

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

November 10, 2021

Jennifer Hughes Regulatory Leader Corteva Agriscience LLC 9330 Zionsville Road Indianapolis, IN 46268

Subject: Registration Review Label Amendments Incorporating Mitigation Measures from

the Atrazine and Acetochlor Interim Decisions and the Technical Registrants' Commitments for the Endangered Species Act (ESA) Biological Evaluation for

Atrazine

Product Name: FULTIME HERBICIDE EPA Registration Number: 62719-371

*Application Dates*: 12/16/2020 and 9/27/2021 *Decision Numbers*: 568891 and 578755

Dear Ms. Hughes:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Atrazine and Acetochlor Interim Decisions and with the Atrazine technical registrants' commitments for the ESA Biological Evaluation. The Agency has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only

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distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Quinn Gavin at <a href="mailto:gavin.quinn@epa.gov">gavin.quinn@epa.gov</a>.

Sincerely,

Linda Arrington, Branch Chief Risk Management and Implementation Branch 4 Pesticide Re-Evaluation Division Office of Pesticide Programs

Enclosure

(Base label):

## RESTRICTED USE PESTICIDE

Due to 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.

ACETOCHLOR	GROUP	15	HERBICIDE
ATRAZINE	GROUP	5	HERBICIDE

# FulTime® Herbicide

A preemergence herbicide for control of annual grasses and broadleaf weeds in field corn, production seed corn, silage corn, sweet corn and popcorn

Active Ingredients: acetochlor: 2-chloro-2'-methyl-6'-ethyl-N-

ethoxymethylacetanilide......24.8% atrazine: [2-chloro-4-(ethylamino)-6- (isopropylamino)-s-triazine] and

 related triazines
 16.6%

 Other Ingredients:
 58.6%

 Total
 100.0%

Contains 2.4 pounds acetochlor and 1.6 pounds atrazine active ingredient per gallon.

Not for use in the states of Hawaii or Alaska, or in the U.S. territories (Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands, and the North Mariana Islands)

# Keep Out of Reach of Children

# **CAUTION**

# **Precautionary Statements**

## **Hazards to Humans and Domestic Animals**

Harmful If Absorbed Through Skin • Harmful if inhaled. Causes Moderate Eye Irritation

Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Wear long-sleeved shirt and long pants. Avoid breathing spray drift.

# Personal Protective Equipment (PPE)

Mixers, loaders, applicators, flaggers and other handlers must wear:

Long-sleeved shirt and long pants



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

62719-371

- Waterproof gloves except when mixed with oil use Chemical-resistant gloves such as Barrier Laminate,
   Nitrile Rubber, Neoprene Rubber and Viton gloves
- Shoes plus socks
- A chemical-resistant apron when mixing/loading, cleaning up spills, or cleaning equipment, or otherwise exposed to the concentrate.

See Engineering Controls for Additional requirements.

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

**Engineering Controls:** 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)(5)], 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.

#### First Aid

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

#### **Environmental Hazards**

This pesticide is toxic to fish and aquatic invertebrates. 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 apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

#### Non-Target Organism Advisory

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

#### **Surface Water Advisory**

This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several weeks after application.

A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of acetochlor from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

#### **Groundwater Advisory**

Acetochlor is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Atrazine can travel (seep or leach) through soil and can enter groundwater which may be used as drinking water. Atrazine has been found in groundwater. 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.

[**Editor's note** (Overflow text on base label): The referral statement "See Environmental Hazards section of label booklet for Ground Water Advisory Statements." may be substituted for the following Ground Water Advisory statements on the base label.]

## **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

## Nonrefillable containers 5 gallons or less:

## **Storage and Disposal**

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

**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 Handling:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

## Refillable containers larger than 5 gallons:

## Storage and Disposal

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

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**Container Handling:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

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Refer to inside of label booklet for additional precautionary information including First Aid and Directions for Use.

Notice: Read the entire label. Use only according to label directions. Before using this product, read Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies at end of label booklet. If terms are not acceptable, return at once unopened.

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-371 EPA Est. \_\_\_\_\_

Produced for Corteva Agriscience LLC 9330 Zionsville Road Indianapolis, IN 46268

Net Contents \_\_\_

<sup>™®</sup> Trademarks of Corteva Agriscience and its affiliated companies.

(cover/shipping container)

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Active Ingredients:

Contains 2.4 pounds acetochlor and 1.6 pounds atrazine active ingredient per gallon.

Not for use in the states of Hawaii or Alaska, or in the U.S. territories (Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands, and the North Mariana Islands)

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## **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to inside of label booklet for additional precautionary information including First Aid and Directions for Use.

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(Page 1 through end):

## **Precautionary Statements**

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## Personal Protective Equipment (PPE)

Mixers, loaders, applicators, flaggers and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves except when mixed with oil use Chemical-resistant gloves such as Barrier Laminate,
   Nitrile Rubber, Neoprene Rubber and Viton gloves
- Shoes plus socks
- A chemical-resistant apron when mixing/loading, cleaning up spills, or cleaning equipment, or otherwise exposed to the concentrate.

See Engineering Controls for Additional requirements.

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

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## **Non-Target Organism Advisory**

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

#### **Surface Water Advisory**

This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several weeks after application.

A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of acetochlor from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

#### **Groundwater Advisory**

Acetochlor is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Atrazine can travel (seep or leach) through soil and can enter groundwater which may be used as drinking water. Atrazine has been found in groundwater. 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.

Refer to Use Precautions and Restrictions section under Information for additional requirements for protection of groundwater and surface waters.

## **Directions for Use**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

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.

#### **Endangered Species:**

It is a Federal offense to use any pesticide in a manner that results in an unauthorized "take" (e.g., kill or otherwise harm) of an endangered species under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult http://www.epa.gov/espp/, call 1-844-447-3813, or email ESPP@epa.gov. You must use the Bulletin valid for the month in which you will apply the product.

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 Corteva Agriscience 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 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 over long-sleeved shirt and long pants
- Waterproof gloves except when mixed with oil use Chemical-resistant gloves such as Barrier Laminate, Nitrile Rubber, Neoprene Rubber and Viton gloves
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear

## Storage and Disposal

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

**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.

## Nonrefillable containers 5 gallons or less:

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

#### Refillable containers larger than 5 gallons:

**Container Handling:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container

about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

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## **Product Information**

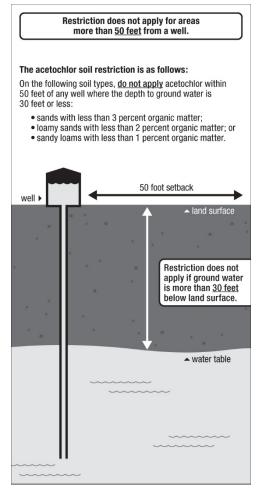
FulTime<sup>®</sup> herbicide is intended for preplant, preemergence, or early postemergence use in corn. Use of this product in corn is limited to field corn, production seed corn, silage corn, sweet corn and popcorn. Do not apply this product to any crop other than corn.

FulTime is a unique combination of the herbicides acetochlor and atrazine plus the antidote or safener dichlormid. While the acetochlor provides weed control, the dichlormid safens corn against herbicide injury. FulTime may be applied to the surface or incorporated into the top 1-2 inch layer of soil. It is recommended for control alone, or in tank mix combinations as indicated, for the weeds listed in the "Target Weeds" section of these use directions. FulTime controls weeds by interfering with normal germination and seedling development. FulTime does not control established or germinated weeds present at application.

## **Use Precautions and Restrictions**

#### **Use Restrictions**

- Not for use in the states of Hawaii or Alaska, or in the U.S. territories (Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands, and the North Mariana Islands)
- This product is restricted to impregnation of dry bulk fertilizer to 340 tons per worker per day for no more than 30 days per calendar year for use on corn.
- Do not apply FulTime using mechanically pressurized handgun to sweet corn.
- On the following soil types, do not apply this product within 50 feet of any well where the depth to groundwater is 30 feet or less: sands with less than 3% organic matter; loamy sands with less than 2% organic matter; or sandy loams with less than 1 percent organic matter. See the figure for additional clarification.



- FulTime should not be used on corn seed stock such as Breeders, Foundation, or Increase.
- Aerial Application: Do not apply this product using aerial application equipment.
- Do not apply FulTime to sweet corn as an early postemergence application
- Chemigation: Do not apply this product through any type of irrigation system.
- Do not use flood irrigation to apply or incorporate this product.
- Do not contaminate irrigation water used for crops other than corn or water used for domestic purposes.
- Do not apply FulTime before pre-irrigation in irrigated areas.
- Applied according to directions and under normal growing conditions, FulTime will not harm the treated crop. During germination and early stages of growth, extended periods of unusually cold and wet or hot and dry weather, insect or plant disease attack, carryover pesticide residues, the use of certain soil applied systemic insecticides, improperly placed fertilizers or soil insecticides may create abnormal conditions that weaken crop seedlings. FulTime used under these abnormal conditions could result in crop injury.
- **Protection of Ground Water and Surface Water:** This product may not be mixed or loaded within 50 feet of intermittent streams and rivers, natural or impounded lakes and reservoirs. This product must not be applied within 66 feet of the 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-foot buffer or setback from runoff entry points must be planted to crop, seeded with grass or other suitable crop.

This product must not be mixed or loaded, or used within 50 feet of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 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.

Additional State imposed requirements regarding wellhead setbacks and operational containment must be observed.

## Tile-Outletted Fields Containing Standpipes

To ensure protection of surface water from runoff through standpipes with tile-outlets in fields, one of the following restrictions must be followed in applying atrazine to tile-outletted fields containing standpipes:

- 1. Do not apply this product within 66 feet of standpipes in tile-outletted fields.
- 2. Apply this product to the entire tile-outletted field and immediately incorporate it to a depth of 2-3 inches in the entire field.
- Apply this product to the entire tile-outletted field under a no-till practice only when high crop
  residue management practices are used. High crop residue management is described as a
  crop management practice where little or no crop residue is removed from the field during or
  after crop harvest.
- Product must be used in a manner that will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.
- Do not apply under conditions that favor runoff or wind erosion of soil containing this product to nontarget 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 should 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 nontarget crops unless at least ½ inch of rainfall has occurred between application and the first irrigation.

## Maximum Atrazine Application Rates Per Calendar Year:

Maximum annual atrazine broadcast application rates for corn must be as follows:

- If no atrazine was applied prior to corn emergence, apply a maximum rate of 2.0 pounds active ingredient (5.0 quarts FulTime) per acre. If postemergence treatment is required following an earlier herbicide application, the total atrazine applied must not exceed 2.5 pounds active ingredient per acre per calendar year. Note: One quart per acre FulTime delivers 0.4 pound active ingredient atrazine per acre.
- Apply a maximum of 2.0 pounds active ingredient (5.0 quarts FulTime) per acre if a single preemergence application is made on soils that are not highly erodible or on highly erodible soil if at least 30% of the soil is covered with plant residues, or
- Apply a maximum of 1.6 pounds active ingredient (4.0 quarts FulTime) per acre as a single
  preemergence broadcast application on highly erodible soils if less than 30% of the soil is covered
  with plant residues; or 2.0 pounds active ingredient (5.0 quarts FulTime) per acre if only applied
  postemergence.
- Maximum Acetochlor Application Rates Per Calendar Year:

Maximum annual acetochlor broadcast application rates for corn must not exceed 3.0 pounds active ingredient (5.0 quarts FulTime) per acre. Note: One quart per acre FulTime delivers 0.6 pound active ingredient acetochlor per acre).

- **Preharvest Interval:** Do not apply this product within 60 days of harvest for field corn forage uses or 45 days for sweet corn forage uses.
- Postemergence applications to corn must be made before the crop reaches 12 inches in height.

#### **Rotational Crop Restrictions:**

When tank mixing with other herbicides, follow the most restrictive crop rotation guidelines on the label of each product used. The following rotational crops may be planted as indicated:

Rotational Crop	Timing or Interval
corn (1)	Anytime - 0 months after
	application
sorghum, soybean (2)	Spring following application
alfalfa, barley, dry beans (3), lupin (4), millet,	15 months after application (5)
pearl or proso, oats, pea (6), potatoes, rye,	
sugar beets, sunflower, tobacco (7), triticale,	
wheat, wild rice	

Numbers within parentheses (-) in the table refer to Specific Rotational Crop Requirements below.

#### **Specific Rotational Crop Requirements:**

- (1) If crop treated with FulTime is lost, corn may be replanted immediately. Do not make a second application of FulTime. Do not apply FulTime after June 10, unless only corn will be planted the following year.
- (2) Due to the risk of atrazine carryover, injury to soybeans may ccur the year following corn when planted in north central and northwest lowa, south central and southwest Minnesota, northern Nebraska and southeast South Dakota on soils having a calcareous surface layer and relatively high pH.
- (3) Dry beans includes: adzuki, kidney, lima, navy, pinto
- (4) Lupin includes: grain, white, white sweet
- (5) Approved rotation crops list does not include any species of succulent beans and peas.
- (6) Pea includes: blackeyed, chick, cow, Crowder, field, pigeon, Southern
- (7) Because of atrazine carryover, injury may occur to tobacco.

## Aerial Application

Do not apply this product using aerial application equipment unless otherwise directed by approved supplemental labeling in possession of the user at the time of application.

## **Mandatory Spray Drift**

#### **Ground Boom Applications:**

- Applicators are required to select a nozzle and pressure that deliver coarse or coarser droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE S572).
- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.
- User must maintain a 15 foot (4.6 m) in-field downwind buffer (in the direction in which the wind is blowing) from the edge of streams and rivers, as well as high-tide line for all estuarine/marine environments.

## **Spray Drift Advisories**

- THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.
- BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.
- IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size - Ground Boom

- Volume Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle Use a spray nozzle that is designed for the intended application.
   Consider using nozzles designed to reduce drift.

#### BOOM HEIGHT - Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

#### • TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

## • TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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.

#### WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

## **Weed Resistance Management**

FulTime contains the active ingredients Acetochlor (Group 15) and Atrazine (Group 5) herbicides, based on the mode of action classification system of the Weed Science Society of America.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different modes of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product, users should:

- Scout fields before and after application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- If using post-emergence herbicides or tank mixes, control weeds early when they are relatively small.
- Apply full rates of FulTime for the most difficult to control weed in the field at the specified time to minimize weed escapes.
- Scout fields after application to detect weed escapes or shifts in control of weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed to your local company representative, local retailer, or county extension agent.
- Contact your local company representative, crop advisor, or extension agent to find out if
  suspected resistant weeds to these MOAs have been found in your region. DO NOT assume that
  each listed weed is being controlled by multiple modes of action. Products with multiple active
  ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may
  be controlled by only one of the active ingredients in this product.
- If resistance is suspected, treat weed escapes with an herbicide having a mode of action other than Group 15 or Group 5 and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Suspected herbicide-resistant weeds may be identified by these indicators:
- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum herbicide with another mode of action as a foundation in a weed control program, if appropriate.
- Utilize sequential applications of herbicides with alternative modes of action.
- Rotate the use of this product with non-Group 15 and 5 herbicides.
- Avoid making more than two sequential applications of FulTime and any other Group 15 or Group 5 herbicides within a single growing season unless mixed with an herbicide with a different mode of action with an overlapping spectrum for the difficult-to-control weeds.
- Incorporate non-chemical weed control practices, for example, mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields to reduce weed seed production.

#### General principles of herbicide resistance management

- 1. Apply integrated weed management practices. Use multiple herbicide modes-of-action with overlapping weed spectrums in rotation, sequences, or mixtures.
- 2. Use the full recommended herbicide rate and proper application timing for the hardest to control weed species present in the field.
- 3. Scout fields after herbicide application to ensure control has been achieved. Avoid allowing weeds to reproduce by seed or to proliferate vegetatively.
- 4. Monitor site and clean equipment between sites.

#### For annual cropping situations also consider the following:

Start with a clean field and control weeds early by using a burndown treatment or tillage in

combination with a preemergence residual herbicide as appropriate.

- Use cultural practices such as cultivation and crop rotation, where appropriate.
- Use good agronomic principles that enhance crop competitiveness
- Use new commercial seed that is as free of weed seed as possible.

Report any incidence of repeated non-performance of this product on a particular weed to your Corteva Agriscience representative, local retailer, or county extension agent.

## **Application Directions - Corn**

## **Carriers and Spray Volume**

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 FulTime is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.

Apply in a minimum broadcast spray volume of 10 gallons per acre using boom equipment for ground applications. Use low-pressure nozzles designed for application of herbicides. Use sufficient operating pressure to produce the desired spray pattern for the nozzle (15 to 40 psi) and follow manufacturer's recommendations for nozzle spacing and operating height to ensure uniform spray distribution at the soil surface. Use 50-mesh or coarser screens, if needed.

## Adding to Spray Tank

The spray tank must be clean, thoroughly rinsed, and decontaminated before adding either FulTime alone or with tank mix combinations. If water is used as the carrier, use clean water. All return lines to the spray tank must discharge below the liquid level.

**Used Alone:** When FulTime is used alone, add the specified amount to the spray tank when the tank is half filled, then add the rest of the water or fluid fertilizer. Provide sufficient agitation to ensure thorough mixing and to maintain a uniform spray mixture during application.

**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.

#### **Water Carrier**

Allow time for complete dispersion/mixing before adding another product to the spray mixture. Add products to the tank mixture in the following order:

- To start, add one-half of the required amount of water to the spray tank. Begin agitation.
- Products in water soluble packaging. Important: Allow time for complete dispersion.
- Wettable powders or dry flowables (slurry if recommended by tank mix product label)
- · Liquid flowables
- · Emulsifiable concentrates
- FulTime or other suspension concentrates
- Urea ammonium nitrate (UAN) or ammonium sulphate (AMS), if required.
- · Compatibility agent if needed
- Soluble liquids such as glyphosate, paraquat, 2,4-D amine
- Crop oil concentrate (COC) or nonionic surfactant (NIS), if required
- Finish filling spray tank to required spray volume

#### **Liquid Fertilizer Carrier**

Allow time for complete dispersion/mixing before adding another product to the spray mixture. Add products to the tank mixture in the following order:

- To start, add one-half of the required amount of liquid fertilizer to the spray tank. Begin agitation.
- · Compatibility agent if needed
- Products in water soluble packaging. Important: Products in water soluble packaging must be premixed with water (slurried) prior to addition to the spray tank.
- Wettable powders or dry flowables (slurry if recommended by tank mix product label)
- Liquid flowables
- Emulsifiable concentrates
- FulTime or other suspension concentrates
- Ammonium sulphate (AMS), if tank mixing with glyphosate.
- Soluble liquids such as glyphosate, paraquat, 2,4-D amine
- Crop oil concentrate (COC) or nonionic surfactant (NIS), if required
- Finish filling spray tank to required spray volume.

**Note:** For all tank mixtures, maintain agitation during mixing and throughout application to ensure spray mixture remains uniformly suspended.

# **Application Timing and Methods**

For the optimum period of effective weed control during the time most critical to corn production, preplant applications of FulTime should occur as close as possible to planting. Preemergence applications should occur as close as possible to planting, but prior to weed emergence. Postemergence applications should occur prior to weed emergence or in tank mix combination with a product that controls emerged weeds.

**Note:** Do not apply FulTime to sweet corn as an early postemergence application.

**Early Preplant:** On medium and fine textured soils (see Table 1), FulTime may be applied up to 30 days prior to planting.

**Preplant Incorporation:** FulTime and certain tank mixes may be mechanically incorporated in the top 2 inches of the soil with field cultivators, discs, or spring tooth harrows at any time within 14 days prior to planting. Improper incorporation, excessive crop residues, or poor soil tilth may result in erratic, streaked or otherwise unsatisfactory weed control. Do not mix FulTime deeper than 2" into the soil and avoid moving or shaping soil after incorporation.

**Preemergence Surface:** FulTime and certain tank mixes may be applied to the soil surface as a broadcast or banded application. Precipitation or sprinkler irrigation of at least 0.25 inch is required to bring FulTime into contact with germinating weed 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 equipment, to incorporate the herbicide. Incorporation equipment should be run at a shallow depth to avoid disturbance of germinating corn seed. Erratic weed control resulting from exposure of untreated soil may occur if surface soil is moved or reshaped after incorporation.

**Postplant-Preemergence:** FulTime may be applied immediately after planting but prior to corn emergence. 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 shallowly incorporate the herbicide. Do not disturb germinating corn seed. Erratic weed control resulting from exposure of untreated soil may occur if surface soil is moved or reshaped during incorporation.

**Banding Preemergence:** FulTime may be applied in a 10 to 14 inch band after corn planting but prior to corn emergence. 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. Do not disturb the germinating corn seed. Erratic weed control resulting from exposure of untreated soil may occur if surface soil is moved or reshaped during incorporation.

Early Postemergence: FulTime may be applied early postemergence to corn up to 11 inches tall.

Applications must be made prior to weed seedling emergence or in a tank mix combination that controls the emerged weeds. Read and follow restrictions and directions on tank mix product labels.

**Sprinkler Irrigation:** Do not apply FulTime by sprinkler irrigation. Use a sprinkler system only to incorporate FulTime after application. After FulTime has been applied, a sprinkler irrigation system set to deliver 0.25 to 0.75 inch of water per acre may be used to incorporate the product. Using more than 0.75 inch of water could result in reduced performance. On sandy soil low in organic matter, use no more than 0.5 inch of water. Do not use flood irrigation to apply or incorporate FulTime.

#### Cultivation

Cultivation should be delayed as long as possible. If weeds develop, a shallow cultivation or rotary hoeing will generally result in improved weed control. If FulTime was incorporated, cultivate less than one-half the depth of incorporation.

If cultivation is necessary due to soil crusting, compaction, or escaped weeds 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.

## **Soil Texture and Organic Matter**

The use rate of FulTime is determined by a combination of two factors, soil texture and organic matter, which must be determined prior to application. Different soil textures are grouped into three textural classes (coarse, medium and fine) as outlined in Table 1. Soil texture and organic matter content of the soil may be determined from soil survey information and/or by laboratory analysis and must be known in order to select the proper rate from Table 2.

Table 1: Soil Texture Groupings for FulTime Use Rate Selection.

Coarse	Medium	Fine
Sand Loamy Sand Sandy Loam	Loam Silt Silt Loam Sandy Clay Loam	Silty Clay Loam Silty Clay Sandy Clay Clay Loam Sandy Clay Loam Clay

## **Use Rates in Conventional Tillage Systems**

The use rates in Table 2 are for preplant incorporated, preemergence, and early postemergence applications (see Application Timing and Methods). Consult Table 3 if no-till applications are made or application is made more than 14 days prior to planting under conventional tillage.

Table 2: Use Rates for FulTime by Soil Texture and Organic Matter Content in Conventional Tillage Systems.

Soil	Soil Organic Matter Content		
Texture	Less than 3% 3% or Greater		
Coarse	2.5 - 2.7 qt/acre	2.7 - 3.0 qt/acre	
Medium	2.7 - 3.3 qt/acre	3.0 - 3.3 qt/acre	
Fine	3.0 - 3.5 qt/acre	3.0 - 5.0 qt/acre <sup>1</sup>	

<sup>&</sup>lt;sup>1</sup> On highly erodible soils with less than 30% plant residue, do not apply more than 4.0 quarts per acre.

**Rate Ranges:** Use a rate in the lower end of the rate range if weed infestation is light and/or soil organic matter is less than 3%. Use a rate in the higher end of the rate range if the weed infestation is heavy and/or soil organic matter is greater than 3%

## **Use Rates for Reduced Tillage Systems**

Application can take place up to 40 days before planting or after planting. Optimal weed control will be obtained when applications are made as close to planting as possible, but before weeds emerge. In reduced or no-till systems, it is recommended that a burndown herbicide such as paraquat (Gramoxone) or glyphosate (Glyphomax, Roundup or Touchdown) or 2,4-D be tank mixed with FulTime if emerged weeds are present at application.

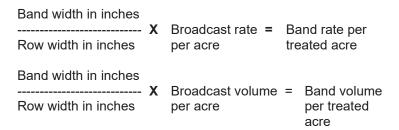
Table 3: Use Rates for FulTime by Soil Texture in Reduced or No-Till Systems. 1

	Time Of Application Relative To Planting		
Soil Texture	Greater Than 14 Days Before Planting	Less Than 14 Days Before or After Planting But Prior to Emergence	After Planting and/or Emergence
Coarse	Do not apply more than 14 days before planting in coarse textured soils	2.5 - 3.0 qt/acre	2.5 - 3.0 qt/acre
Medium	2.7 - 4.0 qt/acre	2.7 - 3.3 qt/acre	2.7 - 3.3 qt/acre
Fine	3.3 - 5.0 qt/acre <sup>2</sup>	3.0 - 5.0 qt/acre <sup>2</sup>	3.0 - 4.0 qt/acre

<sup>&</sup>lt;sup>1</sup> Rates are for single applications. Split applications of FulTime may be used by applying at least 60% of the specified rate up to 30 days before planting and the remaining 40% at planting.

## **Band Applications**

This product may be applied as a band treatment. Use the following formulas below to determine the appropriate rate and volume per treated acre.



## **Weeds Controlled**

FulTime applied as directed in this label will control or partially control the weeds listed in Table 4. Additional weeds may be controlled with tank mixes. See the "Tank Mix Combinations" section for tank mix directions. Always consult the tank mix product labels for specific use rates and use directions.

<sup>&</sup>lt;sup>2</sup> On highly erodible soils with less than 30% plant residue, do not apply more than 4.0 quarts per acre.

	C = Control PC = Partial		C = Control PC = Partial
Grasses and Sedges	Control	Broadleaves	Control
barnyardgrass	С	beggarweed, Florida	С
crabgrass spp.	С	carpetweed	С
crowfootgrass	С	cocklebur (2)	PC
cupgrass, southwestern	С	galinsoga	С
cupgrass, woolly	PC	jimsonweed	С
foxtail, giant	С	kochia	PC
foxtail, green	С	lambsquarters, common	С
foxtail, robust (purple, white)	С	morningglory spp.	С
foxtail, yellow	С	nightshade, black	С
goosegrass	С	nightshade, hairy	С
johnsongrass, seedling	PC	pigweed, redroot	С
millet, foxtail	С	purslane, common	С
millet, wild proso	PC	pusley, Florida	С
nutsedge , yellow (1,2)	С	ragweed, common	С
panicum, browntop	С	ragweed, giant	PC
panicum, fall	С	sicklepod	С
panicum, Texas (3)	С	sida, prickly	С
rice, red	С	smartweed spp.	С
sandbur, field	PC	velvetleaf (2)	PC
shattercane	PC	waterhemp, tall	С
signalgrass, broadleaf (3)	С	waterhemp, common	С
sprangletop, red	С		
witchgrass	С	60.5	

- Control of yellow nutsedge requires a minimum of 3.5 quarts per acre. Incorporation will improve control.
- (2) Activity may be reduced under dry conditions or when early preplant applications are made more than 14 days before planting. Sequential herbicides or application of additional atrazine may be needed for complete control.
- (3) Best control is achieved when FulTime is applied within 5 days of planting and rainfall occurs shortly after application or mechanical incorporation is used to activate the herbicide. If rainfall does not occur within 7 days after application, shallow cultivation will enhance activity. Excessive rainfall after application may reduce control. Under adverse weather conditions and/or heavy infestations, a cultivation or follow-up herbicide may be needed.

## **FulTime Tank Mix Combinations**

When tank mixing or sequentially applying atrazine or simazine or products containing either a.i. to corn, the total pounds of simazine and/or atrazine applied (lb ai/acre) must not exceed 2.5 pounds active ingredient per year.

For all applications, do not exceed the maximum rate of acetochlor as specified in the Maximum Acetochlor Application Rate Per Calendar Year section of this label.

Additional weeds may be controlled with tank mixes. Tank mix combinations may be used in either conventional, reduced, or no-till systems and may be applied by the same methods and at the same application timing as FulTime unless otherwise specified in the tank mix product label.

FulTime may be tank mixed with any other herbicide labeled for use on corn provided the compatibility of the tank mix is verified by a jar test and tank mixing with FulTime is not prohibited by the label of the tank mix product. The compatibility of a tank mixture can be determined by mixing the ingredients of the

herbicide mixture in their relative proportions in a glass jar as described for fluid fertilizer mixtures in Appendix I by substituting water for fluid fertilizer. Refer to the label of the tank mix product for applicable use directions, precautions and limitations, including additional weeds controlled. Do not exceed application rates on the respective product labels. Do not tank mix with another pesticide product that contains the same active ingredient as this product unless the label of either tank mix partner specifies the maximum dosages that may be used.

**Note:** This product contains atrazine and may not control weeds that are known or suspected to be triazine "resistant."

When tank mixing FulTime with atrazine, do not exceed the maximum allowable rate of atrazine in your county or state. In some atrazine management areas, atrazine is more restricted. Consult your county extension office or state university for further information.

# **Use of Spray Adjuvants**

FulTime is a preemergence herbicide for which spray adjuvants have little or no influence on performance. However, several herbicides used in tank mixtures with FulTime require use of adjuvants to aid in the burndown of emerged weeds. Use only those adjuvants recommended on the label of the tank mix product and approved for use in growing crops.

**Note:** Do not use liquid fertilizer as the carrier when FulTime is applied postemergence to corn as severe injury may result. The addition of liquid fertilizer as an adjuvant in tank mixes of FulTime applied postemergence to corn under conditions of environmental stress may result in significant crop injury and should be avoided if the risk of crop injury is unacceptable.

# **Preemergence Tank Mix Combinations**

#### **Conventional Tillage (FulTime Plus):**

Tank Mix Herbicide †	Comments
Atrazine 4L <sup>††</sup>	<ul> <li>This tank mix may be applied preplant surface, preplant incorporated, preemergence. If emerged weeds are greater than 1.5 inches tall at the time of application, add an appropriate postemergence herbicide</li> <li>Consider this tank mix in areas with longer growing seasons, high rainfall or heavy broadleaf weed pressure.</li> <li>Do not exceed an application rate of 2.0 pounds active ingredient of atrazine per acre for any single application and the total pounds of atrazine applied (lb a.i. per acre) must not exceed 2.5 pounds active ingredient per acre per year.</li> </ul>
Balance Pro	<ul> <li>This tank mix is not labeled in all states. Refer to label for Balance Pro for applicable directions for use, geographic and other restrictions</li> <li>For use in field corn only</li> <li>Refer to the use rates section for minimum use rates for FulTime</li> </ul>
Hornet WDG	Tank mix with 3.0 – 4.0 oz/acre Hornet® WDG herbicide to provide consistent control of velvetleaf, lambsquarters, pigweed species, waterhemp and triazine resistant varieties of these species. Also provides improved control of cocklebur, common ragweed, giant ragweed, common sunflower and jimsonweed.
Princep 4L	Provides improved control of crabgrass and fall panicum
Python WDG	<ul> <li>Tank mix with 0.8 – 1.0 oz/acre Python® WDG herbicide to provide consistent control of velvetleaf, lambsquarters, pigweed species, waterhemp and triazine resistant varieties of these species.</li> </ul>
Surpass EC	Tank mix with 1 pt/acre of Surpass® EC herbicide for enhanced grass and nutsedge control

- <sup>†</sup> Different formulations of herbicide products listed may be tank mixed with FulTime. Prior to use, perform a compatibility test and check the label of the tank mix product label for application rates, applicable use directions, precautions and limitations.
- <sup>††</sup> Do not exceed an application rate of 2.0 pounds active ingredient of atrazine per acre for any single application and the total pounds of atrazine applied (lb a.i. per acre) must not exceed 2.5 pounds active ingredient per acre per year.

## Reduced or No-Tillage Corn (FulTime Plus):

Tank Mix Herbicide †	Comments
Atrazine 4L ††	<ul> <li>This tank mix may be applied preplant surface, preplant incorporated or preemergence. If emerged weeds are greater than 1.5 inches tall at the time of application, add an appropriate postemergence herbicide</li> <li>Consider this tank mix in areas with longer growing seasons, high</li> </ul>
	rainfall or heavy broadleaf weed pressure.
Balance Pro	<ul> <li>This tank mix is not labeled in all states. Refer to label for Balance Pro for applicable directions for use, geographic and other restrictions</li> <li>For use in field corn only</li> </ul>
	Refer to the use rates section for minimum use rates for FulTime
Banvel/Clarity Marksman <sup>††</sup>	<ul> <li>Apply preplant or preemergence in reduced/ no-till systems for burndown of existing weeds</li> </ul>
Durango® DMA®, Roundup UltraMAX, Touchdown	<ul> <li>Apply preplant for burndown of existing weeds</li> <li>Weeds less than 6 inches tall are easiest to control with burndown herbicides applied in combination with FulTime.</li> <li>Always add ammonium sulphate (AMS) to tank mixes prior to addition of glyphosate (8.5 to 17 lb per 100 gal of spray).</li> </ul>
Gramoxone Inteon	Controls annuals and suppresses perennials
Pendimax® / Prowl	Apply preemergence to early postemergence (up to 3" tall corn) but before weeds are more than 1" tall.
Princep 4L	For improved crabgrass or fall panicum control
Surpass EC	For enhanced grass and nutsedge control
2,4-D	Apply preplant for control of existing weeds

<sup>&</sup>lt;sup>†</sup> Different formulations of herbicide products listed may be tank mixed with FulTime. Prior to use, perform a compatibility test and check the label of the tank mix product label for application rates, applicable use directions, precautions and limitations.

## **Postemergence Tank Mix Combinations**

FulTime may be applied before, with, or following the use of one or more of the following herbicides: Accent, Accent Gold, Aim EW, atrazine, Banvel, Basis, Basis Gold, Beacon, Buctril, Buctril/atrazine, Clarity, Distinct, Hornet WDG, Liberty, Lightning, Marksman, Peak, Permit, Poast (Plus and HC), Princep, Pendimax, Prowl, Pursuit, Shotgun, Spirit and Steadfast. Refer to the other product label(s) for applicable directions for use, precautions and restrictions, and a weeds controlled. FulTime may be tank mixed with any postemergence product approved for use on corn unless it is prohibited by the tank mix product label.

When tank mixing, refer to the label of the tank mix product and follow additional use directions in the following table: **FulTime can be applied to corn up to 11" tall.** 

#### Postemergence Tank Mixes (FulTime plus):

<sup>&</sup>lt;sup>††</sup> Do not exceed an application rate of 2.0 pounds active ingredient of atrazine per acre for any single application and the total pounds of atrazine applied (lb a.i. per acre) must not exceed 2.5 pounds active ingredient per acre per year.

Tank Mix			
Herbicide	Rate	Comments	
Accent Gold WDG	3.5 oz/acre	Always add crop oil concentrate at 1% v/v. An ammonium nitrogen fertilizer (AMS or UAN) is also recommended.	
Hornet WDG	2-5 oz/acre	Always add NIS at 0.25% v/v or COC at 1% v/v.	
Aim EW	0.5 oz/acre	Always add a NIS at 0.25% v/v.	
Banvel Clarity Marksman †	0.5 - 1.0 pt/acre 0.5 - 1.0 pt/acre 2 - 3.5 pt/acre	Apply early postemergence up to 8" tall corn on all soils. If grasses are more than 2- leaf stage, combine with another herbicide to control these weeds.	
Buctril Buctril+atrazine† Shotgun†	1.5 pt/acre 2.0 pt/acre 2 - 3 pt/acre	Refer to tank mix product labels for applicable use directions, precautions and restrictions.	
Atrazine†	0.5 - 2.0 lb ai/acre	<ul> <li>Apply preplant surface, preplant incorporated, preemergence or early postemergence (up to 8" tall corn). If emerged weeds are greater than 1.5 inches tall at the time of application, add an appropriate postemergence herbicide.</li> <li>Note: The maximum atrazine application rate per year for corn is 2.0 lb active if applied only postemergence or 2.5 lb active if pre- and postemergence applications are made.</li> </ul>	
Distinct	4.0 - 6.0 oz/acre	<ul> <li>Always add a NIS at 0.25% v/v and 1.25% UAN.</li> <li>May be applied to corn up to 10 inches tall.</li> </ul>	
Liberty	16 - 28 oz/acre	For use on liberty tolerant corn only. Apply to grass and broadleaf weeds up to 6 inches tall. Do not use additional surfactant.	
Lightning	1.28 oz/acre	• For use on Clearfield corn only. Use NIS at 25%v/v and liquid nitrogen fertilizer at 1 - 2 qt per acre or ammonium sulfate at 2.5 lb per acre.	
Pendimax / Prowl	1.8 - 3.6 pt/acre	Apply preemergence or apply early postemergence to corn up to 3" tall, but before weeds are more than 1" tall.	
Pursuit 2.5L Pursuit 70DG	4.0 fl oz/acre 1.4 fl oz/acre	<ul> <li>Use only on Clearfield varieties.</li> <li>Apply preplant incorporated, preplant surface, preemergence or early postemergence to weeds up to 3 inches tall.</li> </ul>	
Resource	4.0 - 6.0 oz/acre	Apply to weeds less than 5 inches tall. Add a crop oil concentrate at 1 - 2 pt/acre and either 28% nitrogen at 2% v/v or ammonium sulfate at 2.5 lb/acre. May cause some burn or spotting of corn leaves.	
Spirit	1.0 oz/acre	<ul> <li>Always add COC at 1% v/v.</li> <li>See label for Spirit for geographic restrictions.</li> </ul>	
2,4-D Ester	See Label	Apply preplant surface or preemergence to control emerged broadleaf weeds in corn.	
Accent 75WDG Beacon 75WDG Basis	1/4 - 2/3 oz/acre 0.76 oz/acre 1/4 - 2/3 oz/acre	Minimum use rates for FulTime (qt/acre):     Soil <3%OM 3-7%OM >7%OM     Coarse 2.0 2.0 2.5	
Steadfast	0.75 oz/acre	Medium 2.0 2.0-2.5 2.5-3.0	

		<ul> <li>Fine 2.0 2.0-2.5 2.5-3.0</li> <li>Always add NIS at .25% (v/v). In addition, if applied under dry conditions, add 4% (v/v) clear liquid fertilizer.</li> <li>Banvel, Clarity, Marksman, Buctril, Buctril/atrazine may be added to this mixture to provide burndown and residual control of broadleaf weeds.</li> </ul>
Basis Gold <sup>†</sup>	14.0 oz/acre	<ul> <li>Minimum use rates for FulTime (qt/acre):         Soil &lt;3%OM 3-7%OM &gt;7%OM         Coarse 2.0 2.0 2.5         Medium 2.0 2.0-2.5 2.5-3.0         Fine 2.0 2.0-2.5 2.5-3.0</li> <li>Always add COC at 1.0% v/v or, under dry conditions, add COC at 2.0% v/v plus 2 qt/acre of 28% liquid nitrogen or 2 lb/acre of ammonium sulfate.</li> <li>Banvel, Clarity, Marksman, Buctril, or Tough herbicide may be added to this mixture to provide burndown and residual control of broadleaf weeds.</li> </ul>

<sup>&</sup>lt;sup>†</sup> Do not exceed an application rate of 2.0 pounds active ingredient of atrazine per acre for any single application and the total pounds of atrazine applied (lb a.i. per acre) must not exceed 2.5 pounds active ingredient per acre per year.

# Appendix I

## Procedure for Testing the Compatibility of FulTime and Tank Mixes with Fluid Fertilizers.

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

#### Materials Needed:

- FulTime and any tank mix products.
- Fluid fertilizer to be used.
- Adjuvant for fertilizer tank mix: Use any adjuvant cleared for use on growing crops under 40 CFR 180.1001 to improve the compatibility of FulTime with fluid fertilizers. The adjuvant that 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).

#### Procedure:

- 1. Pour a pint (about 473 ml) of the fluid fertilizer into each of the guart jars.
- 2. Add FulTime and any tank mix 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.
- 3. Add 1/2 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.
- 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 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 non-dispersible oil, sludge, or clumps of solids form in the mixtures, the combination should not be used.

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