42750-71 2/24/2004 1/22

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505C)
Ariel Rios Building
1200 Pennsylvania Ave. NW
Washington, D.C. 20460

EPA Reg. Number: 42750-71

Date of Issuance: FEB 24 2004

Term of Issuance: Conditional
Expiration Date of 3/21/2007

Name of Pesticide Product: Metolachlor AT

NOTICE OF PESTICIDE:
X Registration
Reregistration
(~~under~~ FIFRA, as amended)

Name and Address of Registrant (include ZIP Code)

Albaugh, Inc.
121 N.E. 18th Street
Ankeny, IA 50021

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

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

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

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Add the phrase "EPA Registration No. 42750-71" to the label before you release the product for shipment.

COMMENTS CONTINUED ON PAGE 2 OF THIS NOTICE OF REGISTRATION

Signature of Approving Official:

/S/

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

Date: FEB 24 2004

EPA Form 8570-6

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Comments Continued:

2. Submit the following Product Chemistry data required for this pesticide product registration within 12 months from the data of this Notice of Registration:

EPA Guideline Data Number	Guideline Descriptor
830.6317	Storage Stability
830.6320	Corrosion Characteristics

3. On page 14 revise the "Notes" of the "Early Preplant" section to read: "Notes: (1) If a follow-up application .....do not exceed **an accumulative** total of 1.67 lbs. a.i. .....". Do not exceed **an accumulative** total of 2.0 lbs. a.i. of metolachlor .....". To determine the **accumulative** total .....". ". If Metalochlar 8E or Metolachlor 8E Plus..... in Step A above **to give the acculmulative total.**

4. Correct the construction that reads: "Observe all directions for use,"....." by modifying the claim to read: "At rates given above observe all other directions for use, ...". This occurs on page 19. Similar construction that reads: "Follow the Directions for use ....." must be modified in a like manner. This occurs on page 20.

5. Submit and/or cite all data required for the registration of this product when the Agency requires all registrants of similar products to submit data; and submit acceptable responses required for reregistration of this product under FIFRA, section 4.

6. Submit one (1) copy of the final printed labeling before you release this product for shipment.

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

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

Enclosure

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RESTRICTED USE PESTICIDE

(GROUND AND SURFACE WATER CONCERNS)

For retail sale to and use only by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification.

This product is a "Restricted Use" herbicide due to ground and surface water concerns. Users must read and follow all precautionary statements and instructions for use in order to minimize potential for atrazine to reach ground and surface water.

Albaugh, Inc.

Metolachlor AT

For weed control and partial weed control in field and pop corn

ACTIVE INGREDIENTS:

Atrazine: 2-chloro-4-ethylamino-6-isopropylamino-*s*-triazine	27.4%
Atrazine related compounds	1.4%
Metolachlor: 2-chloro-*N*-(2-ethyl-6-methylphenyl)-N- (2-methoxy-1-methylethyl) acetamide	34.8%
OTHER INGREDIENTS:	36.4%
TOTAL:	100.0%

Metolachlor AT contains 2.67 lbs. atrazine + related compounds per gallon and 3.23 lbs. metolachlor active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
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. • Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

NOTE TO PHYSICIAN

If ingested, induce emesis or lavage stomach. Administration of an aqueous slurry of activated charcoal can be considered. Treat symptomatically.

See inside booklet for additional PRECAUTIONARY STATEMENTS

EPA Reg. No. 42750-TR **EPA Est. No.**

Manufactured by:
Albaugh, Inc.
Ankeny, IA 50021

ACCEPTED
with COMMENTS
In EPA Letter Dated:
FEB 24 2004

NET CONTENTS
Gals. (Liters)

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended for the pesticide registered under EPA Reg. No.
42750-71

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PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if swallowed. Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Avoid contact with eyes or clothing. Wear: Long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves (such as Natural Rubber, Selection Category A). Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are natural rubber ≥14 mils, barrier laminate ≥ 14 mils and viton ≥14 mils. If you want more options, follow the instructions for Category A on an EPA chemical-resistance category selection chart.

Mixers, loaders applicators and other handlers not using Engineering Controls must wear:

- Coveralls over long-sleeved shirt and long pants,
- Chemical-resistant gloves,
- Chemical-resistant footwear plus socks,
- Chemical-resistant headgear (if overhead exposure),
- A NIOSH approved dust mist filtering respirator with any R, P or HE filter, and
- A chemical-resistant apron (if exposed to the undiluted product).

Mixers, loaders, applicators and other handlers using Engineering Controls must wear:

- Long-sleeved shirt and long pants,
- Chemical-resistant gloves and apron for mixers and loaders,
- Shoes plus socks

See engineering controls for additional requirements.

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. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

ENGINEERING CONTROLS

Pilots must use an enclosed cockpit in a manner that is consistent with the WPS for Agricultural Pesticides [40 CFR 170.240(d)(4)].

Flaggers supporting aerial applications must use an enclosed cab that meets the definition on the Worker Protection Standard for Agricultural Pesticides [40 CFR 170.240(d)(5)] for dermal protection. In addition, such applicators and flaggers must:

- wear the personal protective equipment required above for handlers using engineering controls,
- either wear the type of respirator specified in the PPE above or use an enclosed cab that provides inhalation protection equivalent to a dust mist respirator.
- be provided and must have immediately available for use in an emergency when they must exit the cab in the treated area: coveralls, chemical-resistant gloves, chemical-resistant footwear, chemical-resistant headgear if overhead exposure, and a dust mist filtering respirator if using an enclosed cab that provides inhalation protection.
- take off any PPE that was worn in the treated area before reentering the cab, and
- store all such PPE in a chemical-resistant container, such as a plastic bag, to prevent contamination of the inside of the cab.

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

User Safety Recommendations

Users should:

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

ENVIRONMENTAL HAZARDS

Do not apply directly to water, 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 washwaters or rinsate. This pesticide contains atrazine, which has been shown to be toxic to aquatic invertebrates. Do not apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas.

Ground Water Advisory:

Metolachlor AT contains both atrazine and metolachlor as active ingredients.

Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

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

Surface Water Advisory:

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

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 equipment.

This product may not be mixed/loaded or used within 50 ft. of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 ft. of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rain water

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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 sites.

Additional State imposed requirements regarding well-head setbacks and operation area containment must be observed.

Product must not be mixed or loaded within 50 feet of intermittent streams and rivers, natural or impounded lakes and reservoirs. Product must not be applied within 66 feet of points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet of natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 feet buffer or setback from runoff entry points must be planted to crop, or seeded with grass or other suitable crop.

Tile-Terraced Fields Containing Standpipes

To ensure protection of surface water from runoff through standpipes with tile-outlets in terraced fields, one of the following options may be used:

1. Do not apply this product within 66 feet of standpipes in tile-outletted terraced fields.
2. Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2-3 inches in the entire field.
3. Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is practiced. High crop residue management practice is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.

STORAGE AND DISPOSAL

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

Pesticide Storage: Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

Pesticide Disposal: Open dumping is prohibited. 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:

Plastic Container: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Returnable-Refillable Container (Drum/Bulk/Mini-bulk): When this 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 the time of purchase of this product in a bulk container. This container may only be refilled with this herbicide. 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

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transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, contact ChemTrec at 1-800-424-9300 or Albaugh, Inc. at 515-964-9444. If not returned to the point of purchase or to the designated location, triple rinse emptied container and offer for recycling. Disposal of this container must be in compliance with state and local regulations.

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.

ANY USE OF THIS PRODUCT IN AN AREA WHERE USE IS PROHIBITED IS A VIOLATION OF FEDERAL LAW. Before using this product, you must consult the Atrazine Watershed Information Center (AWIC) to determine whether the use of this product is prohibited in your watershed. AWIC can be accessed through [www.atrazine-watershed.info], or [1-866-365-3014]. If use of this product is prohibited in your watershed, you may return this product to your point of purchase or contact Albaugh, Inc. for a refund.

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours. Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

- Coveralls over short-sleeve shirt and short pants
- Chemical-resistant gloves, such as barrier laminate or viton
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure

Failure to follow the Directions for Use and Precautions on this label may result in reduced weed control, crop injury, or illegal residues.

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

GENERAL INFORMATION

Metolachlor AT is a herbicide recommended as preplant, preemergence, or postemergence applications for the control of most annual grasses and broadleaf weeds in field and pop corn. This product may be tank mixed with AAtrex® 4L (Nine-O®), Princep® 4L (Caliber 90®), Banvel® or Albaugh Dicamba DMA Salt, Lorox® or equivalent for weed control in conventional tillage field and pop corn. Metolachlor AT may also be tank mixed with other herbicides specified on this label for weed control in minimum till and no-till field and pop corn.

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Following many years of continuous use of atrazine (one of the ingredients in Metolachlor AT), and products chemically related to atrazine, biotypes of some of the weeds listed on this label which are controlled by the atrazine component have been reported to develop resistance to this and chemically related herbicides. Where this is known or suspected, and weeds controlled by this product are expected to be present along with resistant biotypes, the use of Metolachlor AT is recommended in combination or in sequence with registered herbicides which do not contain triazines. Consult your State Agricultural Extension Service for specific recommendations.

When referring to weed control, 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.

Metolachlor AT may be applied early preplant, preplant surface, preplant incorporated, or preemergence on field and pop corn in water or fluid fertilizer alone or in tank mixture with AAtrex® or Princep®. Apply postemergence treatments of Metolachlor AT to field and pop corn using water only as the carrier. Metolachlor AT may be applied in tank-mix combination with Gramoxone® Extra, Landmaster® BW, Roundup® or Gly Star™ Original, with or without the above herbicides early preplant, preplant surface or preemergence to field and pop corn.

When applications of Metolachlor AT are made in fluid fertilizer, apply by ground equipment only. Metolachlor AT may be applied in water by aircraft.

PRECAUTIONS AND RESTRICTIONS

1. Tank mixtures are permitted only in those states where the tank mix partner is registered.
2. Do not apply this product through any type of irrigation system.
3. To avoid spray drift, do not apply under windy conditions. Avoid spray overlap, as crop injury may result.
4. Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas.
5. To prevent off-site movement due to runoff or wind erosion:
   - 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.
   - Do not apply to impervious substrates such as paved or highly compacted surfaces.
   - Do not use tailwater from the first flood or furrow irrigation of treated fields to treat nontarget crops unless at least ½ inch of rainfall has occurred between application and the first irrigation.
6. Dry weather following preemergence application of Metolachlor AT or a tank mixture may reduce effectiveness. Cultivate if weeds develop in conventional tillage field or pop corn.
7. Observe all precautions and limitations on the label of each product used in tank mixes.
8. When tank-mixing or sequentially applying atrazine or products containing atrazine to corn, the total pounds of atrazine applied (lbs ai/A) must not exceed the specific seasonal rate limits from preemergence, or postemergence, or preemergence + postemergence applications as noted in the use limitation table in the use directions.
9. If Metolachlor AT, Metolachlor 8E, or other products containing metolachlor and/or atrazine have been applied, do not exceed a cumulative total of 2.5 lbs./A of atrazine active ingredient or 3.75 lbs./A cumulative of metolachlor active ingredient. If no atrazine was applied prior to corn emergence, apply a maximum of 2 lbs./A atrazine active ingredient.
10. Clean sprayer or other application device thoroughly before using. Dispose of the cleaning solution in a responsible manner. Do not use a sprayer or other application equipment that is contaminated with any other materials or crop damage or clogging of the application device may result.
11. Do not graze or feed forage from treated areas for 60 days following application to field corn to avoid possible illegal residues.
12. Postemergence applications to corn must be made before crop reaches 12 inches in height.

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13. Do not use fertilizer or crop oil concentrate when mixing Metolachlor AT + Exceed®, Metolachlor AT + Exceed® + Accent® or Metolachlor AT + Spirit™ as injury to field corn may occur. The combination of Metolachlor AT with other postemergence weed control products in corn is generally not recommended. These combinations may cause injury and/or weed control concerns that would not exist when the products are used separately. A certain inherent risk is involved with the various combinations of these products used postemergence in corn. Early preplant, preplant incorporated, or preemergence control of weeds usually provides more timely weed control resulting in higher yields than postemergence treatments.
14. Follow all label instructions, precautions, and rotational restrictions for individual products when making applications to field corn with tank mixtures of Metolachlor AT + Exceed®, Metolachlor AT + Exceed® + Accent®, or Metolachlor AT + Spirit™. If application is made after June 10, crop injury may occur the following year if you rotate to crops other than corn. When applied to corn over 4 inches tall, in-row weed control may be reduced because of lack of coverage.

MIXING INSTRUCTIONS

Shake container well or thoroughly recirculate containers and bulk tanks before use. Metolachlor AT is a liquid that may be mixed with water or fluid fertilizer and applied as a spray. Metolachlor AT may also be sprayed onto dry bulk granular fertilizer and applied with the granular fertilizer.

Dry Bulk Granular Fertilizers

Impregnating Dry Fertilizers

Metolachlor AT may be used to impregnate or coat many dry bulk granular fertilizers for weed control in field and pop corn. When applying Metolachlor AT with dry bulk granular fertilizers, follow all directions for use and precautions on this label regarding rates per acre of active ingredients, soil texture, application methods, and rotational crops.

All 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. Impregnation of bulk fertilizer is restricted to commercial facilities. On-farm fertilizer impregnation is prohibited. No more than 500 tons of dry bulk fertilizer can be impregnated per day. No single facility may impregnate fertilizer with this product for more than 30 days per calendar year.

The herbicide/fertilizer mixture may be prepared by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Ensure nozzles used to spray Metolachlor AT onto the fertilizer are placed to provide uniform spray coverage. Use care to avoid spraying the walls of the blender. Spray should be directed only onto the fertilizer.

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

Calculate the amounts of Metolachlor AT to be used by the following formula:

$$\frac{2000}{\text{lbs. of fertilizer per acre}} \times \text{qts. of Metolachlor AT per acre} = \text{qts. of Metolachlor AT per ton of fertilizer}$$

Pneumatic (Compressed Air) Application: 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 AT with Exxon Aromatic 200 at a rate of 2.0-2.5 pts./gal. of Metolachlor AT. 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) Use mixtures of Metolachlor AT and Aromatic 200 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 AT in a blender before application, a drier mixture can be attained by substituting a drying agent for Aromatic 200. The use of Agsorb® F.G. or drying agents of 6/30 particle size are recommended. (3) Drying agents are not recommended for use with On-The-Go impregnation equipment.

Precautions: To avoid the potential for explosion, (1) Do not impregnate Metolachlor AT on ammonium, potassium, or sodium nitrate, either alone or in blends with other fertilizers. (2) Do not combine Metolachlor AT with a single superphosphate (0-20-0) or treble superphosphate (0-46-0). (3) Do not use Metolachlor AT on straight limestone, since absorption will not be achieved. Limestone containing fertilizer blends can be impregnated.

Application: Apply 200-700 lbs. of the herbicide/fertilizer mixture per acre. To ensure best results, uniformly apply the mixture to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential to prevent possible crop injury or injury to subsequent rotational crops. Non-uniform application may result in less than satisfactory 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.

Precaution: (1) Make applications as early as possible to help avoid rotational crop injury since Metolachlor AT impregnated onto dry bulk granular fertilizers can be expected to last longer in the soil than when Metolachlor AT is applied as a spray in water or fluid fertilizer. (2) Do not use the herbicide/fertilizer mixture on crops where planting beds are to be formed to avoid the potential for crop injury.

Application in Water or Fluid Fertilizers

Metolachlor AT Alone: Fill the spray tank ½-3/4 full with water or fluid fertilizer, add the appropriate amount of Metolachlor AT, then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform suspension.

Tank Mixtures: Fill the spray tank ½-3/4 full with water or fluid fertilizer, add the appropriate amount of Metolachlor AT, then add AAtrex®, Banvel® or Albaugh Dicamba DMA Salt, Linuron, or Princep®; next add Gramoxone® Extra, Landmaster® BW, Roundup® or Gly Star™ Original, depending on the desired tank-mix combination; and finally add the rest of the water or fluid fertilizer. Only water may be used with Metolachlor AT + Liberty® Herbicide when applied postemergence to corn designated as tolerant to Liberty® (glufosinate); and with Gly Star™ Plus or Roundup Ultra™ when applied postemergence to corn designated as tolerant to Roundup (glyphosate). Provide sufficient agitation during mixing and application to maintain a uniform suspension.

Compatibility Test

A jar test is recommended before tank mixing to ensure compatibility of Metolachlor AT with other pesticides or fertilizers. The following test assumes a spray volume of 25 gals/A. For other spray volumes, make appropriate changes in the ingredients.

Nitrogen solutions or complete fluid fertilizers may replace all or part of the water in the spray. Because liquid fertilizers vary, even within the same analysis, **always check compatibility with pesticide(s) or**

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fertilizer(s) before use. Incompatibility of tank mixtures is more common with suspensions of fertilizer and pesticides. Check compatibility by following the procedure below:

1. Add 1 pt. of carrier (fertilizer or water) to each of 2 one-quart jars with tight lids. **Note:** Use the same source of water that will be used for the tank mix and conduct the test at the temperature the tank mix will be applied.
2. To one of the jars, add ¼ 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 pesticide(s) in their relative proportions based on recommended label rates. If more than one pesticide is used, add them separately with dry pesticides first, then flowables, and emulsifiable concentrates last. After each addition, shake or stir gently to mix thoroughly.
4. After adding all ingredients, put lids on and tighten, invert each jar 10 times to mix. Allow the mixture to stand 15-30 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the 2 jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (a) slurry the dry pesticide(s) in water before addition, or (b) add ½ of the compatibility agent to the fertilizer or water and the other ½ to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If incompatibility is still observed, do not use the mixture.
5. After compatibility testing is complete, dispose of the pesticide wastes in accordance with the directions in the **Storage and Disposal** section of this label.

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	Silty clay loam	Sandy clay
Loamy sand	Silt	Sandy clay loam	Clay loam
Sandy loam	Silt loam	Silty clay	Clay

When a range of rates is provided in rate tables and elsewhere on this label, use the lower rate on soils relatively coarse-textured or low in organic matter and use the higher rate on soils relatively fine-textured or high in organic matter and where weed pressure, particularly from grasses, is expected to be especially heavy.

APPLICATION PROCEDURES

Ground Application: Use only sprayers that provide accurate and uniform application. Screens in nozzles and in suction and in-line strainers should be no finer than 50-mesh. Use a pump with capacity to: (1) maintain 35-40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension. Unless otherwise specified, use a minimum of 10 gallons of spray mixture per acre. Thoroughly rinse sprayer with clean water immediately after use.

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

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

Low Carrier Application (For Broadcast Ground Application Only): Use sprayers, such as Ag-Chem RoGator®, Hagie, John Deere Hi-Cycle™, John Deere 4700 Sprayer, 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. Manufacturers may require that tip screens as fine as 100-mesh be used with some nozzles. Use a pump with capacity to: (1) maintain up to 35-40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension. Use a minimum of 5 gallons of spray mixture per acre. The maximum recommended sprayer speed is 15 mph. Maintain a uniform travel speed while spraying. Thoroughly rinse sprayer with clean water immediately following each use.

In order to reduce drift and increase application accuracy, low pressure nozzles are recommended. Use care when using automatic rate controlling devices to spray the material within the rated working pressure and flow ranges of the nozzles selected. Use nozzle screens 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. Read and follow the manufacturer's directions for optimum setup and performance of their nozzles or tips.

Aerial Application (Metolachlor AT alone):

Use aerial application only where broadcast applications are specified. Apply a minimum of 1.0 gallon of water for each 1.0 gallon of Metolachlor AT applied per acre except when rates below 1.0 gal./A are specified, in these cases, use in sufficient water to equal 2.0 gals./A of total spray. 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 controlled 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 AT by aircraft at a minimum upwind distance of 400 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 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 outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.
2. Nozzles must always point backwards parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed. The applicator should be familiar with and take into account the information covered in the **Aerial Drift Reduction Advisory 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 ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is 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 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential.

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

Temperature and Humidity

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

Temperature Inversions

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

conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

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

METOLACHOR AT APPLIED ALONE – FIELD AND POP CORN

Weeds Controlled – When applied early preplant, preplant surface-applied, preplant incorporated, or preemergence, Metolachlor AT will control or suppress the following weeds:

Weeds Controlled		Weeds Partially Controlled**
Barnyardgrass (watergrass)	carpetweed	cocklebur
browntop panicum	chickweed	giant ragweed
Crabgrass	common purslane	jimsonweed
Crowfootgrass	common ragweed	morningglory
fall panicum	Florida pusley	sandbur
foxtail millet	galinsoga	seedling johnsongrass
giant foxtail	henbit	shattercane
Goosegrass	lambsquarters	sicklepod
green foxtail	mustards	volunteer sorghum
prairie cupgrass	nightshades	velvetleaf
red rice	pigweed	woolly cupgrass
Signalgrass (*Brachiaria*)*	smartweed	
southwestern cupgrass	waterhemp	
Witchgrass		
yellow foxtail		
yellow nutsedge*		

*Control of these weeds can be erratic, especially under dry weather conditions. Control escaped weeds with cultivation or application of an appropriate EPA-registered postemergence herbicide. On fine-textured soils, expect only partial control.

**Weed control may be improved by following these suggested procedures:

1. Apply up to the maximum single application rate in Table 1 for your given soil texture and rate limitation based on your soil conservation practices.
2. Destroy germinating and emerged weeds by thoroughly tilling moist soil. If Metolachlor AT is to be applied preplant incorporated, this tillage may be used to incorporate Metolachlor AT if uniform 2-inch incorporation is achieved as recommended under the **APPLICATION PROCEDURES** section.
3. Plant crop into moist soil immediately after tillage. If Metolachlor AT is to be used preemergence, apply at planting or immediately after planting.
4. If sprinkler irrigation is available, irrigate within 2 days after application. Apply ½ - 1 inch of water. On coarse textured soils, use lower water volume (1/2 inch) and higher volume (1 inch) on fine textured soils.
5. If rain does not occur within 2 days after planting and application and irrigation is not possible, decreased weed control may be observed. Under these conditions, a uniform, shallow cultivation is recommended as soon as weeds emerge.

APPLICATION TIMINGS*

*Where there are local/state requirements regarding atrazine use (including lower maximum rates and/or greater setbacks) which are different from this label, the more restrictive/protective requirements must be followed. Certain states may have established rate limitations within specific geographical areas. Consult your state lead pesticide control agency for additional information. It is a violation to deviate from state use regulations.

The following may be used to calculate the total metolachlor and atrazine active ingredient applied: Metolachlor AT contains 3.23 lbs. a.i. metolachlor per gal. (0.8075 lb. a.i./qt) and 2.67 lbs. a.i. atrazine + relateds per gal. (0.6675 lb. a.i./qt.). If Metolachlor AT is used in tank mix or sequentially with any other metolachlor or atrazine-containing product, do not exceed the following metolachlor or atrazine limits per year.

FOR ALL SOIL APPLICATIONS PRIOR TO CROP EMERGENCE

On Highly Erodible Land (as defined by SCS)

If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at planting, apply a maximum of 2.0 lbs. of atrazine/A as a broadcast spray.

If soil coverage with plant residue is less than 30% at planting, a maximum of 1.6 lbs. of atrazine/A may be applied.

On Land Not Highly Erodible

Apply a maximum of 2.0 lbs. of atrazine/A as a broadcast spray.

FOR POSTEMERGENCE APPLICATION TO FIELD AND POP CORN

If no atrazine was applied prior to field and pop corn emergence, apply a maximum of 2.0 lbs. atrazine/A may be applied postemergence. If a postemergence treatment is required following an earlier herbicide application containing atrazine, the total atrazine applied may not exceed 2.5 lbs. a.i. per acre per calendar year.

EARLY PREPLANT:

For medium- and fine-textured soils, Metolachlor AT may be applied as a split treatment, by applying 2/3 the recommended rate 30-45 days before planting, followed by the remaining 1/3 rate at planting. See Table 1. If applying less than 30 days prior to planting, applications may be made as either a split or a single application. For coarse soils, apply 1.6 qts./A of Metolachlor AT not more than 2 weeks prior to planting. See Table 1. For all soils, Metolachlor AT must be tank mixed with a contact herbicide (for example Gramoxone® Extra, Roundup® or Gly Star™ Original) if weeds are present at the time of treatment. Observe the directions for use, precautions, and restrictions of all herbicides used in tank mixtures with Metolachlor AT. Determine the compatibility of each tank mix partner with Metolachlor AT prior to tank mixing.

Following final seed bed preparation in the Blacklands and Gulf Coast areas of TX on medium and fine textured soils, an early preplant application of Metolachlor AT at 1.2-1.5 qts./A may be made 30-45 days before planting. Grass suppression of 2-3 weeks after planting can be expected as a result of this application. Do not incorporate or disturb the soil before planting and avoid moving the soil during the planting operation. A follow-up application (refer to Notes 1 and 2 below) of Metolachlor 8E or Metolachlor 8E Plus may be needed in fields with a history of heavy grass pressure. Apply after planting, but before field or pop corn and grass weeds emerge.

Notes: (1) If a follow-up application of Metolachlor 8E or Metolachlor 8E Plus is needed, do not exceed a total of 1.67 lbs. a.i. of metolachlor per acre, including the preplant Metolachlor AT application on medium textured soils or fine textured soils with less than 3% organic matter. Do not exceed 2.0 lbs. a.i. of metolachlor on fine textured soils with greater than 3% organic matter.

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To determine the total lbs. of metolachlor per acre, use the following 2-step method:

A. Determine the lbs. a.i. of metolachlor applied as Metolachlor AT (1.0 qt. = 0.8075 lb. a.i. of metolachlor); then,

B. If Metolachlor 8E or Metolachlor 8E Plus is to be used, add the lbs. a.i. to be applied in these products to the lbs. in Step A above.

(2) Avoid moving treated soil out of the row or moving untreated soil to the surface during planting as reduced weed control will be observed.

Table 1: Metolachlor AT – Early Preplant

Soil Texture	Single Application	Split Application*	
		30-45 DBP**	At Planting
Coarse: Sandy, loamy sand, sandy loam	1.6 qts./A	**DO NOT APPLY**	
Medium: Loam, silt loam, silt	1.6-2.0 qts./A	1.0-1.3 qts./A	0.5-0.67 qt./A
Fine: Sandy clay loam, silty clay loam, clay loam, silty clay, sandy clay, clay	2.0-2.3 qts./A	1.3-1.7 qts./A	0.67-1.0 qt./A

*If desired, split applications can be made less than 30 days before planting.
***DBP – Days before planting.

PREPLANT SURFACE, PREPLANT INCORPORATED, OR PREEMERGENCE:

Metolachlor AT may be applied preplant surface, preplant incorporated, or preemergence using the appropriate rates from Table 2.

Preplant Surface: Within 14 days before planting, apply Metolachlor AT uniformly to the soil surface. Where applications are made to coarse soils more than 7 days before planting, use rates in Table 1.

Preplant Incorporated: Within 14 days before planting, apply to the soil and incorporate into the top 2 inches of soil using a finishing disk, finishing harrow, rolling cultivator, or similar implement capable of providing uniform 2-inch incorporation. If furrow irrigation is used or when a period of dry weather after application is expected, use the preplant incorporated method. If crop is to be planted on beds, apply and incorporate after bed formation.

Preemergence: Apply at planting (behind the planter) or after planting to the soil surface but before weed or crop emergence.

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Table 2: Metolachlor AT – Preplant Surface, Preplant Incorporated, or Preemergence

Soil Texture	Broadcast Rate Per Acre	
	Less than 3% Organic Matter	3% Organic Matter or Greater
Coarse Sand, loamy sand, sandy loam	1.0 qt.	1.2-1.6 qts.
Medium Loam, silt loam, silt	1.2-1.6 qts.	1.6 qts.
Fine Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	1.6 qts.	1.6-2.3 qts.*
Muck or peat soils (more than 20% organic matter)	**DO NOT APPLY**	

*For yellow nutsedge control on fine textured soils above 3% organic matter, apply 2.3 qts. of Metolachlor AT per acre.

Notes: (1) If annual weeds should escape following an early preplant, preplant surface, preplant incorporated, or preemergence treatment of Metolachlor AT applied alone or in combination, follow with a postemergence application of an appropriately labeled broadleaf and/or grass weed herbicide (i.e., AAtrex®, Banvel® or Albaugh Dicamba DMA Salt, Basagran®, Beacon®, bromoxynil (Buctril®), Exceed®, Marksman®, or 2,4-D). If the postemergence treatment includes the herbicide used in the earlier treatment, do not exceed the labeled rate for field corn or pop corn on a given soil texture. (2) Buctril® may be applied postemergence alone or in tank mix combination with AAtrex®. Do not exceed 1.2 lbs. a.i./A of AAtrex® in tank mix combination with Buctril® applied postemergence. Refer to the AAtrex® and Buctril® labels for specific rates and precautions. (3) If AAtrex® or another product containing atrazine is used postemergence following application of Metolachlor AT, do not exceed a total of 2.5 lbs. a.i./A of atrazine per year. (4) A fluid fertilizer may be substituted for some or all of the water carrier for burndown of existing annual weeds listed on this label up to the 2-leaf stage. Burndown activity will be enhanced by addition of crop oil concentrate to the spray mixture. If larger weeds are present, add a contact herbicide as noted in the **METOLACHLOR AT COMBINATIONS** section of this label.

Rotational Crops

Do not rotate to food or feed crops other than those listed below:

(1) If treated crop is lost due to poor germination, hail, flood, insects, etc., field or pop corn may be replanted immediately. Do not make a second broadcast application. If the original application was banded and the second crop is planted in the untreated row middles, a second banded treatment may be applied.

(2) Field or Pop Corn (only), sorghum, soybeans, cotton, or peanuts may be planted the next spring following application provided the seed has been properly treated with Concep or Screen. Do not graze or feed forage or fodder from cotton to livestock, or illegal residues may result.

(3) Injury may occur to soybeans planted the year following application on soils having a calcareous surface layer.

(4) In eastern parts of the Dakotas, KS, western MN, and NE, do not rotate to soybeans for 18 months following the last application if the cumulative rate applied to corn was more than 2.0 lbs. a.i. of atrazine or equivalent band application rate, or soybean injury may occur.

(5) If applied after June 10, do not rotate with crops other than corn or sorghum the next year, or crop injury may occur.

(6) In the High Plains and Intermountain areas of the West, where rainfall is sparse and erratic or where irrigation is required, use only when corn is to follow corn, or a crop of untreated corn is to precede other rotational crops.

(7) Do not plant sugar beets, tobacco, vegetables (including dry beans), spring-seeded small grains, or small-seeded legumes the year following application or injury may occur.

POSTEMERGENCE BROADCAST APPLICATION

Weeds Controlled	Weeds Partially Controlled
common ragweed	cocklebur
Flixweed	giant foxtail
Jimsonweed	green foxtail
Kochia	purslane
lambsquarters	prickly sida
morningglory	smartweed
Mustards	velvetleaf
Pigweed	yellow foxtail
Sunflower	yellow nutsedge
Waterhemp	

Application: Using the appropriate rate from Table 3, apply early postemergence. Make application before grass and broadleaf weeds pass the 2-leaf stage and before field and pop corn exceeds 5 inches in height. Unsatisfactory control will usually occur if application is made to weeds larger than the 2-leaf stage. Occasional corn leaf burn may occur but this should not affect later growth or yield. Do not apply postemergence in fluid fertilizer or severe crop injury may occur.

Refer to note 11 under the **PRECAUTIONS AND RESTRICTIONS** section of this label for information on grazing and feeding restrictions.

Table 3: Postemergence Broadcast Application

Soil Texture	Broadcast Rate Per Acre
Coarse Sand, loamy sand, sandy loam	1.2 qts.
Medium Loam, silt loam, silt	1.6 qts.
Fine Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	1.6 -2.0 qts.*

*Apply 2.0 qts./A of Metolachlor AT for improved residual control of yellow nutsedge and broadleaf weeds on fine textured soils above 3% organic matter.

Refer to notes 8 and 9 under the **PRECAUTIONS AND RESTRICTIONS** section of this label for information on cumulative metolachlor and atrazine rates. **Rotational Crops:** Follow the rotational crop directions for Metolachlor AT in the **PREPLANT SURFACE, PREPLANT INCORPORATED, or PREEMERGENCE** section of this label.

POSTEMERGENCE-DIRECTED APPLICATION

To extend the control of weeds listed in the **EARLY PREPLANT; PREPLANT SURFACE, PREPLANT INCORPORATED, OR PREEMERGENCE; and the POSTEMERGENCE**

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BROADCAST sections of this label, Metolachlor AT may be applied at 1.0-2.0 qts./A in a minimum of 15 gals. of water as a postemergence directed application. Apply according to the rates provided in Table 4.

Apply Metolachlor AT to weed-free soil following use of an early preplant, preplant surface, preplant incorporated, or preemergence herbicide, or following a lay-by cultivation. Apply before grass and broadleaf weeds exceed the 2-leaf stage if weeds have emerged at the time of the Metolachlor AT application. Unsatisfactory control will generally be observed if application is made to weeds larger than the 2-leaf stage. Apply when field or pop corn is less than 12 inches in height minimizing contact with corn leaves.

Table 4: Postemergence-Directed Application

Soil Texture	Broadcast Rate Per Acre
Coarse Sand, loamy sand, sandy loam	1.0 qt.
Medium Loam, silt loam, silt	1.6 qts.
Fine Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	1.6-2.0 qts.*

*Apply 2.0 qts./A of Metolachlor AT for improved residual control of yellow nutsedge and broadleaf weeds on fine textured soils above 3% organic matter.

Refer to notes 8 and 9 under the **PRECAUTIONS AND RESTRICTIONS** section of this label for information on cumulative metolachlor and atrazine rates.

METOLACHLOR AT COMBINATIONS – FIELD AND POP CORN*

Always follow the label instructions for tank mix products when mixing with Metolachlor AT.

Tank Mixture with Metolachlor 8E, Metolachlor 8E Plus or Princep® - Conventional Tillage

Metolachlor 8E or Metolachlor 8E Plus – Add up to 0.3 pt. of Metolachlor 8E or Metolachlor 8E Plus per acre to the rate of Metolachlor AT recommended in Table 1 when heavy infestations of yellow nutsedge, sandbur, or seedling johnsongrass are expected.

Princep® (4L or Caliber 90®): Add up to 1.0 qt. of Princep® 4L (1.1 lbs. of Caliber 90®) per acre to the Metolachlor AT rate recommended in Table 1 in the northeastern U.S. where heavy infestations of crabgrass or fall panicum are expected.

Tank Mixture of Metolachlor AT with Metolachlor 8E, Metolachlor 8E Plus, Princep®, Gramoxone® Extra, Landmaster® BW, Roundup® or Gly Star™ Original for Minimum-Tillage or No-Tillage Systems

Where field or pop corn are planted directly into a cover crop, stale seedbed, established sod, or previous crop residues in minimum-tillage or no-tillage systems, the contact herbicides Gramoxone® Extra, Landmaster® BW, Roundup® or Gly Star™ Original should be tank mixed with Metolachlor AT alone or with Metolachlor AT plus Metolachlor 8E, Metolachlor 8E Plus or Princep®. When used as directed, the Gramoxone® Extra portion of the tank mixture controls most emerged annual weeds and suppresses many perennial weeds. Landmaster® BW, Roundup® and Gly Star™ Original combinations will control emerged annual and perennial weeds when applied as directed on the respective label. The Metolachlor AT portion of the tank mixture provides preemergence control of the weeds listed on this label in the **METOLACHLOR AT APPLIED ALONE** section for field and pop corn. Adding Metolachlor 8E, Metolachlor 8E Plus, or Princep® offers the advantage indicated for each under **Conventional Tillage**.

Application: Prior to field or pop corn emergence, apply before, during, or after planting at the appropriate rate provided in Table 5. 0.3 pt. of Metolachlor 8E or Metolachlor 8E Plus, or 1.0 qt. of Princep® 4L (1.1 lbs. of Caliber 90®) per acre may be added to the rate of Metolachlor AT recommended in Table 5. Add Gramoxone® Extra, Landmaster® BW, Roundup® or Gly Star™ Original, at labeled rates.

Apply in 20-60 gals. of water per acre with conventional spray equipment.

Tank Mixture of Metolachlor AT Alone or Metolachlor AT + AAtrex® with 2,4-D or 2,4-D + Banvel® or Albaugh Dicamba DMA Salt for Minimum- or No-Tillage Systems

Where field or pop corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues in minimum- or no-tillage systems, Metolachlor AT may be applied in combination with AAtrex®. When used as directed, the Metolachlor AT portion of the tank mixture provides preemergence control of the weeds listed on this label in the **METOLACHLOR AT APPLIED ALONE** section for field and pop corn. The addition of AAtrex® offers the advantage indicated under **Conventional Tillage**.

Application: Prior to field or pop corn emergence, apply before, during or after planting at the appropriate rate provided in Table 5 for the burndown of small existing annual weeds. Add an appropriately labeled 2,4-D amine or low volatile ester to the spray tank where heavy crop residues exist. Add the 2,4-D component to the spray tank last and apply in a minimum of 25 gals. of carrier per acre.

Carriers such as nitrogen solutions and complete liquid fertilizers, applied prior to field or pop corn emergence will enhance burndown of existing weeds and are recommended instead of water. Add X-77® surfactant at 1.0-2.0 qts./100 gals. of diluted spray, or another surfactant cleared for use on growing crops at its recommended rate. Apply before weeds exceed 3 inches in height. If alfalfa is present, add Banvel® or Albaugh Dicamba DMA Salt to the spray mixture at 0.33-0.5 pt./A and apply before alfalfa exceeds 6 inches in height.

Where fields contain existing sod grasses (e.g., bromegrass, orchardgrass, rye, or timothy) exceeding 3 inches in height or when very dry conditions exist, add Gramoxone® Extra at the rate of 2.5 pts./A in place of or in addition to 2,4-D as indicated above. Do not apply Gramoxone® Extra in suspension-type liquid fertilizer. Observe all directions for use, precautionary language, and limitations on the respective product labels when applying these products in tank mix combination.

Table 5: Metolachlor AT for Minimum- or No-Tillage Field and Pop Corn

Soil Texture	Broadcast Rate Per Acre
Coarse Sand, loamy sand, sandy loam	1.2 qts.
Medium Loam, silt loam, silt	1.6 qts.
Fine Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	1.6-2.3 qts.*
Muck or peat soils	**DO NOT APPLY**

*Apply 2.3 qts./A of Metolachlor AT for control of yellow nutsedge on fine textured soils above 3% organic matter.

Tank Mixture with Linuron for Control of Lambsquarters and Pigweed

In DE, MD, NJ, NY, PA, VA, and WV, Metolachlor AT may be applied preemergence in combination with linuron for prolonged control of lambsquarters and pigweed. Apply Metolachlor AT according to the recommended rates in Table 2 and linuron according to the following rates:

Soil Texture	Broadcast Rate Per Acre
Sandy loam (1-3% organic matter)	0.67 lb. Lorox®*
Sandy loam (3-6% organic matter)	1.0 lb. Lorox®*
Medium and fine textured soils (1-6% organic matter)	1.0 lb. Lorox®*

*When using Lorox® L or Lorox® DF, use equivalent rates. One pt. of Lorox® L equals 1 lb. of Lorox® DF.

Follow the directions for use, instructions, and precautions on this label and on the Lorox® labels when tank mixing these products.

Rotational Crops: Follow the crop rotation instructions in the **METOLACHLOR AT APPLIED ALONE** section.

Tank Mixture with Exceed® or Spirit™ and Accent® for Salvage Weed Control in Field Corn Only

Metolachlor AT + Exceed®: Apply 1.0 to 1.3 qts./A of Metolachlor AT + 1.0 oz./A of Exceed® to corn that is 4 to 12 inches tall. Application may be made by broadcast, semi-directed, or directed. The Metolachlor AT rate is based on soil texture, with 1.0 qt./A on coarse and 1.3 qts./A on medium and fine soils. Add a nonionic surfactant at 0.25% v/v.

This tank mixture provides control of many annual broadleaf weeds and some grasses. Broadleaf weed control antagonism has been observed with this tank mix combination in some instances. Control of certain annual grasses can be improved with the addition of Accent®.

Metolachlor AT + Exceed® + Accent®: Apply the same rates of Metolachlor AT and Exceed® as recommended above. Add Accent® at 0.33 oz./A for more effective control of certain annual grasses. Apply to field corn when corn is between 4 and 12 inches in height. Add a nonionic surfactant at 0.25% v/v.

Metolachlor AT + Spirit™: For field corn only, Spirit™ herbicide at a rate of 1.0 oz./A can be substituted in place of Exceed® in the above combinations.

Mixing Order for Tank Mixes with Exceed®, Exceed® + Accent® or Spirit™:

Add products to the tank mix in the following order:

1. Product in water-soluble bags.
2. Metolachlor AT
3. Additives

Refer to notes 13 and 14 under the **PRECAUTIONS AND RESTRICTIONS** section of this label for additional information and precautions when mixing Metolachlor AT with Exceed®, Accent® or Spirit™.

CONDITIONS OF SALE AND WARRANTY

The DIRECTIONS FOR USE of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions or presence of other materials. All such risks shall be assumed by the Buyer.

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