

66478-2

05/24/2007

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

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

MAY 24 2007

Ms. Dawn Fee-White  
Acetochlor Registration Partnership  
c/o Monsanto Company  
800 North Lindbergh Blvd.  
St. Louis, MO 63167

Dear Ms. Fee-White:

Subject: Acetochlor EC Herbicide (Revise Master Label, Add Sweet Corn, Revise Rotational Crops)  
EPA Registration No. 66478-2  
Application Dated April 17, 2007

The amendment referred to above, submitted in connection with registration under Section 3(c) (7) (B) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is acceptable provided that you agree in writing that:

1. You will submit the following information/data within three years from the date of this letter.
  - a. Avian Reproduction Study in Mallard Duck (Guideline 71-4b)
  - b. Freshwater fish life-cycle test using TGAI acetochlor. The preferred test species is fathead minnow (Guideline 72-5).
  - c. Estuarine/marine fish early life-cycle toxicity study testing using TGAI acetochlor. The preferred test species is mysid shrimp (Guideline 72-4a).
  - d. Tier II aquatic plant testing in freshwater diatom (Guideline 123-2)
2. You will submit /cite all data required for registration/reregistration of your product when the Agency requires all registrants of similar products to submit such data.
3. You will submit production information (pounds or gallons produced) for this product for the fiscal year in which the use on sweet corn is conditionally registered, in accordance with section 29. The fiscal year begins October 1 and ends September 30. The production information will be submitted to the Agency no later than November 15, following the end of the preceding fiscal year.

This information will be submitted to:

Mr. Owen F. Beeder  
U.S. Environmental Protection Agency  
Office of Pesticide Programs  
Registration Division (7505P)

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1200 Pennsylvania Avenue, N. W.  
Washington, DC 20004

4. You will make the following label changes before you release the product for shipment:

a. Revise the first sentence of your Precautionary Labeling to read "Causes Skin and Moderate Eye Irritation."

b. At the beginning of the list of Personal Protective Equipment (PPE) within the Precautionary Statements, add the statements "Some of the materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistant category selection chart. In addition, revise the current glove requirement to read "chemical resistant gloves made of any waterproof material such as polyethylene or polyvinylchloride."

c. Within the list of PPE for early re-entry in the Agricultural Use Requirements box, revise the current glove requirement to read "chemical resistant gloves made of any waterproof material".

d. On page 16, under Procedure, number 2 revise "add 14 teaspoon (2 ml)..." to read "Add ½ teaspoon (2 ml)."

Submit one (1) copy of your final printed labeling incorporating the above changes before you release the product for shipment.

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 the product bearing the amended labeling constitutes acceptance of these conditions.

A stamped copy of labeling is enclosed for your records.

Sincerely,

*James A. Tompkins*  
James A. Tompkins  
Product Manger 25  
Herbicide Branch  
Registration Division (7505P)

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# ACETOCHLOR EC Herbicide

For Use Only on Field Corn, Production Seed Corn, Silage Corn, Popcorn and Sweet Corn

**ACTIVE INGREDIENT:**

Acetochlor: 2-chloro-2'-methyl-6'-ethyl-N-ethoxymethylacetanilide .....81.15%

OTHER INGREDIENTS .....18.85%

100.00%

Contains 7.5 pounds active ingredient per gallon

EPA Reg. No. 66478-2

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EPA Est.

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<b>FIRST AID</b>	
• IF ON SKIN	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
IF IN EYES	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
IF SWALLOWED	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>• Do not give anything to an unconscious person.</li> </ul>
IF INHALED	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<ul style="list-style-type: none"> <li>• Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact [INSERT EMERGENCY PHONE NUMBER(S)] for emergency medical treatment information. This product is identified as ACETOCHLOR EC, EPA Registration No. 66378-2.</li> </ul>	

**PRECAUTIONARY STATEMENTS**

Hazards To Humans And Domestic Animals

Keep out of reach of children.

**WARNING! AVISO!**

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

**CAUSES SKIN AND EYE IRRITATION. HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN.** Do not get on skin, in eyes, or on clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves.
- Chemical-resistant footwear plus socks.
- Protective eyewear.
- Chemical-resistant headgear for overhead exposure.
- Chemical-resistant apron when cleaning equipment, mixing, or loading.

**ACCEPTED  
with COMMENTS  
In EPA Letter Dated:  
MAY 24 2007**

**Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.  
66478-2**

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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 [CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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### 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.

### ENVIRONMENTAL HAZARDS

This product is toxic to fish. 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 washwaters.

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the ground water is shallow, may result in ground water contamination.

Acetochlor has properties that may result in surface water contamination via dissolved runoff and runoff erosion. Practices should be followed to minimize the potential for dissolved runoff and/or runoff erosion.

### GENERAL INFORMATION

For use only on field corn, production seed corn, silage corn, popcorn and sweet corn. When corn is mentioned in this label, it refers to all types listed above.

This product may be applied to the surface or incorporated into the top 1- to 2-inch layer of soil. It is recommended for control or suppression of annual grasses and broadleaves listed in Table 3 when used alone or in tank mix combinations as listed in this label. This product controls weeds by interfering with normal germination and seedling development. ACETOCHLOR EC does not control established or germinated weeds present at application.

### USE RESTRICTIONS

This chemical demonstrates the properties and characteristics associated with chemical detected in ground water. The use of this chemical in areas where soils are permeable, particularly where ground water is shallow, may result in ground water contamination.

- Do not apply to the following soils if ground water depth is 30 feet or less: sand with less than 3% organic matter; loamy sand with less than 2% organic matter; or sandy loam with less than 1% organic matter.
- This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.
- Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet 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 washwater, and rainwater 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. States may have in effect additional requirements regarding well setbacks and operational containment.

- Do not apply this product through any type of irrigation system.
- Do not use flood irrigation to apply or incorporate this product.
- Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.
- 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:
  - Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface must first be settled by rainfall or irrigation.
  - Do not apply to impervious substrates such as paved or highly compacted surfaces or frozen or snow covered soils.
  - Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non target crops unless at least ½ inch of rainfall has occurred between application and the first irrigation.
- Do not apply this product using aerial application equipment.
- Do not apply when wind conditions favor drift to non-target sites. To minimize spray drift to non-target areas:
  - Use low pressure application equipment capable of producing a large droplet spray.
  - Do not use nozzles that produce a fine droplet spray.
  - Minimize drift by using sufficient spray volume to ensure adequate coverage with large droplet size sprays.
  - Keep ground-driven spray boom as low as possible above the target surface.
  - Make application when the wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid application when gusts approach 15 mph.
- Low humidity and high temperatures increase the likelihood of spray drift to sensitive areas. Avoid spraying during conditions of low humidity and high temperatures. Do not apply during inversion conditions.

#### GENERAL USE PRECAUTIONS

Read all label directions before using. Use only according to these instructions. Read the Warranty statement before purchase or use of this product. If terms are not acceptable, return at once unopened.

- Do not use ACETOCHLOR EC on any crop other than field corn, production seed corn, silage corn, popcorn and sweet corn.
- Do not allow this product to contaminate feed or food.
- This product should not be stored near seeds or fertilizers.
- Keep containers tightly closed when not in use.
- ACETOCHLOR EC is recommended for use only on mineral soils or those soils containing less than 10% organic matter.
- Do not overdose or use rates higher than specified on this label. • Do not tank mix this product with any other product unless that product is specifically mentioned on this label.
- ROTATIONAL CROPS:

If a crop treated with this product is lost, field corn, production seed corn, silage corn, popcorn or sweet corn may be replanted immediately. Do not exceed 3.0 pounds per acre of active ingredient total if additional product is applied

Rotate the next season to the following crops: corn (all types), milo (sorghum), wheat or tobacco, sugar beets, sunflowers, potatoes, dried shelled bean group (*Lupinus*; *Phaseolus*; *Vigna*; *Pisum* spp.).

Rotate to nongrass animal feeds such as alfalfa and clover the spring following application.

Wheat may be planted 4 months after application.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with this 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 12 hours.

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

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

- Coveralls.
- Chemical-resistant gloves.
- Chemical-resistant footwear plus socks.
- Protective eyewear.
- Chemical-resistant headgear for overhead exposure.

#### CARRIERS

Liquids: Either water or liquid fertilizers such as solutions, slurries or suspensions may be used as liquid carriers. If fluid fertilizers are used, a physical compatibility with these must be done before combining in the spray tank. See Appendix I for details of the compatibility testing procedure. Even if ACETOCHLOR EC is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.

**Dry Bulk Fertilizer:** ACETOCHLOR EC may be impregnated on dry bulk fertilizer and applied as the fertilizer is spread. See Appendix II for details including which fertilizers are compatible.

#### ADDING TO SPRAY TANK

The spray tank must be clean, thoroughly rinsed and decontaminated before adding either ACETOCHLOR EC alone or with tank mix combinations. If water is used as the carrier, use clean water.



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**2.5 Gallon Containers:** Open pouring from these containers can result in exposure from splashing or spilling. Special care in lifting and pouring is strongly recommended.

**55 Gallon and Bulk Containers:** Open pouring from these containers can result in exposure from splashing or spilling and is not recommended. This product should be transferred from these containers to the mix or spraying tank using pumps or transfer probes. The probe or pump should not be removed from the container or disconnected until the container is emptied and rinsed. Use the pump or probe system to rinse the empty container and transfer the rinsate directly to the mix or spray tank

**Equipment Cleaning and Repair:** Cleaning and repair of transfer systems and application equipment is a source of exposure to this product. Care should be taken to minimize exposure during cleaning and repair of transfer systems and application equipment. Whenever possible, these systems or equipment should be rinsed before being cleaned or repaired.

When repairs must be made during transfer or application, the equipment should be shut down and special care taken to avoid contact with the pesticide.

**Used Alone:** If ACETOCHLOR EC is used alone, add the recommended amount to the spray tank when (before) the tank is half filled, then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

**Tank mixed:** If a tank mixture is used it is recommended that a compatibility test be done before actual tank mixing. See Appendix I for details on the procedure for such a test.

Once compatibility is confirmed for the tank mix, fill the tank half full. Start and continue agitation throughout mixing. All return lines to the spray tank must discharge below the liquid level. Add components in the following order of formulation:

- If a wettable powder or dry flowable formulation is used, make a slurry with water and add it slowly through the screen into the tank. Agitate during the procedure.
- If a flowable formulation is used, add slowly through screen into the tank. Mixing and compatibility may be improved when flowable is diluted with water before adding to the tank.
- Add ACETOCHLOR EC to the last.
- Complete filling the sprayer tank and continue agitation.
- Tank mix combinations should not be left in the spray tank for prolonged periods as settling may occur. Batches should be mixed and applied the same day.

## VOLUME

**Liquid:** Use a minimum of 10 gallons per acre in broadcast boom equipment for ground applications. Ground applications should not exceed 50 gallons of liquid per acre. Do not use aerial application equipment.

**Dry Bulk Fertilizer:** Use 200 to 700 pounds of dry bulk fertilizer per acre. See Appendix II for more details.

## PRESSURE

If liquid carriers are used, the pressure at the nozzle should be 15 to 40 psi to ensure good distribution in the spray pattern.

## APPLICATION TIMING AND METHODS

All conventional tillage system applications should be made to a soil in good tilth and free from clods and crop residue. The seedbed should be firm and weed free. In reduced or no-till systems, a burndown herbicide such as Gramoxone® or Roundup® agricultural herbicides should be tank mixed with ACETOCHLOR EC.

**Preemergence Surface:** This product and certain tank mixes may be applied to the soil surface as a broadcast or banded application. Apply within 5 days of last preplant tillage. If weeds emerge after treatment, or if treatment is applied more than 5 days after last preplant tillage, rotary hoe or shallowly

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cultivate immediately to improve performance. Precipitation or sprinkler irrigation is necessary to bring this product into contact with germinating seeds. If rain or sprinkler irrigation does not occur within 7 days after application, weed control may be improved by using a rotary hoe, or similar device, to incorporate the herbicide. Care should be taken not to remove this product from the weed control zone such as the band. The device used should be run at a shallow depth to prevent disturbing the corn seed. The corn must not be emerged when ACETOCHLOR EC is applied.

**Preplant Incorporation:** This product and certain tank mixes may be mechanically incorporated in the top 2 inches of the soil by mechanical means such as field cultivators, rotary hoes, spring tooth harrows, or power driven cultivation equipment at any time within 7 days of planting. Improper incorporation, excessive crop residues, or poor soil tilth may result in erratic, streaked or otherwise unsatisfactory weed control. If two passes are used to incorporate ACETOCHLOR EC, the second pass should be shallower and at an angle to the first pass.

**Sprinkler Irrigation:** Do not apply this product by sprinkler irrigation: Use a sprinkler system only to incorporate ACETOCHLOR EC after applying by ground equipment. After ACETOCHLOR EC has been applied, a sprinkler irrigation system set to deliver 1/4 to 3/4 inches of water per acre may be used to incorporate the product. Using more than 3/4 inches of water could result in reduced performance. On sandy soil low in organic matter, use no more than 1/2 inch of water. Do not use flood irrigation to apply or incorporate ACETOCHLOR EC.

**POSTEMERGENCE APPLICATION**

**Early Postemergence:** This product may be used early postemergence up to 11-inch tall corn, except sweet corn. Application must be made prior to weed seedling emergence or in a tank mixture that controls the emerged weeds. Always read and follow the specific tank-mix product labels for restrictions and cautionary statements.

**Use of Spray Adjuvants:** This product is a preemergence herbicide for which spray adjuvants have little or no influence on performance. However, several herbicides used in tank mixtures with ACETOCHLOR EC require use of adjuvants to aid in the burndown of emerged weeds. Use only those adjuvants approved for agricultural crop use. Surfactants and/or low rate fertilizer (28%, 30% or 32% UAN or ammonium sulfate) adjuvants may be used with tank mixes applied preplant, preemergence or early postemergence to the crop. Crop oil concentrates may be used prior to crop emergence but are not recommended after crop emergence unless specified for a particular tank mixture.

**CULTIVATION**

If cultivation is necessary due to soil crusting or compaction, adjust equipment to run shallow and minimize soil movement. This will decrease the possibility of diluting or moving the herbicide from the weed control zone.

Cultivation should be delayed as long as possible. Should weeds develop; a shallow cultivation or rotary hoeing will generally result in improved weed control.

**SOIL TEXTURE AND ORGANIC MATTER**

The soils are grouped into three classes, coarse, medium and fine. Once the soil type has been determined, the textural group can be found in the Table 1.

**TABLE 1**

**Soil Textural Groupings for Use Rate Selection.**

<b>Coarse</b>	<b>Medium</b>	<b>Fine</b>
Sand, Loamy Sand, Sandy Loam	Loam, Silt, Silt Loam	Silty Clay Loam, Sandy Clay Loam, Silty Clay, Sandy Clay, Clay

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The soil texture and organic matter of the field on which the application is to be made must be determined prior to application. The use rate of this product is determined by a combination of these two factors.

**USE RATES IN CONVENTIONAL TILLAGE SYSTEMS**

The soil texture and organic matter level of the field which ACETOCHLOR EC is to be applied should be determined prior to selecting the rate from Table 2.

**TABLE 2**

**ACETOCHLOR EC**

**Use Rates by Soil Texture and Organic Matter Content in Conventional Tillage Systems.**

**RATES ARE IN PINTS PER ACRE.**

SOIL TEXTURE GROUP*	BROADCAST RATE PER ACRE (PINTS) 1.5% to Less Than 6% Organic Matter
Coarse	1.15 to 2.25
Medium	1.75 to 2.5
Fine	2.00 to 2.55

\* Refer to Table 1

HIGH ORGANIC MATTER SOILS	
SOIL ORGANIC MATTER	BROADCAST RATE PER ACRE (PINTS)
6 TO 10	2.25 TO 3.2
>10	3.2

**NOTE:** Do not use on any coarse-textured soil or medium- and fine-textured soils with less than 1.5% organic matter. Use on these soils may result in crop injury.

These rates are for application within 7 days prior to planting and before emergence of the corn. Use Table 3 if no-till applications are made more that 2 weeks prior to planting.

**Organic Matter:** If the organic matter content of the soil is at the lower end of the range, use the lower rates in the rate range given in Table 2. If the organic matter content is at the upper end of the range; use the higher rates given in the rate range.

**Weed Infestation:** If the weed infestation is light, use a rate at the lower end of the rate range for the soil texture and organic matter content. If the weed infestation is heavier, use the higher rates in the rate range for the soil.

**TABLE 3**

**Weeds Controlled or Suppressed by ACETOCHLOR EC at Recommended Use Rates.**

COMMON NAME	WEED TYPE (1)	C = CONTROLLED S = SUPPRESSION
Barnyardgrass	G	C
Black hairy nightshade	B	C
Broadleaf signalgrass	G	C
Browntop panicum	G	C
Carelessweed	B	C

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Carpetweed	B	C
Common ragweed	B	C
Crabgrass	G	C
Fall panicum	G	C
Field sandbur	G	C
Florida beggarweed	B	S
Florida pusley	B	C
Galinsoga	B	C
Giant foxtail	G	C
Goosegrass	G	C
Grassbur	G	S
Green foxtail	G	C
Lambsquarters	G	C
Pigweed	B	C
Prickly sida	B	S
Purslane	B	C
Red rice	G	C
Red sprangletop	G	C
Redroot pigweed	B	C
Robust purple foxtail	G	C
Robust white foxtail	G	C
Seedling johnsongrass	G	S
Shattercane	G	S
Smartweed	B	S
Teaweed	B	S
Texas panicum	G	C
Wild proso millet	G	S
Witchgrass	G	C
Yellow foxtail	G	C
Yellow nutsedge (2)	S	C

(1) B=Broadleaf, G=Grass, S=Sedge

(2) Yellow nutsedge requires a minimum of 2½ pints. Incorporation will improve control.

**TANK MIX COMBINATIONS**

Tank mix combinations may be used in conventional, reduced or no-till systems and be applied by the same methods and at the same timing as ACETOCHLOR EC unless otherwise specified in the tank-mix product label. Three way tank mixtures are allowed if not restricted by the respective product labels.

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Check all tank mix product labels for proper rates for 3-way tank mixes. The rates given here are only for 2-way tank mixes of the individual product with ACETOCHLOR EC.

**ACETOCHLOR EC & ATRAZINE:**

Tank mixtures with atrazine will increase the spectrum of weeds controlled. Where AAtrex formulations have been specified other brands of atrazine may be used. Read and follow all atrazine label directions and restrictions. Table 4 provides a list of the additional weeds controlled or suppressed by tank mixing with atrazine.

**TABLE 4**  
**Weeds Controlled or Suppressed by Atrazine**

COMMON NAME	WEED TYPE (1)	C = CONTROLLED SUPPRESSION	S =
Annual groundcherry	B	C	
Annual morningglory	B	C	
Buttonweed	B	S	
Cocklebur	B	C	
Cutleaf groundcherry	B	C	
Entireleaf morningglory	B	S	
Giant ragweed	B	C	
Ivyleaf morningglory	B	S	
Jimsonweed	B	C	
Kochia	B	C	
Mustard	B	C	
Nightshade	B	C	
Purslane	B	C	
Sicklepod	B	C	
Smallflower morningglory	B	S	
Smartweed	B	C	
Tall pitted morningglory	B	S	
Velvetleaf	B	C	
Wild oats	G	C	

(1) B = Broadleaf, G=Grass

**Caution:** Following many years of continuous use of atrazine and chemically related products, biotypes of some of the weeds listed above have been reported which cannot be effectively controlled by atrazine and related herbicides. Where this is known or suspected and weeds controlled by atrazine are expected to be present along with resistant biotypes, it is recommended that atrazine be used in combinations or in sequence with other registered herbicides which are not triazines. If only resistant biotypes are expected to be present, use a registered non-triazine herbicide.

The maximum atrazine broadcast application rates for corn:

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- If no atrazine was applied prior to corn emergence, apply a maximum of 2 pounds active ingredient per acre broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 pounds active ingredient per acre per calendar year.
- Apply a maximum of 2.0 pounds active ingredient per acre as a single preemergence application on soils that are not highly erodible or on highly erodible if at least 30 percent of the soil is covered with plant residues, or
- Apply a maximum of 1.6 pounds active ingredient per acre as a single preemergence application on highly erodible soils if <30 percent of the surface is covered with plant residues; or 2.0 pounds active ingredient per acre if only applied postemergence.

If no atrazine was applied prior to corn emergence, apply a maximum of 2 pounds active ingredient per acre broadcast. **ACETOCHLOR EC & GRAMOXONE BRAND HERBICIDES**

In reduced or no-till corn, Gramoxone branded herbicides will burn down existing weeds. gramoxone branded herbicides should be applied to emerged weeds when they are small. Weeds 1 to 6 inches in height are the easiest to control. Large weeds may be more difficult to control. Tank mixes with atrazine and Bladex will often aid in control of difficult weeds.

Gramoxone branded herbicides are RESTRICTED USE pesticides. Refer to the Gramoxone brand herbicide label for further directions, precautions, and limitations relative to its use. Refer to the specific Gramoxone brand herbicide label for use instructions, precautions and restrictions. Use only according to the most restrictive label.

**ACETOCHLOR EC + BANVEL HERBICIDE**

Tank mixtures with Banvel will increase the spectrum of weeds controlled. Read and follow all Banvel label directions and restrictions. Table 5 is a list of the additional weeds controlled or suppressed by tank mixing with Banvel. Refer to the Banvel label for precautions, restrictions and use rates. Use according to the more restrictive label.

**TABLE 5**

**Weeds Controlled or Suppressed by Tank Mixing with Banvel**

COMMON NAME	WEED TYPE (1)	C = CONTROLLED S = SUPPRESSION
Buttonweed	B	S
Cocklebur	B	S
Entireleaf morningglory	B	S
Giant ragweed	B	C
Ivyleaf morningglory	B	S
Mustard	B	C
Smallflower morningglory	B	S
Smartweed	B	C
Tall pitted morningglory	B	S
Velvetleaf	B	S
Waterhemp	B	S

(1) B = Broadleaf

For use in Illinois, Iowa, Minnesota and Wisconsin on level or flat-planted field corn on fine textured (silty clay loam, clay loam, sandy clay, silty clay or clay) soils with more than 4 percent organic matter.

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Apply in water or sprayable fluid fertilizer solutions for control of the annual grasses and broadleaf weeds listed in the Table 10 above.

**NOTE:** Use on coarse- or medium-textured soils or on fine-textured soils with 4% or less organic matter may result in crop injury and/or destruction.

**APPROVED APPLICATION SYSTEMS**

Ground — Broadcast boom; banded.

**NOTE:** DO NOT apply by air or by injection through center pivot irrigation systems.

**APPROVED APPLICATION METHODS**

**Preemergence Surface:** Apply this tank mixture after planting, before crop and weeds emerge and within 5 days of last preplant tillage operation. Corn seeds must be planted 1½ inches deeper beneath the soil surface. Direct chemical contact with corn seed must be avoided since crop injury may result. Apply far enough behind planter equipment to avoid any incorporation by the planter wheel or other covering device. If corn seeds are planted less than 1½ inches beneath the soil surface, delay application until corn has spiked.

Reference: the "APPLICATION TIMING AND METHODS" section of this label provides detailed information and procedures for the application timing and method selected.

**NOTE:** PREVENT DRIFT TO SOYBEANS OR OTHER DESIRABLE PLANTS. Do not use on furrow irrigated corn, or when corn is planted at the bottom of a furrow, utilizing lister, till or other similar planting methods. DO NOT incorporate prior to planting or corn emergence. If it is necessary to drag for leveling or rotary hoe to break soil crust, DO NOT disturb the soil more than 1/2 inch deep.

**ACETOCHLOR EC + ROUNDUP AGRICULTURAL HERBICIDES**

Certain tank mixtures of this product and broadleaf herbicides may be combined with applications of Roundup agricultural herbicides for control of many emerged weeds prior to corn emergence. Refer to the Roundup agricultural herbicide label for a list of emerged weeds controlled by this tank mixture.

**USE RATES FOR REDUCED OR NO-TILL SYSTEMS**

ACETOCHLOR EC may be used in reduced or no-till systems. Application can take place from up to 30 days prior to planting or after planting but before the corn emerges. The highest levels of control will be obtained when applications are made as close to planting as possible but before the corn emerges. It is recommended that a burndown herbicide such as a Gramoxone brand or Roundup agricultural herbicide be tank mixed with ACETOCHLOR EC in reduced or no-till systems. Refer to the specific burndown product label for additional precautions, restrictions and application rates. Use according to the most restrictive label.

**BAND APPLICATIONS**

For band applications, using row and band width measurements in inches, calculate the amount to be applied per acre as follows:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \frac{\text{Rate per acre for a}}{\text{broadcast treatment per acre}} = \text{Amount needed}$$

**WEEDS CONTROLLED:**

ACETOCHLOR EC applied as directed in this label will control or suppress the weeds listed in Table 3.

Additional weeds may be controlled with tank mixes. See the "CONSERVATION OR MINIMUM TILLAGE MIXTURES" section which follows for recommended tank mix combinations and the additional weeds controlled. Always consult the tank mix product labels for specific rates and use directions. Always follow the most restrictive label when tank mixing ACETOCHLOR EC with another product.

**CONSERVATION OR MINIMUM TILLAGE TANK MIXTURES**

**AT-PLANTING APPLICATIONS**

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When applied as directed under the conditions described, these tank mixtures control many emerged annual weeds, suppress many emerged perennial weeds and give preemergence control of many annual grasses and weeds when corn will be planted directly into a cover crop, established sod or in previous crop residues. These tank mixtures will not control regrowth from perennial weeds.

**DO NOT APPLY BY AIR**

**CONTROL OR SUPPRESSION OF EMERGED WEEDS**

ACETOCHLOR EC can be tank mixed with atrazine, or simazine. Apply these tank mixtures with Roundup agricultural herbicides in 10 to 40 gallons of water, or the tank mixtures with Gramoxone brand herbicides in 20 to 60 gallons of water spray solution per acre immediately before, during or after planting, but BEFORE CROP EMERGENCE. As density of stubble, crop residue or weeds increases, spray gallonage and rate should be increased within the recommended ranges to insure complete coverage. In the absence of emerged vegetation, delete the Roundup agricultural herbicide or Gramoxone brand herbicide portion of these tank mixtures. Refer to the specific Gramoxone or Roundup agricultural herbicide product label for additional precautions, restrictions and application rates. Use according to the most restrictive label.

**ACETOCHLOR EC PLUS ATRAZINE**

For weeds controlled preemergence, see the sections of this label for ACETOCHLOR EC and ACETOCHLOR EC plus Atrazine.

See the following table for recommended rates of ACETOCHLOR EC plus atrazine in this tank mixture on various soil types.

**TABLE 13**  
**ACETOCHLOR EC + Atrazine**

SOIL TEXTURE GROUP*	BROADCAST RATE PER ACRE (PINTS)	
	ACETOCHLOR EC	+ Atrazine 4L**
Coarse	1.0 to 2.0	1.25 to 2.0
Medium	1.75 to 2.5	2.50 to 3.25
Fine	2.00 to 2.5	3.25 to 4.00

**NOTE:** Do not use on any coarse-textured soils or medium- and fine-textured soils with less than 1.5% organic matter. Use on these soils may result in crop injury.

\* Refer to Table 1.

\*\* Use rates listed in this label when using Atrazine 4L. Use equivalent rates when using Atrazine 80W or 90% dry flowable formulations. One quart of Atrazine 4L equals 1.25 pounds of Atrazine 80W or 1.1 pounds of Atrazine 90% dry flowable.

Use the higher rate of Atrazine in the recommended ranges on soils with greater than 3% organic matter.

DO NOT graze treated area or feed treated forage to livestock for 60 days following application of this tank mixture.

The maximum atrazine broadcast application rates for corn:

If no atrazine was applied prior to corn emergence, apply a maximum of 2 pounds active ingredient per acre broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 pounds active ingredient per acre per calendar year.

Apply a maximum of 2.0 pounds atrazine per acre as a single preemergence application on soils that are not highly erodible or on highly erodible soils (as defined by the Natural Resources Conservation Service) if at least 30% of the soil is covered with plant residues, or



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Apply a maximum of 1.6 pounds atrazine per acre as a single preemergence application on highly erodible soils (as defined by the Natural Resources Conservation Service) if less than 30% of the surface is covered with plant residues; or 2.0 pounds active ingredient per acre if only applied postemergence. **ACETOCHLOR EC PLUS SIMAZINE**

For weeds controlled preemergence see the "WEEDS CONTROLLED" section of the labels for ACETOCHLOR EC plus simazine herbicides.

Refer to the specific product label for additional precautions, restrictions and application rates. Use according to the most restrictive label.

**NOTE; LAND TREATED WITH SIMAZINE SHOULD NOT BE PLANTED TO ANY CROP EXCEPT CORN FOR ONE YEAR FOLLOWING TREATMENT AS CROP INJURY MAY OCCUR.**

**Use Recommendations for Sweet Corn:**

This product may be used for preplant or preemergence control of weeds listed in Table 3 using soil type and application rates listed in Tables 1 and 2. Use only tank mix herbicides which are approved for use on sweet corn. Read and follow label directions for all tank mix herbicides on sweet corn.

Do not apply postemergence to sweet corn.

Sweet corn tolerance to this product may vary depending on variety, hybrid, or line grown, rate of application and environmental conditions. Consult your State University, seed corn supplier or processing company for information on the tolerance of the sweet corn line before applying this product.

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## APPENDIX I:

### Procedure for Testing the Compatibility of ACETOCHLOR EC and Tank mixes with Fluid Fertilizers.

Since fluid fertilizers vary, the following procedure is suggested for determining whether ACETOCHLOR EC may be combined with a specific fluid fertilizer for spray tank application.

#### MATERIALS NEEDED

- ACETOCHLOR EC and any tank-mix products.
- Fluid fertilizer to be used.
- Adjuvant for fertilizer tank mix: Compex\*, Sponto\* 168-D, Unite\*, or equivalent. The adjuvant which provides the best emulsification depends on the specific fertilizer under consideration.
- Two 1 quart, wide mouth glass jars with lid or stopper.
- Measuring spoons (a 25 mL pipette or graduated cylinder provides more accurate measurement).
- Measuring cup, 8 ounces (257 mL).

\*Compex, Kalo Laboratories Inc. Kansas City, MO; Sponto 168-D, Witco Chemical Company, Houston, TX; Unite, Hopkins Agricultural Chemical Co., Madison, WI.

#### PROCEDURE

1. Pour a pint (about 473 mL) of the fluid fertilizer into each of the quart jars.
2. Add 14 teaspoon (2 mL) adjuvant to one of the jars, label it as "with" and mix. The rate of ½ teaspoon per pint is equal to 3 pints of adjuvant per 100 gallons of fluid fertilizer.
3. Add ACETOCHLOR EC and any tankmix combination to the jars. The order of addition is wettable powders first with mixing, followed by flowables with mixing and the EC's last. The rate of wettable powders and dry flowables is 1½ teaspoon per pound of product per acre to be applied. EC's should be added at the rate of ½ teaspoon for each pint per acre to be applied. Premixing the wettable powders in 1 ounce of water before adding to the pint of fluid fertilizer will improve the compatibility of the final mixture.
4. Close both jars with lids or stoppers and mix the contents by turning the jars upside down ten times.
5. Inspect the surface and body of the mixtures-
  - (a) Immediately after completing the jar inversions.
  - (b) After allowing the jars to stand quietly for 30 minutes.
  - (c) And then again after turning the jars upside down 10 times after the 30 minute inspection.

#### EVALUATION

If a uniform mix cannot be made, the mixture should not be used. If either mixture remains uniform for 30 minutes, the combination may be used. Should either mixture separate after 30 minutes, but readily remix uniformly with 10 jar inversions, the mixture can be used if adequate agitation is maintained in the tank. If the mixture with adjuvant is satisfactory but the one without adjuvant is not, be sure to use the adjuvant in the spray tank. Add the adjuvant first at a rate of 3 pints per 100 gallons of fluid fertilizer. Foaming may be minimized by using moderate agitation. If nondispersible oil, sludge, or clumps of solids form in the mixtures, the combination should not be used.

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**APPENDIX II**

**Dry Bulk Fertilizer Impregnation**

All individual state regulations relating to dry bulk fertilizer blending, registration, labeling and application are the responsibility of the individual and/or company selling the ACETOCHLOR EC, ACETOCHLOR EC plus atrazine, or ACETOCHLOR EC plus GRAMOXONE brand fertilizer mixtures.

When applying ACETOCHLOR EC alone or in tank mixes with dry bulk fertilizers, follow all direction for use and precautions on the respective tank-mix product labels regarding rates, soil texture, application methods and rotational restrictions.

**TABLE 16**

**Approved Dry Fertilizer Ingredients for Use with ACETOCHLOR EC**

FERTILIZER	N	P	K
Ammonium Phosphate-Sulfate	16	20	0
Ammonium Sulfate	21	0	0
Diammonium Phosphate	18	46	0
Monoammonium Phosphate	11	56	0
Potassium Chloride	0	0	60
Potassium Sulfate	0	0	52
Single Superphosphate	0	20	0
Treble Superphosphate	0	46	0
Urea *	45	0	0

\* Some Ureas may be phytotoxic when high rates are applied to corn. Use only urea rates known to be safe for corn application.

For impregnating the pesticides on dry fertilizers, use a closed rotary drum type mixer equipped with suitable spraying equipment. The spray nozzles should be positioned inside the mixer to provide uniform spray coverage of the tumbling fertilizer. The ACETOCHLOR EC should be sprayed uniformly onto the fertilizer using a fine spray pattern. Tank-mix components may be applied as separate ingredients with powders and dry flowables added first or they may be mixed in a slurry in the proper ratio and added jointly.

If the herbicide/fertilizer mixture is too wet, use of a drying agent is required to provide a dry, free-flowing mixture. For mixtures to be used in spinning-disc applicators, Microcel E calcium silicate powder (Manville, Filtration & Minerals) is recommended for use as a drying agent. Mixtures to be used in pneumatic applicators should use Microcel E or Agsorb 16/30 RVM-MS granular clay (Oil-Dri Corporation). The drying agents should be added separately and uniformly to the prepared pesticide/fertilizer mixture, in a quantity that is sufficient to provide a suitable free-flowing mixture. Generally, less than 2% Microcel E or 5% Agsorb 16/30 RVM MS by weight is required.

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### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

**PESTICIDE STORAGE:** Store in original container only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with vermiculite, earth or synthetic absorbent.

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

#### CONTAINER DISPOSAL:

[for Bulk and Minibulk]

**Instructions for Users:** When the container is empty, replace the cap and seal all openings that have been made during usage, and return the container to the point of purchase, or to an alternate location designated by the registrant at the time of purchase of this product. If not returned to the point of purchase or a designated location, triple rinse or pressure rinse the empty container and offer it for recycling if available. If not refilled or recycled, then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Instructions for Users and Refillers:** This container must only be refilled with this pesticide product. Do not reuse this container for any other purpose. Do not transport if this container is damaged or leaking. If the container is damaged or leaking or obsolete, or to obtain information about recycling refillable containers, contact [INSERT COMPANY AND PHONE] Cleaning is not necessary prior to refilling with the same product. Clean container before final disposal. Disposal of this container must be in compliance with state and local regulations.

**Instructions for Refillers:** 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. If the container cannot be refilled, triple rinse or pressure rinse the empty container and offer for recycling if available. If not refilled or recycled, then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

[for plastic 1-way containers]

Do not reuse container. Triple rinse container, then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

[for drums]

Do not reuse container. Triple rinse container, then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**IMPORTANT:** Read the Entire Directions for Use and the Conditions of Sale and Warranty before using this product.

**CONDITIONS OF SALE AND LIMITED WARRANTY:**

The Directions For Use of this product are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as timing and method of application, weather and crop conditions, mixture with other chemicals not specifically recommended or other influencing factors in the use of the product, all of which are beyond the control of the seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label, subject to the inherent risks referred to above, when used in accordance with directions under normal conditions of use. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller and to the extent consistent with applicable law, Buyer and User assume the risk of any such use. **SELLER DISCLAIMS ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY.**

When Buyer or User claims losses or damages resulting from the use or handling of this product (including claims based on contract, negligence, strict liability or other legal theories), to the extent consistent with applicable law, Buyer or User must promptly notify in writing Seller of any claims to be eligible to receive either of the remedies set forth below. The **EXCLUSIVE REMEDY OF BUYER OR USER** and the **LIMIT OF LIABILITY** of Seller will be, at the election of Seller, refund of the purchase price paid for product bought, or replacement of amount of product used. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, SELLER SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT AND SELLER SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE.**

GRAMOXONE is a registered trademark of a Syngenta Crop Protection Inc.  
BANVEL is a registered trademark of Micro Flo Company LLC.  
ROUNDUP is a registered trademark of Monsanto Company LLC.

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Revisions this submission based on last EPA approval dated August 6, 1987

Deleted the Restricted Use Pesticide due to oncogenicity based on the 3 January 07 Cancer Assessment Review Committee decision to reclassify acetochlor as 'Suggestive Evidence of Carcinogenic Potential' and that quantification of cancer risk is not required, setting a chronic RfD of 0.02 mg/kg/day.

Label completed reformatted to be consistent with issued PR Notices, Acetochlor TRED, Atrazine IRED and other relevant reviews and changes since original approval.

This product is not commercialized, but merely supports the Acetochlor Registration Partnership original formulated product.

Update to support pending tolerance petitions for use in sweet corn and additional rotational crops.