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

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

SEP - 9 2005

Mr. Jon M. Gehring
Registration Manager
Sipcam Agro USA, Inc.
300 Colonial Center Parkway, Suite 230
Roswell, GA 30076

Dear Mr. Gehring:

Subject: Metolachlor 7.8 Herbicide
EPA Registration No. 60063-24
Application and Letter Dated August 24, 2005, Request To "Revise Product Name Usage, Add Certain Tank Mixes in Cotton

The subject application to amend the registration of Metolachlor 7.8 Herbicide to add Sorghum as a use site on its labeling has been reviewed and found to be acceptable under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended; provided that you:

1. Do not change the height of cotton (inches tall) for postemergence application of Metolachlor 7.8 under this application to amend the registration of this pesticide product. Residue chemistry data must be submitted to support applications to cotton at dosages and heights different than that presently accepted.

2. Revise the directions of use to assure that tandem applications of metolachlor and s-metolachlor herbicides are not applied. This comment references the statements on pages 9, 10 and 12 that read: "These treatments may be applied over previous registered herbicide treatments.....". Also, please correct the construction "**previous registered treatments**" by referring to"previous application of herbicides".)

3 Submit one copy of the final printed labeling prior to shipping under the revised labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA, section 6(e). Your release for shipment of this product under the revised labeling constitutes acceptance of these conditions. A stamped copy of the accepted labeling is enclosed for your records.

Sincerely yours,

Joanne I. Miller

Joanne I. Miller
Product Manager (23)
Herbicide Branch
Registration Division (7505C)

Enclosure

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ACCEPTED
with COMMENTS
In EPA Letter Dated:
SEP - 9 2005

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

60063-24

SIPCAM AGRO USA, INC.

Metolachlor 7.8

Herbicide

For weed control in Cotton, Peanuts, Pod crops, Potatoes, Safflowers, Sorghum, and Soybeans.

Active Ingredient:

Metolachlor: 2-chloro- N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl) acetamide	86.4%
Other Ingredients:	13.6%
Total:	100.0%

This product contains 8 pounds of active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
IF INHALED	• 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.
IF ON SKIN OR CLOTHING	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes.
IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
IF SWALLOWED	• 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.
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 and spills) (800) 900-4044 Poison Control Center (human health) (800) 345-4735 ASPCA (animal health)

See additional precautionary statements and directions for use inside booklet.

SHAKE WELL BEFORE USING

Net Contents: 2.5 Gallons (9.46 Liters)

EPA Reg. No. 60063-24
EPA Est. 70989-MO-1

Sipcam Agro USA, Inc.
300 Colonial Center Parkway, Suite 230
Roswell, GA 30076

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PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION: Harmful if swallowed, inhaled, or absorbed through skin. Causes eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist.

Personal Protective Equipment (PPE)

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

Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves, such as barrier laminate or viton
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure, and
- Chemical-resistant apron when cleaning equipment, mixing or loading.

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

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing 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.

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 170.240(d)(4)). When using the closed system, the PPE requirements for mixers and loaders may be reduced or modified as specified in the WPS.

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

Environmental Hazards

For terrestrial uses, 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,

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areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

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 antisiphoning devices must be used on all mixing and/or irrigation equipment.

This product may not be mixed or loaded within 50 feet of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be mixed/loaded or used within 50 feet 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.

GENERAL INFORMATION

Observe all use precautions and limitations 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.

Metolachlor 7.8 is a herbicide recommended 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 Cotton, Peanuts, Pod crops, Potatoes, Safflowers, Sorghum and Soybeans.

Note: Do not use in nurseries, turf, or landscape plantings.

Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas.

To prevent off-site movement due to runoff or wind erosion:

1. Avoid treating powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
2. Do not apply to impervious substrates, such as paved or highly compacted surfaces.
3. Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least one-half inch of rainfall has occurred between application and the first irrigation.

Note: 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.

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

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

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 Precaution: Injury may occur following the use of this product under abnormally high soil moisture conditions during early development of the crop.

MIXING INSTRUCTIONS

Metolachlor 7.8 Alone: Mix this product with water or fluid fertilizer and apply as a spray. Fill the spray tank one-half to three-quarters 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 atrazine, Balan®, Basagran®, Butoxone®, Butyrac®, Canopy®, Caparol® 4L, Command®, Cotoran®, EPTC, Gemini®,Ignite®, Lexone®, Liberty®, Linuron, Lorox Plus®, MSMA, Preview®, Prowl®, Pursuit®, Scepter®, Sencor®, Sonalan®, Starfire® or Trifluralin, and allow it to become dispersed; then add **Metolachlor 7.8;** then add paraquat (Gramoxone® Extra), or Glyphosate if these products are being used; and finally the rest of the water. For tank mixtures with atrazine, Canopy, Caparol 4L, Command, Cotoran *, EPTC, Gemini, Lexone, Linuron, Lorox Plus, Preview, Prowl *, Pursuit, Scepter, Sencor , Sonalan, Starfire or Trifluralin, fluid fertilizers may replace all or part of the water as carrier. For each tank mixture with atrazine, see additional mixing instructions on the atrazine label. For each tank mixture, conduct a compatibility test as described in **Appendix A** of this label. For all tank mixtures, agitate during mixing and application to maintain a uniform suspension.

*See **Special Mixing Instructions** for tank mixtures with Cotoran, under the appropriate tank mixture section.

For directions on how to conduct a compatibility test, see **Appendix A.**

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,

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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, such as barrier laminate or viton
- Shoes plus socks

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

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

1. 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.

Note: Metolachlor 7.8 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 recommendations, 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.

2. APPLICATION PROCEDURES

Application Timing

Metolachlor 7.8 alone or in some tank mixtures with other labeled herbicides may be applied for weed control in certain crops at various times. Refer to the given crop section of the label to determine if application timings listed below are recommended.

A) **Preplant Surface-Applied:** For minimum-tillage or no-tillage systems only, **Metolachlor 7.8** alone and some tank mixtures of this product may be applied up to 45 days before planting certain crops. Use only split applications for treatments made 30 to 45 days before planting, with two-thirds the recommended broadcast rate for the crop and soil texture applied initially and the remaining one-third at planting. Treatments less than 30 days before planting may be made either as a split or a single application. Refer to individual crop to determine if early preplant surface application is recommended. If weeds are present at the time of treatment, apply in a tank-mixture combination with a contact herbicide (for example, Gramoxone Extra or Glyphosate). Observe directions for use, use precautions, and restrictions on the label of the contact herbicide. To the extent possible,

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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 7.8** 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 crop will be planted on beds, apply and incorporate this product after bed formation, unless specified otherwise.

C) **Preemergence:** Apply **Metolachlor 7.8** during planting (behind the planter) or after planting, but before weeds or crops emerge.

3. SPECIAL APPLICATION PROCEDURES

A) Preplant Incorporated - CA Only (Safflowers, Pod Crops): Broadcast this product to the soil and thoroughly incorporate with a disk or similar implement set to till 4 to 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 that only soil from this product 's treated zone is used (i.e., untreated soil should not be brought to soil surface). If the application is made to preformed beds, incorporate this product with a tillage implement set to till 2 to 4 inches deep. Care should be taken during tilling to keep the tilled (this product treated) soil on the beds.

B) Preemergence: Apply this product after planting. Water with sprinkler or flood irrigation within 7-10 days.

C) Fall Application (only in IA, MN, ND, SD, WI, North of Route 20 in the state of NE, and North of Route 136 in the state of IL): Do not apply to frozen ground. Use on medium and fine soils with greater than 2.5% organic matter that will be planted to Soybeans the next spring. Ground may be tilled before or after application. Do not exceed a 2 to 3-inch incorporation depth if tilled after treatment. **Note:** 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, or illegal residues may result.

D) 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:

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

NOTE: For information on applying in lower volumes of carrier, see **Low Carrier Application** in **Appendix B**.
For application by air or through center pivot systems, see **Appendices C** and **D**. **Appendix C** includes **Aerial Drift Management** and **Aerial Drift Reduction Advisory** sections.
For information on impregnating dry fertilizer, see **Appendix E**.

METOLACHLOR 7.8 APPLIED ALONE

1. WEEDS CONTROLLED

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Barnyardgrass (watergrass)	Foxtail millet	Signalgrass (*Brachiaria*)
Bristly foxtail	Galinsoga	Southwestern cupgrass
Carpetweed	Giant foxtail	Tall waterhemp
Common waterhemp	Goosegrass	Tropical spiderwort
Crabgrass	Green foxtail	Witchgrass
Crowfootgrass	Pigweed	Yellow foxtail
Eastern black nightshade	Prairie cupgrass	Yellow nutsedge
Fall panicum	Red rice	
Florida pusley	Robust foxtails (purple, white)	

2) WEEDS PARTIALLY CONTROLLED*:

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

*See **General Information** section. Control of these weeds can be erratic, due partially to variable weather conditions. Control may be improved by following these suggested procedures:

A) 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 recommended under **Application Procedures**.

B) Plant crop into moist soil immediately after tillage. If this product is to be used preemergence, apply at planting or immediately after planting.

C) 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 this product.

D) 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.

** For partial control of this weed, use a minimum of 2 pts./A and apply preemergence.

*** For partial control of this weed, use a minimum of 2 pts./A and apply through a center pivot irrigation system.

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3. ROTATIONAL CROPS

Metolachlor 7.8 Alone:

A) If crop treated with this product alone is lost, any crop on this label may be replanted immediately. Do not make a second broadcast application of this product. If the original application was banded and the second crop is planted in the untreated row middles, a second banded treatment may be applied.

B) Barley, Oats, Rye, or Wheat may be planted 4.5 months following treatment; Alfalfa may be planted 4 months following application. Tomatoes may be planted 6 months following application.

C) Any crop on this label, in addition to Corn, Root crops, Tobacco, Barley, Buckwheat, Milo, Oats, Rice, Rye, Wheat, Cabbage, or Peppers, may be planted in the next Spring following treatment. Clover may be seeded 9 months following application. Do not graze or feed forage or fodder

from Cotton to livestock. All other rotational crops may be planted 12 months after a lay-by application.

D) Following a lay-by treatment or multiple treatments applied the previous season, any crop on this label, in addition to Corn, Tobacco, Cabbage, or Peppers, may be planted in the Spring.

Metolachlor 7.8 Tank Mixtures:
For **Rotational Crops** restrictions for this product used in tank mixtures, refer to the statements/restrictions above for this product and to the respective product labels of any mixing partner(s) for additional statements/restrictions.

Important Notes: To avoid injury to rotational Alfalfa or Clover: (1) Do not apply more than 3 lbs. a.i. per acre (3 pts. of this product) preemergence (including preplant surface, preplant incorporated, postplant incorporated, etc.), and (2) Do not make lay-by or other postemergent applications of this product.

COTTON –METOLACHLOR 7.8 ALONE

Application: Apply **Metolachlor 7.8** 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 limitations in the following **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 7.8** 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.

Note: 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 Caparol 4L.

Preemergence: Apply **Metolachlor 7.8** to the soil surface at planting or after planting, but before weeds or crop emerge.
Postemergence: Apply **Metolachlor 7.8** broadcast over-the-top or directed to the soil surface, according to the rate and Cotton height limitations 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,

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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 7.8** at 1 to 1.33 pts./A when Cotton is at least 3 inches tall.
TN, AR, MS, MO, and LA: Apply **Metolachlor 7.8** at 0.75 to 1.33 pts./A when Cotton is at least 3 inches tall.
TX, OK, NM, AZ, CA, and Clay Soils in AR: Apply **Metolachlor 7.8** at 1 to 1.33 pts./A when Cotton is at least 3 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.

	Metolachlor 7.8 Multiple Applications to Cotton		
State	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 at least 3" Cotton
TX, OK NM	1.0 – 1.33	+	1.0– 1.33 to at least 3" Cotton before August 1
NC, VA	1.0 – 1.33 (Preemergence Only)	+	1.0– 1.33 to at least 3" 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.

Note: 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. These treatments may be applied over previous registered herbicide treatments.

Use Precautions: *To avoid crop injury, (1) Do not apply this product on sand or loamy sand soils, or in areas where water is likely to "pond" over the bed; (2) 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; (3) 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. (4) Do not apply over-the-top in fluid fertilizer or any other adjuvant, surfactant, oil, or other pesticide not*

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recommended in the Cotton section of this label, or injury may occur; (5) Do not apply on Taloka silt loam. (6) Do not use in Gaines County, TX.

Note: Do not graze or feed forage or fodder from Cotton to livestock, or illegal residues may result.

COTTON -METOLACHLOR 7.8 IN COMBINATIONS

TANK MIXTURE WITH CAPAROL 4L

Metolachlor 7.8 tank mixed with Caparol 4L 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 Caparol 4L, mix only the amount that will be sprayed in one operation. These mixtures should not be allowed to stand without agitation. Only water may be used as a carrier for postemergence-directed application.

In addition to those weeds controlled by **Metolachlor 7.8** alone, **Metolachlor 7.8** + Caparol 4L, applied preplant incorporated or preemergence, also controls the following weeds: Junglerice, Wild oats, Annual morningglory, Goundcherry, Hairy nightshade, Lambsquarters, Malva, Mustard, Prickly sida (teaweed), Purslane, Ragweed, and shallow-germinating seedlings of Cocklebur and Coffeeweed. As a postemergence-directed application, Caparol 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 7.8** + Caparol 4L, either preplant incorporated or preemergence, using the appropriate rate from Table 1. 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 1: Metolachlor 7.8 + Caparol 4L - Cotton (NM, OK, TX)

Use Areas	Soil Texture	Broadcast Rates Per Acre	
		Metolachlor 7.8	Caparol 4L
ALL	Sand, Loamy sand	DO NOT USE	
OK, and Blacklands and Gulf Coast of TX	Loams	0.85-1.33 pts.	2.4 pts.
	Clays	1.33 pts.	4.8 pts.
Rio Grande Valley of TX	Loams	0.85-1.33 pts.	3.2 pts.
	Clays	1.33 pts.	4.8 pts.
NM; High Plains, Rolling Plains, Edwards Plateau of TX; and Southwest TX	Sandy loam	0.85-1.0 pt.	1.6 pts.
	Loams	0.85-1.33 pts.	2.4 pts.
	Sandy clay loams	1.33 pts.	2.4 pts.
	Other clay soils	1.33 pts.	3.2 pts.

Postemergence-Directed (AR, AZ, CA, LA, MO, MS, NM, OK, TN, and TX): Metolachlor 7.8 may be tank mixed with Caparol 4L in water and applied postemergence directed in Cotton for control of emerged weeds listed on the Caparol 4L label and residual preemergence control of weeds controlled by this product and Caparol 4L, or application may be made after cultivation for residual preemergence control. These treatments may be applied over previous registered treatments, including this product, provided the maximum label rate of any product is not exceeded. Do not apply over-the-top of Cotton or injury may occur.

Apply **Metolachlor 7.8** + Caparol 4L in a minimum of 20 gals. of spray volume per acre. Follow the directions, limitations, and use precautions on the Caparol 4L label when Caparol is applied as a

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postemergence-directed application. Refer to the directions, limitations, and precautions for use of this product under the **Cotton — Metolachlor 7.8 Alone — Postemergence** section.

Use Precautions: (1) To avoid concentration in the seed furrow, do not make broadcast applications of this product + Caparol 4L 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, (2) Do not apply on sand or loamy sand soils, or in areas where water is likely to "pond" over the bed; (3) Do not apply in cut areas of newly leveled fields, or in areas of excess salt; (4) Do not apply to glandless Cotton varieties; and (5) Do not apply on Taloka silt loam. (6) Do not use in Gaines County, TX.

Note: Do not graze or feed forage or fodder from Cotton to livestock, or illegal residues may result.

Refer to the Caparol 4L label for further instructions and limitations.

TANK MIXTURE WITH COTORAN DF

Metolachlor 7.8 may be applied in tank mixture with Cotoran DF preemergence for control of those weeds controlled by this product alone and those as listed on the Cotoran DF 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 emerge, using the appropriate rates from Table 2. 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 Cotoran 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 7.8** and Cotoran DF. To help overcome this condition, fill the spray tank one-quarter full with water or fluid fertilizer and start agitation, add the Cotoran DF 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 2: Metolachlor 7.8 + Cotoran DF - Cotton

Soil Texture	Broadcast Rates Per Acre		
	Metolachlor 7.8 (pts.)		Cotoran DF*** (lbs.)
	Area 1*	Area 2**	
Sand, Loamy sand	DO NOT USE		
Sandy loam	0.75-1.0	0.85-1.0	1.2
Loam, Silt loam, Silt	1.0-1.33	1.0-1.33	1.2-1.9
Fine soil	1.0-1.33	1.33	1.9-2.4

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

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

*** When using Cotoran 4L, use equivalent rates. Multiply lbs. of Cotoran DF by 1.7 to get pts. of Cotoran 4L.

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 Cotoran 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 Cotoran DF, use the higher rate when applying postemergence to weeds that are 2 inches or less. These treatments may be applied over previous registered treatments, including this product, provided the maximum label rate of any product is not exceeded.

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***Use Precautions**: (1) Do not apply **Metolachlor 7.8** + Cotoran on sand or loamy sand soils, or in areas where water is likely to "pond" over the bed, or crop injury may occur. (2) To avoid concentration in the seed furrow, do not make broadcast applications of this product + Cotoran 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. (3) The use of Cotoran following the use of a systemic insecticide at planting may result in crop injury. (4) Do not use on Taloka silt loam, or crop injury may occur. (5) Do not use in Gaines County, TX.*

Refer to the Cotoran labels for further instructions, use precautions, and limitations.

Note: To avoid possible illegal residues, do not feed treated forage or gin trash to livestock, or graze treated areas.

TANK MIXTURE OF METOLACHLOR 7.8 OR METOLACHLOR 7.8 + COTORAN WITH GRAMOXONE EXTRA 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 Gramoxone Extra or Glyphosate may be added to a tank mix of either **Metolachlor 7.8** or **Metolachlor 7.8** + Cotoran. When used as directed, the Gramoxone Extra 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 7.8** and **Metolachlor 7.8** + Cotoran 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 limitations. Refer to **Mixing Instructions** under **Tank Mixture with Cotoran DF** 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*. Refer to Table 2 for the Cotoran DF rates.

Add Gramoxone Extra or Glyphosate at the following broadcast rates:

Gramoxone Extra: 1.5 to 2, 2 to 2.5, or 2.5 to 3 pts./A to 1 to 3, 3 to 6, or 6-inch tall weeds, respectively. 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.

Note: Do not apply combinations containing Gramoxone Extra in suspension-type liquid fertilizers, as the activity of paraquat will be reduced.

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

Note: Do not apply this product + Cotoran 4L + Glyphosate in tank mixture because of compatibility problems.

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

***Use Precautions**: (1) 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. (2) Refer to the Cotoran labels and the **Tank Mixture with Cotoran DF** section of this label for further instructions, use precautions, and limitations. (3) Do not use in Gaines County, TX.*

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TANK MIXTURE WITH MSMA, MSMA + CAPAROL, OR MSMA + COTORAN

Metolachlor 7.8 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 Caparol or Cotoran 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 7.8** + MSMA postemergence-directed to 3 to 12-inch cotton according to the directions, limitations, and use precautions on the MSMA product label, as well as the directions, limitations, and use precautions for use of this product in the section for **Cotton — Metolachlor 7.8 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. Cotoran or Caparol 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 7.8** + Caparol or Cotoran 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 7.8 WITH GLYPHOSATE FOR USE ON ROUNDUP READY® COTTON ONLY

Metolachlor 7.8 may be tank mixed with Glyphosate in water and applied postemergence over-the-top or postemergence-directed for control of emerged weeds listed on the Glyphosate label and residual preemergence control of weeds listed on this label. See the **Cotton - Metolachlor 7.8 Alone - Postemergence** section for proper rates and timing of **Metolachlor 7.8.** 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.

Use Precautions: (1) Do not apply this tank mixture postemergence to any cotton variety unless it is designated Roundup Ready and unless the Glyphosate formulation being used is registered for postemergence use in Roundup Ready Cotton. (2) 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. (3) Do not apply Glyphosate postemergence over-the-top to cotton past the growth stage limit specified on the label. (4) Do not use on sand or loamy sand soils in Gaines County, TX.

TANK MIXTURE OF METOLACHLOR 7.8 WITH IGNITE® FOR USE ON LIBERTYLINK® COTTON

Metolachlor 7.8 may be tank mixed with Ignite in water and applied as a postemergence, broadcast over-the-top spray or as a postemergence-directed spray only to LibertyLink cotton or other cotton varieties or cultivars warranted as tolerant to Ignite Herbicide by Bayer CropScience. This tank mixture will control emerged weeds listed on the Ignite label and provide residual preemergence control of weeds listed on this label. See the **Cotton - Metolachlor 7.8 Alone - Postemergence** section for proper rates and timing of **Metolachlor 7.8.** Also follow the Ignite 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.

Use Precautions: (1) Do not apply this tank mixture postemergence to any cotton variety unless it is designated Ignite tolerant. (2) 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

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development. (3) Do not apply Ignite postemergence to cotton beyond early bloom stage. (4) Do not use on sand or loamy sand soils in Gaines County, TX.

PEANUTS -METOLACHLOR 7.8 ALONE

Apply **Metolachlor 7.8**, 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 7.8** 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.

Notes: (1) **Metolachlor 7.8** alone may be applied as directed after any of the following preplant incorporated herbicides when used according to their label recommendations: Balan at 3 to 4 qts./A; Trifluralin at 1 pt./A; Sonalan at 1.25 to 3 pts./A; Pursuit at 0.25 pt./A; or Prowl at 1 to 2 pts./A. (2) Do not graze or feed Peanut forage or fodder to livestock for 30 days following application, and (3) Do not apply within 90 days of harvest, or illegal residues may result.

PEANUTS -METOLACHLOR 7.8 COMBINATIONS

TANK MIXTURE WITH BALAN L.C.

Metolachlor 7.8 + Balan tank mixture applied preplant incorporated controls those weeds listed under **Metolachlor 7.8 Applied Alone** and those weeds as listed on the Balan label.

Apply 1 to 1.33 pts./A of **Metolachlor 7.8** + 3 to 4 qts./A of Balan in a minimum of 10 gals. of spray volume per acre for ground application or in a minimum of 5 gals. of spray volume per acre for aerial application. Follow the recommended procedures for Balan on the Balan label for soil preparation and incorporation of this tank mix. Apply and incorporate **Metolachlor 7.8** + Balan up to 14 days prior to planting.

Note: Follow all restrictions and use precautions on the Balan label.

MULTIPLE APPLICATIONS

Where weed pressure is heavy or where species difficult to control are expected, **Metolachlor 7.8** is most effective when used as follows:

1) **Southeast Only (AL, FL, GA, NC, SC, VA)**

Preplant Incorporated: Apply **Metolachlor 7.8** preplant incorporated as directed under **Peanuts — Metolachlor 7.8 Alone** or apply **Metolachlor 7.8** + Balan preplant incorporated as directed previously in this section. Refer to the respective section for weeds controlled.

OR

Preemergence before "ground cracking": Apply **Metolachlor 7.8** any time from preemergence up to "ground cracking" at 1 to 2 pts./A for extended control of weeds not yet emerged. Refer to the **Metolachlor 7.8 Applied Alone** section for a list of weeds controlled.

Follow the above Preplant Incorporated or Preemergence application by:

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Lay-by: Apply **Metolachlor 7.8** at lay-by as directed under **Peanuts — Metolachlor 7.8 Alone**. Use only when late germinating weeds are expected to be a problem. Refer to the **Metolachlor 7.8 Applied Alone** section for a list of weeds controlled.

Notes: (1) Do not apply more than the equivalent of 2.66 pts. of this product per acre during any one year, or illegal residues may result. (2) Do not graze or feed Peanut forage or fodder to livestock for 30 days following application, and (3) Do not apply within 90 days of harvest, or illegal residues may result.

2) **Southwest Only (NM, OK, TX)**

1st Application: Apply **Metolachlor 7.8** preplant incorporated or preemergence or at-cracking as directed previously in this section. Refer to the respective section for weeds controlled.

2nd Application: Apply **Metolachlor 7.8** at lay-by as directed under **Peanuts — Metolachlor 7.8 Alone** on this label. Use only when late germinating weeds are expected to be a problem. Refer to the **Metolachlor 7.8 Applied Alone** section for a list of weeds controlled.

Notes: (1) Do not apply more than the equivalent of 2.67 pts. of this product per acre during any one year, or illegal residues may result. (2) Do not graze or feed Peanut forage or fodder to livestock for 30 days following application, and (3) Do not apply within 90 days of harvest, or illegal residues may result.

TANK MIXTURE OR SEQUENTIALLY WITH PURSUIT

The tank mixture or sequential treatment of Metolachlor 7.8 and Pursuit controls all weeds controlled by this product alone and by Pursuit alone. Refer to the **Metolachlor 7.8 Applied Alone** section for weeds controlled by this product and to the Pursuit label for weeds controlled by Pursuit.

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 SONALAN HFP

The tank mixture controls all weeds controlled by **Metolachlor 7.8** alone and by Sonalan HFP alone. Refer to the **Metolachlor 7.8 Applied Alone** section for weeds controlled by this product and to the Sonalan HFP label for weeds controlled by Sonalan HFP.

Apply **Metolachlor 7.8** + Sonalan HFP preplant incorporated, using the appropriate rate from Table 3. Follow label recommended soil preparation and soil-incorporation procedures for Sonalan HFP.

Table 3: Metolachlor 7.8 + Sonalan HFP – Peanuts

	Broadcast Rates Per Acre (pts.)			
	Southeast		NM, OK, TX	
Soil Texture	Metolachlor 7.8	Sonalan HFP	Metolachlor 7.8	Sonalan HFP
COARSE	1.0-1.33	1.25-2.0	0.85-1.33	1.25-2.0
MEDIUM	1.0-1.33	1.75-2.5	0.85-1.33	1.75-2.5
FINE	1.0-1.33	2.25-3.0	0.85-1.33	2.25-3.0

Note: Follow all use directions, limitations, precautions, and information regarding application to peanuts on this product and Sonalan HFP labels.

TANK MIXTURE WITH PROWL

Metolachlor 7.8 + Prowl 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 Prowl label. Apply **Metolachlor 7.8** + Prowl 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 7.8 + Prowl preplant incorporated, using the appropriate rates from Table 4.

Table 4: Metolachlor 7.8 + Prowl - Peanuts

	Broadcast Rates Per Acre (pts.)	
	NM, OK, TX	Other Peanut Growing States
Soil Texture	Metolachlor 7.8 + Prowl	Metolachlor 7.8 + Prowl
Sand, Loamy sand	0.85 + 1.0-1.5	1.0-1.33 + 1.5-2.0
Sandy loam	0.85-1.0 + 1.0-1.5	1.0-1.33 + 1.5-2.0
Fine soil	1.33 + 1.0-1.5	1.33 + 1.5-2.0

Note: Follow all use directions, limitations, use precautions, and information regarding application to Peanuts on **Metolachlor 7.8** and Prowl labels.

TANK MIXTURE OR SEQUENTIALLY WITH STARFIRE

Metolachlor 7.8 + Starfire applied at ground cracking or sequentially will control or suppress small (1 to 6 inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the **Metolachlor 7.8 Applied Alone** section of this label. Apply 11 fl. ozs./A of Starfire with the appropriate rate of this product from the **Peanuts - Metolachlor 7.8 Alone** section in a minimum spray volume of 20 gals./A with ground equipment. A second application of this product + Starfire may be made 28 days after ground cracking. (Refer to the **Peanuts - Metolachlor 7.8 Combinations - Multiple Applications** section of this label for geographical areas where multiple applications are recommended.) A second Starfire application may be made in all Peanut growing areas, if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

TANK MIXTURE OR SEQUENTIALLY WITH STARFIRE + BASAGRAN

The addition of Basagran to **Metolachlor 7.8** + Starfire mixture will result in improved control of such problem broadleaf weeds as Prickly sida, Cocklebur, Smartweed, and Bristly starbur. **Metolachlor 7.8** + Starfire + Basagran applied at ground cracking or sequentially will control or suppress small (1 to 6 inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the **Metolachlor 7.8 Applied Alone** section of this label. Apply 1 pt./A of Basagran + 11 fl. ozs./A of Starfire with the appropriate rate of this product from the **Peanuts - Metolachlor 7.8 Alone** section in a minimum spray volume of 20 gals./A with ground equipment. A second application of **Metolachlor 7.8** + Starfire + Basagran may be made 28 days after ground cracking. (Refer to the **Peanuts - Metolachlor 7.8 Combinations - Multiple Applications** section of this label for geographical areas where multiple applications are recommended.) A second Starfire + Basagran application may be made in all Peanut growing areas, if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

TANK MIXTURE OR SEQUENTIALLY WITH STARFIRE + BUTYRAC 200 OR BUTOXONE 200

The addition of Butyrac 200 or Butoxone 200 to **Metolachlor 7.8** + Starfire mixture will result in improved control of such problem broadleaf weeds as Sicklepod, Morningglory, and Cocklebur. **Metolachlor 7.8** + Starfire + Butyrac 200 or Butoxone 200 applied at ground cracking or sequentially will control or suppress small (1 to 6 inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the **Metolachlor 7.8 Applied Alone** section of this label.

Apply 11 fl. ozs./A of Starfire + 8 to 16 fl. ozs./A (0.125 to 0.25 lb./A) of Butyrac 200 or Butoxone 200 with the appropriate rate of this product from the **Peanuts — Metolachlor 7.8 Alone** section in a minimum spray volume of 20 gals./A with ground equipment. A second application of **Metolachlor 7.8** + Starfire + Butyrac 200 or Butoxone 200 may be made 28 days after ground cracking. (Refer to the **Peanuts — Metolachlor 7.8 Combinations — Multiple Applications** section of this label for geographical areas where multiple applications are recommended.) A second Starfire + Butyrac 200 or Butoxone 200 application may be made in all Peanut growing areas, if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

TANK MIXTURE OR SEQUENTIALLY WITH BASAGRAN

Metolachlor 7.8 + Basagran applied at ground cracking or sequentially will control species on the Basagran label and provide residual control of species listed in the **Metolachlor 7.8 Applied Alone** section of this label. Apply 1 to 2 pts./A of Basagran in 20 gals./A, depending on weed species and stage of growth as specified on the Basagran label, with the appropriate rate of this product from the **Peanuts - Metolachlor 7.8 Alone** section. A second application of the combination may be made before Peanut pegging. (Refer to the **Peanuts - Metolachlor 7.8 Combinations - Multiple Applications** section of this label for geographical areas where multiple applications are recommended.) A second Basagran application may be made in all Peanut growing areas, if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

TANK MIXTURE OR SEQUENTIALLY WITH BASAGRAN + BUTYRAC 200 OR BUTOXONE 200

Metolachlor 7.8 + Basagran + Butyrac 200 or Butoxone 200 applied at ground cracking or sequentially will control species on the Basagran label and on the Butyrac or Butoxone labels, especially Morningglories. Apply 1.5 to 2 pts./A of Basagran + 8 fl. ozs./A of Butyrac 200 or Butoxone 200 in 20 gals./A, depending on weed species and stage of growth as specified on the Basagran label, with the appropriate rate of this product from the **Peanuts - Metolachlor 7.8 Alone** section. A second application of the combination may be made before Peanut pegging. (Refer to the **Peanuts - Metolachlor 7.8 Combinations - Multiple Applications** section of this label for geographical areas where multiple applications are recommended.) A second Basagran + Butyrac 200 or Butoxone 200 application may be made in all Peanut growing areas, if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

TANK MIXTURE OR SEQUENTIALLY WITH STORM®

Metolachlor 7.8 + Storm applied at ground cracking through 2 expanded tetrafoliate leaves or **Metolachlor 7.8** applied according to the directions for **Metolachlor 7.8 Alone** and followed with an at-cracking through postemergence treatment of Storm as specified on its label will control species on the Storm label and provide residual control of species listed in the **Metolachlor 7.8 Applied Alone** section of this label. This product will not control emerged weeds. Refer to the **Peanuts - Metolachlor 7.8 Alone** section and to the Storm label and follow all directions, limitations, and restrictions for each product.

POD CROPS -METOLACHLOR 7.8 ALONE

Pod crops, including Garbanzo, Great northern beans, Kidney beans, Lima beans, Mung beans, Navy beans, Peas (English*; southern peas, such as Blackeye, Pinkeye, Crowder, etc.), Pinto beans, Snap beans (Green, Wax, String), Lentils, and Lupines (sweet, white, white sweet, and grain).

Spring Application: Apply **Metolachlor 7.8** 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 7.8** 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.

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

Notes: To avoid possible illegal residues, (1) Do not cut for hay within 120 days following application of this product and (2) Do not apply more than 3 pts./A of this product during any one crop year.

POD CROPS –METOLACHLOR 7.8 IN COMBINATIONS

Note: When applying **Metolachlor 7.8** in combination on pod crops, do not cut for hay within 120 days following application, or illegal residues may result.

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

This mixture controls all weeds controlled by **Metolachlor 7.8** alone and by EPTC alone. Refer to the **Metolachlor 7.8 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.

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

Apply 2.5 to 4.5 pts./A of EPTC-7EC* with **Metolachlor 7.8** as specified. On *coarse soils*, apply 0.85 pts./A of this product if organic matter content is less than 3%, or 1 pt./A if organic matter content is 3% or greater. On *medium soils*, apply 1 pt./A of this product if organic matter content is less than 3%, or 1.33 pts./A if organic matter content is 3% or greater. On *fine soils*, apply 1.33 pts./A of this product if organic matter is less than 3%, or 1.33 to 1.67 pts./A if organic matter is 3% or greater.

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

***Use Precaution**: Do not exceed 3.5 pts./A of* EPTC-7EC *on Small white beans or Green beans grown on coarse-textured soils.*

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

Metolachlor 7.8 + Trifluralin tank mix applied preplant incorporated controls those weeds listed under **Metolachlor 7.8 Applied Alone** and those weeds listed for Trifluralin alone on the Trifluralin label. **Metolachlor 7.8** + Trifluralin may be applied by ground or by aerial equipment and incorporated up to 14 days prior to planting. Follow the recommended procedures on this label and on the respective Trifluralin label, using equipment that provides uniform 2-inch incorporation.

Apply **Metolachlor 7.8** + Trifluralin tank mix, using the appropriate rate of this product specified for this product alone, and the Trifluralin rate from the Dry Beans, and the Lima and Snap Beans section of the respective Trifluralin label. Choose the product rate for the specific soil texture/organic matter classification and weed species expected.

Note: Follow all restrictions and use precautions on the respective Trifluralin label and in the **Pod Crops - Metolachlor 7.8 Alone** section of this label.

POTATOES -METOLACHLOR 7.8 ALONE

Apply **Metolachlor 7.8**, either incorporated, preemergence, or after hilling/lay-by, according to directions specified below for control of weeds listed under the **General 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 7.8** 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 7.8** 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 7.8** 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.

***Use Precautions**: (1) 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, (2) Do not use on Sweet potatoes or Yams; (3) Do not apply both as a preemergence and an incorporated treatment; and (4) Do not use in Kern County, CA.*

Note: Potatoes treated with this product should not be harvested within 60 days after the at-planting to drag-off application, or within 40 days after a lay-by application, or illegal residues may result.

POTATOES -METOLACHLOR 7.8 COMBINATIONS

TANK MIXTURE WITH SENCOR OR LEXONE

In addition to those weeds controlled by **Metolachlor 7.8** alone, this product applied in tank mix combination with, or sequentially with, any of the registered Sencor or Lexone 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 7.8 at 1 to 2 pts./A plus the labeled Sencor/Lexone use rate may be used preemergence through after last hilling. Apply 1 to 1.33 pts./A of this product 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 Sencor or Lexone label for precautionary statements, restrictions, application information, and weeds controlled.

***Use Precautions**: (1) Postemergence applications to Potatoes should be made only as a directed or semi-directed spray to avoid chlorosis, minor necrosis, or leaf distortion. To avoid crop injury, (2) Do not use this*

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product + Sencor or Lexone on Potatoes in Kern County, CA, and (3) Do not apply to Sweet potatoes or Yams. (4) Do not use this tank mixture on muck or peat soils.

Notes: (1) Potatoes treated with this product in tank mixture with Sencor or Lexone cannot be harvested within 60 days after application, or illegal residues may result. (2) Potatoes may not be harvested within 40 days after a lay-by application of this product, or illegal residues may result.

METOLACHLOR 7.8 + LINURON TANK MIXTURE (EAST OF ROCKY MOUNTAINS)

Metolachlor 7.8 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 Table 5.

Table 5: Metolachlor 7.8 + Linuron – Potatoes (East of Rocky Mountains)

	Broadcast Rates Per Acre			
	1% to Less Than 3% Organic Matter		3-5% Organic Matter	
Soil Texture	Metolachlor 7.8	Linuron *	Metolachlor 7.8	Linuron *
COARSE Sandy loam	1 pt.	1-1.5 lbs.	1.33 pts.	1.5-2 lbs.
MEDIUM Loam, Silt loam, Silt	1.33 pts.	1.5-2 lbs.	1.67-2 pts.	2-2.5 lbs.

* When using Linuron 4L or Linuron DF, use equivalent rates. One pint of Linuron 4L equals 1.0 lb. of Linuron DF.

***Use Precautions**: To avoid crop injury, (1) Do not use on sands or loamy sands, and (2) Do not incorporate or spray over the top of emerged Potatoes.*

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

TANK MIXTURE WITH PROWL 4E

In addition to the weeds controlled by **Metolachlor 7.8** alone, this tank mixture with Prowl 4E controls such problem species as Kochia, Lambsquarters, Purslane, Annual spurge, Stinging nettle, and others specified on the Prowl 4E label. Apply **Metolachlor 7.8** + Prowl 4E preemergence, preemergence incorporated or early postemergence according to the specific directions on the Prowl 4E label, using the rates in Table 6.

Table 6: Metolachlor 7.8 + Prowl 4E – Potatoes

	Broadcast Rates Per Acre (pts.)	
	Less Than 3% Organic Matter	More Than 3% Organic Matter
Soil Texture	Metolachlor 7.8 + Prowl 4E*	Metolachlor 7.8 + Prowl 4E*
COARSE	1.0-1.33 + 1.0-1.5	1.0-1.33 + 1.0-1.5
MEDIUM	1.33 + 1.5-2.0	1.33-1.67 + 2.0-3.0
FINE	1.33-1.67 + 2.0-3.0	1.67 + 3.0

* When using other formulations of Prowl, use equivalent rates of active ingredient.

Refer to **Metolachlor 7.8** and Prowl 4E labels and observe all directions, timings, limitations, use precautions, and restrictions concerning the use of these products on Potatoes and follow the most restrictive.

TANK MIXTURE WITH PROWL 4E + EPTC

In addition to the weeds controlled by **Metolachlor 7.8** alone, this tank mixture will control those species on the Prowl 4E and EPTC labels. Refer to the **Metolachlor 7.8** + Prowl 4E labels for rates of those products and add EPTC-7EC at 3.5 to 7 pts./A, depending on geographical area. Refer to the respective Metolachlor 7.8, Prowl 4E, and EPTC labels and observe all directions, limitations, use precautions, and restrictions concerning the use of these products on Potatoes and follow the most restrictive.

SAFFLOWERS -METOLACHLOR 7.8 ALONE

Preplant Incorporated or Preemergence: Follow instructions for use of **Metolachlor 7.8** alone under **Application Procedures.**

On *coarse soils,* apply 1 to 1.33 pts./A of **Metolachlor 7.8** if organic matter content is less than 3%, 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.

SORGHUM (GRAIN OR FORAGE) SEED TREATED WITH CONCEP® OR SCREEN® - METOLACHLOR 7.8 ALONE

Apply **Metolachlor 7.8**, 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 7.8** 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 7.8** 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.*

Use Precautions: (1) If sorghum seed is not properly treated with Concep or Screen, this product will severely injure the crop. (2) 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. (3) Do not use this product on Sorghum grown under dry mulch tillage, or injury may occur. (4) Except for the split preplant surface treatment, do not make more than one application per year, or illegal residues may result.

SORGHUM (GRAIN OR FORAGE) SEED TREATED WITH CONCEP OR SCREEN - METOLACHLOR 7.8 IN COMBINATIONS

Metolachlor 7.8 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/protective than those on this label. In addition, if Atrazine is/must be

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applied at rates lower than those recommended on this label, broadleaf weed control may be affected. Refer to the Atrazine label for weeds controlled at the reduced rates.

***Use Precautions**: (1) Applications of this product + Atrazine on highly alkaline soils or on eroded areas where calcareous subsoils are exposed may cause Sorghum injury. (2) If Sorghum seed is not properly treated with Concep or Screen, this product + Atrazine may severely injure the crop. (3) 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. (4) Do not use this product + Atrazine on Sorghum grown under dry mulch tillage, or injury may occur. (5) Except for the split preplant surface treatment, do not make more than one application per year, or illegal residues may result.*

TANK MIXTURE WITH ATRAZINE

In addition to the weeds controlled by **Metolachlor 7.8** alone, **Metolachlor 7.8** + 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 7.8** under **Application Procedures**. For minimum-tillage or no-tillage systems only, **Metolachlor 7.8** + 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 7.8** + 1.7 to 2 lbs./A of Atrazine 90DF* on *medium soils* with 1.5% organic matter or greater. Apply 1.5 pts./A of **Metolachlor 7.8** + 1.7 to 2 lbs./A of Atrazine 90DF on *fine soils* with less than 1.5% organic matter, or apply 1.67 pts./A of **Metolachlor 7.8** + 2 to 2.2 lbs./A of Atrazine 90DF 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 7.8** + Atrazine into the soil.

***Use Precautions**: To avoid crop injury, (1) Do not use on coarse soils, and (2) Do not use on medium soils with less than 1.5% organic matter.*

Preplant Incorporated or Preemergence: Refer to instructions for use of **Metolachlor 7.8** under **Application Procedures**. On *medium* soils with 1.5% organic matter or greater, apply 1 pt./A of **Metolachlor 7.8** + 1.3 lbs./A of Atrazine 90DF*. On *fine* soils with less than 1.5% organic matter, apply 1 pt./A of **Metolachlor 7.8** + 1.3 lbs./A of Atrazine 90DF. On *fine* soils with 1.5% organic matter or greater, apply 1.2-1.33 pts./A of **Metolachlor 7.8** + 1.6 to 1.8 lbs./A of Atrazine 90DF.

*When using Atrazine 4L, use equivalent rates. One pound of Atrazine 90DF equals 1.8 pts. of Atrazine 4L.

***Use Precautions**: To avoid crop injury, (1) Do not use on Coarse soils; (2) Do not use on medium soils with less than 1.5% organic matter; (3) Do not use in NM, OK, or TX, except in Northeast OK and the TX Gulf Coast and Blacklands areas; and (4) Do not apply preplant incorporated in AZ or the Imperial Valley of CA.*

TANK MIXTURE OF METOLACHLOR 7.8 OR METOLACHLOR 7.8 + ATRAZINE WITH GRAMOXONE EXTRA, LANDMASTER® BW, OR GLYPHOSATE FOR MINIMUM-TILLAGE OR NO-TILLAGE SYSTEMS

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 Gramoxone Extra, Landmaster BW, or Glyphosate may be tank mixed with **Metolachlor 7.8** or **Metolachlor 7.8** + Atrazine. Mix with Gramoxone Extra for control of most emerged annual weeds and suppression of perennial weeds; or with Landmaster BW for suppression

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of emerged field bindweed and control or suppression of annual weeds; or with Glyphosate for control of most emerged annual and perennial weeds. **Metolachlor 7.8** or **Metolachlor 7.8** 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 and limitations.

Application: Apply before, during, or after planting, but before Sorghum emerges, at the appropriate rates listed under **Sorghum (Grain or Forage) - Metolachlor 7.8 Alone** or **- Metolachlor 7.8 in Combinations - Tank Mixture with Atrazine**, respectively. Add Gramoxone Extra, Landmaster BW, or Glyphosate at the following broadcast rates:

Gramoxone Extra: 1.5 to 2, 2 to 2.5, or 2.5 to 3 pts./A to 1 to 3, 3 to 6, or 6-inch tall weeds, respectively. 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.

Landmaster BW: 27 to 54 ozs./A depending on weed species and size. See the Landmaster BW label for weeds controlled, recommended rates for specific weeds, and other information concerning use.

Glyphosate: See the Glyphosate or Roundup RT label for weeds controlled, recommended rates, and other use directions.

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

SOYBEANS -METOLACHLOR 7.8 ALONE

Apply **Metolachlor 7.8**, either preplant surface-applied, preplant incorporated, or preemergence, using the appropriate rate specified below. **Preplant Surface-Applied, Preplant Incorporated, or Preemergence:** Follow instructions for use of this product alone under **Application Procedures**.

Preplant Surface-Applied

1) **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 7.8** 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. **Note:** If a Spring application is made, the total rate of the Fall plus Spring applications must not exceed the maximum total rate on Soybeans, or illegal residues may result.
2) 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 the recommended rate of **Metolachlor 7.8** (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.

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Preplant Incorporated or Preemergence: On *coarse soils*, apply 1 to 1.33 pts./A of **Metolachlor 7.8** 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.

Note: On Soybeans, Metolachlor 7.8 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 should not exceed 2.75 pts./A.

SOYBEANS -METOLACHLOR 7.8 COMBINATIONS

Water or fluid fertilizer may be used as carrier for **Metolachlor 7.8** in combination with Sencor, Lexone, Linuron, Lorox Plus, Gemini, Canopy, Preview, Pursuit, Scepter, Sonalan, or Command.

Note: 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 2.75 pts./A.

TANK MIXTURE WITH SENCOR OR LEXONE

In addition to those weeds controlled by **Metolachlor 7.8** alone, **Metolachlor 7.8** + Sencor or Lexone, 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.

Apply **Metolachlor 7.8** and Sencor or Lexone preplant incorporated or preemergence, using the appropriate rates from Table 7. **Preplant Incorporated or Preemergence:** Follow instructions for use of this product alone under **Application Procedures.**

Sequential: Apply **Metolachlor 7.8** alone **Preplant Incorporated,** as specified in Table 7 for this tank mixture. Follow with a preemergence application of Sencor or Lexone during planting (behind the planter) or after planting, but before weeds or Soybeans emerge.

Refer to the Sencor or Lexone label for planting details and Soybean variety restrictions.

Table 7: Metolachlor 7.8 + Sencor or Lexone- Soybeans

	Broadcast Rates Per Acre					
	0.5% to Less Than 3% Organic Matter			3% Organic Matter or Greater		
Soil Texture**	Metolachlor 7.8	+	Sencor / Lexone DF*	Metolachlor 7.8	+	Sencor / Lexone DF*
COARSE Loamy sand (over 2% organic matter), Sandy loam	0.85-1.0 pt.	+	0.33 lb.	1.0 pt.	+	0.5 lb.
MEDIUM	1.0-1.33 pts.	+	0.5 lb.	1.33 pts.	+	0.67 lb.***
FINE	1.33 pts.	+	0.67 lb.	1.33-1.67 pts.	+	0.67 lb.
Mississippi Delta only Silty clay, Clay	1.33 pts.	+	1.0 lb.	1.33-1.67 pts.	+	1.0 lb.

Muck or Peat (soils with more than 20% organic matter)	DO NOT USE

* When using Sencor 4 or Lexone 4L, multiply lbs. of DF by 1.5 to get pts./A.
** 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.
*** Use 0.5 lb./A if applied preplant incorporated.

***Use Precautions**: (1) 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. (2) 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 7.8** alone, **Metolachlor 7.8** + 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 Table 8.

***Use Precaution**: Do not use on soil with less than 0.5% organic matter, or crop injury may occur.*

Table 8: Metolachlor 7.8 + Linuron – Soybeans

	Broadcast Rates Per Acre					
	0.5 to Less Than 3% Organic Matter			3% Organic Matter or Greater		
Soil Texture*	Metolachlor 7.8	+	Linuron DF***	Metolachlor 7.8	+	Linuron DF***
COARSE**	0.85 pt.	+	1.0 lb.	1.0 pt.	+	1.0-1.5 lbs.
MEDIUM	1.0 pt.	+	1.0-1.5 lbs.	1.33 pts.	+	1.5-2.0 lbs.
FINE	1.33 pts.	+	2.0 lbs.	1.33-1.67 pts.	+	2.5-3.0 lbs.
Muck or Peat (soils with more than 20% organic matter)	DO NOT USE					

* 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.
*** When using Linuron 4L or Linuron DF, use equivalent rates. One pint of Linuron 4L equals 1.0 lb. of Linuron DF.

TANK MIXTURE WITH TRIFLURALIN

Metolachlor 7.8 + Trifluralin tank mix applied preplant incorporated controls those weeds listed under the **Metolachlor 7.8 Applied Alone** section and those weeds listed for Trifluralin alone on the respective Trifluralin label. **Metolachlor 7.8** + Trifluralin may be applied by ground or by aerial equipment and incorporated up to 14 days before planting. Follow the recommended procedures on the Trifluralin and **Metolachlor 7.8** labels, using equipment that provides uniform 2-inch incorporation.

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Apply **Metolachlor 7.8** + Trifluralin tank mix, using the appropriate rate from the **Soybeans - Metolachlor 7.8 Alone** section of this label and the Trifluralin Alone 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 Table 9.

Table 9: Metolachlor 7.8 + Trifluralin - Organic Matter Content Less Than 3%

	Broadcast Rates Per Acre (pts.)		
	Metolachlor 7.8	Treflan E.C.**	
	Organic Matter Less	Organic Matter	
Soil Texture	Than 3%	Less Than 2%	2-3%
COARSE*	0.85-1.0	1.0	1.5
MEDIUM	1.0	1.5	1.5
FINE	1.33	2.0	2.0

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

** When Treflan® MTF or Trifluralin 5G is used, use comparable rates. Multiply pints of Trifluralin E.C. by 1 for Treflan MTF and by 0.8 for Trifluralin 5G.

Note: Follow all restrictions and use precautions on the respective Trifluralin label and in the **Soybeans - Metolachlor 7.8 Alone** section of this label.

TANK MIXTURE WITH SCEPTER

This tank mixture controls all weeds controlled by **Metolachlor 7.8** alone and by Scepter alone. Refer to the **Metolachlor 7.8 Applied Alone** section for weeds controlled by this product and to the Scepter label for weeds controlled by Scepter. Refer to the Scepter label for geographical locations where this tank mixture may be applied.

Apply **Metolachlor 7.8** + Scepter preplant incorporated or preemergence, using rates in Table 10. Follow use directions under **Application Instructions** on the Scepter label. For preplant incorporated applications, apply and incorporate within 30 days before planting. Observe all other use precautions and limitations on the Scepter labels.

Table 10: Metolachlor 7.8 + Scepter- Soybeans

	Broadcast Rates Per Acre (pts.)			
	Less Than 3% Organic Matter		3% or More Organic Matter	
Soil Texture	Metolachlor 7.8	Scepter	Metolachlor 7.8	Scepter
COARSE	0.85	0.67	1.0	0.67
MEDIUM	1.0	0.67	1.33	0.67
FINE	1.33	0.67	1.33-1.67*	0.67
Muck or Peat (soils with more than 20% organic matter)	DO NOT USE			

* Use the higher rate of this product if heavy weed infestations are expected.

Notes: (1) Do not apply within 90 days of harvest, and (2) Do not graze or feed treated Soybean forage, hay, or straw to livestock, or illegal residues may result.

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TANK MIXTURE WITH LOROX PLUS

This tank mixture controls all weeds controlled by **Metolachlor 7.8** alone and by Lorox Plus alone. Refer to the **Metolachlor 7.8 Applied Alone** section for weeds controlled by **Metolachlor 7.8** and to the Lorox Plus label for weeds controlled by Lorox Plus.

Apply **Metolachlor 7.8** + Lorox Plus preemergence after planting, but before Soybeans emerge, using rates in Table 11.

Note: Follow all use directions, limitations, use precautions and information regarding application to Soybeans, and rotational restrictions on **Metolachlor 7.8** and Lorox Plus labels.

Table 11: Metolachlor 7.8 + Lorox Plus — Soybeans

	Broadcast Rates Per Acre	
	0.5 to 3% Organic Matter	
Soil Texture	Metolachlor 7.8	Lorox Plus (60 DF)
COARSE	0.85 pt.	12-14 ozs.
MEDIUM	1.0 pt.	14-16 ozs.
FINE	1.33 pts.	16-18 ozs.

Use Precaution: *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 GEMINI

This tank mixture controls all weeds controlled by **Metolachlor 7.8** alone and by Gemini alone. Refer to the **Metolachlor 7.8 Applied Alone** section for weeds controlled by this product and to the Gemini label for weeds controlled by Gemini.

Apply **Metolachlor 7.8** + Gemini preemergence after planting, but before Soybeans emerge, using rates in Table 12.

Note: Follow all use directions, limitations, use precautions and information regarding application to Soybeans, and rotational restrictions on **Metolachlor 7.8** and Gemini labels.

Table 12: Metolachlor 7.8 + Gemini — Soybeans

	Broadcast Rates Per Acre	
	0.5 to 3% Organic Matter	
Soil Texture	Metolachlor 7.8	Gemini (60DF)
COARSE (Sandy loam only)	0.85 pt.	12-16 ozs.
MEDIUM	1.0 pt.	16-20 ozs.
FINE	1.33 pts.	20-24 ozs.

Use Precaution: *Do not apply to sand or loamy 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 Gemini label.*

TANK MIXTURE WITH CANOPY

This tank mixture controls all weeds controlled by **Metolachlor 7.8** alone and by Canopy alone. Refer to the **Metolachlor 7.8 Applied Alone** section for weeds controlled by this product and to the Canopy label for weeds controlled by Canopy.

Apply preplant incorporated or preemergence, using the appropriate rates from Table 13. **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.

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Note: Follow all use directions, varietal restrictions, limitations, use precautions, and information regarding application to Soybeans, and rotational restrictions on **Metolachlor 7.8** and Canopy labels.

Table 13: Metolachlor 7.8 + Canopy - Soybeans

	Broadcast Rates Per Acre		
	0.5% to Less Than 3% Organic Matter	3% or More Organic Matter	
Soil Texture	Metolachlor 7.8	Metolachlor 7.8	Canopy
COARSE	0.85 pt.	1.0 pt.	*
MEDIUM	1.0 pt.	1.33 pts.	*
FINE	1.33 pts.	1.33-1.67 pts.	*

*Refer to the Canopy label for appropriate rate according to geographical location, soil and organic matter classification, and pH limitations.

Use Precaution: *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 Canopy label.*

TANK MIXTURE WITH PREVIEW

This tank mixture controls all weeds controlled by **Metolachlor 7.8** alone and by Preview alone. Refer to the **Metolachlor 7.8 Applied Alone** section for weeds controlled by **Metolachlor 7.8** and to the Preview label for weeds controlled by Preview.

Apply preplant incorporated or preemergence using the appropriate rates from Table 14. **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.

Note: Follow all use directions, varietal restrictions, limitations, use precautions and information regarding application to Soybeans, and rotational restrictions on **Metolachlor 7.8** and Preview labels.

Table 14: Metolachlor 7.8 + Preview — Soybeans

	Broadcast Rates Per Acre			
	0.5 to Less Than 3% Organic Matter		3-5% Organic Matter	
Soil Texture	Metolachlor 7.8	Preview 75DF	Metolachlor 7.8	Preview 75DF
COARSE	0.85 pt.	6.0 ozs.	1.0 pt.	7.0 ozs
MEDIUM	1.0 pt.	7.0 ozs.	1.33 pts.	8.0 ozs.
FINE	1.33 pts.	8.0 ozs.	1.33-1.67 pts.	9.0-10 ozs.

Use Precaution: *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 COMMAND*

This tank mixture controls all weeds controlled by **Metolachlor 7.8** alone and by Command alone. Refer to the **Metolachlor 7.8 Applied Alone** section for weeds controlled by **Metolachlor 7.8** and to the Command label for weeds controlled by Command.

Apply **Metolachlor 7.8** + Command preplant incorporated, using rates in Table 15. Follow all Command application instructions as to incorporation interval, geographical location, equipment operation, soil moisture conditions, etc.

***Note:** Before making applications, read and strictly follow all use directions, limitations, use precautions, and information regarding application to Soybeans, and rotational restrictions on **Metolachlor 7.8** and Command labels.

Table 15: Metolachlor 7.8 + Command - Soybeans

Soil Texture	Broadcast Rates Per Acre (pts.)			
	Metolachlor 7.8		Command 4	
	0.5-3% Organic Matter	Greater Than 3% Organic Matter	Northern Area	Southern Area
COARSE	0.85	1.0	1.5-2.0	2.0-2.5
MEDIUM	1.0	1.33	1.5-2.0	2.0-2.5
FINE	1.33	1.33-1.67	1.5-2.0	2.0-2.5

TANK MIXTURE WITH SONALAN HFP

This tank mixture controls all weeds controlled by **Metolachlor 7.8** alone and by Sonalan HFP alone. Refer to the **Metolachlor 7.8 Applied Alone** section for weeds controlled by **Metolachlor 7.8** and to the Sonalan HFP label for weeds controlled by Sonalan HFP.

Apply **Metolachlor 7.8** and Sonalan preplant incorporated, using the appropriate rates from Table 16.

Preplant Incorporated: Follow label recommended soil preparation and soil-incorporation procedures for Sonalan HFP.

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

Table 16: Metolachlor 7.8 + Sonalan HFP – Soybeans

Soil Texture	Broadcast Rates Per Acre (pts.)			
	Less Than 3% Organic Matter		3% or More Organic Matter	
	Metolachlor 7.8	Sonalan HFP	Metolachlor 7.8	Sonalan HFP
COARSE	1.0-1.33	1.25-2.0	1.33	1.25-2.0
MEDIUM*	1.33-1.67	1.75-2.5	1.33-1.67	1.75-2.5
FINE*	1.33-1.67	2.25-3.0	1.67-2.0	2.25-3.0
Muck or Peat (soils with more than 20% organic matter)	DO NOT USE			

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

Note: Follow all use directions, limitations, use precautions, and information regarding application to soybeans on the **Metolachlor 7.8** and Sonalan HFP labels.

TANK MIXTURE WITH PURSUIT

This tank mixture controls all weeds controlled by **Metolachlor 7.8** alone and by Pursuit alone. Refer to the **Metolachlor 7.8 Applied Alone** section for weeds controlled by **Metolachlor 7.8** and to the Pursuit label for weeds controlled by Pursuit. Refer to the Pursuit label for geographical locations where this tank mixture may be applied.

Apply **Metolachlor 7.8** + Pursuit early preplant, preplant incorporated, or preemergence after planting, using rates in Table 17. Application can be made in water or liquid fertilizer. Follow all use directions under Soil Applications on the Pursuit label. For early preplant and preplant incorporated applications, apply within 30 days before planting.

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Note: Follow all use directions, limitations, use precautions, and information regarding application to Soybeans, and rotational restrictions on the **Metolachlor 7.8** and Pursuit labels.

Table 17: Metolachlor 7.8 + Pursuit – Soybeans

	Broadcast Rates Per Acre (pts.)		
	Less Than 3% Organic Matter	3% or More Organic Matter	
Soil Texture	Metolachlor 7.8	Metolachlor 7.8	Pursuit
COARSE	0.85	1.0	0.25
MEDIUM	1.0	1.33	0.25
FINE	1.33	1.33-1.67	0.25

Sequential: Apply **Metolachlor 7.8** early preplant, preplant incorporated, or preemergence after planting at 0.85 pt./A on *coarse soils* and 1 pt./A on *medium-* and *fine-textured soils*. Follow with a sequential postemergence application of Pursuit to control emerged weeds according to the Pursuit label. **Metolachlor 7.8** will improve the consistency and level of control from Pursuit on most grass species. Refer to the Pursuit postemergence label for a listing of weeds controlled, application rate, and growth stage limitations.

TANK MIXTURE WITH LEXONE, SENCOR, SCEPTER, LINURON, LOROX PLUS, GEMINI, CANOPY, PREVIEW, OR PURSUIT, PLUS GRAMOXONE EXTRA OR GLYPHOSATE FOR MINIMUM-TILLAGE OR NO-TILLAGE SYSTEMS

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 Gramoxone Extra or Glyphosate may be added to a tank mix of either **Metolachlor 7.8** + Sencor or Lexone, **Metolachlor 7.8** + Scepter, **Metolachlor 7.8** + Linuron, **Metolachlor 7.8** + Lorox Plus, **Metolachlor 7.8** + Gemini, **Metolachlor 7.8** + Canopy, **Metolachlor 7.8** + Preview or **Metolachlor 7.8** + Pursuit. When used as directed, the Gramoxone Extra 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 7.8** + Sencor/Lexone, Scepter, Linuron, Lorox Plus, Gemini, Canopy, Preview, or Pursuit portion of the tank mixture provides preemergence control of the weeds listed on this label in the tank mixture section for Metolachlor 7.8 + Sencor/Lexone, Metolachlor 7.8 + Scepter, Metolachlor 7.8 + Linuron, Metolachlor 7.8 + Lorox Plus, Metolachlor 7.8 + Gemini, Metolachlor 7.8 + Canopy, Metolachlor 7.8 + Preview, and Metolachlor 7.8 + Pursuit, respectively.

Refer to the label of each product used in combination and observe the planting details, Soybean variety restrictions, information regarding application to Soybeans, geographical restrictions, and all other use precautions and limitations.

Refer below for rates of Gramoxone Extra or Glyphosate, Metolachlor 7.8 + Sencor/Lexone, Metolachlor 7.8 + Scepter, Metolachlor 7.8 + Linuron, Metolachlor 7.8 + Lorox Plus, Metolachlor 7.8 + Gemini, Metolachlor 7.8 + Canopy, Metolachlor 7.8 + Preview, and Metolachlor 7.8 + Pursuit, respectively.

Application: Apply before, during, or after planting, but before the Soybeans emerge, at the rates specified below. Add Gramoxone Extra or Glyphosate at the following broadcast rates:

Gramoxone Extra: 1.5 to 2, 2 to 2.5, or 2.5 to 3 pts./A to 1 to 3, 3 to 6, or 6-inch tall weeds, respectively. 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.

Note: Do not apply combinations containing Gramoxone Extra in suspension-type liquid fertilizers, as the activity of paraquat will be reduced.

Glyphosate: See the Glyphosate or Roundup RT label for weeds controlled, recommended rates, and other use directions.

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

Metolachlor 7.8 + Lexone/Sencor + Gramoxone Extra or Glyphosate

On *loamy sand* with over 2% organic matter, apply 1 pt./A of **Metolachlor 7.8** + 0.33 to 0.5 lb./A of Sencor or Lexone DF*. On *medium soils*, apply 1.33 pts./A of **Metolachlor 7.8** + 0.5 to 0.67 lb./A of Sencor or Lexone DF. On *fine soils*, apply 1.33 to 1.67 pts./A of **Metolachlor 7.8** + 0.67 lb./A of Sencor or Lexone DF.

* When using Sencor 4 or Lexone 4L, multiply lbs. of DF by 1.5 to get pts./A.

***Use Precautions**: To avoid crop injury, (1) 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. (2) 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.*

Metolachlor 7.8 + Scepter + Gramoxone Extra or Glyphosate

On *coarse soils*, apply 1 pt./A of **Metolachlor 7.8** + 0.67 pt./A of Scepter. On *medium soils*, apply 1.33 pts./A of **Metolachlor 7.8** + 0.67 pt./A of Scepter. On *fine soils*, apply 1.67 pts./A of **Metolachlor 7.8** + 0.67 pt./A of Scepter.

Notes: (1) Do not apply within 90 days of harvest, and (2) Do not graze or feed treated Soybean forage, hay, or straw to livestock, or illegal residues may result.

Metolachlor 7.8 + Linuron + Gramoxone Extra or Glyphosate

On *coarse soils**, apply 1 pt./A of **Metolachlor 7.8** + 1 to 1.5 lbs./A of Linuron DF**. On *medium soils*, apply 1.33 pts./A of **Metolachlor 7.8** + 1 to 2 lbs./A of Linuron DF. On *fine soils*, apply 1.33 to 1.67 pts./A of **Metolachlor 7.8** + 2 to 3 lbs./A of Linuron DF.

* 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.

** When using Linuron 4L or Linuron DF, use equivalent rates. One pt. of Linuron 4L equals 1.0 lb. of Linuron DF.

***Use Precaution**: Do not use on soil with less than 0.5% organic matter, or crop injury may occur.*

Metolachlor 7.8 + Lorox Plus + Gramoxone Extra or Glyphosate

Use only where soils have 0.5 to 3% organic matter. On *coarse soils*, apply 1 pt./A of **Metolachlor 7.8** + 12 to 14 ozs./A of Lorox Plus 60DF. On *medium soils*, apply 1.33 pts./A of **Metolachlor 7.8** + 14 to 16 oz./A of Lorox Plus. On *fine soils*, apply 1.33 to 1.67 pts./A of **Metolachlor 7.8** + 16 to 18 ozs./A of Lorox Plus.

***Use Precaution**: Do not apply to sand or to any soil with pH greater than 6.8.*

Metolachlor 7.8 + Gemini + Gramoxone Extra or Glyphosate

Use only where soils have 0.5 to 3% organic matter. On *coarse soils*, (Sandy loam only) apply 1 pt./A of **Metolachlor 7.8** + 12 to 16 ozs./A of Gemini 60DF. On *medium soils*, apply 1.33 pts./A of

Metolachlor 7.8 + 16 to 20 ozs./A of Gemini. On *fine soils*, apply 1.33 to 1.67 pts./A of **Metolachlor 7.8** + 20 to 24 ozs./A of Gemini.

Use Precaution: *Do not apply to sand or loamy 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 Gemini label.*

Metolachlor 7.8 + Canopy + Gramoxone Extra or Glyphosate

Use only where soils have 0.5 to 5% organic matter. On *coarse soils* (except sand), apply 1 pt./A of **Metolachlor 7.8**, on *medium soils*, apply 1.33 pts./A of **Metolachlor 7.8**, and on *fine soils*, apply 1.33-1.67 pts./A of **Metolachlor 7.8**. Refer to the Canopy label for appropriate rate according to geographical location, soil and organic matter classification, pH limitations, and all other use directions.

Use Precaution: *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 Canopy label.*

Metolachlor 7.8 + Preview + Gramoxone Extra or Glyphosate

Use only where soils have 0.5 to 5% organic matter. On *coarse soils*, (except sand), apply 1 pt./A of **Metolachlor 7.8** + 6* to 7 ozs./A of Preview 75DF. On *medium soils*, apply 1.33 pts./A of **Metolachlor 7.8** + 7* to 8 ozs./A of Preview. On *fine soils*, apply 1.33 to 1.67 pts./A of **Metolachlor 7.8** + 8* to 9 to 10 ozs./A of Preview.

*Use this rate where the soil organic matter is in the one-half to less than 3% range.

Use Precaution: *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.*

Metolachlor 7.8 + Pursuit + Gramoxone Extra or Glyphosate

On *coarse soils*, apply 1 pt./A of **Metolachlor 7.8** + 0.25 pt./A of Pursuit. On *medium soils*, apply 1.33 pts./A of **Metolachlor 7.8** + 0.25 pt./A of Pursuit. On *fine soils*, apply 1.67 pts./A of **Metolachlor 7.8** + 0.25 pt./A of Pursuit.

STORAGE AND DISPOSAL

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

STORAGE: This product may be stored at temperatures down to -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: Open dumping is prohibited. 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. 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 DISPOSAL: Do not reuse empty container. Triple rinse (or equivalent), puncture and dispose of in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. Keep out of smoke from burning containers.

For Bulk and Mini Bulk Containers:

When the container is empty, replace the cap and seal all openings that have been opened during use; and return the container to the point of purchase, or to a designated location named at time of purchase of this product. This container must only be refilled with this pesticide product. DO NOT

REUSE THE CONTAINER FOR ANY OTHER PURPOSE. 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, leaking or obsolete, contact Sipcam Agro USA, Inc. at (770) 587-1032. If not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling. Disposal of this container must be in compliance with state and local regulations.

CONDITIONS OF SALE AND WARRANTY

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

OUR RECOMMENDATIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the Seller. Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith.
In no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

APPENDICES

APPENDIX A: COMPATIBILITY TEST

Since 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 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, such as Compex® or Unite® (1/4 tsp. is equivalent to 2 pts./100 gals. spray). Shake or stir gently to mix.
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 1/2 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,

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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.

APPENDIX B: LOW CARRIER APPLICATION
For Broadcast Ground Application Only

Use sprayers, such as Ag-Chem RoGator®, Hagie, John Deere Hi-Cycle™, Melroe Spra-Coupe, Tyler Patriot™, or Willmar Air Ride®, 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. Manufacturer's 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 to 40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension. Use a minimum of 5 gals. of spray mixture per acre. Maximum recommended sprayer speed is 15 mph. Rinse sprayer thoroughly with clean water immediately after each use.

Note: 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.

APPENDIX C: AERIAL APPLICATION

Apply **Metolachlor 7.8** in water alone or in tank mixtures with Atrazine, Lexone, Linuron, or Sencor in a minimum total volume of 2 gals./A by aircraft. This product may also be applied by air in combination with Balan, Prowl, or Trifluralin. 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 7.8** alone or **Metolachlor 7.8** + Atrazine by aircraft at a minimum upwind distance of 400 ft. from sensitive plants, or apply **Metolachlor 7.8** + Lexone, Linuron, or Sencor 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 should be observed.

The applicator should 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 **Wind, Temperature and Humidity**, and **Temperature Inversions**).

Controlling Droplet Size

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

Boom Length
For some use patterns, reducing the effective boom length to less than 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 downwind. 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 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential.

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

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

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

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

APPENDIX D: CENTER PIVOT IRRIGATION APPLICATION

Metolachlor 7.8 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 recommended on this label. 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 non-uniform 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 withdrawn 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 1/2 to 1 inch of water. Use the lower water volume (1/2 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.

    ***Use 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.*

APPENDIX E: DRY BULK GRANULAR FERTILIZERS

Many dry bulk granular fertilizers may be impregnated or coated with **Metolachlor 7.8** alone or selected **Metolachlor 7.8** tank mixtures which are registered for preplant incorporated or preplant surface application which are used to control weeds in crops on this product label and are not prohibited from use on dry bulk granular fertilizers.

When applying **Metolachlor 7.8** or **Metolachlor 7.8** mixtures with dry bulk granular fertilizers, follow all directions for use and precautions on the respective product labels regarding target crops, 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 7.8** and **Metolachlor 7.8** 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 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 7.8**, Atrazine, Sencor, Lexone, or Sonalan by the following formula:

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

$$\frac{2{,}000}{\text{lbs. of fertilizer per acre}} \times \text{lbs./A of dry product} = \text{lbs. of dry product per ton of fertilizer}$$

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Pneumatic (Compressed Air) Application (Metolachlor 7.8 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 7.8** with Exxon Aromatic 200 at a rate of 1 to 4 pts./gal. of **Metolachlor 7.8**. 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.

Notes: (1) Mixtures of **Metolachlor 7.8** 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. (2) When impregnating **Metolachlor 7.8** 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. (3) Drying agents are not recommended for use with On-The-Go impregnation equipment.

Use Precautions: *To avoid potential for explosion, (1) Do not impregnate* ***Metolachlor 7.8*** *or* ***Metolachlor 7.8*** *mixtures on ammonium nitrate, potassium nitrate, or sodium nitrate, either alone or in blends with other fertilizers. (2) Do not use* ***Metolachlor 7.8*** *or* ***Metolachlor 7.8*** *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.*

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3/23/04 EPA Stamped Label, 7/22/04 Added sorghum

8/19/05 Misc. amendment