppress barnyardgrass and crabgrass when these weeds are less than 1-inch tall.		

BROADCAST APPLICATIONS RATES FOR TOMATOES	
MANA 31301 *Pt/Acre	**REMARKS**
1/2 to 1	**PREPLANT INCORPORATED--TRANSPLANT TOMATOES ONLY:** Apply specified dosage in 10 or more gallons of water per acre as a broadcast spray to the soil surface immediately before transplanting. Incorporate to a depth of 2 to 4 inches with equipment capable of uniformly mixing the chemical into the soil. This application may be made alone or in a tank mix combination with trifluralin e.c. When transplanting tomatoes, place the root system of the plants below the herbicide incorporation zone or injury may occur. Refer to the trifluralin label for specific rate of application and for additional precautions and restrictions for tomatoes.
1/2 to 1	**POSTEMERGENCE BROADCAST SPRAY--ESTABLISHED TOMATOES:** Apply specified dosage in 20 or more gallons of water per acre as a broadcast spray, or apply in 1/4 to 3/4 inch of water (use 1/4 to 1/2 inch of water on sandy soils) per acre as a continuous injection in center pivot and lateral move systems or apply in the last 15 to 30 minutes of set in permanent solid set sprinkler systems. One or more applications may be applied per use season. Allow at least 14 days between applications or severe crop injury may occur. For transplanted tomatoes, do not apply until transplants have recovered from transplant shock and new growth is evident. Do not apply to tomatoes within 24 hours of application of other pesticides. Do not tank mix with other pesticides. (See "Special Precautions" below.)
1 to 2	**POSTEMERGENCE DIRECTED SPRAY--ESTABLISHED TOMATOES:** Apply specified dosage in 20 or more gallons of water per acre as a directed spray. One or more applications may be applied per use season. Allow at least 14 days between applications or severe crop injury may occur. Avoid contacting tomato foliage with spray. This method of treatment is preferred for use in fields with a history of severe weed pressure or in fields infested with hard-to-control weeds. For transplanted tomatoes, do not apply until transplants have recovered from transplant shock and new growth is evident. Do not apply to tomatoes within 24 hours of application of other pesticides. (See "Special Precautions" below.) When banding see the appropriate section in the front of this label.
* Use the higher rate in fields with a history of severe weed pressure and for maximum residual weed control.	

RESTRICTIONS:

- Aerial application is prohibited
- Do not apply within 7 days of harvest.
- Do not apply more than a total of 2 pt MANA 31301 per crop season
- DO NOT USE MANA 31301 ON TOMATOES IN KERN COUNTY, CALIFORNIA.
- Do not apply the total amount of 2 pt MANA 31301 within a time span of less than 35 days, except in the case of directed sprays. Allow at least 14 days between applications, regardless of dosage or method of application or severe crop injury may occur.
- Do not apply within 3 days after periods of cool, wet or cloudy weather, or crop injury will occur.
- Do not use hot caps on tomatoes within 7 days before or at any time after application of MANA 31301. Do not treat seeded tomatoes until plants have reached the 5 to 6 leaf stage or severe crop injury may occur.

SPECIAL PRECAUTIONS:

- Crop injury or delayed maturity may result from broadcast or directed spray applications if tomatoes are growing under stress conditions such as periods of drought or cool, wet and cloudy weather preceding application.
- For newly introduced tomato varieties with unknown tolerance to MANA 31301, treat only a small area to determine if MANA 31301 can be used without injury to the crop.

CEREALS

(Spring and Winter Barley and Winter Wheat)

MANA 31301 can be used for control or suppression of certain grasses and broadleaf weeds when applied postemergence to spring and winter barley or winter wheat. MANA 31301 alone and several tank mixture treatments can be used in the following states: AR, GA, ID, IL, IN, KS, KY, LA, MS, MO, MT, NV, OH, OK, OR, TN, TX, UT, WA.

Mixing: See the "Product Information" section of this label for specific mixing procedures. When tank mixing, carefully follow the instructions on this label. Refer to the other product labels registered for use in barley and winter wheat for additional use directions, rates, weeds controlled and restrictions.

Application: MANA 31301 may be applied by aerial or ground application equipment. Use a minimum spray volume of 2 gpa by air and 10 gpa by ground. Uniform spray coverage is necessary to obtain optimum weed control and to minimize potential for crop injury. Do not exceed rates specified on this label. Do not apply MANA 31301 through any type of irrigation equipment. Apply MANA 31301 when the crop is healthy and actively growing. MANA 31301 may be applied more than once per crop season. Allow a minimum of 21 days between applications if wheat is actively growing or allow 45 days between applications if wheat is growing in adverse conditions, has entered dormancy or is stressed due to frost damage, disease, drought or excessive moisture. Do not use on soils containing less than 0.75% organic matter. Do not apply more than a total of 16 fluid ounces MANA 31301 (8 ounces active ingredient) per acre per year. On irrigated cereals, do not apply more than 0.5 inch of water for the first irrigation, the maximum amount for each additional irrigation should not exceed 1 inch. Allow a minimum of 14 days between the first irrigation and subsequent irrigations.

Performance Factors: Weed control may not be observed for 2 to 4 weeks under normal growth conditions and for 4 to 6 weeks under very dry conditions. Moisture (at least 1/2 inch) is required within 2 to 3 weeks after application to move MANA 31301 into the weed root zone. Lack of adequate moisture after application may result in poor or erratic weed control. Control or suppression of listed weeds is dependent on weed size at time of application. Control or suppression may be reduced if broadleaf weeds are taller than 1 inch or grasses have more than 2 leaves.

Tank Mixtures: MANA 31301 may be tank mixed with Ally, Amber, Finesse, Glean FC, Harmony Extra, 2,4-D, MCPA, Igran, Banvel/Banvel SGF, Bronate or Buctril herbicides. A nonionic surfactant containing at least 80% active ingredient may be used in MANA 31301 tank mixes with sulfonylurea herbicides (Ally, Amber, Finesse, Glean FC and Harmony Extra). Do not use a crop oil concentrate or any adjuvant containing vegetable or petroleum oils with any MANA 31301 mix as crop injury may result. Additional pesticides may also be tank mixed with MANA 31301 unless specifically prohibited on the mix products' label. In some instances, combinations with organophosphate insecticides may cause temporary leaf yellowing and/or crop injury, especially when widely fluctuating day/night temperatures occur near application. Always refer to the other product labels registered for use on cereals for additional directions, rates and weed species controlled. Observe all precautions and limitations on labeling of all products used in mixtures.

RESTRICTIONS:

- Do not graze wheat within 14 days of MANA 31301 application or harvest grain within 21 days after last application.
- Do not graze or harvest barley before crop maturity.
- For tank mix combinations, follow the most restrictive label.

SPECIAL PRECAUTIONS: Crop injury may occur if MANA 31301 is applied:

1. When the crop is under stress such as winter kill, frost damage, disease, drought or excessive moisture, severe grazing, or when these conditions follow the application,
2. In combination with fluid fertilizer especially with the addition of surfactant,
3. Prior to the growth stage specified on this label.
4. To soils high in lime or sodium, a pH greater than 7.7, calcareous, gravelly, thinly covered or exposed subsoil areas.
5. To fields where cereal seeds have been planted less than 1 inch deep.
6. To a non-winter hardy wheat or barley variety.

7. To a sensitive wheat or barley variety as listed below.
8. To frozen soil or crop still in winter dormancy.

Cereal Rotations Following Potatoes Treated with MANA 31301: If planting a sensitive cereal variety (listed under the wheat and barley variety tolerance portion of this label), following potatoes treated with MANA 31301 or metribuzin containing products, refer to the potato section of the MANA 31301 label for special cultural practices to follow.

APPLICATION RATES

MANA 31301 alone or in a tank mix with labeled broadleaf herbicides may be applied by aerial or ground spray equipment as a broadcast postemergence spray.

POST EMERGENCE BROADCAST APPLICATIONS OF MANA 31301

CROP GROWTH STAGE	SOIL TEXTURE	MANA 31301 RATE (fl oz/A) % ORGANIC MATTER	
		0.75 to 2.0	OVER 2.0
2 Leaf To 2 Tiller	Coarse	1.5 to 3	1.5 to 4.5
	Medium	1.5 to 4.5	3 to 4.5
	Fine	3 to 4.5	3 to 6
	Use these rates on crops with secondary roots smaller than 1 inch. For dryland winter wheat (nonirrigated), apply the highest listed rate to achieve maximum weed suppression/control		
3 Tiller To 4 Tiller	Coarse	4.5 to 6	6 to 7.5
	Medium	6 to 7.5	7.5 to 9
	Fine	7.5 to 9	7.5 to 9
	Do not apply within 2 weeks after grazing or breaking of winter dormancy. Apply after the crop is at or beyond the3 tiller growth stage but before jointing. Secondary roots should be developed and larger than 1 inch long. Do not apply before 75 days after planting. For dryland winter wheat (nonirrigated), apply the highest listed rate to achieve maximum weed suppression/control. GEORGIA ONLY: Wheat must be planted before November 15 in the Piedmont area and Northern part of the state, and before December 1 in the Coastal Plain area.		
Over 4 Tillers	Coarse	6 to 9	7.5 to 12
	Medium	6 to 12	7.5 to 12
	Fine	7.5 to 12	12 to 16
	Do not apply within 2 weeks after grazing or breaking of winter dormancy. Apply after the crop is at or beyond the3 tiller growth stage but before jointing. Secondary roots should be developed and larger than 1 inch long. Do not apply before 75 days after planting. For dryland winter wheat (nonirrigated), apply the highest listed rate to achieve maximum weed suppression/control. GEORGIA ONLY: Wheat must be planted before November 15 in the Piedmont area and Northern part of the state, and before December 1 in the Coastal Plain area.		

WHEAT AND BARLEY VARIETAL TOLERANCE*

Wheat and barley varieties vary in their tolerance to MANA 31301. Varieties below are tolerant to and are compatible for use with MANA 31301:

Winter Wheat: Abe, AgriPro Mason, AgriPro Shiloh, Arthur, AS 7846, AS 7853, Baker Seed 32, Barbie VI, Basin, Batum, Bayles, Becker, Bintee V, Buchshot DS 2368, Caldwell, Cardinal, Cashup, Centurk,

Cherokee, Cheyenne, Clark, Coker 747, Coker 762, Coker797, Coker 68-15, Coker 9134, Coker 9543, Coker 9904, Coker 9907, Daws, DB 533W, DB 562W, DB 580W, Delta King 502, Delta King 9027, Dixie 952, Doublecrop, Dusty, Dyna-gro 426, Dynasty, Excel, Faro, FFR 525W, Florida 302, FS 432, FS 433, FS 435, Gains, Garst 64, Georgia 100, Genie V, Hatton, Hawk, Hill 81, Howell, Hunter, Hyak, Hyslop, Katie VI, KY 16-2, Larned, Lewis 833, Lewjain, Lisa, Longhorn, Luke, Madison, Magnum, Malcom, McDermid, McNair 1003, McNair 1813, Molly, Moro, Neely, Nelson, Newton, Norstar, Norwin, Nugaines, Oasis, Omega 78, Paha, Peck, Pike, Pioneer 2157, Pioneer 2180, Pioneer 2510, Pioneer 2545, Pioneer 2548, Pioneer 2550, Pioneer 2552, Pioneer 2555, Pioneer 2566, Pioneer 2571, Pioneer 2580, Pioneer 2684, Quantum 577, Redwin, Rocky, Saluda, Sawyer, SC 104, Siouxland, Sprague, Southern Belle, Stacy, Stallion, Stephens, TAM W101, TAM 105, TE877, TE 2548, TE SR204, TR 8555, TR 8557, TR 8768, Tiber, Tomahawk, Traveler, Tres, Tyee, Tyler, Verne, Victory, Wakefield, Wanser, Weston, Winalta, Wrangler.

Barley: Advance, Boyer, Clark, Compana, Hannchen, Hector, Hesk, Hudson, Lud, Luther, Kamiak, Klages, Olympic, Piroline, Steptoe and Triumph.

The following cereal varieties are sensitive to MANA 31301:

Winter Wheat: AgriPro Clemens, AT 90W, AT 91W, Arapaho, Baker Seed 33, Century, Cimarron, Coker 833, Coker 916, Coker 983, Coker 9024, Coker 9105, Coker 9323, Coker 9663, Choker 9474, Choker 9835, Choker 9766, Choker 9877, EK 102, EK 114, FAR 555, Florida 304, Freedom, FS 417, FS 423, FS 425, FS 430, Gore, Hazen, Hickory, Jackson, Julie III, KY-49-25, Linden, Madison, Mesa, Mustang, Pacer, Pioneer 2551, Pioneer 2163, Pioneer 2643, Pioneer 2691, Princeton 733, PER W71, PER 226, PER 278, Rosen, Savannah, Sierra, TAM 107, TR 101, TR 1011, TR 8822, Triumph 64, Vona, Wings, Winridge, Yamhill.

Spring/Durum Wheat: Avoid use on Spring wheat and Durum wheat varieties.

Barley: Glenn, Morex, Moravian 3, Larker, Summit, Bracken, Anheuser Busch B2601 and varieties with Morex parentage.

Varieties Not Listed: To avoid possible crop injury on any variety not mentioned in this label, contact a MANA representative or herbicide expert for a variety recommendation prior to treatment or treat a small strip of the unlisted variety with the listed MANA 31301 rate to ascertain crop tolerance before treating an entire field.

Abbreviated names of vendors: AS (Agseco), AT (Agratech), DB (Diener Bros.), FS (Growmark FS), PI (Pioneer), PER (Hybritech), SC (J.M. Schultz), TE (Terra), and TR (Terral).

WEEDS CONTROLLED

Used at listed rates, MANA 31301 will control many annual broadleaf weeds. Control is best when applied to young, actively growing weeds. Weeds controlled by MANA 31301 include:

Bittercress	Filaree, Redstem	Pepperweed, Virginia
Catchfly, Conical (Sand)	Geranium, Carolina	Pigweed, spp.
Catchweed (Madwort)	Gromwell, spp.	Pineappleweed
Chickweed, Common	Henbit	Polemonium, Annual (Jacob's
Chickweed, Mousear	Knotweed, Prostrate	Ladder) Radish,
Corncockle	Lambsquarter, Common	Wild
Dogfennel (Mayweed)	Lettuce, Miners	Shepardspurse
Evening Primrose,Cutleaf	Mustard, Blue	Speedwell, Ivyleaf
Falseflax, Smallseed	Mustard, Wild	Turnip, Wild
Fiddleneck, Tarweed	Pennycress, Field	

Weeds Suppressed

MANA 31301's control of the following weeds varies from poor to excellent depending on time of application, stage of growth at application, temperatures and soil moisture conditions following treatment. For maximum effect on these weeds, apply the highest listed rate at the earliest growth stage timing for

each particular soil type and organic matter. Suppression is a reduction in weed size and growth as compared to a non-treated area in the same field.

BROADLEAVES		
Buckwheat, Wild*	Kochia*	Tansymustard
Buttercup, spp.	Lettuce, Prickly	Thistle, Russian
Cowcockle	Mustard, Tumble (Jim Hill)*	Vetch, Winter
GRASSES		
Barley, Hare (Wild)	Brome, Downy*	Oat, Wild*
Barley, Little	Brome, Japanese*	Rescuegrass*
Blackgrass	Brome, Ripgut*	Whitlowgrass, Spring (Vernal)
Bluegrass, Annual	Cheat*	Windgrass
Bluegrass, Bulbous		
* Use the highest listed MANA 31301 rate for maximum weed suppression.		

FOR WEED CONTROL IN A WHEAT/FALLOW/WHEAT ROTATION

(Idaho, Oregon, Utah and Washington Only)

MANA 31301 may be applied to provide weed control during the fallow period after wheat harvest or in the Spring before winter wheat is planted. Winter wheat can be seeded 4 months (120 days) after Spring application. Mechanical tillage or the application of a contact herbicide may be required to control weeds germinating prior to seeding of winter wheat. Best results will be obtained where straw and chaff are evenly distributed across the field.

For specific application information see the "Product Information" section in the front of this label.

Where weed growth is present at application time, MANA 31301 should be applied with Gramoxone or other contact herbicide. Refer to the other product label registered for additional directions, rates, and weed species controlled.

WEEDS CONTROLLED

BROADLEAVES		
Chickweed, Common (*Stellaria media*)	Mustard, Jim Hill (*Sisymbrium altissimum*)	Pigweeds (*Amaranthus* spp.)
Henbit (*Lamium amplexicaule*)	Mustard, Tansy (*Descurainia pinnata*)	*Russian thistle (*Salsola iberica*)
*Kochia (*Kochia scoparia*)	Mustard, Treacle (*Eyrsimum repandum*)	*Wild Sunflower (*Helianthus* spp.)
Lambsquarters (*Chenopodium album*)	Mustard, Wild (*Brassica kaber*)	
Mustard, Blue or Purple (*Chorispora tenella*)	Pennycress, Field (Fanweed) (*Thlaspi arvense*)	
GRASSES		
Cheatgrass (*Bromus secalinus*)	Downy Brome (*Bromus tectorum*)	*Wheat, Volunteer (*Triticum* spp.)
*Note: Since control of these weeds may vary depending on moisture following an application, use the higher labeled rate.		

After Harvest Application (Fall Fallow): MANA 31301 may be applied to wheat stubble after harvest in the Fall. Apply 1 to 1-1/4 pt per acre broadcast before weeds emerge. Use higher rate for longer weed control or

for weeds designated as requiring the higher rate for control. Rainfall (1/2 inch or more) is necessary for herbicide activation.

Do not plant crops in treated areas for at least 10 months following fall applications.

MANA 31301 may be applied at 1 to 1-1/4 pt per acre as directed above for a Fall application. If other vegetation is present at the time of application use a contact herbicide.

Spring Application (Summer Fallow): MANA 31301 may be applied to wheat stubble in the Spring. Apply 3/4 to 1 pt per acre broadcast before weeds emerge in the Spring. Use higher rate for longer weed control or weeds designated as requiring higher rate for control. Rainfall (1/2 inch or more) is necessary for herbicide activation.

RESTRICTIONS:

- Do not graze treated fields.
- Do not plant Spring seeded cereals following Fall fallow applications of MANA 31301. Where MANA 31301 was applied in the Fall, do not apply MANA 31301 in the Spring.

FOR WEED CONTROL IN A FALLOW ROTATION WITH BARLEY AND WHEAT

(Colorado, Kansas, Montana, Nebraska, and Wyoming Only)

MANA 31301 may be applied to provide weed control during the fallow period after wheat or barley harvest or in the Spring before planting of Winter wheat or barley. Mechanical tillage or the application of a contact herbicide may be required to control weeds germinating prior to seeding of Winter wheat or barley.

For specific application information see the "Product Information" section in the front of this label.

Where weed growth is present at application time, MANA 31301 should be applied with Gramoxone, Roundup, or other contact herbicide. Refer to the other product label registered for additional directions, rates, and weed species controlled. Do not plant crops in treated areas earlier than 10 months following Fall applications.

WEEDS CONTROLLED

BROADLEAVES		
Chickweed, Common (*Stellaria media*) Cowcockle (*Vaccaria pyramidata*) Henbit (*Lamium amplexicaule*) *Kochia (*Kochia scoparia*) Lambsquarters (*Chenopodium album*)	Mustard, Blue or Purple (*Chorispora tenella*) Mustard, Jim Hill (*Sisymbrium altissimum*) Mustard, Tansy (*Descurainia pinnata*) Mustard, Treacle (*Eyrsimum repandum*) Mustard, Wild (*Brassica kaber*)	Pennycress, Field (fanweed) (*Thlaspi arvense*) Pigweeds (*Amaranthua* spp.) Russian thistle (*Salsola iberica*) Sunflower (*Helianthus* spp.)
GRASSES		
Cheatgrass (*Bromus secalinus*) Downy Brome (*Bromus tectorum*)	*Foxtail, Green (*Setaria viridis*) *Wheat, Volunteer (*Triticum* spp.)	*Wild Oats (*Avena fatua*)
*Note: Since control of these weeds may vary depending on moisture following application, use the higher rate listed below.		

AFTER HARVEST APPLICATION (Fall Fallow): MANA 31301 may be applied to the stubble after harvest in the Fall. Apply 1-1/4 to 1-1/2 pt per acre broadcast before weeds emerge. Use the higher rate for longer weed control or for weeds designated as requiring the higher rate for control. Rainfall (1/2 inch or more) is necessary for herbicide activation.

SPRING APPLICATION (Summer Fallow): MANA 31301 may be applied to the stubble in the Spring. Apply 3/4 to 1 pt per acre broadcast before weeds emerge in the Spring. Use the higher rate for longer weed control or weeds designated as requiring the higher rate for control. Rainfall (1/2 inch or more) is necessary for herbicide activation. Wheat or barley can be seeded 120 days after Spring application.

RESTRICTIONS:

- Do not graze treated fields.
- Do not plant Spring seeded cereals following Fall applications for fallow.
- Where MANA 31301 was applied in the Fall, do not apply MANA 31301 in the Spring.

CROP ROTATION INTERVALS

Waiting Period after MANA 31301 Application[1]

4 Months	Alfalfa Asparagus Barley[2] Corn	Forage Grasses Sainfoin Soybeans	Sugarcane Tomatoes Wheat[2]
8 Months	Barley Lentils	Peas Wheat	
12 Months	Potatoes	Rice[3]	
18 Months	Sugar Beets, Onions and other root crops not listed on this label, and all other crops not listed on this label.		

[1]Cover crops for soil building or erosion control may be planted any time, but do not graze or harvest for food or feed. Stand reductions may occur in some areas.

[2] Following peas, lentils or soybeans.

[3] Do not rotate rice after any application to a primary crop greater than1.0 lb ai/A of MANA 30301 per season.

Do not rotate any crop not listed on this label after application of MANA 31301 to sugarcane.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE:

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food and feed. Store in original container and out of reach of children, preferably in a locked storage area.

Do not store above 100°F for extended periods of time. Storage below 20°F can result in formation of crystals. If product crystallizes, store at 50°F to 70°F and agitate to redissolve crystals. If container is damaged or spill occurs, use product immediately or dispose of product and damaged container as indicated below.

PESTICIDE DISPOSAL:

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

Rigid, Nonrefillable containers small enough to shake (i.e. with capacities equal to or less than five gallons).

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

Rigid, Nonrefillable containers that are too large to shake (i.e. with capacities greater than 5 gallons or 50 lbs).

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. 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. Offer for recycling or reconditioning if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

Refillable Container

Refill this container with pesticide only. 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.

Refilling or Returning Containers

If refilling or returning container is planned, end users are not authorized to remove tamper evident cables, one way values or clean container.

Recycle or Disposal of Containers

End users are authorized to remove tamper evident cable as required to remove the product from the container unless the container is equipped with one way valves and refilling or returning is planned. Instructions for container rinsing and either recycling or disposal are as follows:

Bottom Discharge IBC (e.g. Schuetz Caged IBC or Snyder Square Stackable).

Pressure rinsing 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 pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

Top Discharge IBC, Drums, Kegs (e.g. Snyder 120 Next Gen, Bonar B120, Drums and Kegs).

Triple rinsing 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 triple rinse 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. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

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.

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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.

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