



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

April 28, 2021

Carolyn Miter
Registrations Specialist
Albaugh, LLC
PO Box 2127
Valdosta, GA 31604

Subject: Label Amendment – Adjust Postemergence Application Timing on Soybeans and
Minor Label Updates
Product Name: Metolachlor 8E
EPA Registration Number: 42750-340
Application Date: August 5, 2020
Decision Number: 565252

Dear Ms. Miter:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

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

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

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

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with FIFRA section 6. If you have any questions, please contact Endia Blunt by phone at 703-347-0788, or via email at Blunt.Endia@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Debra Rate".

Debra Rate, Ph.D., Senior Regulatory Specialist
Invertebrate & Vertebrate Branch 2
Registration Division (7505P)
Office of Pesticide Programs

Attachment

METOLACHLOR 8E

[Alternate Brand Name Priority 8E]

For weed control in [Corn (field, pop, sweet, grown for seed)], [Cotton,] [Peanuts,] [Crop Group 6 Legume Vegetables (succulent and dried)] [Potatoes,] [Safflowers,] [Sorghum,] [Soybeans,] and [Tomato]

Active Ingredient:

Metolachlor: 2-chloro- N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl) acetamide. . . . 84.1%

Other Ingredients: 15.9%

Total:.....100.0%

Contains 7.64 lbs. of metolachlor active ingredient per gallon.
Contains the safener dichlormid.

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
IF SWALLOWED	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have affected person sip a glass of water if able to swallow. • DO NOT induce vomiting unless told by a poison control center or doctor. • DO NOT give anything by mouth to an unconscious person.
IF IN EYES	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF INHALED	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible. • Call a poison control center or doctor for further treatment advice.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment.	
Emergency phone numbers: (800) 424-9300 CHEMTREC (transportation, spills and medical emergencies).	

Read the entire label carefully before using this product.

OPTIONAL LANGUAGE FOR LABEL

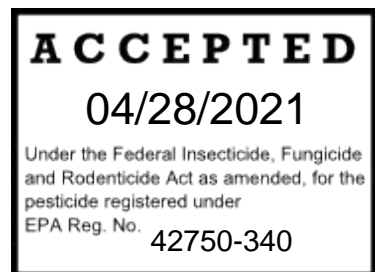
[See additional precautionary statements and directions for use inside booklet.]
[Not for sale, use, or distribution in Nassau County or Suffolk County, New York.]

EPA Reg. No. 42750-340

EPA Est. No. _____
[Lot number]

Net Contents: _____ [Gallons] [gal.][(Liters)]

Manufactured For:
Albaugh, LLC
Ankeny, IA 50021



PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. This product may cause skin sensitization reactions in some people.

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

1. Coveralls over short-sleeved shirt and short pants
2. Chemical-resistant gloves: made of Barrier Laminate, Butyl Rubber ≥14 mils, Nitrile Rubber ≥14 mils, Neoprene Rubber ≥14 mils, Natural Rubber ≥14 mils, Polyethylene, Polyvinyl Chloride (PVC) ≥14 mils or Viton ≥14 mils.
3. Chemical-resistant footwear plus socks
4. Chemical-resistant headgear for overhead exposure
5. Chemical-resistant apron when cleaning equipment mixing or loading.

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 CONTROL STATEMENTS

Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.607(d)).

When mixers, loaders and 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 170.607(d-f)), the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.
- 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 disposing of equipment wash waters or rinsate.

Ground Water Advisory - This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Surface Water Advisory - Metolachlor can contaminate surface water through ground spray drift. Under some conditions, metolachlor may also have a high potential for runoff into surface water (primarily via dissolution in runoff water) for several months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

PHYSICAL OR CHEMICAL HAZARDS

DO NOT mix or allow coming in contact with oxidizing agent. Hazardous chemical reaction may occur.

MIXING/LOADING INSTRUCTIONS

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates. Check-valves or anti-siphoning devices must be used on all mixing and/or irrigation equipment.

This product may not be mixed or loaded within 50 ft. of perennial or intermittent streams and rivers, natural or impounded

lakes and reservoirs. This product may not be mixed/loaded or used within 50 ft. of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 ft. of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

DIRECTIONS FOR USE

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

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

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

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 over short-sleeved shirt and short pants
- Chemical-resistant gloves: made of Barrier Laminate, Butyl Rubber ≥14 mils, Nitrile Rubber ≥14 mils, Neoprene Rubber ≥14 mils, Natural Rubber ≥14 mils, Polyethylene, Polyvinyl Chloride (PVC) ≥14 mils or Viton ≥14 mils
- Chemical-resistant headgear for overhead exposures
- Chemical-resistant footwear plus socks

FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL TO AVOID POOR WEED CONTROL OR CROP INJURY.

Not for sale, use, or distribution in Nassau County or Suffolk County, New York.

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

RESISTANCE MANAGEMENT

For resistance management, metolachlor is a Group 15 herbicide. Any weed population may contain or develop plants naturally resistant to metolachlor and other Group 15 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance management strategies should be followed.

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

- Rotate the use of this product or other Group 15 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.

- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Albaugh, LLC at 1-800-247-8013.

PRODUCT INFORMATION

METOLACHLOR 8E is a selective herbicide registered for use as a preplant surface-applied, preplant incorporated, or preemergence treatment in water or fluid fertilizer for control of most annual grasses and certain broadleaf weeds in corn (field, pop, sweet, grown for seed), cotton, peanuts, crop group 6 legume vegetables (succulent and dried), potatoes, safflowers, sorghum, soybeans, and tomatoes. METOLACHLOR 8E is also registered as a postemergent treatment on corn, cotton, potato, soybean, and tomato.

RESTRICTIONS:

- **DO NOT** rotate to food or feed crops other than those listed on this label.
- **DO NOT** use in nurseries, turf, or landscape plantings.
- **DO NOT** apply to frozen ground.
- **DO NOT** apply under conditions which favor runoff or wind erosion of soil containing this product to nontarget areas. To prevent off-site movement due to runoff or wind erosion:
 - a) **DO NOT** treat powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface must first be settled by rainfall or irrigation.
 - b) **DO NOT** apply to impervious substrates, such as paved or highly compacted surfaces.
 - c) **DO NOT** use tailwater from the first flood or furrow irrigation of treated fields to treat nontarget crops, unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.

Observe all use restrictions and precautions on the labels of each product used in tank mixtures. Tank mixtures are permitted only in those states where the tank mix partner is registered.

FOR ALL TANK MIXTURES: It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Where directions on this label specify a METOLACHLOR 8E tank mixture with atrazine, follow the rates, restrictions, and use precautions on the labeling of the atrazine product used. Certain states may have established rate limitations for atrazine within specific geographical areas. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

If this product is incorporated, any supplemental tillage before planting must not exceed the depth of incorporation.

Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor, or consistent control at a level below that generally considered acceptable for commercial weed control.

USE PRECAUTIONS

1. Injury may occur following the use of this product under abnormally high soil moisture conditions during early

- development of the crop.
2. Dry weather following preemergence application of this product or a tank mixture may reduce effectiveness. Cultivate if weeds develop.

SOIL TEXTURES AND HERBICIDE RATES

Where rates are based on *coarse-*, *medium-*, or *fine-textured soils*, it is understood that soil textural classes are generally categorized as follows:

Coarse	Medium	Fine	
Sand	Loam	Sandy clay loam	Sandy clay
Loamy sand	Silt loam	Silty clay loam	Silty clay
Sandy loam	Silt	Clay loam	Clay

Within rate ranges in the rate tables and elsewhere on this label, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter.

METOLACHLOR 8E may be applied preemergence alone, or in combination with tank mix partners specified on this label, following preplant incorporated herbicides when used according to their label directions, provided that such use is not prohibited on the respective labels.

Thoroughly clean sprayer or other application device before using. Dispose of cleaning solution in a responsible manner. **DO NOT** use a sprayer or applicator contaminated with any other materials, or crop damage or clogging of the application device may result.

MIXING INSTRUCTIONS

METOLACHLOR 8E Alone: Mix METOLACHLOR 8E with water or fluid fertilizer (as specified in the individual crop sections) and apply as a spray. Fill the spray tank 1/2 - 3/4 full with water or fluid fertilizer, add the proper amount of this product, then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

Tank Mixtures: Fill the spray tank one-quarter full with water, and start agitation; add tank mix partners (with the exception of 2,4-D, paraquat or glyphosate), allow it to become dispersed; then add METOLACHLOR 8E; then add paraquat, glyphosate/2,4-D, or glyphosate if these products are being used; and finally the rest of the water.

In some tank mixtures with atrazine, dicamba, linuron, simazine, pendimethalin, simazine; fluid fertilizers may replace all or part of the water as carrier, except in the atrazine postemergence and the dicamba post-emergence tank mixes. For tank mixtures with atrazine, see additional mixing instructions on the atrazine label. For each tank mixture, check compatibility with fluid fertilizer before mixing in spray tank. For all tank mixtures, conduct a compatibility test as described in the Compatibility Test Section of this label. For all tank mixtures, agitate during mixing and application to maintain a uniform suspension.

*See **Mixing Instructions** for tank mixtures with fluometuron, atrazine, or simazine+pendimethalin under the appropriate tank mixture section.

APPLICATION PROCEDURES

Application Timing

METOLACHLOR 8E alone or in tank mixtures with other labeled herbicides may be applied for weed control in crops listed on this label. Refer to the individual crop sections of the label to determine if application timings listed below are applicable.

- a) **Preplant Surface-Applied:** For minimum-tillage or no-tillage systems only, METOLACHLOR 8E alone and some METOLACHLOR 8E tank mixtures may be applied up to 45 days before planting. Use only split applications for treatments made 30-45 days before planting, with 2/3 the specified broadcast rate for the crop and soil texture applied initially and the remaining 1/3 at planting. Treatments less than 30 days before planting may be made either as a split or a single application. Refer to individual crop sections to determine if early preplant surface application is allowed. If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (for example, paraquat or glyphosate). Observe directions for use, precautions, and restrictions on the label of the contact herbicide.

Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during

- planting, or weed control will be diminished.
- b) **Preplant Incorporated:** Apply METOLACHLOR 8E to the soil and incorporate into the top 2 inches of soil within 14 days before planting, using a finishing disk, harrow, rolling cultivator, or similar implement capable of providing uniform 2-inch incorporation. Use a preplant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. If the crop will be planted on beds, apply and incorporate this product after bed formation, unless specified otherwise.
 - c) **Preemergence:** Apply this product during planting (behind the planter) or after planting, but before weeds or crops emerge.
 - d) **Postemergence (cotton and soybean use only):** For pre-emergence or partial control of the weeds listed in the WEEDS CONTROLLED – METOLACHLOR 8E APPLIED ALONE and in the WEEDS PARTIALLY CONTROLLED sections of this label, use one application of this product at the rate specified in the cotton or soybean sections of this label. This product alone will not control emerged weeds, so it must be applied to a weed-free surface or in a tank mixture with products that provide postemergence weed control. If weeds are present at the time of application, tank mix with a labeled postemergence herbicide and observe all directions for use, precautions, limitations, and restrictions on the label of the tank mix partner.

Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. For additional postemergence information, follow the crop specific label requirements identified on this label.

SPECIAL APPLICATION PROCEDURES

1. **CA Only (Corn, Safflowers, Crop Group 6 Legume Vegetables (succulent and dried)): Preplant Incorporated:** Broadcast this product alone or with tank mix partners listed on this label to the soil and thoroughly incorporate with a disk or similar implement set to till 4-6 inches deep. For more thorough incorporation, till the soil in 2 different directions (cross-till). Crops may be planted on flat surface or on beds. Caution should be used when forming the beds so that only soil from the METOLACHLOR 8E treated zone is used (i.e., untreated soil should not be brought to soil surface). If the application is made to pre-formed beds, incorporate this product with a tillage implement set to till 2-4 inches deep. Care should be taken during tilling to keep the tilled (METOLACHLOR 8E treated) soil on the beds.
2. **Preemergence:** Apply this product after planting. Water with sprinkler or flood irrigation within 7-10 days.
3. **Fall Application (Only in IA, MN, ND, SD, WI, and North of Route 20 in the state of NE, and North of Route 136 in the state of IL – See specific instructions in the individual crop sections of this label for timing of application and other information):** Use on medium and fine soils with greater than 2.5% organic matter that will be planted to corn or soybeans the next spring. Ground may be tilled before or after application.

RESTRICTIONS – Fall applications

- **DO NOT** apply to frozen ground.
- **DO NOT** exceed a 2 to 3-inch incorporation depth if tilled after treatment.
- If a spring application is made, the total rate of the fall plus spring applications **MUST NOT** exceed the maximum total rate for the specific crop.
- **Ground Application:** Apply this product alone or in tank mixtures by ground equipment in a minimum of 10 gals. of spray mixture per acre, unless otherwise specified. Use sprayers that provide accurate and uniform application. For tank mixtures of this product with wettable powder or dry flowable formulations, screens and strainers should be no finer than 50-mesh. Rinse sprayer thoroughly with clean water immediately after use.

Calculate the amount of herbicide needed for band treatment by the formula:

$$\frac{\text{band width in inches}}{\text{row width in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre of field}$$

For information on applying in lower volumes of carrier, see the **Low Carrier Application Section**.

For application by air or through center pivot systems, see the **Aerial Application** section or **Center Pivot Irrigation Application** section.

For information on impregnating dry fertilizer, see the **DRY BULK GRANULAR FERTILIZERS** section.

WEEDS CONTROLLED – METOLACHLOR 8E APPLIED ALONE

Barnyardgrass (watergrass)	southwestern cupgrass
bristly foxtail	wild proso millet *
crabgrass	witchgrass
crowfootgrass	woolly cupgrass*
fall panicum	yellow foxtail
foxtail millet	yellow nutsedge
giant foxtail	carpetweed
goosegrass	common waterhemp
green foxtail	Eastern black nightshade
prairie cupgrass	Florida pusley
red rice	galinsoga
robust foxtails (purple, white)	pigweed
signalgrass (<i>Brachiaria</i>)	tall waterhemp

*For control of these weeds in corn only, refer to the **Corn – Woolly Cupgrass and Wild Proso Millet Control Program** section of this label.

Weeds Partially Controlled*:

Common purslane	Shattercane
Eclipta,	Texas panicum***
Florida beggarweed**	Volunteer sorghum
Hairy nightshade	Wild proso millet
Sandbur	Woolly cupgrass.
Seedling johnsongrass	

**For partial control of this weed, use a minimum of 2.0 pts./A and apply preemergence.

***For partial control of this weed, use a minimum of 2.0 pts./A and apply through a center pivot irrigation system.

Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor, or consistent control at a level below that generally considered acceptable for commercial weed control. Control of these weeds can be erratic, due partially to variable weather conditions. Control may be improved by following these suggested procedures:

1. **Thoroughly till moist soil** to destroy germinating and emerged weeds. If this product is to be applied preplant incorporated, this tillage may be used to incorporate this product if uniform 2- inch incorporation is achieved as stated under **Application Procedures**.
2. Plant crop into moist soil **immediately after tillage**. If this product is to be used preemergence, apply at planting or immediately after planting.
3. If available, **sprinkler irrigate** within 2 days after application. Apply one-half to 1 inch of water. Use lower water volume (one-half inch) on *coarse-textured* soils and higher volume (1 inch) on *fine-textured soils*. Also, refer to the section on **Center Pivot Irrigation Application** for this method of applying METOLACHLOR 8E.
4. If irrigation is not possible and rain does not occur within 2 days after planting and application, weed control may be decreased. Under these conditions, a uniform, shallow cultivation is recommended as soon as weeds emerge.

ROTATIONAL CROPS

METOLACHLOR 8E ALONE

Replanting if a crop is lost

If a crop treated with this product alone is lost, any crop on this label may be replanted immediately if the rate from the previous crop does not exceed the rate for the crop to be planted. **DO NOT** make a second broadcast application of this product.

Rotational Crop Directions

- 1) Barley, oats, rye, or wheat may be planted 4.5 months following treatment.
- 2) Alfalfa may be planted 4 months following application. Clover may be seeded 9 months following application.

RESTRICTIONS: To avoid injury to rotational alfalfa or clover:

- a. **DO NOT** apply more than 2.0 lbs. a.i. of metolachlor per acre (2.0 pts. of METOLACHLOR 8E) preemergence

(including preplant surface, preplant incorporated, postplant incorporated, etc.)

- b. **DO NOT** make lay-by or other postemergent applications of METOLACHLOR 8E.
- 3) Any crop on this label, in addition to root crops, tobacco, barley, buckwheat, milo, oats, rice, rye, wheat, cabbage, or peppers may be planted in the next spring following treatment.
- 4) Following a lay-by treatment or multiple treatments applied the previous season, any crop on this label, in addition to tobacco, cabbage, or peppers, may be planted in the spring. All other rotational crops may be planted 12 months after a lay-by application.
- 5) **DO NOT** graze or feed forage or fodder from cotton to livestock.

METOLACHLOR 8E Tank Mixtures

For **Rotational Crops** restrictions for this product used in tank mixtures, refer to the most restrictive statements/restrictions above for this product and to the respective product labels of any mixing partner(s) for additional statements/restrictions.

SPRAY EQUIPMENT LOW CARRIER APPLICATION

For Broadcast Ground Application Only

Use sprayers that provide accurate and uniform application. **Only water may be used as a carrier.** Screens in suction and in-line strainers should be 50-mesh. Manufacturers may require that tip screens as fine as 100-mesh be used with some nozzles. Use a pump with capacity to: (1) maintain up to 35-40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension. Use a minimum of 5.0 gals. of spray mixture per acre. Maximum recommended sprayer speed is 15 mph. Rinse sprayer thoroughly with clean water immediately after each use.

Low pressure nozzles are recommended to reduce drift and increase application accuracy. Care should be taken when using automatic rate-controlling devices to spray the material within the rated working pressure and flow ranges of the nozzles selected. Nozzle screens should be used when recommended by the manufacturer. All nozzles should be placed on 20-inch centers, except flooding types which should be placed on 40-inch centers. When Flat Fan-type nozzles are used, angles of 80° or 110° are recommended. Always read and follow the manufacturer's directions for optimum setup and performance of their nozzles or tips.

AERIAL APPLICATION

Apply METOLACHLOR 8E in water alone or in tank mixtures with atrazine, pendimethalin or trifluralin in a minimum total volume of 2.0 gpa by aircraft. Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft., using low-drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply METOLACHLOR 8E alone or METOLACHLOR 8E + atrazine by aircraft at a minimum upwind distance of 400 ft. from sensitive plants, or apply METOLACHLOR 8E + linuron, or metribuzin at a minimum upwind distance of 300 ft. from sensitive plants.

Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin.

Aerial Drift Management

Avoiding spray drift at the application site is the responsibility of the applicator. 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.

The following 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.

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

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

The applicator must be familiar with and take into account the information covered in the **Aerial Drift Reduction Advisory Information** section below.

Aerial Drift Reduction Advisory Information

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 the **Wind**, **Temperature and Humidity**, and **Temperature Inversions** sections).

Controlling Droplet Size

- **Volume** – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** – Do not exceed the nozzle manufacturer's recommended 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** – Orient nozzles so that the spray is released parallel to the airstream producing 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 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

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

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced 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.).

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.

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

Temperature and Humidity

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

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind.

They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

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

Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin.

CENTER PIVOT IRRIGATION APPLICATION

METOLACHLOR 8E alone or in tank mixture with other herbicides on this label, which are registered for center pivot application, may be applied in irrigation water preemergence (after planting, but before weeds or crop emerge) at rates specified on this label. This product also may be applied postemergence to the crop and preemergence to weeds in crops where postemergence applications are allowed on this label. Follow all restrictions (height, timing, rate, etc.). **Apply this product only through a center pivot irrigation system. 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 nonuniform distribution of treated water. If you have questions about calibration, you should contact State Extension 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.

Operating Instructions

- 1) 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.
- 2) The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
- 3) 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 with-drawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5) 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.
- 6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump or piston pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7) **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.
- 8) Prepare a mixture with a minimum of 1 part of water to 1 part herbicide(s) and inject this mixture into the center pivot system. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of metering equipment. Maintain sufficient agitation to keep the herbicide in suspension.
- 9) Meter into irrigation water during entire period of water application.
- 10) Apply in ½ - 1 inch of water. Use the lower water volume (½ inch) on *coarse-textured soils* and the higher volume (1 inch) on *fine-textured soils*. More than 1 inch of water at application may reduce weed control by moving the herbicide below the effective zone in the soil.

PRECAUTIONS FOR CENTER PIVOT APPLICATIONS

- Where sprinkler distribution patterns **do not** overlap sufficiently, unacceptable weed control may result.
- Where sprinkler distribution patterns overlap excessively, crop injury may result.

DRY BULK GRANULAR FERTILIZERS

Many dry bulk granular fertilizers may be impregnated or coated with this product alone or selected METOLACHLOR 8E tank mixtures which are registered for preplant incorporated or preplant surface applications which are used to control weeds on labeled crops on the METOLACHLOR 8E label and are not prohibited from use on dry bulk granular fertilizers.

When applying METOLACHLOR 8E or METOLACHLOR 8E mixtures with dry bulk granular fertilizers, follow all directions for use and precautions on the respective product labels, regarding target crops, corn, rates per acre, soil texture, application methods (including timing of application), and rotational crops.

All individual state regulations relating to dry bulk granular fertilizer blending, registration, labeling, and application are

the responsibility of the individual and/or company selling the herbicide/fertilizer mixture.

Prepare the herbicide/fertilizer mixtures by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Nozzles used to spray METOLACHLOR 8E and METOLACHLOR 8E mixtures onto the fertilizer must be placed to provide uniform spray coverage. Care should be taken to aim the spray directly onto the fertilizer only and to avoid spraying the walls of the blender.

If the herbicide/fertilizer mixture is too wet, add a highly absorptive material, such as Agsorb® or Celatom MP-79®, or similar granular clay or diatomaceous earth materials, to obtain a dry, free-flowing mixture. Absorptive materials should be added only after the herbicide has been thoroughly blended into the fertilizer mixture. Best application results will be obtained by using a granule of 6/30 particle size or of a size similar to that of the fertilizer material being used. Generally, less than 2% by weight of absorptive material will be needed. Avoid using more than 5% absorptive material by weight.

Calculate amounts of METOLACHLOR 8E, atrazine, atrazine plus simazine, metribuzin, isoxaflutole or ethafluralin by the following formula:

$$\begin{array}{rclcl} \frac{2,000}{\text{lbs. of fertilizer per acre}} & \times & \text{pts./A of liquid or flowable product} & = & \text{pts. of liquid or flowable product per ton of fertilizer} \\ \frac{2,000}{\text{lbs. of fertilizer per acre}} & \times & \text{lbs./A of dry product} & = & \text{lbs. of dry product per ton of fertilizer} \end{array}$$

Pneumatic (Compressed Air) Application (METOLACHLOR 8E Alone): High humidity, high urea concentrations, low fertilizer use rates, and dusty fertilizer may cause fertilizer mixture to build up or plug the distributor head, air tubes, or nozzle deflector plates. To minimize buildup, premix METOLACHLOR 8E with Exxon Aromatic 200 at a rate of 1.0 to 4.0 pts./gal. of METOLACHLOR 8E. Aromatic 200 is a noncombustible / nonflammable petroleum product. Aromatic 200 may be used in either a fertilizer blender or through direct injection systems. Drying agents should not be used when using Aromatic 200.

PRECAUTIONS

- Mixtures of METOLACHLOR 8E and Aromatic 200 must be used on dry fertilizer only. Poor results or crop injury may result if these mixtures are used in water or liquid fertilizer solutions for spraying applications.
- When impregnating METOLACHLOR 8E in a blender before application, a drier mixture can be attained by substituting a drying agent for Aromatic 200. The use of Agsorb FG or drying agents of 6/30 particle size are recommended.
- Drying agents are not recommended for use with On-The-Go impregnation equipment.

RESTRICTIONS

To avoid potential for explosion,

- **DO NOT** impregnate METOLACHLOR 8E or METOLACHLOR 8E mixtures on ammonium nitrate, potassium nitrate, or sodium nitrate, either alone or in blends with other fertilizers.
- **DO NOT** use METOLACHLOR 8E or METOLACHLOR 8E mixtures on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.

Application

Apply 200-700 lbs. of the herbicide/fertilizer mixture per acre. For best results, apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential to prevent possible crop injury. Non-uniform application may also result in unsatisfactory weed control. In areas where conventional tillage is practiced, a shallow incorporation of the mixture into the soil may improve weed control. On *fine- or medium-textured soils* in areas where soil incorporation is not planned, i.e., reduced tillage situations or in some conventional till situations, make applications approximately 30 days before planting to allow moisture to move the herbicide/fertilizer mixture into the soil. On *coarse-textured soils*, make applications approximately 14 days prior to planting.

USE PRECAUTION:

To avoid crop injury, **do not** use the herbicide/fertilizer mixture on crops where bedding occurs.

COMPATIBILITY TEST

Because liquid fertilizers can vary, even within the same analysis, always **check compatibility with herbicide(s) each time before use**. Be especially careful when using **complete** suspension or fluid fertilizers, as serious compatibility

problems are more likely to occur. Commercial application equipment may improve compatibility in some instances. The following test assumes a spray volume of 25 gals./A. For other spray volumes, make appropriate changes in the ingredients. Check compatibility using this procedure:

1. Add 1.0 pt. of fertilizer to each of 2 one-qt. jars with tight lids.
2. To **one** of the jars, add 1/4 tsp. or 1.2 milliliters of a compatibility agent approved for this use (1/4 tsp. is equivalent to 2.0 pts./100 gals. spray). Shake or stir gently to mix. When an adjuvant is to be used with this product, Albaugh, LLC recommends the use of Compex®, Unite® or a Chemical Producers and Distributors Association (CPDA) certified adjuvant.
3. To **both** jars, add the appropriate amount of herbicide(s). If more than one herbicide is used, add them separately with dry herbicides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix. The appropriate amount of herbicides for this test follows:
Dry herbicides: For each pound to be applied per acre, add 1.5 level teaspoons to each jar.
Liquid herbicides: For each pint to be applied per acre, add 0.5 teaspoon or 2.5 milliliters to each jar.
4. After adding all ingredients, put lids on and tighten, and invert each jar 10 times to mix. Let the mixtures stand 15 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the 2 jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (A) slurry the dry herbicide(s) in water before addition, or (B) add 1/2 of the compatibility agent to the fertilizer and the other 1/2 to the emulsifiable concentrate or flowable herbicide before addition to the mixture. If incompatibility is still observed, **do not** use the mixture.

CROPS

CORN (FIELD, POP, SWEET, GROWN FOR SEED) – METOLACHLOR 8E ALONE

Apply this product, either preplant surface, preplant incorporated, or preemergence, using the appropriate rate specified below.

1. PREPLANT SURFACE-APPLIED

Refer to instructions for use of METOLACHLOR 8E alone under **Application Procedures**.

a. Fall Application

- Apply after September 30 in MN, ND, SD, WI, and north of Route 30 in IA;
- Apply after October 15 north of Route 91 in NE and south of Route 30 in IA;
- Apply after October 31 north of Route 136 in IL

In all locations, apply to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55°F and falling. In minimum-till or no-tillage systems on soils having greater than 2.5% organic matter, use 1.67-2.0 pts./A on *medium-textured* and 2.0 pts./A on *fine-textured soils*. A tillage operation may precede the application. Minimize furrow and ridge formation in the tillage operations.

RESTRICTIONS:

- If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate for corn.
 - **DO NOT** apply to frozen ground.
 - A fall and/or a spring tillage may follow application, but **do not** exceed an incorporation depth greater than 2-3 inches.
- b. Use on *medium-* and *fine-textured soils* with minimum-tillage or no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, and WY. Apply 2/3 the specified rate of METOLACHLOR 8E (1.67 pts./A on *medium soils* and 2.0 pts./A on *fine soils*) as a split treatment 30-45 days before planting and the remainder at planting. Applications made less than 30 days prior to planting may be as either a split or single treatment. Apply 1.33 pts./A on *coarse soils* not more than 2 weeks prior to planting.

RESTRICTION:

- If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate for corn.
- c. On *medium-* and *fine-textured soils* with minimum- or no-tillage systems in CT, DE, MA, MD, ME, MI, NH, NY, OH, PA, RI, VA, VT, and WV, preplant surface applications may be applied following the directions for use above. If the amount of rainfall results in unsatisfactory length of weed control following the earlier treatment, a post-emergence

application of an appropriately labeled broadleaf and/or grass weed herbicide may be used, i.e., metolachlor, primisulfuron-methyl, prosulfuron, nicosulfuron, dicamba, bromoxynil, or 2,4-D. If the postemergence treatment includes the herbicide used preplant surface-applied, **do not** exceed the total labeled rate for corn on a given soil texture. Observe all directions for use, precautions, and restrictions on the label of the postemergent herbicide. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

2. PREPLANT INCORPORATED OR PREEMERGENCE

Follow instructions for use of METOLACHLOR 8E alone under **Application Procedures**.

On *coarse soils*, apply 1.0-1.33 pts./A of METOLACHLOR 8E if organic matter content is less than 3%, or 1.33 pts./A if organic matter content is 3% or greater. On *medium soils*, apply 1.33-1.67 pts./A of METOLACHLOR 8E.

On *fine soils*, apply 1.33-1.67 pts./A of METOLACHLOR 8E if organic matter content is less than 3%, or 1.67-2.0 pts./A if organic matter content is 3% or greater.

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Preplant Incorporated: See the **SPECIAL APPLICATION PROCEDURES** section of this label.

3. LAY-BY OR POSTEMERGENCE: To extend the duration of weed control in corn, a maximum rate of 2.0 pts./A of METOLACHLOR 8E may be applied after crop emergence until the corn plants reach 40 inches in height, following any preplant surface-applied, preplant incorporated, or preemergence herbicide application, including METOLACHLOR 8E. For best results, applications should be made to soil free of emerged weeds and directed towards the base of the corn plants in excess of 5 inches tall. The total METOLACHLOR 8E rate applied on corn during any one crop year must not exceed 4.0 pts./A, depending on soil texture.

Shattercane, Wild Proso Millet, Woolly Cupgrass, and Eclipta – Partial Control: For more consistent partial control of shattercane, wild proso millet, woolly cupgrass, or eclipta, apply 2.0-2.55 pts./A as a single application; or apply 1.0-1.33 pts./A of METOLACHLOR 8E preplant incorporated followed by 1.0-1.33 pts./A of METOLACHLOR 8E preemergence; however, **do not** apply more than a total of 2.55 pts./A. Make the preemergence application during or after planting, but before weeds and corn plants emerge. Apply the 1.33 pts./A rate of METOLACHLOR 8E when a heavy infestation of shattercane, wild proso millet, woolly cupgrass, or eclipta is expected. A shallow cultivation may be needed to control any late emerging weeds.

Woolly Cupgrass and Wild Proso Millet Control Program: For control of these species, use the following 3-step program:

1. Apply METOLACHLOR 8E early preplant, preplant incorporated, or preemergence at 1.67 pts./A on *medium soils* and 2.0 pts./A on *fine-textured soils*, up to the maximum label rate. Lightly incorporate with a rotary hoe if rainfall does not occur within 5-7 days;
2. Apply a postemergence tank mix of primisulfuron-methyl at 0.38 oz./A or Exceed primisulfuron-methyl and prosulfuron at 1 packet per 4 acres plus nicosulfuron at 0.33 oz./A plus 1.0 qt. of crop oil concentrate plus 1.0 gal./A of 28% nitrogen, or the equivalent amount of ammonium sulfate, when grasses are 2-3 inches tall and the corn plant is at least 4 inches tall; and
3. Cultivate 14-21 days after the postemergence application.

RESTRICTIONS (for all application methods):

- **DO NOT** graze or feed forage from treated areas for 30 days following application.
- **DO NOT** apply more than the labeled application rate for a given soil texture per year, either as a single or split treatment.
- In corn, METOLACHLOR 8E may be used up to 2.75 pts./A as either a preplant surface, preplant incorporated, or preemergence treatment on soils having an organic matter content between 6% and 20% or up to 2.0 pts./A on any soil for extended residual control and where severe stands of problem weeds are expected.
- In the event of escape of annual weeds following a preplant surface, preplant incorporated, or pre-emergence treatment of METOLACHLOR 8E, follow with a postemergence application of an appropriately labeled broadleaf and/or grass weed herbicide, i.e., atrazine, primisulfuron-methyl, metolachlor, primisulfuron-methyl, prosulfuron, nicosulfuron, dicamba, bromoxynil, or 2,4-D. If the postemergence treatment includes the herbicide used in the earlier treatment, i.e., atrazine, **do not** exceed the total labeled rate for corn on a given soil texture.
- Bromoxynil may be applied postemergence alone or in tank mix combination with atrazine. **DO NOT** exceed 1.2 lbs. a.i./A of atrazine in tank mix combination with bromoxynil postemergence. Refer to the atrazine, bromoxynil labels for specific rates and precautions.
- **DO NOT** use METOLACHLOR 8E on peat or muck soils.

- **DO NOT** apply to frozen ground.

**CORN (FIELD, POP, SWEET, GROWN FOR SEED)
METOLACHLOR 8E COMBINATIONS**

METOLACHLOR 8E in any tank mixture for corn (except METOLACHLOR 8E + atrazine postemergence and METOLACHLOR 8E + dicamba postemergence) may be applied in water or fluid fertilizer. Use only water in the METOLACHLOR 8E + atrazine or the METOLACHLOR 8E + dicamba postemergence tank mixes.

IMPORTANT: FOR ALL TANK MIXTURES – If applying METOLACHLOR 8E in tank mixtures, all the restrictions and rate limitations on the mix partner label(s) must be followed if more restrictive than those on this label.

**METOLACHLOR 8E Tank Mixtures for Corn –
Additional Weeds Controlled and Special Instructions**

	METOLACHLOR 8E + Atrazine and/or Simazine (1)	METOLACHLOR 8E + Atrazine	METOLACHLOR 8E + Dicamba (Field Corn)	METOLACHLOR 8E + Atrazine + Linuron	METOLACHLOR 8E + Atrazine or Simazine + Pendimethalin	METOLACHLOR 8E + Atrazine / dicamba
Follow Specific Instructions Below Table	2,3,4,6,7	2,3,4		2,3,4,5	1, 2,3,4	6
Browntop panicum	a			a	a	
Cocklebur	a	b	b	a	a	a
Common purslane	a			a	a	a
Hairy nightshade	a			a	a	a
Jimsonweed		a	b			a
Kochia		a				a
Lambsquarters	a	a	a	a	a	a
Morningglory	a	b	b	a	a	a
Mustard		a				a
Pigweed				a	a	a
Prickly sida		a				a
Ragweed	a	a	a	a	a	a
Smartweed	a	a	a	a	a	a
Velvetleaf	a	a	b	a	a	a

a = control; b = partial control.

(1) Preplant Surface, PPI, PRE

INSTRUCTIONS

- 1. Special Mixing Instructions for METOLACHLOR 8E + atrazine or simazine and pendimethalin**
 - Fill the spray tank 1/4 full with water or fluid fertilizer and start agitation.
 - To aid compatibility, add a compatibility agent, such as Unite® or X-77®, at 4.0 pts./100 gals. of spray mixture.
 - Then add the atrazine or simazine and allow it to become dispersed.
 - Then add METOLACHLOR 8E and pendimethalin.
 - Add the rest of the water.
- Follow the directions for use, rates, and restrictions on the tank mix partner label(s).
- In Minimum-Tillage and No-Tillage systems, mix with paraquat for control of most emerged annual weeds and suppression of perennial weeds; or with glyphosate/2, 4-D for suppression of emerged field bindweed and control or suppression of annual weeds; or with glyphosate for control of most emerged annual and perennial weeds.
- Refer to TANK MIXTURE WITH ATRAZINE; OR ATRAZINE + 2,4-D; OR ATRAZINE + 2,4-D + DICAMBA FOR MINIMUM-TILLAGE OR NO-TILLAGE SYSTEMS** in the corn section of this label for specific directions for 2,4-D or dicamba burndown combinations in Minimum- Tillage and No-Tillage systems.
- METOLACHLOR 8E in any tank mixture for corn may be applied in water or fluid fertilizer, except as noted.
- Refer to “**CROPS, Corn (Field, Pop, Sweet, Grown For Seed) – METOLACHLOR 8E Alone**” section above, for sequential postemergence treatments if escape weeds develop.

RESTRICTIONS FOR ALL TANK MIXES USED ON CORN

- For all applications to corn, **do not** graze or feed forage from treated areas for 30 days following application.
- When applying METOLACHLOR 8E in tank mixture with atrazine, **do not** exceed the specified amount of atrazine

per acre per year. Certain states may have established rate limitations for atrazine within specific geographical areas. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

3. In corn, METOLACHLOR 8E may be used up to 2.0 pts./A in combinations on any soil for extended residual control and where severe stands of problem weeds are expected.
4. **DO NOT** apply more than the labeled rate for a given soil texture per year, either as a split or single treatment.

1. TANK MIXTURE WITH ATRAZINE OR SIMAZINE, OR ATRAZINE + SIMAZINE– PREPLANT SURFACE, PREPLANT INCORPORATED, OR PREEMERGENCE

In addition to the weeds controlled by METOLACHLOR 8E alone, METOLACHLOR 8E + atrazine or simazine, or METOLACHLOR 8E + atrazine + simazine, applied preplant surface, preplant incorporated, or preemergence, also controls the following weeds: browntop panicum, cocklebur, common purslane, hairy nightshade, lambsquarters, morningglory, ragweed, smartweed, and velvetleaf.

Apply METOLACHLOR 8E + atrazine or simazine, or METOLACHLOR 8E + atrazine + simazine either preplant surface, preplant incorporated, or preemergence.

Preplant Surface-Applied: Follow instructions for use of METOLACHLOR 8E alone under **Application Procedures** and under application instructions for METOLACHLOR 8E alone on corn. Apply METOLACHLOR 8E + atrazine or simazine, or METOLACHLOR 8E + atrazine + simazine on *medium soils* (1.67 pts./A of METOLACHLOR 8E + the labeled rate of atrazine or simazine, or atrazine+ simazine combined) and on *fine soils* (1.67-2.0 pts./A of METOLACHLOR 8E + the labeled rate of atrazine or simazine, or atrazine + simazine combined) in minimum-tillage and no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, and WY. Apply the tank mixtures as a split or single treatment in those states and as indicated in the **METOLACHLOR 8E Alone – Preplant Surface-Applied** section of the label. On *coarse soils*, apply 1.33 pts./A of METOLACHLOR 8E and the labeled rate of atrazine or simazine, or atrazine + simazine combined.

Preplant Incorporated or Preemergence: Follow instructions for use of METOLACHLOR 8E alone under **Application Procedures**. Apply METOLACHLOR 8E + atrazine or simazine, or METOLACHLOR 8E + atrazine + simazine, using the appropriate rates from Table 1.

CALIFORNIA ONLY

Preplant Incorporated: See the **SPECIAL APPLICATION PROCEDURES** section of this label.

Shattercane, Wild Proso Millet, Woolly Cupgrass, and Eclipta – Partial Control

For more consistent partial control of shattercane, wild proso millet, woolly cupgrass, or eclipta, where METOLACHLOR 8E is applied in tank mixture or sequentially with other registered corn herbicides, apply 2.0-2.33 pts. as a single application, or the following applications may be made:

1. Apply 1.0-1.33 pts./A of METOLACHLOR 8E + the labeled rate of atrazine or simazine preplant incorporated, followed by 1.0-1.33 pts./A of METOLACHLOR 8E preemergence. Make the preemergence application during or after planting, but before weeds and corn plants emerge.
2. Apply METOLACHLOR 8E at 1.33 pts./A alone or in tank mix combination with up to the labeled rate of atrazine or simazine, preplant incorporated. **DO NOT** exceed the total rate of triazine herbicide specified for corn grown on a given soil texture. Follow with a post-directed application of ametryn at the labeled rate. Refer to the ametryn label for specific directions for the post-directed application.
3. Apply EPTC or butylate at labeled rates preplant incorporated, followed by a preemergence application of METOLACHLOR 8E at 1.0-1.33 pts./A. **DO NOT** use EPTC or butylate on soils where rapid degradation has been shown to occur. Make the preemergence application during or after planting, but before weeds and corn plants emerge.

PRECAUTION: When following the application regimes in numbers 1-3 above, a shallow cultivation may be needed after the preemergence or postemergence application to help control any late emerging shattercane or wild proso millet plants.

Table 1: METOLACHLOR 8E + atrazine or simazine, or METOLACHLOR 8E + atrazine + simazine, Preplant Incorporated, or Preemergence – Corn (Field, Pop, Sweet, Grown For Seed)

Soil Texture	Broadcast Rates of METOLACHLOR 8E Per Acre			
	Less than 3% Organic Matter		3% Organic Matter or Greater	
COARSE	0.85-1.0 pts. + the label rate of either atrazine or simazine	0.85-1.0 pts. + the label rates of atrazine and simazine	1.0 pts. + the label rate of either atrazine or simazine	1.0 pts. + the label rates of atrazine and simazine
MEDIUM	1.0-1.33 pts. + the label rate of either atrazine or simazine	1.0-1.33 pts. + the label rates of atrazine and simazine	1.33 pts. + the label rate of either atrazine or simazine	1.33 pts. + the label rates of atrazine and simazine
FINE	1.33 pts. + the label rate of either atrazine or simazine	1.33 pts. + the label rates of atrazine and simazine	1.33-1.67 pts. + the label rate of either atrazine or simazine	1.33-1.67 pts. + the label rates of atrazine and simazine
DO NOT USE ON MUCK OR PEAT (SOILS WITH MORE THAN 20% ORGANIC MATTER)				

* Use simazine in preference to atrazine when heavy infestations of crabgrass or fall panicum are expected. On soils having between 6% and 20% organic matter, METOLACHLOR 8E may be used up to 2.33 pts./A in tank mix combination with the label rate of atrazine. Refer to the atrazine label for weeds controlled at this rate.

2. TANK MIXTURE WITH ATRAZINE– POSTEMERGENCE

Weeds Controlled			
Barnyardgrass (watergrass)	Giant foxtail	Kochia	Purslane
Crabgrass	Green foxtail	Lambsquarters	Ragweed
Crowfootgrass	Yellow foxtail	Mustard	Smartweed
Fall Panicum	-----	Pigweed	Velvetleaf
	Jimsonweed	Prickly sida	
Weeds Partially Controlled			
Cocklebur	Morning glory	Yellow nutsedge	

Apply 1.0 pt./A of METOLACHLOR 8E + the label rate of atrazine on *coarse soils*, 1.33 pts./A of METOLACHLOR 8E + the label rate of atrazine on *medium soils*, or 1.33-1.67 pts./A of METOLACHLOR 8E + the label rate of atrazine on *fine soils*. Apply this tank mixture before grass and broadleaf weeds pass the 2-leaf stage and before corn exceeds 5 inches in height. Application to weeds larger than the 2-leaf stage will generally result in unsatisfactory control.

Lay-by: Apply to corn plants not more than 12 inches tall. Applications to corn plants in excess of 5 inches should be directed to the base of the plants; whereas, applications to plants less than 5 inches tall may be made over the top. Occasionally, some corn leaf burn may result, but this should not affect later growth or yield. **DO NOT** apply this postemergence tank mixture in fluid fertilizer, or severe crop injury may occur.

For better control of cocklebur, morningglory, velvetleaf, and yellow nutsedge on *fine-textured soils* above 3% organic matter, apply the label rate of atrazine with 1.33-1.67 pts./A of METOLACHLOR 8E.

Tank mixtures of METOLACHLOR 8E + atrazine may be applied following use of any registered preplant surface-applied, preplant incorporated, or preemergence corn herbicide, including METOLACHLOR 8E + atrazine. Refer to the atrazine label for geographic, soil-texture, and rotational restrictions.

RESTRICTIONS

- The total METOLACHLOR 8E rate must not exceed 4.0 pts., and the atrazine rate must not exceed the amount allowed on the label during any one crop year.

3. TANK MIXTURE WITH DICAMBA

Preemergence: Use this tank mixture only on field corn, which is flat-planted (no furrows) in CO, IA, IL, IN, KS, MN, NE, OH, SD, and WI if the tank mix partner is registered in the state.

In addition to the weeds controlled by METOLACHLOR 8E alone, METOLACHLOR 8E + dicamba, applied preemergence, also controls lambsquarters, ragweed, smartweed, cocklebur*, jimsonweed*, morningglory*, and

velvetleaf*.

*Partially controlled.

Apply METOLACHLOR 8E + dicamba preemergence. Broadcast the label rate of dicamba with 1.33 pts./A of METOLACHLOR 8E on *medium soils*, or with 1.33-1.67 pts./A of METOLACHLOR 8E on *fine soils*. **DO NOT** apply on *coarse soils* or on soils with less than 2.5% organic matter. Apply this tank mixture to the soil surface at planting or after planting, but before field corn emerges. Plant seed at least 1.5 inches deep and apply behind planting equipment, avoiding incorporation by the planter wheel or other seed-covering device. **DO NOT** incorporate before corn plants emergence. If it is necessary to rotary hoe to break the soil crust, do not disturb the soil more than 1/2 inch deep.

Postemergence for Control of Pigweed (Mid-Atlantic states, including DE, MD, PA, VA, and WV): Apply 1.0-1.5 pts. of METOLACHLOR 8E + the label rate of dicamba by ground equipment when pigweed plants are less than 3 inches tall and before field corn exceeds 5 inches in height in a minimum of 20 gals. of spray per acre. Use the lower specified rate on *coarse-textured* and low organic matter soils. Use the higher specified rate on *fine-textured* and high organic matter soils.

RESTRICTIONS FOR ALL METOLACHLOR 8E AND DICAMBA TANK MIXES ON CORN

- Avoid drift to sensitive nontarget plants, such as soybeans, during application, or injury may occur.
- **DO NOT** apply with aircraft.

4. TANK MIXTURE WITH ATRAZINE AND LINURON FOR CONTROL OF LAMBSQUARTERS AND PIGWEED

For prolonged control of lambsquarters and pigweed in DE, MD, NJ, NY, PA, VA, and WV, METOLACHLOR 8E may be applied preemergence in tank mix combination with atrazine + the label rate of linuron. Apply METOLACHLOR 8E and atrazine according to the rates in Table 1 and linuron according to the labeled rates.

Observe all directions for use, precautions, and restrictions on the METOLACHLOR 8E, atrazine, and linuron labels when applying these products in tank mix combinations. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

5. TANK MIXTURE WITH ATRAZINE OR SIMAZINE +PENDIMETHALIN FOR PROLONGED CONTROL OF LAMBSQUARTERS AND PIGWEED IN FIELD CORN ONLY (NORTHEAST U.S., INCLUDING MI, IN, KY, AND STATES EAST OF THESE)

For prolonged control of lambsquarters and pigweed, in addition to a broad spectrum of annual broadleaf and grass weeds, METOLACHLOR 8E in tank mix combination with atrazine* or simazine + pendimethalin may be applied after planting, but before field corn or weeds emerge. Apply by ground equipment in a minimum of 10 gals. of water or 20 gals. of liquid fertilizer. Apply by air in a minimum of 5.0 gals. of water. Refer to Table 1 of this label for rates of METOLACHLOR 8E to be applied. Apply pendimethalin, atrazine, or simazine at the label rate.

Some formulations of atrazine and pendimethalin are not compatible. Before using this tank mixture, a compatibility test must be conducted. See the **COMPATIBILITY TEST** section of this label.

Mixing Instructions:

1. Fill the spray tank 1/4 full with water or fluid fertilizer and start agitation.
2. To aid compatibility, add a compatibility agent, such as Unite® or X-77®, at 4.0 pts./100 gals. of spray mixture.
3. Then add the atrazine or simazine and allow it to become dispersed.
4. Then add METOLACHLOR 8E and pendimethalin.
5. Add the rest of the water.

Observe all directions for use, precautions, and restrictions on the respective product labels when applying these products in tank mix combination. Refer to the pendimethalin label for replanting instructions in the event of crop loss. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

6. TANK MIXTURE WITH ATRAZINE OR SIMAZINE, OR ATRAZINE + SIMAZINE, WITH PARAQUAT, GLYPHOSATE +2,4-D, OR GLYPHOSATE FOR MINIMUM-TILLAGE OR NO- TILLAGE SYSTEMS

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides paraquat, glyphosate or glyphosate+2,4-D, may be added to a tank mix of METOLACHLOR 8E + atrazine and/or simazine, mixed with paraquat for control of most emerged annual weeds and suppression of perennial weeds; or with glyphosate/2, 4-D for suppression of emerged field bindweed and control or suppression of annual weeds; or with glyphosate for control of most emerged annual and perennial weeds. The METOLACHLOR 8E + atrazine or simazine, or METOLACHLOR 8E + atrazine + simazine portion of the tank mixture

provides preemergence control of the weeds listed on this label in the tank mixture section for **METOLACHLOR 8E + ATRAZINE OR SIMAZINE, OR METOLACHLOR 8E + ATRAZINE + SIMAZINE PREPLANT SURFACE, PREPLANT INCORPORATED, OR PREEMERGENCE.**

Application: Apply before, during, or after planting, but before the corn emerges, at the rates specified below. Add paraquat, glyphosate or glyphosate/2, 4-D at the labeled broadcast rate. See the paraquat, glyphosate or glyphosate/2, 4-D labels for weeds controlled, labeled rates for specific weeds, and other use directions.

- Apply surfactant at 1.0 or 2.0 pts./100 gals. of spray mixture with 75% or greater or 50-74% nonionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches.
- Apply in 20-60 gals. of water or fluid fertilizer per acre with ground equipment.
- On *coarse soils*, apply 1.0 pt./A of METOLACHLOR 8E with the labeled rate of all tank mix partners,
- On *medium soils*, apply 1.33 pts./A of METOLACHLOR 8E with the labeled rate of all tank mix partners,.
- On *fine soils****, apply 1.33-1.67 pts./A of METOLACHLOR 8E with the labeled rate of all tank mix partners,

* Use simazine in preference to atrazine when heavy infestations of crabgrass or fall panicum are expected.

** When using the tank mixture of METOLACHLOR 8E + atrazine + simazine, use equal rates of atrazine and simazine as shown when heavy broadleaf weed infestations are expected. When heavy infestations of crabgrass or fall panicum are expected, use a 1:2 ratio of atrazine + simazine instead of the 1:1 ratio.

*** For cocklebur, yellow nutsedge, and velvetleaf control on *fine-textured soils* above 3% organic matter, apply the specified labeled rate of atrazine and/or simazine, with 1.33-1.67 pts./A of METOLACHLOR 8E.

RESTRICTION:

- **DO NOT** apply combinations containing paraquat in suspension-type liquid fertilizers, as the activity of paraquat will be reduced.

7. TANK MIXTURE WITH ATRAZINE; OR ATRAZINE + 2,4-D; OR ATRAZINE + 2,4-D + DICAMBA FOR MINIMUM-TILLAGE OR NO-TILLAGE SYSTEMS

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, METOLACHLOR 8E applied in combination with atrazine will kill most emerged small annual weeds. Apply METOLACHLOR 8E + atrazine before, during, or after planting, but before corn emerges, according to the rates in Table 1.

Where heavy crop debris exists, add the label rate of an appropriately labeled 3.8 lbs. a.i./gal. of 2,4-D amine to the spray tank last and apply in a minimum of 25 gals. of carrier per acre.

As carriers, nitrogen solutions and complete liquid fertilizers, applied before corn emergence, burndown existing weeds, and therefore, are labeled instead of water. Add X-77 surfactant at 1.0-2.0 qts./100 gals. of diluted spray, or another appropriate surfactant at its recommended rate, or add crop oil concentrate plus 28% liquid nitrogen (or equivalent). Apply before weeds exceed 3 inches in height. If alfalfa is present, add dicamba to the spray mixture at the labeled rate and apply before alfalfa exceeds 6 inches in height.

For fields with existing sod grasses (e.g., bromegrass, orchardgrass, rye, or timothy), when existing weeds exceed 3 inches in height or when very dry conditions exist, add paraquat at the label rate in place of or in addition to 2,4-D, as indicated above. **DO NOT** apply paraquat in suspension-type liquid fertilizer. Observe all directions for use, precautions, and restrictions on the respective product labels when applying these products in tank mix combination. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

8. TANK MIXTURE WITH DICAMBA / ATRAZINE IN CONSERVATION TILLAGE – FIELD CORN

In conservation tillage systems where field corn is planted directly into a cover crop or previous crop residue, METOLACHLOR 8E + dicamba / atrazine will kill most emerged small annual weeds. Apply METOLACHLOR 8E + dicamba / atrazine before, during, or after planting, but before field corn emergence on *medium* and *fine soils* with greater than 2.5% organic matter. For fields with existing vegetation exceeding 3 inches in height or when very dry conditions exist, add paraquat at its labeled rate. METOLACHLOR 8E + dicamba / atrazine may be applied postemergence to field corn plants less than 3 inches tall and before weedy grasses exceed the 2-leaf stage. As carriers, nitrogen solutions and complete liquid fertilizers, applied before crop emergence burndown existing weeds. **DO NOT** apply paraquat in suspension- type liquid fertilizer or use on emerged crop.

Refer to the dicamba / atrazine label and follow the most restrictive directions, restrictions, and use precautions regarding application and use in field corn.

COTTON – METOLACHLOR 8E ALONE

Application: Apply METOLACHLOR 8E preemergence only in Area 1* at the rate of 0.75 to 1 pt./A on sandy loams, 1 to 1.33 pts./A on *medium soils*, or 1 to 1.33 pts./A on *fine soils*. Apply this product preplant incorporated or preemergence in Area 2** at 1 pt./A on sandy loams, 1 to 1.33 pts./A on *medium soils*, or 1.33 pts./A on *fine soils*. Apply this product postemergence to cotton and preemergence to weeds at 0.75 to 1.33 pts./A according to the state rate restrictions in the **Postemergence** section below.

DO NOT use on sands and loamy sand.

* Area 1 = AR, LA, MS, TN, and Bootheel of MO

** Area 2 = NM, OK, and TX

Preplant Incorporated (NM, OK, and TX Only): Apply METOLACHLOR 8E to the soil and incorporate into the top inch of soil immediately before planting, at planting, or after planting, but before crop or weeds emerge. Use a rolling cultivator or similar implement to uniformly incorporate not more than 1 inch deep. Use a preplant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. Where furrow irrigation is used, wet the top of the bed for best results. If the crop is to be planted on beds, apply and incorporate after bed formation. Cotton should be planted below the zone of incorporation; i.e., at least 1 inch on *fine soils* and 1.5 inches on *coarse* and *medium soils*. If incorporated prior to planting, use a planter that will result in a minimum of soil disturbance.

For best control of yellow nutsedge and suppression of seedling johnsongrass, apply this product preplant incorporated at the maximum rate for the soil texture, whether applied alone or mixed with prometryn.

Preemergence: Apply METOLACHLOR 8E to the soil surface at planting or after planting, but before weeds or crop emerge.

Postemergence: Apply METOLACHLOR 8E broadcast over-the-top or directed to the soil surface, according to the rate and cotton height restrictions listed below by state. Application before weeds emerge or after clean cultivation to remove existing weeds is necessary as this product will not control emerged weeds. This product postemergence may be applied over any previous registered herbicide treatment. In sprinkler-irrigated areas, sprinkler irrigate after application with one-half to 1 inch of water (one-half inch on *coarse-textured soils* to 1 inch on *fine-textured soils*). To incorporate this product in furrow-irrigated areas, apply this product, incorporate with a rolling cultivator or similar implement that provides uniform shallow incorporation (2 inches or less), and then irrigate. In non-irrigated areas, if at least one-half inch of rainfall does not occur within 10 days after application, cultivate with a rolling cultivator or similar implement that provides uniform shallow incorporation of this product.

VA, NC, SC, GA, FL, and AL	Apply METOLACHLOR 8E at 1 to 1.33 pts./A when cotton is 3 to 6 inches tall.
TN, AR, MS, MO, and LA	Apply METOLACHLOR 8E at 0.75 to 1.33 pts./A when cotton is 3 to 12 inches tall.
TX, OK, NM, AZ, CA, and Clay Soils in AR	Apply METOLACHLOR 8E at 1 to 1.33 pts./A when cotton is 3 to 12 inches tall, but before August 1.

Multiple Applications: Where weed pressure is heavy, difficult-to-control species are expected, or reinfestation may occur, and a weed control program is used, multiple applications of this product are effective when used as part of the weed control program. Apply as a preplant incorporated or preemergence treatment and follow with an application postemergence to cotton before weeds emerge or after clean cultivation to remove existing weeds since this product will not control emerged weeds. Cotton should be at least 3 inches tall at the postemergence timing. Apply this product postemergence over a previous preplant or preemergence application of this product as shown in the following table.

State	METOLACHLOR 8E Multiple Applications to Cotton		
	Preplant Incorporated or Preemergence Pts./A		Postemergence and Height Pts./A
MS, LA, TN, AR, MO	0.75 – 1.33 (Preemergence Only)	+	0.75 – 1.33 to 3-12" cotton
TX, OK, NM	1.0 – 1.33	+	1.0– 1.33 to 3-12" cotton before August 1
NC, VA	1.0 – 1.33 (Preemergence Only)	+	1.0– 1.33 to 3-12" cotton

In sprinkler-irrigated areas, sprinkler irrigate after application with one-half to 1 inch of water (one-half inch on *coarse-textured soils* to 1 inch on *fine-textured soils*) to incorporate this product. In furrow-irrigated areas, apply this product, incorporate with a rolling cultivator or similar implement that provides uniform shallow incorporation (2 inches or less),

and then irrigate. In non-irrigated areas, if at least one-half inch of rainfall does not occur within 10 days after application, cultivate with a rolling cultivator or similar implement that provides uniform shallow incorporation of this product.

For best control of yellow nutsedge and suppression of seedling johnsongrass, apply this product preplant incorporated, preemergence, or postemergence to cotton and preemergence to weeds at the maximum rate for the soil texture, whether applied alone or in combinations. **DO NOT** apply more than a total of 2 pts./A on *coarse soils* or 4 pts./A of this product on *medium* and *fine soils* during a growing season (**do not** make tandem applications of metolachlor and s-metolachlor herbicides). These treatments may be applied over previous application of herbicides.

RESTRICTIONS:

- **DO NOT** graze or feed forage or fodder from cotton to livestock.
- To avoid crop injury, **do not** apply this product on sand or loamy sand soils, or in areas where water is likely to "pond" over the bed;
- To avoid concentration in the seed furrow, **do not** make broadcast applications of this product to cotton planted in furrows more than 2 inches deep. Band applications may be made to cotton planted in furrows deeper than 2 inches, but band width should not exceed the width of the bottom of the furrow;
- In furrow-planted cotton, to avoid concentration in the furrow and potential injury, **do not** apply this product postemergence until after first "knifing" or cultivation to level soil surface.
- **DO NOT** apply over-the-top in fluid fertilizer or any other adjuvant, surfactant, oil, or other pesticide not specified in the cotton section of this label, or injury may occur;
- **DO NOT** apply on Taloka silt loam.
- **DO NOT** use in Gaines County, TX.

COTTON – METOLACHLOR 8E COMBINATIONS

TANK MIXTURE WITH PROMETRYN

METOLACHLOR 8E tank mixed with prometryn may be applied preplant incorporated or preemergence in water or fluid fertilizer. When fluid fertilizer is used as a carrier for this product, either alone or in combination with prometryn, mix only the amount that will be sprayed in one operation. **DO NOT** allow these to stand without agitation. Only water may be used as a carrier for postemergence-directed application.

In addition to those weeds controlled by METOLACHLOR 8E alone, METOLACHLOR 8E + prometryn, applied preplant incorporated or preemergence, also controls the following weeds: junglerice, wild oats, annual morningglory, groundcherry, hairy nightshade, lambsquarters, malva, mustard, prickly sida (teaweed), purslane, ragweed, and shallow-germinating seedlings of cocklebur and coffeeweed. As a postemergence-directed application, prometryn provides postemergence control and residual control of weeds on its label, while this product provides residual control of weed species on its label. This product will not control emerged weeds.

Preplant Incorporated or Preemergence: Apply METOLACHLOR 8E + prometryn, either preplant incorporated or preemergence, using the appropriate rate from the table below. Cotton should be planted below the zone of incorporation; i.e., at least 1 inch on *fine soils* and 1.5 inches on *coarse* and *medium soils*. If incorporated before planting, use a planter that will result in a minimum of soil disturbance.

TABLE 2: METOLACHLOR 8E + PROMETRYN – COTTON (NM, OK, TX)

Use Areas	Soil Texture	Broadcast Rates Per Acre	
		METOLACHLOR 8E	Prometryn
ALL	Sand, Loamy sand	DO NOT USE	
OK, and Blacklands, Gulf Coast, and Rio Grande Valley of TX	Loams	0.85 - 1.33 pts.	Label rate
	Clays	1.33 pts.	Label rate
NM; High Plains, Rolling Plains, Edwards Plateau of TX; and Southwest TX	Sandy loam	0.85 - 1.0 pt.	Label rate
	Loams	0.85 - 1.33 pts.	Label rate
	Sandy clay loams	1.33 pts.	Label rate
	Other clay soils	1.33 pts.	Label rate

Postemergence-Directed (AR, AZ, CA, LA, MO, MS, NM, OK, TN, and TX): METOLACHLOR 8E may be tank mixed with prometryn in water and applied postemergence directed in cotton for control of emerged weeds listed on the prometryn label and residual preemergence control of weeds controlled by this product and prometryn, or application may be made after cultivation for residual preemergence control. These treatments may be applied over previous application of herbicides, including this product, provided the maximum label rate of any product is not exceeded (**do**

not make tandem applications of metolachlor and s-metolachlor herbicides). **DO NOT** apply over-the-top of cotton or injury may occur.

Apply METOLACHLOR 8E + prometryn in a minimum of 20 gals. of spray volume per acre. Follow the directions, restrictions, and use precautions on the prometryn label when prometryn is applied as a postemergence-directed application. Refer to the directions, restrictions, and use precautions for this product under the **Cotton — METOLACHLOR 8E Alone — Postemergence** section.

RESTRICTIONS:

- To avoid concentration in the seed furrow, **do not** make broadcast applications of this product + prometryn to cotton planted in furrows more than 2 inches deep. Band applications may be made to cotton planted in furrows deeper than 2 inches, but band width should not exceed the width of the bottom of the furrow.
- To avoid crop injury,
 - **DO NOT** apply on sand or loamy sand soils, or in areas where water is likely to “pond” over the bed;
 - **DO NOT** apply in cut areas of newly leveled fields, or in areas of excess salt;
 - **DO NOT** apply to glandless cotton varieties; and
 - **DO NOT** apply on Taloka silt loam.
- **DO NOT** use in Gaines County, TX.
- **DO NOT** graze or feed forage or fodder from cotton to livestock.
- Refer to the prometryn label for further instructions and restrictions.

TANK MIXTURE WITH FLUOMETURON

METOLACHLOR 8E may be applied in tank mixture with fluometuron preemergence for control of those weeds controlled by this product alone and those as listed on the fluometuron label. This combination will also control spotted spurge, hyssop spurge, nodding spurge, and prostrate spurge. Apply to the soil surface at planting or after planting, but before weeds or crop emerges, using the appropriate rates from the table below. The tank mixture may be applied postemergence to cotton, but preemergence to weeds, or it may be applied postemergence to both cotton and broadleaf weeds for control of weeds on the fluometuron label. Apply as a directed, semi-directed, or over-the-top spray. This product will not control emerged weeds, but will provide preemergence control of species on its label.

Mixing Instructions: Incompatibility may occur when tank mixing METOLACHLOR 8E and fluometuron. To help overcome this condition, fill the spray tank one-quarter full with water or fluid fertilizer and start agitation, add the fluometuron and allow it to become dispersed. Add X-77® at 0.5% volume/volume final spray (4 pts./100 gals.), then add this product and finally the rest of the water or fluid fertilizer. Agitate during mixing and application to maintain a uniform suspension. **DO NOT** use fluid fertilizer as a carrier for postemergence applications.

TABLE 3: METOLACHLOR 8E + FLUOMETURON – COTTON

Soil Texture	Broadcast Rates per Acre		Fluometuron
	METOLACHLOR 8E		
	Area 1*	Area 2*	
Sand, Loamy sand	DO NOT USE		
Sandy loam	0.75 – 1.0	0.85 – 1.0	Label rate
Loam, Silt loam, Silt	1.0 – 1.33	1.0 – 1.33	Label rate
Fine soil	1.0 – 1.33	1.33	Label rate

* Area 1 = AR, LA, MS, Bootheel of MO and TN

** Area 2 = Eastern OK, Gulf Coast, Rio Grande Valley, and Eastern TX

Postemergence: This tank mixture may be applied postemergence to cotton, but preemergence to weeds or postemergence to both cotton and weeds for control of weeds on the fluometuron label.

Apply as a directed, semi-directed, or over-the-top spray. This product will not control emerged weeds, but will provide preemergence control of species on its label. Apply when cotton is in the 3- to 12-inch stage. Where rate ranges are given for fluometuron, use the higher rate when applying postemergence to weeds that are 2 inches or less. These treatments may be applied over previous application of herbicides, including this product, provided the maximum label rate of any product is not exceeded (**do not** make tandem applications of metolachlor and s-metolachlor herbicides).

RESTRICTIONS

- **DO NOT** feed treated forage or gin trash to livestock, or graze treated areas.
- **DO NOT** apply METOLACHLOR 8E + fluometuron on sand or loamy sand soils, or in areas where water is likely to “pond” over the bed, or crop injury may occur.

- To avoid concentration in the seed furrow, do not make broadcast applications of this product + fluometuron to cotton planted in furrows more than 2 inches deep. Band applications may be made to cotton planted in furrows deeper than 2 inches, but band width should not exceed the width of the bottom of the furrow.
- The use of fluometuron following the use of a systemic insecticide at planting may result in crop injury.
- **DO NOT** use on Taloka silt loam, or crop injury may occur.
- **DO NOT** use in Gaines County, TX.

Refer to the fluometuron labels for further instructions, use precautions, and restrictions.

TANK MIXTURE OF METOLACHLOR 8E + FLUOMETURON WITH PARAQUAT OR GLYPHOSATE FOR MINIMUM-TILLAGE OR NO-TILLAGE SYSTEMS

In minimum-tillage or no-tillage systems where cotton is planted directly into a cover crop, stale seedbed, or previous crop residues, the contact herbicides paraquat or glyphosate may be added to a tank mix of either METOLACHLOR 8E or METOLACHLOR 8E + fluometuron. When used as directed, the paraquat portion of the tank mixture controls most emerged weeds and suppresses many perennial weeds. Glyphosate combinations will control emerged annual and perennial weeds when applied as directed on the glyphosate label. METOLACHLOR 8E and METOLACHLOR 8E + fluometuron portion of the tank mixture provides preemergence control of the weeds listed on each label, respectively.

Refer to the label of each product used in combination and observe the planting details, information regarding application, geographical restrictions, and all other precautions and restrictions. Refer to **Mixing Instructions** under **Tank Mixture with Fluometuron** section.

Application: Apply before, during, or after planting, but before the cotton emerges, at the rates specified below. Apply this product at 0.85 to 1 pt./A on sandy loams, *medium-*, and *fine-textured soils*. Use fluometuron at the labeled rates.

DO NOT apply this product + fluometuron + glyphosate in tank mixture because of compatibility problems.

Add paraquat or glyphosate at the most restrictive broadcast rates:

Paraquat: Use the labeled rates. Apply surfactant at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50 to 74% nonionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches.

RESTRICTION:

DO NOT apply combinations containing paraquat in suspension-type liquid fertilizers, as the activity of paraquat will be reduced.

Glyphosate: See the glyphosate label for weeds controlled, specified rates, and other use directions.

Apply in 20 to 60 gals. of water or fluid fertilizer per acre with ground equipment.

PRECAUTIONS:

- If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days, or where the seeding slit has not been properly closed.
- Refer to the fluometuron labels and the **Tank Mixture with Fluometuron** section of this label for further instructions, use precautions, and restrictions.

RESTRICTIONS:

- **DO NOT** use in Gaines County, TX.

TANK MIXTURE WITH MSMA, MSMA + PROMETRYN, OR MSMA + FLUOMETURON

METOLACHLOR 8E may be tank mixed with MSMA in water and applied postemergence-directed for control of emerged weeds listed on the MSMA product label and residual preemergence control of weeds controlled by this product. The addition of prometryn or fluometuron will add control of weed species on their respective labels.

Postemergence-Directed (AR, AZ, CA, LA, MS, NM, OK, TN, TX, and Bootheel of MO): Apply METOLACHLOR 8E + MSMA postemergence-directed to 3 to 12-inch cotton according to the directions, restrictions, and use precautions on the MSMA product label, as well as the directions, restrictions, and use precautions for use of this product in the section for **Cotton — METOLACHLOR 8E Alone – Postemergence**. **DO NOT** apply after first cotton bloom. These treatments may be applied over previous registered treatments, including this product, provided the maximum label rate of any product is not exceeded. Fluometuron or prometryn may be added to this product + MSMA tank mixture according to

the respective label directions for application to 3- to 12-inch cotton. When these mixtures are used, follow the mixing instructions for METOLACHLOR 8E + prometryn or fluometuron and then add the MSMA product.

DO NOT use this product in tank mix with premixes of MSMA plus herbicides other than those registered for use in tank mixture with this product on cotton.

TANK MIXTURE OF METOLACHLOR 8E WITH GLYPHOSATE FOR USE ON GLYPHOSATE RESISTANT COTTON ONLY

METOLACHLOR 8E may be tank mixed with glyphosate in water and applied postemergence over-the-top or postemergence-directed spray only to glyphosate resistant cotton or other cotton varieties or cultivars warranted as resistant to glyphosate. This tank mixture will control emerged weeds listed on the glyphosate label and residual preemergence control of weeds listed on this label. See the **Cotton – METOLACHLOR 8E Alone – Postemergence** section for proper rates and timing of METOLACHLOR 8E. Also follow the glyphosate label for appropriate use rate, method of application, and restrictions of application timing. For postemergence over-the-top application, **do not** add any adjuvants, surfactants, fertilizers, or other pesticides to this tank mixture as unacceptable injury may occur.

PRECAUTIONS:

- Postemergence over-the-top applications of this tank mixture may cause temporary injury in the form of necrotic spotting to exposed cotton leaves, which will not affect normal plant development.

RESTRICTIONS:

- **DO NOT** apply this tank mixture postemergence to any cotton variety unless it is designated glyphosate resistant and unless the glyphosate formulation being used is registered for postemergence use in glyphosate resistant cotton.
- **DO NOT** apply glyphosate postemergence over-the-top to cotton past the growth stage limit specified on the label.
- **DO NOT** use on sand or loamy sand soils in Gaines County, TX.

TANK MIXTURE OF METOLACHLOR 8E WITH GLUFOSINATE RESISTANT COTTON

METOLACHLOR 8E may be tank mixed with glufosinate in water and applied as a postemergence, broadcast over-the-top spray or as a postemergence-directed spray only to cotton varieties or cultivars warranted as resistant to glufosinate. This tank mixture will control emerged weeds listed on the glufosinate label and provide residual preemergence control of weeds listed on this label. See the **Cotton – METOLACHLOR 8E Alone – Postemergence** section for proper rates and timing of METOLACHLOR 8E. Also follow the glufosinate label for appropriate use rate, method of application, and restrictions of application timing. For postemergence over-the-top application, **do not** add any adjuvants, surfactants, fertilizers, or other pesticides to this tank mixture as unacceptable injury may occur.

PRECAUTION:

- Postemergence over-the-top applications of this tank mixture may cause temporary injury in the form of necrotic spotting to exposed cotton leaves, which will not affect normal plant development.

RESTRICTIONS:

- **DO NOT** apply this tank mixture postemergence to any cotton variety unless it is designated glufosinate resistant and unless the glufosinate formulation being used is registered for postemergence use in glufosinate resistant cotton.
- **DO NOT** apply glufosinate postemergence to cotton beyond early bloom stage.
- **DO NOT** use on sand or loamy sand soils in Gaines County, TX.

PEANUTS – METOLACHLOR 8E ALONE

Apply METOLACHLOR 8E, either preplant incorporated, postplant incorporated, preemergence, or lay-by, using the appropriate rate specified below. **Preplant Incorporated or Preemergence:** Follow instructions for use of this product alone under **Application Procedures**.

Postplant Incorporated: Apply and shallowly incorporate this product into the soil after planting, but before peanut germination. Incorporation depth and incorporating implements must be kept above the seed, or seed will be damaged.

Lay-by: Apply METOLACHLOR 8E to the soil immediately after the last normal cultivation. Apply this product alone, preplant incorporated, postplant incorporated, or pre-emergence, or lay-by, at a broadcast rate of 1 to 1.33 pts./A in the Southeast* and 0.85 to 1.33 pts./A in NM, OK, and TX.

*In the Southeast, use 1.33 to 2 pts./A and apply preemergence for partial control of Florida beggarweed.

RESTRICTIONS:

- **DO NOT** apply within 90 days of harvest.

- **DO NOT** graze or feed peanut forage or fodder to livestock for 30 days following application.
- METOLACHLOR 8E alone may be applied as directed after any of the following preplant incorporated herbicides when used according to their label: trifluralin at the labeled rate; ethafluralin at the labeled rate; imazethapyr at the labeled rate; or pendimethalin at the labeled rate.

PEANUTS – METOLACHLOR 8E COMBINATIONS

TANK MIXTURE OR SEQUENTIALLY WITH IMAZETHAPYR

The tank mixture or sequential treatment of METOLACHLOR 8E and imazethapyr controls both all weeds controlled by this product alone and all weeds controlled by imazethapyr alone. Refer to the **METOLACHLOR 8E Applied Alone** section for weeds controlled by this product and to the imazethapyr label for weeds controlled by imazethapyr.

Refer to the respective labels for application methods, timing, rates, restrictions, and use precautions; and use in accordance with the most restrictive label. **DO NOT** exceed the label rate of either product. This product will not control emerged weeds.

TANK MIXTURE WITH ETHAFLURALIN

The tank mixture controls all weeds controlled by METOLACHLOR 8E alone and by ethafluralin alone. Refer to the **METOLACHLOR 8E Applied Alone** section for weeds controlled by this product and to the ethafluralin label for weeds controlled by ethafluralin.

Apply METOLACHLOR 8E + ethafluralin preplant incorporated, using the appropriate rate from the table below. Follow labeled soil preparation and soil-incorporation procedures for ethafluralin.

Table 4: METOLACHLOR 8E + Ethafluralin – Peanuts

Soil Texture	Broadcast Rates Per Acre (pts.)			
	Southeast		NM, OK, TX	
	METOLACHLOR 8E	Ethafluralin	METOLACHLOR 8E	Ethafluralin
COARSE	1.0-1.33	Label rate	0.85-1.33	Label rate
MEDIUM	1.0-1.33	Label rate	0.85-1.33	Label rate
FINE	1.0-1.33	Label rate	0.85-1.33	Label rate

Follow all use directions, restrictions, and use precautions regarding application to peanuts on this product and ethafluralin labels.

TANK MIXTURE WITH PENDIMETHALIN

METOLACHLOR 8E + pendimethalin applied preplant incorporated controls all weeds controlled by this product alone plus Texas panicum, field sandbur, johnsongrass from seed, lambsquarters, kochia, annual spurge, and other species on the pendimethalin label. Apply METOLACHLOR 8E + pendimethalin by ground or by aerial equipment within 14 days before planting. Incorporate into the top 1 to 2 inches of soil before planting and within 7 days of application, using a finishing disk or similar implement capable of providing uniform incorporation. If peanuts will be planted on beds, apply and incorporate after bed formation. Refer to the **Incorporation** instructions of the respective labels for additional directions.

Apply METOLACHLOR 8E + pendimethalin preplant incorporated, using the appropriate rates from the table below.

Table 5: METOLACHLOR 8E + pendimethalin – Peanuts

Soil Texture	Broadcast Rates of METOLACHLOR 8E (pints per acre)			
	NM, OK, TX		Other Peanut Growing States	
	METOLACHLOR 8E	Pendimethalin	METOLACHLOR 8E	Pendimethalin
Sand, Loamy sand	0.85	Label rate	1.0-1.33	Label rate
Sandy loam	0.85-1.0	Label rate	1.0-1.33	Label rate
Fine soil	1.33	Label rate	1.33	Label rate

Follow all use directions, restrictions, and use precautions regarding application to peanuts on METOLACHLOR 8E and pendimethalin labels.

TANK MIXTURE OR SEQUENTIALLY WITH BENTAZON/ACIFLUFEN

METOLACHLOR 8E + bentazon/aciflufen applied at ground cracking through 2 expanded tetrafoliate leaves or

METOLACHLOR 8E applied according to the directions for **METOLACHLOR 8E Alone** and followed with an at-cracking through postemergence treatment of bentazon/aciflufen as specified on its label will control species on the bentazon/aciflufen label and provide residual control of species listed in the **METOLACHLOR 8E Applied Alone** section of this label. This product will not control emerged weeds. Refer to the **Peanuts – METOLACHLOR 8E Alone** section and to the bentazon/aciflufen label and follow all directions, use precautions, and restrictions for each product.

**CROP GROUP 6 LEGUME VEGETABLES (succulent and dried) –
METOLACHLOR 8E ALONE**

Crop Group 6 – Legume Vegetables (Succulent or Dried) Group – Beans, peas and lentils (includes grain lupin, sweet lupin, white lupin, and white sweet lupin, field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean, adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean, Broad bean (fava bean), Chickpea (garbanzo bean), Guar, Jackbean, Lablab bean, Lentil, dwarf pea, edible-pod pea, English pea, field pea, garden pea, green pea, snow pea, sugar snap pea, Pigeon pea, and Sword bean.)

*On English peas, use only preemergence applications. **DO NOT** use on English peas in Northeastern U.S., or injury may occur.

Spring Application: Apply METOLACHLOR 8E either preplant incorporated or preemergence, using the appropriate rate specified below.

Preplant Incorporated or Preemergence: Follow instructions for use of this product alone under **Application Procedures**. On *coarse soils* with less than 3% organic matter, apply 1 to 1.33 pts./A of METOLACHLOR 8E or 1.33 pts./A if organic matter is 3% or greater. On *medium soils*, apply 1.33 to 1.67 pts./A of this product. On *fine soils*, apply 1.33 to 1.67 pts./A of this product if organic matter content is less than 3%, or 1.67 to 2 pts./A if organic matter content is 3% or greater.

RESTRICTIONS:

- **DO NOT** cut for hay within 120 days following application of this product.
- **DO NOT** use for forage within 60 days following application of this product.
- **DO NOT** apply more than 3 pts./A of this product during any one crop year.

**CROP GROUP 6 LEGUME VEGETABLES (succulent and dried) –
METOLACHLOR 8E COMBINATIONS**

TANK MIXTURE AND SEQUENTIAL APPLICATIONS WITH EPTC – BEANS (GREEN OR DRY)

This mixture controls all weeds controlled by METOLACHLOR 8E alone and by EPTC alone. Refer to the **METOLACHLOR 8E Applied Alone** section of this label for weeds controlled by this product alone and to the EPTC label for weeds controlled by EPTC.

Preplant Incorporated: Follow instructions for use of this product alone under **Application Procedures**.

Sequential: Apply EPTC alone preplant incorporated, as specified on that label. Follow with a preemergence application of this product at rates specified for this product alone, during planting (behind the planter) or after planting, but before the weeds or crop emerge.

CALIFORNIA ONLY

Preplant Incorporated: See the **SPECIAL APPLICATION PROCEDURES** section of this label.

Refer to the **Product Information** section of this label and to the EPTC label for weather, cultural practices, and all other use precautions and restrictions that affect performance of these products.

Soil Texture	Broadcast Rates Per Acre			
	1% to Less Than 3% Organic Matter		> 3% Organic Matter	
	METOLACHLOR 8E	EPTC*	METOLACHLOR 8E	EPTC*
COARSE	0.85 pt.	Label rate	1.0 pts.	Label rate
MEDIUM	1.30 pts.	Label rate	1.33 pts.	Label rate
FINE	1.33 pts.	Label rate	1.33-1.67 pts.	Label rate

*Refer to the EPTC label for rate limitations depending on geographical area, and for species and varietal restrictions.

RESTRICTIONS:

- **DO NOT** exceed the label rate of EPTC on small white beans or green beans grown on coarse-textured soils.
- **DO NOT** cut for hay within 120 days following application.

TANK MIXTURE WITH TRIFLURALIN – BEANS (DRY – KIDNEY, NAVY, PINTO, LIMA; AND SNAP)

METOLACHLOR 8E + trifluralin tank mix applied preplant incorporated controls those weeds listed under **METOLACHLOR 8E Applied Alone** and those weeds listed for trifluralin alone on the trifluralin label. METOLACHLOR 8E + trifluralin may be applied by ground or by aerial equipment and incorporated up to 14 days prior to planting. Follow the procedures on this label and on the respective trifluralin label, using equipment that provides uniform 2-inch incorporation.

Apply METOLACHLOR 8E + trifluralin tank mix, using the appropriate label rate of this product, and the trifluralin specified label rate. Choose the product rate for the specific soil texture/organic matter classification and weed species expected.

Follow all restrictions and use precautions on the respective trifluralin label and in the Crop Group 6 Legume Vegetables (succulent and dried) – **METOLACHLOR 8E Alone** section of this label.

POTATOES – METOLACHLOR 8E ALONE

Apply METOLACHLOR 8E, either incorporated, preemergence, or after hilling/lay-by, according to directions specified below for control of weeds listed under the **Product Information** section. Within a rate range, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter. Effectiveness will be reduced if later cultural practices expose untreated soil.

Incorporated: Apply METOLACHLOR 8E at 1 to 2 pts./A to the soil and incorporate into the top 3 inches before planting, using a finishing disk, harrow, rolling cultivator, or similar implement. Planting and later cultural practices should not bring untreated soil to the surface. Postplant incorporated application may be made any time after planting to drag-off, but before potato emergence. Use an implement that evenly distributes this product in the top 2 inches of soil. **DO NOT** damage potato seed pieces or sprouts with incorporation equipment.

Preemergence: Apply METOLACHLOR 8E at 1 to 2 pts./A, either after planting as a preemergence, delayed preemergence, after drag-off or hilling treatment, but before weeds emerge. Up to 2.75 pts./A of this product alone may be used where soil organic matter is between 6% and 20%.

After Hilling/Lay-by: Apply 1.67 pts./A of METOLACHLOR 8E after hilling/at lay-by to control species sensitive to this product for remainder of the growing season. This application will not control emerged weeds. It may be applied over a previous application of this product, but **do not** apply more than 3.7 pts./A of this product in a single crop season.

RESTRICTIONS:

- Potatoes treated with this product must not be harvested within 60 days after the at-planting to drag-off application, or within 40 days after a lay-by application.
- **DO NOT** use on muck or peat soils. If cool, wet soil conditions occur after application, this product may delay maturity and/or reduce yield of Superior and other early maturing potato varieties.
- To avoid crop injury,
 - **DO NOT** use on sweet potatoes or yams;
 - **DO NOT** apply both as a preemergence and an incorporated treatment;
- **DO NOT** use in Kern County, CA.

POTATOES – METOLACHLOR 8E COMBINATIONS

TANK MIXTURE WITH METRIBUZIN

In addition to those weeds controlled by METOLACHLOR 8E alone, this product applied in tank mix combination with, or sequentially with, any of the registered metribuzin formulations, also controls the following broadleaf weeds: cocklebur*, hairy nightshade*, hemp sesbania, jimsonweed*, lambsquarters, prickly sida, ragweed, smartweed, velvetleaf, venice mallow, and wild mustard.

*Partially controlled.

METOLACHLOR 8E at 1 to 2 pts./A plus metribuzin at the labeled use rate may be used preemergence through after last hilling. Apply 1 to 1.33 pts./A of METOLACHLOR 8E on *coarse soils* and 1.33 to 2 pts./A on other soil textures.

Within this rate range, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter. Effectiveness will be reduced if later cultural practices expose untreated soil. This product will not control emerged weeds.

Refer to the metribuzin label for precautionary statements, restrictions, application information, weeds controlled, and varietal limitations.

RESTRICTIONS:

- Potatoes treated with this product in tank mixture with metribuzin cannot be harvested within 60 days after application.
- Potatoes must not be harvested within 40 days after a lay-by application of this product.
- **DO NOT** apply to sweet potatoes or yams.
- **DO NOT** use this tank mixture on muck or peat soils.
- **DO NOT** use this product + metribuzin on potatoes in Kern County, CA
- Make postemergence applications to potatoes only as a directed or semi-directed spray to avoid chlorosis, minor necrosis, or leaf distortion.

METOLACHLOR 8E + LINURON TANK MIXTURE (EAST OF ROCKY MOUNTAINS)

METOLACHLOR 8E may be applied in a tank-mix combination with any of the registered linuron formulations as a preemergence broadcast application to potatoes. Apply to the soil surface after planting and before emergence of the crop or after final drag-off, according to the rates specified in the table below.

TABLE 6: METOLACHLOR 8E + LINURON – POTATOES (EAST OF ROCKY MOUNTAINS)

Soil Texture	Broadcast Rates Per Acre			
	1% to Less Than 3% Organic Matter		3-5% Organic Matter	
	METOLACHLOR 8E	Linuron	METOLACHLOR 8E	Linuron
COARSE Sandy loam	1 pt.	Label rate	1.33 pts.	Label rate
MEDIUM Loam, Silt loam, Silt	1.33 pts.	Label rate	1.67-2 pts.	Label rate

RESTRICTIONS: To avoid crop injury,

- **DO NOT** use on sands or loamy sands, and
- **DO NOT** incorporate or spray over the top of emerged potatoes.

Refer to the **Product Information** section of this label and to the linuron label for precautionary statements, restrictions, application information, and weeds controlled.

TANK MIXTURE WITH PENDIMETHALIN

In addition to the weeds controlled by METOLACHLOR 8E alone, this tank mixture with pendimethalin controls such problem species as kochia, lambsquarters, purslane, annual spurge, stinging nettle, and others specified on the pendimethalin label. Apply METOLACHLOR 8E + pendimethalin preemergence, preemergence incorporated or early postemergence according to the specific directions on the pendimethalin label, using the rates in the table below.

TABLE 7: METOLACHLOR 8E + PENDIMETHALIN – POTATOES

Soil Texture	Broadcast Rates Per Acre (pts.)	
	Less Than 3% Organic Matter	More Than 3% Organic Matter
	METOLACHLOR 8E + pendimethalin	METOLACHLOR 8E + pendimethalin
COARSE	1.0-1.33 + label rate	1.0-1.33 + label rate
MEDIUM	1.33 + label rate	1.33-1.67 + label rate
FINE	1.33-1.67 + label rate	1.67 + label rate

Refer to METOLACHLOR 8E and pendimethalin labels and observe all directions, timings, use precautions, and restrictions concerning the use of these products on potatoes and follow the most restrictive.

TANK MIXTURE WITH PENDIMETHALIN + EPTC

In addition to the weeds controlled by METOLACHLOR 8E alone, this tank mixture will control those species on the pendimethalin and EPTC labels. Refer to the METOLACHLOR 8E, pendimethalin and EPTC labels for rates of those products (depending on geographical area); and observe all directions, use precautions, and restrictions concerning the

use of these products on potatoes and follow the most restrictive.

SAFFLOWERS – METOLACHLOR 8E ALONE

Preplant Incorporated or Preemergence: Follow instructions for use of METOLACHLOR 8E alone under **Application Procedures.**

Soil Texture	Broadcast Rates Per Acre (pts.)	
	Less Than 3% Organic Matter	More Than 3% Organic Matter
COARSE	1.0-1.33	1.33
MEDIUM	1.33-1.67	1.33-1.67
FINE	1.33-1.67	1.67-2.0

CALIFORNIA ONLY

Preplant Incorporated: See the **SPECIAL APPLICATION PROCEDURES** section of this label.

SORGHUM – METOLACHLOR 8E ALONE

USE ONLY ON SORGHUM (GRAIN OR FORAGE) SEED TREATED WITH CONCEP® OR SCREEN®

Apply METOLACHLOR 8E, either preplant surface, preplant incorporated, or preemergence, using the appropriate rate specified below. Apply this product alone only when the sorghum seed has been properly treated by the seed company with Concep or Screen.

Pre-plant Surface Applied: Refer to instructions for this product under **Application Procedures.** For minimum-tillage or no-tillage systems only, METOLACHLOR 8E may be applied up to 45 days before planting in CO, IA, IL, KS, MO, NE, and SD. Use only split applications for treatments made 30 to 45 days prior to planting, with two-thirds of the broadcast rate applied initially and the remaining one-third at planting. Apply 1.5 pts./A of this product on *medium soils* or 1.67 pts./A on *fine soils*. Treatments less than 30 days prior to planting may be either as a split or single application. Apply 1.33 pts./A of this product on *coarse soils* not more than 2 weeks prior to planting. Under dry conditions, irrigation after application is recommended to move this product into the soil.

Preplant Incorporated or Preemergence: Refer to instructions for use of METOLACHLOR 8E under **Application Procedures.** Broadcast 1 to 1.33 pts./A of this product on *coarse soils*, 1.33 to 1.5 pts./A on *medium soils*, or 1.33 to 1.67 pts./A on *fine soils*.

PRECAUTIONS:

- If sorghum seed is not properly treated with Concep or Screen seed treatment, this product will severely injure the crop.
- Under high soil moisture conditions prior to sorghum emergence, injury may occur following the use of this product. The crop will normally outgrow this effect.

RESTRICTIONS:

- **DO NOT** use this product on sorghum grown under dry mulch tillage, or injury may occur.
- Except for the split preplant surface treatment, **DO NOT** make more than one application per year.

SORGHUM – METOLACHLOR 8E COMBINATIONS

USE ONLY ON SORGHUM (GRAIN OR FORAGE) SEED TREATED WITH CONCEP® OR SCREEN®

METOLACHLOR 8E tank mixtures with atrazine may be applied in water or fluid fertilizer. Apply this product in tank mixtures only when the sorghum seed has been properly treated by the seed company with Concep or Screen.

IMPORTANT: FOR TANK MIXTURES WITH ATRAZINE – If applying this product in tank mixture with atrazine, all the restrictions and rate limitations on the atrazine label must be followed if more restrictive than those on this label. In addition, if atrazine is/must be applied at rates lower than the label rate, broadleaf weed control may be affected. Refer to the atrazine label for weeds controlled at the reduced rates.

PRECAUTIONS:

- If sorghum seed is not properly treated with Concep or Screen seed treatment, this product + atrazine may severely injure the crop.
- Applications of this product + atrazine on highly alkaline soils or on eroded areas where calcareous subsoils are exposed may cause sorghum injury.
- Under high soil moisture conditions prior to sorghum emergence, injury may occur following the use of this product +

atrazine. The crop will normally outgrow this effect.

RESTRICTIONS:

- **DO NOT** use this product + atrazine on sorghum grown under dry mulch tillage, or injury may occur.
- Except for the split preplant surface treatment, **DO NOT** make more than one application per year.

TANK MIXTURE WITH ATRAZINE

In addition to the weeds controlled by METOLACHLOR 8E alone, METOLACHLOR 8E + atrazine also controls the following broadleaf weeds when applied either preplant surface, preplant incorporated, or preemergence: cocklebur, common purslane, hairy nightshade, lambsquarters, morningglory, ragweed, smartweed, and velvetleaf.

Preplant Surface-Applied: Refer to instructions for use of METOLACHLOR 8E under **Application Procedures**. For minimum-tillage or no-tillage systems only, METOLACHLOR 8E + atrazine may be applied up to 45 days prior to planting in IA, IL, Eastern KS, MO, NE, and SD. Use only split applications for treatments made 30 to 45 days prior to planting, with two-thirds of the broadcast rate applied initially and the remaining one-third at planting. Apply 1.5 pts./A of METOLACHLOR 8E + the label rate of atrazine on *medium soils* with 1.5% organic matter or greater. Apply 1.5 pts./A of METOLACHLOR 8E + the label rate of atrazine on *fine soils* with less than 1.5% organic matter, or apply 1.67 pts./A of METOLACHLOR 8E + the label rate of atrazine on *fine soils* with 1.5% organic matter or greater. Treatments less than 30 days prior to planting may be made either as a split or single application. Under dry conditions, irrigation after application is recommended to move METOLACHLOR 8E + atrazine into the soil.

RESTRICTIONS: To avoid crop injury,

- **DO NOT** use on coarse soils,
- **DO NOT** use on medium soils with less than 1.5% organic matter.

Preplant Incorporated or Preemergence: Refer to instructions for use of METOLACHLOR 8E under **Application Procedures**. On *medium soils* with 1.5% organic matter or greater, apply 1 pt./A of METOLACHLOR 8E + the label rate of atrazine. On *fine soils* with less than 1.5% organic matter, apply 1 pt./A of METOLACHLOR 8E + the label rate of atrazine. On *fine soils* with 1.5% organic matter or greater, apply 1.2 – 1.33 pts./A of METOLACHLOR 8E + the label rate of atrazine.

RESTRICTIONS: To avoid crop injury,

- **DO NOT** use on coarse soils;
- **DO NOT** use on medium soils with less than 1.5% organic matter;
- **DO NOT** use in NM, OK, or TX, except in Northeast OK and the TX Gulf Coast and Blacklands areas;
- **DO NOT** apply preplant incorporated in AZ or the Imperial Valley of CA.

MINIMUM-TILLAGE OR NO-TILLAGE SYSTEMS

TANK MIXTURE OF METOLACHLOR 8E OR METOLACHLOR 8E + ATRAZINE WITH PARAQUAT, GLYPHOSATE/2, 4-D OR GLYPHOSATE

In minimum-tillage or no-tillage systems where sorghum (seed treated with Concep or Screen) is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides paraquat, glyphosate/2, 4-D or glyphosate may be tank mixed with METOLACHLOR 8E or METOLACHLOR 8E + atrazine. Mix with paraquat for control of most emerged annual weeds and suppression of perennial weeds; or with glyphosate/2, 4-D for suppression of emerged field bindweed and control or suppression of annual weeds; or with glyphosate for control of most emerged annual and perennial weeds. METOLACHLOR 8E or METOLACHLOR 8E plus atrazine portion of the tank mixture provides preemergence control of the weeds listed on this label under the respective sections.

Refer to the label of each product used in combination and observe the planting details, restrictions, and all other use precautions.

Application: Apply before, during, or after planting, but before sorghum emerges, at the appropriate rates listed under **Sorghum (Grain or Forage) – METOLACHLOR 8E Alone** or **– METOLACHLOR 8E in Combinations – Tank Mixture with atrazine**, respectively. Add paraquat, glyphosate/2, 4-D, or glyphosate at the following broadcast rates:

Paraquat: Use the labeled rate. Apply surfactant at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50 to 74% nonionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches.

Glyphosate/2, 4-D: Use the labeled rate depending on weed species and size. See the glyphosate/2, 4-D label for weeds controlled, rates for specific weeds, and other information concerning use.

Glyphosate: See the glyphosate label for weeds controlled, rates, and other use directions.

Apply in a minimum of 20 gals. of water per acre with conventional spray equipment.

SOYBEANS – METOLACHLOR 8E ALONE

Apply METOLACHLOR 8E, either preplant surface-applied, preplant incorporated, preemergence, or post emergence using the appropriate rate specified below.

Preplant Surface-Applied, Preplant Incorporated, Preemergence, or Postemergence: Follow instructions for use of this product alone under **Application Procedures**.

Preplant Surface-Applied Fall Application

- Apply after September 30 in MN, ND, SD, WI, and North of Route 30 in IA
- Apply after October 15 North of Route 91 in NE and South of Route 30 in IA
- Apply after October 31 North of Route 136 in IL

In all locations, apply METOLACHLOR 8E to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55°F and falling. In minimum-till or no-tillage systems on soils having greater than 2.5% organic matter, use 1.67 to 2 pts./A on *medium-textured* and 2 pts./A on *fine-textured soils*. **DO NOT** apply to frozen ground. A tillage operation may precede the application. A fall and/or a spring tillage may follow application, but do not exceed an incorporation depth greater than 2 to 3 inches.

Minimize furrow and ridge formation in the tillage operations.

Preplant Surface – Spring Application

Use on *medium* and *fine* soils with minimum-tillage or no-tillage systems in CO, CT, DE, IA, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MT, ND, NE, NH, NY, OH, PA, RI, SD, TN, VA, VT, WI, WV, and WY. Apply two-thirds of the specified rate of METOLACHLOR 8E (1.67 pts./A on *medium soils* and 2 pts./A on *fine soils*) as a split treatment 30 to 45 days prior to planting and the remainder at planting. Applications made less than 30 days before planting may be as either a split or single treatment. Apply 1.33 pts./A on *coarse soils* not more than 2 weeks before planting.

Preplant Incorporated or Preemergence: On *coarse soils*, apply 1 to 1.33 pts./A of METOLACHLOR 8E if organic matter content is less than 3%, or 1.33 pts./A if organic matter content is 3% or greater. On *medium soils*, apply 1.33 to 1.67 pts./A of this product. On *fine soils*, apply 1.33 to 1.67 pts./A of this product if organic matter content is less than 3%, or 1.67 to 2 pts./A if organic matter content is 3% or greater.

On soybeans, METOLACHLOR 8E may be used up to 2.75 pts./A as a preplant surface-applied, preplant incorporated, or preemergence treatment on soils having an organic matter content between 6% and 20%. The total rate of this product applied to soybeans during any one crop season must not exceed 2.75 pts./A.

RESTRICTIONS: (Preplant surface applied, preplant incorporated, preemergence):

- The total METOLACHLOR 8E rate applied to must not exceed 2.75 pints / acre per year.
- If a pre-plant surface, pre-plant incorporated or pre-emergence application of metolachlor products has already been applied, a postemergence application of this product cannot be used.
- **DO NOT** graze or feed treated soybean forage, hay, or straw to livestock 30 days following treatment, or illegal residues may result.
- If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate on soybeans.
- **DO NOT** apply to frozen ground.

POSTEMERGENCE APPLICATIONS

Postemergence (From emergence up through the 5th trifoliolate leaf stage)

For postemergence treatments, apply 1.0 to 1.33 pints per acre to soybeans from emergence through the 5th trifoliolate leaf stage. This product will not control emerged weeds, it must be applied to a weed free surface or in tank mixture with products that provide postemergence control of weeds present at the time of application.

Make postemergence applications at least 90 days before harvest.

RESTRICTIONS (Postemergence)

- **DO NOT** apply more than 1.33 pints per acre postemergence.

- **DO NOT** graze or feed treated soybean forage or soybean hay to livestock following a postemergence application of this product;
- **DO NOT** apply a postemergence application of this product if a pre-plant surface, pre-plant incorporated or pre-emergence application of metolachlor products has already been applied.
- **NOT FOR USE IN CALIFORNIA**

**SOYBEANS – METOLACHLOR 8E COMBINATIONS
Preplant Incorporated or Pre-emergence**

Water or fluid fertilizer may be used as carrier for METOLACHLOR 8E in combination with metribuzin, linuron, metribuzin / chlorimuron-ethyl, imazethapyr, imazaquin, ethafluralin, or clomazone.

RESTRICTIONS:

- For all of the following combinations, this product may be used up to 2.5 pts./A on soils having an organic matter content between 6% and 20%.
- The total rate of this product applied to soybeans during any one crop year must not exceed 2.75pts./A.
- **DO NOT** apply to frozen ground.

TANK MIXTURE WITH METRIBUZIN

In addition to those weeds controlled by METOLACHLOR 8E alone, METOLACHLOR 8E + metribuzin, when applied as directed, also controls the following broadleaf weeds: cocklebur*, hairy nightshade, hemp sesbania, jimsonweed*, lambsquarters, prickly sida, ragweed, smartweed, velvetleaf, venice mallow, and wild mustard.

*Partially controlled.

Preplant Incorporated or Preemergence: Follow instructions for use of this product alone under **Application Procedures.**

Sequential: Apply METOLACHLOR 8E alone **Preplant Incorporated**, as specified in the table below. Follow with a preemergence application of metribuzin during planting (behind the planter) or after planting, but before weeds or soybeans emerge.

Refer to the metribuzin label for planting details and soybean variety restrictions.

TABLE 8: METOLACHLOR 8E + METRIBUZIN – SOYBEANS

Soil Texture*	Broadcast Rates Per Acre			
	0.5 to Less Than 3% Organic Matter		3% Organic Matter or Greater	
	METOLACHLOR 8E	Metribuzin	METOLACHLOR 8E	Metribuzin
COARSE	0.85-1.0 pt.	Label rate	1.0 pt.	Label rate
MEDIUM	1.0-1.33 pts.	Label rate	1.33 pts.	Label rate
FINE	1.33 pts.	Label rate	1.33-1.67 pts.	Label rate
Mississippi Delta only Silty clay, Clay	1.33 pts.	Label rate	1.33-1.67 pts.	Label rate
DO NOT USE ON MUCK OR PEAT (SOILS WITH MORE THAN 20% ORGANIC MATTER)				

* On all sand and on loamy sand with less than 2% organic matter, **do not** use this tank mixture preemergence or the sequential treatment. **DO NOT** use the tank mixture preplant incorporated on any sand, loamy sand, or sandy loam, or crop injury may occur.

RESTRICTION:

- **DO NOT** use the tank mix or sequential application on soil with less than 0.5% organic matter or on alkaline soil with a pH over 7.4, or crop injury may occur.

PRECAUTION:

- If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days.

TANK MIXTURE WITH LINURON

In addition to those weeds controlled by METOLACHLOR 8E alone, METOLACHLOR 8E + linuron, applied preemergence, also controls the following broadleaf weeds: cocklebur*, jimsonweed*, lambsquarters, morningglory*,

prickly sida, ragweed, smartweed, velvetleaf*, venice mallow, and wild mustard.

*Partially controlled.

Preemergence: Apply during planting (behind planter) or after planting, but before weeds or soybeans emerge. Refer to the linuron label for planting details. Apply the appropriate rates from the table below.

RESTRICTIONS:

DO NOT use on soil with less than 0.5% organic matter, or crop injury may occur.

TABLE 9: METOLACHLOR 8E + LINURON – SOYBEANS

Soil Texture*	Broadcast Rates Per Acre			
	0.5 to Less Than 3% Organic Matter		3% Organic Matter or Greater	
	METOLACHLOR 8E	Linuron	METOLACHLOR 8E	Linuron
COARSE**	0.85 pt.	Label rate	1.0 pt.	Label rate
MEDIUM	1.0 pt.	Label rate	1.33 pts.	Label rate
FINE	1.33 pts.	Label rate	1.33-1.67 pts.	Label rate
DO NOT USE ON MUCK OR PEAT (SOILS WITH MORE THAN 20% ORGANIC MATTER)				

* **DO NOT** use on sand, gravelly soils, or exposed subsoils.

** **DO NOT** use on loamy sand, except in the Northeastern U.S. on loamy sand with over 1% organic matter.

TANK MIXTURE WITH TRIFLURALIN

METOLACHLOR 8E + trifluralin tank mix applied preplant incorporated controls those weeds listed under the **METOLACHLOR 8E Applied Alone** section and those weeds listed for trifluralin alone on the respective trifluralin label. METOLACHLOR 8E + trifluralin may be applied by ground or by aerial equipment and incorporated up to 14 days before planting. Follow the most restrictive procedures on the trifluralin and METOLACHLOR 8E labels, using equipment that provides uniform 2-inch incorporation.

Apply METOLACHLOR 8E + trifluralin tank mix, using the appropriate rate from the **Soybeans – METOLACHLOR 8E Alone** section of this label and the appropriate section of the trifluralin label for the specific soil texture/organic matter classification and weed species expected.

To control DNA-resistant goosegrass* and other species on the respective labels where the soil organic matter is 3% or less, apply the rate in the table below.

TABLE 10: METOLACHLOR 8E + TRIFLURALIN – SOYBEANS (Organic Matter Content Less Than 3%)

Soil Texture	Broadcast Rates Per Acre (pts.)		
	METOLACHLOR 8E	Trifluralin	
	Organic Matter Less Than 3%	Organic Matter	
		Less Than 2%	2-3%
COARSE*	0.85-1.0	Lower label rate	Higher label rate
MEDIUM	1.0	Lower label rate	Higher label rate
FINE	1.33	Lower label rate	Higher label rate

* Where a range of rates is given for this product use the minimum rate where DNA-resistant goosegrass is the predominant species.

Follow all restrictions and use precautions on the respective trifluralin label and in the **Soybeans – METOLACHLOR 8E Alone** section of this label.

TANK MIXTURE WITH IMAZAQUIN

This tank mixture controls all weeds controlled by METOLACHLOR 8E alone and by imazaquin alone. Refer to the METOLACHLOR 8E Applied Alone section for weeds controlled by this product and to the imazaquin label for weeds controlled by imazaquin. Refer to the imazaquin label for geographical locations where this tank mixture may be applied.

Apply METOLACHLOR 8E + imazaquin preplant incorporated or preemergence, using rates in the table below. Follow use directions under **Application Instructions** on the imazaquin label. For preplant incorporated applications, apply and incorporate within 30 days before planting. Observe the most restrictive use precautions and restrictions on the imazaquin labels.

TABLE 11: METOLACHLOR 8E + IMAZAQUIN – SOYBEANS

Soil Texture	Broadcast Rates Per Acre (pts.)			
	Less Than 3% Organic Matter		3% or More Organic Matter	
	METOLACHLOR 8E	Imazaquin	METOLACHLOR 8E	Imazaquin
COARSE	0.85	Label rate	1.0	Label rate
MEDIUM	1.0	Label rate	1.33	Label rate
FINE	1.33	Label rate	1.33-1.67*	Label rate
DO NOT USE ON MUCK OR PEAT (SOILS WITH MORE THAN 20% ORGANIC MATTER)				

*Within the rate range, use the higher rate of this product if heavy weed infestations are expected.

RESTRICTIONS:

- **DO NOT** apply within 90 days of harvest, and
- **DO NOT** graze or feed treated soybean forage, hay, or straw to livestock.

TANK MIXTURE WITH LINURON/CHLORIMURON-ETHYL

This tank mixture controls all weeds controlled by METOLACHLOR 8E alone and by linuron / chlorimuron-ethyl alone. Refer to the METOLACHLOR 8E Applied Alone section for weeds controlled by METOLACHLOR 8E and to the linuron / chlorimuron-ethyl label for weeds controlled.

Apply METOLACHLOR 8E + linuron / chlorimuron-ethyl preemergence after planting, but before soybeans emerge, using rates in the table below

Follow the most restrictive use directions, restrictions, and use precautions regarding application to soybeans, and rotational restrictions on METOLACHLOR 8E and linuron / chlorimuron-ethyl labels.

TABLE 12: METOLACHLOR 8E + LINURON / CHLORIMURON-ETHYL — SOYBEANS

Soil Texture	Broadcast Rates Per Acre	
	0.5 to 3% Organic Matter	
	METOLACHLOR 8E	Linuron / Chlorimuron-ethyl
COARSE	0.85 pt.	Label rate
MEDIUM	1.0 pt.	Label rate
FINE	1.33 pts.	Label rate

RESTRICTION:

- **DO NOT** apply to sand, or to any soil with less than 0.5% organic matter, or to any soil with pH greater than 6.8.

TANK MIXTURE WITH METRIBUZIN / CHLORIMURON-ETHYL

This tank mixture controls all weeds controlled by METOLACHLOR 8E alone and by metribuzin / chlorimuron-ethyl alone. Refer to the **METOLACHLOR 8E Applied Alone** section for weeds controlled by this product and to the metribuzin / chlorimuron-ethyl label for weeds controlled by metribuzin / chlorimuron-ethyl.

Apply preplant incorporated or preemergence, using the appropriate rates from the table below. **Preplant Incorporated:** Apply within 2 weeks of planting. Uniformly incorporate into the top 1 to 2 inches of soil before planting soybeans.

Preemergence: Apply after planting, but before soybeans emerge.

Follow all use directions, restrictions, and use precautions regarding application to soybeans, and rotational restrictions on METOLACHLOR 8E and metribuzin / chlorimuron-ethyl labels.

TABLE 13: METOLACHLOR 8E + METRIBUZIN / CHLORIMURON-ETHYL – SOYBEANS

Soil Texture	Broadcast Rates Per Acre (pts.)			
	Less Than 3% Organic Matter		3% or More Organic Matter	
	METOLACHLOR 8E	Metribuzin / Chlorimuron-ethyl	METOLACHLOR 8E	Metribuzin / Chlorimuron-ethyl
COARSE	0.85 pt.	Label rate	1.0 pt.	Label rate
MEDIUM*	1.0 pt.	Label rate	1.33 pts.	Label rate
FINE*	1.33 pts.	Label rate	1.33-1.67 pts.	Label rate

*Refer to the metribuzin / chlorimuron-ethyl label for appropriate rate according to geographical location, soil and organic matter classification, and pH limitations.

RESTRICTION:

- **DO NOT** apply to sand, or to any soil with less than 0.5% organic matter, or to any soil with pH greater than 7, except as noted on the metribuzin / chlorimuron-ethyl label.

TANK MIXTURE WITH CLOMAZONE

This tank mixture controls all weeds controlled by METOLACHLOR 8E alone and by clomazone alone. Refer to the **METOLACHLOR 8E Applied Alone** section for weeds controlled by METOLACHLOR 8E and to the clomazone label for weeds controlled by clomazone.

Apply METOLACHLOR 8E + clomazone preplant incorporated, using rates in the table below. Follow all clomazone application instructions as to incorporation interval, geographical location, equipment operation, soil moisture conditions, etc.

Before making applications, read and strictly follow the most restrictive use directions, restrictions, and use precautions regarding application to soybeans, and rotational restrictions on METOLACHLOR 8E and clomazone labels.

TABLE 14: METOLACHLOR 8E + CLOMAZONE – SOYBEANS

Soil Texture	Broadcast Rates Per Acre (pts.)			
	Less Than 3% Organic Matter		3% or More Organic Matter	
	METOLACHLOR 8E	Clomazone	METOLACHLOR 8E	Clomazone
COARSE	0.85 pt.	Label rate	1.0 pt.	Label rate
MEDIUM*	1.0 pt.	Label rate	1.33 pts.	Label rate
FINE*	1.33 pts.	Label rate	1.33-1.67 pts.	Label rate

TANK MIXTURE WITH ETHAFLURALIN

This tank mixture controls all weeds controlled by METOLACHLOR 8E alone and by ethafluralin alone. Refer to the **METOLACHLOR 8E Applied Alone** section for weeds controlled by METOLACHLOR 8E and to the ethafluralin label for weeds controlled by ethafluralin .

Apply METOLACHLOR 8E and ethafluralin preplant incorporated, using the appropriate rates from the table below.

Preplant Incorporated: Follow labeled soil preparation and soil-incorporation for ethafluralin.

Sequential: Apply ethafluralin alone preplant incorporated as specified on the ethafluralin label. Follow with a preemergence application of this product during planting (behind the planter) or after planting, but before weeds or soybeans emerge.

TABLE 15: METOLACHLOR 8E + ETHAFLURALIN – SOYBEANS

Soil Texture	Broadcast Rates Per Acre (pts.)			
	Less Than 3% Organic Matter		3% or More Organic Matter	
	METOLACHLOR 8E	Ethafluralin	METOLACHLOR 8E	Ethafluralin
COARSE	1.0-1.33	Label rate	1.33	Label rate
MEDIUM*	1.33-1.67	Label rate	1.33-1.67	Label rate
FINE*	1.33-1.67	Label rate	1.67-2.0	Label rate
DO NOT USE ON MUCK OR PEAT (SOILS WITH MORE THAN 20% ORGANIC MATTER)				

*For Eastern black nightshade on these soils, apply ethafluralin at 3.0 pts./A on *medium* and 3.5 pts./A on *fine-textured soils*, and follow with 2 incorporation passes.

Follow the most restrictive use directions, restrictions, and use precautions regarding application to soybeans on the METOLACHLOR 8E and ethafluralin labels.

TANK MIXTURE WITH IMAZETHAPYR

This tank mixture controls all weeds controlled by METOLACHLOR 8E alone and by imazethapyr alone. Refer to the **METOLACHLOR 8E Applied Alone** section for weeds controlled by METOLACHLOR 8E and to the imazethapyr label for weeds controlled by imazethapyr. Refer to the imazethapyr label for geographical locations where this tank mixture

may be applied.

Apply METOLACHLOR 8E + imazethapyr early preplant, preplant incorporated, or preemergence after planting, using rates in the table below. Application can be made in water or liquid fertilizer. For early preplant and preplant incorporated applications, apply within 30 days before planting.

Follow the most restrictive use directions, restrictions, and, use precautions regarding application to soybeans, and rotational restrictions on the METOLACHLOR 8E and imazethapyr labels.

TABLE 16: METOLACHLOR 8E + IMAZETHAPYR – SOYBEANS

Soil Texture	Broadcast Rates Per Acre (pts.)			
	Less Than 3% Organic Matter		3% or More Organic Matter	
	METOLACHLOR 8E	Imazethapyr	METOLACHLOR 8E	Imazethapyr
COARSE	0.85	Label rate	1.0	Label rate
MEDIUM	1.0	Label rate	1.33	Label rate
FINE	1.33	Label rate	1.33-1.67	Label rate

Sequential: Apply METOLACHLOR 8E early preplant, preplant incorporated, or preemergence after planting at pt./A on *coarse soils* and 1 pt./A on *medium-* and *fine-textured soils*. Follow with a sequential postemergence application of imazethapyr to control emerged weeds according to the imazethapyr label. METOLACHLOR 8E will improve the consistency and level of control from imazethapyr on most grass species. Refer to the imazethapyr postemergence label for a listing of weeds controlled, application rate, and growth stage limitations. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

MINIMUM-TILLAGE OR NO-TILLAGE SYSTEMS

TANK MIXTURES WITH METRIBUZIN, IMAZAQUIN, LINURON, LINURON / CHLORIMURON-ETHYL, PRODIAMINE / ISOXABEN, METRIBUZIN / CHLORIMURON-ETHYL, OR IMAZETHAPYR, PLUS PARAQUAT OR GLYPHOSATE

In minimum-tillage or no-tillage systems where soybeans are planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides paraquat or glyphosate may be added to a tank mix of either METOLACHLOR 8E + metribuzin, METOLACHLOR 8E + imazaquin, METOLACHLOR 8E + linuron, METOLACHLOR 8E + linuron / chlorimuron-ethyl, METOLACHLOR 8E + prodiamine / isoxaben, METOLACHLOR 8E + metribuzin / chlorimuron-ethyl, or METOLACHLOR 8E + imazethapyr.

When used as directed, the paraquat portion of the tank mixture controls most emerged weeds and suppresses many perennial weeds.

Glyphosate combinations will control emerged annual and perennial weeds when applied as directed on the glyphosate label.

METOLACHLOR 8E + metribuzin , imazaquin, linuron, linuron / chlorimuron-ethyl, prodiamine / isoxaben, metribuzin / chlorimuron-ethyl, or imazethapyr portion of the tank mixture provides preemergence control of the weeds listed on this label in the tank mixture section for METOLACHLOR 8E + metribuzin , METOLACHLOR 8E + imazaquin, METOLACHLOR 8E + linuron, METOLACHLOR 8E + linuron / chlorimuron-ethyl, METOLACHLOR 8E + prodiamine / isoxaben, METOLACHLOR 8E + metribuzin / chlorimuron-ethyl, and METOLACHLOR 8E + imazethapyr, respectively.

Application: Apply before, during, or after planting, but before the soybeans emerge, at the rates specified in the chart below.

Apply in 20-60 gals. of water or fluid fertilizer per acre with ground equipment.

For all tank mix partners - Refer to the label of each product used in combination and observe the most restrictive planting details, soybean variety restrictions, information regarding application to soybeans, geographical restrictions, soil and organic matter classification, pH limitations and all other use precautions and restrictions.

Paraquat: Use the labeled rate. Apply surfactant at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50 to 74% nonionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches.

PRECAUTION:

- If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water

stands for several days, or where the seeding slit has not been properly closed.

RESTRICTION:

- **DO NOT** apply combinations containing paraquat in suspension-type liquid fertilizers, as the activity of paraquat will be reduced.

Tank Mix Partners	METOLACHLOR 8E Rates Per Acre (pts.)			Tank Mix Partner	RESTRICTIONS
	Coarse Soil	Medium Soil	Fine Soil	Pints Per Acre	
Metribuzin + Paraquat Or Glyphosate	1.0	1.33	1.33 - 1.67	Labeled Rate	To avoid crop injury: Do not use this tank mixture on soil with less than 0.5% organic matter, on alkaline soil with a pH over 7.4, or on all sand and on loamy sand with less than 2% organic matter.
Imazaquin + Paraquat Or Glyphosate	1.0	1.33	1.67	Labeled Rate	DO NOT apply within 90 days of harvest, DO NOT graze or feed treated soybean forage, hay, or straw to livestock.
Linuron + Paraquat Or Glyphosate	1.0	1.33	1.33 - 1.67	Labeled Rate	DO NOT use on loamy sand, except in the Northeastern U.S. on loamy sand with over 1% organic matter, or injury may occur. DO NOT use on sand, gravelly soils, or exposed subsoils, or injury may occur. DO NOT use on soil with less than 0.5% organic matter, or crop injury may occur.
Linuron / Chlorimuron-Ethyl + Paraquat Or Glyphosate	1.0	1.33	1.33 - 1.67	Labeled Rate	Use only where soils have 0.5 to 3% organic matter. DO NOT apply to sand or to any soil with pH greater than 6.8
Metribuzin / Chlorimuron-Ethyl + Paraquat Or Glyphosate	1.0 Do not use on sand.	1.33	1.33 - 1.67	Labeled Rate	Use only where soils have 0.5 to 5% organic matter. DO NOT apply to sand, or to any soil with less than 0.5% organic matter, or to any soil with pH greater than 6.8, except as noted on the metribuzin / chlorimuron-ethyl label.
Imazethapyr + Paraquat Or Glyphosate	1.0	1.33	1.67		None

SOYBEANS – METOLACHLOR 8E COMBINATIONS POSTEMERGENCE

NOT FOR USE IN CALIFORNIA

TANK MIXTURE OF METOLACHLOR 8E WITH GLYPHOSATE FOR USE ON GLYPHOSATE RESISTANT SOYBEANS

METOLACHLOR 8E may be tank mixed with glyphosate in water and applied postemergence over-the top or postemergence-directed spray only up through the 5th trifoliolate leaf stage of soybean varieties or cultivars warranted as resistant to glyphosate. This tank mixture will control emerged weeds listed on the glyphosate label and residual preemergence control of weeds listed on this label.

See the **Soybean – METOLACHLOR 8E Alone – Postemergence** section for proper rates and timing of **METOLACHLOR 8E**. Also follow the glyphosate label for appropriate use rate, method of application, and restrictions of application timing. For postemergence over-the-top application, **do not** add any adjuvants, surfactants, fertilizers, or other pesticides to this tank mixture as unacceptable injury may occur.

RESTRICTIONS:

- **DO NOT** apply this tank mixture postemergence to any soybean variety unless it is designated glyphosate resistant and unless the glyphosate formulation being used is registered for postemergence use in glyphosate resistant

soybeans.

- **DO NOT** apply more than 1.33 pints per acre postemergence.
- Following a postemergence application of this product, **DO NOT** graze or feed treated soybean forage or soybean hay to livestock.
- Postemergence applications must be made at least 90 days before harvest.

TANK MIXTURE OF METOLACHLOR 8E WITH GLUFOSINATE FOR USE ON GLUFOSINATE RESISTANT SOYBEANS

METOLACHLOR 8E may be tank mixed with glufosinate in water and applied postemergence over-the top or postemergence-directed spray only up through the 5th trifoliolate leaf stage of soybean varieties or cultivars warranted as resistant to glufosinate. This tank mixture will control emerged weeds listed on the glufosinate label and provide residual preemergence control of weeds listed on this label.

See the **Soybean – METOLACHLOR 8E Alone – Postemergence** section for proper rates and timing of **METOLACHLOR 8E**. Also follow the glufosinate label for appropriate use rate, method of application, and restrictions of application timing. For postemergence over-the-top application, **do not** add any adjuvants, surfactants, fertilizers, or other pesticides to this tank mixture as unacceptable injury may occur.

RESTRICTIONS:

- **DO NOT** apply this tank mixture postemergence to any soybean variety unless it is designated glufosinate resistant and unless the glufosinate formulation being used is registered for postemergence use in glufosinate resistant soybeans.
- **DO NOT** apply more than 1.33 pints per acre postemergence.
- Following a postemergence application of this product, **DO NOT** graze or feed treated soybean forage or soybean hay to livestock.
- Postemergence applications must be made at least 90 days before harvest.
- **DO NOT** apply a postemergence application of this product if a preplant surface, preplant incorporated, or preemergence application of metolachlor products has already been applied.

TOMATOES – METOLACHLOR 8E ALONE

TRANSPLANTED TOMATOES

METOLACHLOR 8E may be applied preplant incorporated or preplant before transplanting. If the latter method is used, keep soil disturbance to a minimum during transplanting. Application may also be made post- directed to transplants after the first settling rain or irrigation. When an application is made post- directed, apply in a minimum of 20 gallons of water per acre and minimum contact with tomato plants. This product will not control emerged weeds. In bedded transplanted tomatoes, apply this product preplant non-incorporated to the top of the pressed bed, as the last step, prior to laying plastic.

METOLACHLOR 8E may also be used to treat row-middles in bedded tomatoes, as long as the total amount of this product does not exceed the maximum allowed per crop.

SEEDED TOMATOES

METOLACHLOR 8E may be applied post-directed to direct seeded tomatoes. Tomato plants must be at least 4 inches tall at the time of application and the product must be applied in a minimum of 20 gallons of water per acre. Minimize spray contact with tomato plants. This product will not control emerged weeds.

TOMATO USE RATES

Soil Texture	Broadcast Rates Per Acre (pts.)	
	Less Than 3% Organic Matter	3% or More Organic Matter
	METOLACHLOR 8E	METOLACHLOR 8E
COARSE	1.0 – 1.33 pints/acre	1.33 pints/acre
MEDIUM	1.33 pints/acre	1.33 pints/acre
FINE	1.33 – 1.67 pints/acre	1.67 – 2.0 pints/acre

RESTRICTIONS

- **DO NOT** apply this product within 90 days of tomato harvest.
- **DO NOT** exceed the maximum label rate for the soil texture per year.
- Apply only by ground application.
- **DO NOT** apply to varieties or cultivars with unknown resistance to **METOLACHLOR 8E**.

PRECAUTIONS

- This product may damage transplants that have been weakened by any cause. To prevent damage, plant only healthy transplants. **DO NOT** plant when wet, cool, or unfavorable growing conditions exist.
- In transplanted tomatoes, if this product is applied preplant incorporated, incorporate to a depth less than the depth of transplanting, and use the lower end of the rate range for the given soil type, or damage may occur.
- For row middle applications where tomatoes are grown on sandy soils and where high soil moisture conditions can exist (i.e. low binding and high evaporation conditions), as may be found in the States of Florida, Georgia, Maryland, and Virginia, there is potential for crop injury in the form of leaf epinasty. The risk of this type of injury can be reduced by:
 - a) incorporating this product immediately following application,
 - b) applying this product seven or more days before transplanting (but only after the beds have been formed),
 - c) minimizing the application of this product onto the plastic of the bed, or
 - d) any combination of the above.

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: DO NOT store this product below -30°F. For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product are toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law. Open dumping is prohibited. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

CONTAINER HANDLING:

[For Containers ≤ 5 gallons:] Nonrefillable container. **DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ 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. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by other procedures allowed by State and local authorities.

For Minibulk Containers [for nonrefillable containers > 5 gallons]: Nonrefillable container. **DO NOT** reuse or refill this container. Triple rinse container or pressure rinse promptly after emptying. Triple rinse as follow: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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.

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 for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration. =

For Bulk Containers [for refillable containers > 5 gallons]: 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. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. When the container is empty, replace the cap and seal all openings that have been opened during use; and return to the point of purchase, or to a designated location named at the time of purchase of this product. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after

refilling and before transporting. **DO NOT** transport if this container is damaged or leaking. If the container is damaged or leaking, call CHEMTREC. If the container is damaged and leaking or material has been spilled, follow these procedures:

- Cover spill with absorbent material.
- Sweep into disposal container.
- Wash area with detergent and water and follow with clean water rinse.
- **DO NOT** allow to contaminate water supplies.
- Dispose of according to instructions.

If not returned to the point of purchase or to a designated location, clean empty container as instructed above and offer for recycling. Disposal of this container must be in compliance with state and local regulations.

WARRANTY AND LIMITATION OF DAMAGES

Conditions of Sale: To the extent consistent with applicable law, Albaugh, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the directions under normal conditions of use. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to Albaugh, LLC. Albaugh, LLC disclaims all other warranties, express or implied. To the extent consistent with applicable law, Albaugh, LLC, Inc. shall not be liable for consequential, special, or indirect damages resulting from the use or handling of this product, and Albaugh, LLC, Inc.'s sole liability and buyer's and user's exclusive remedy shall be limited to the refund of the purchase price. To the extent consistent with applicable law, Buyer and user acknowledge and assume all risks and liability resulting from handling, storage and use of this product. Albaugh, LLC does not authorize any agent or representative to make any other warranty, guarantee or representation concerning this product.

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All product names, trademarks, and registered trademarks are the property of their respective owners.

LABEL HISTORY
(Not included in final printed label)

File name	Version mark	Comment
042750-00340.20190828.MASTER	AD082819	SECTION 3 Approval
042750-00340.20200805.DRAFT	080520	Adjustment to application timing for Postemergence application, Addition of Sugarcane use and Supplemental Label for Sugarcane use
042750-00340.20210217.DRAFT	021721	Remove Sugarcane use and Supplemental Label for Sugarcane use
042750-00340.20210222.DRAFT	022221	Final Comments from EPA revised