

352-674

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Transferred from
68891-7

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ACCEPTED

JAN 23 2007

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under
EPA Reg. No. 352-674



DuPont™ ETK-2201

cotton harvest aid/defoliant

<i>Active Ingredients *</i>	<i>By Weight</i>
Urea sulfate**	58.6%
Ethephon (2-Chloroethylphosphonic acid)	18.3%
Inert Ingredients	23.1%
TOTAL	100.0%

*This Product Contains 2.28 Pounds of Ethephon Per Gallon
Density in Pound Per Gallon @ 68°F ... 12.45

**Monocarbamide dihydrogen sulfate

EPA Reg. No. 352-674

EPA Est. No. _____

Net Weight _____

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

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.)

FIRST AID

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.

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

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

NOTE TO PHYSICIAN: There is no specific antidote. Treat symptomatically. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Acid ingestion may cause gastroesophageal perforation. Perforation may occur within 72 hours, but along with abscess formation, may occur weeks later. Due to the corrosive property of this material, emesis is contraindicated. Probable mucosal damage may contraindicate the use of gastric lavage. The use of alkaline substances to neutralize the acid is contraindicated. Victims of severe overexposure by inhalation should be kept under medical observation for up to 72 hours for delayed onset of pulmonary edema.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. **For medical emergencies involving this product, call toll free 1-800-441-3637.** See Label for Additional Precautions and Directions for Use.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER! Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Harmful if swallowed, inhaled or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist.

PERSONAL PROTECTIVE EQUIPMENT

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.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks
- Protective eyewear

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 no such instruction for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

Important: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "Applicators and Other Handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

USERS SHOULD: Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

2/6

ENVIRONMENTAL HAZARDS

This product may be harmful to wildlife directly sprayed. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. Do not apply in any manner not specified on the label.

PHYSICAL OR CHEMICAL HAZARDS

Do not allow DuPont™ ETK-2201 to be heated above 176°F, as the quality of the product may deteriorate. If ETK-2201 is heated above 230°F, vigorous decomposition may occur. Do not weld equipment containing ETK-2201.

CLOTHING: ETK-2201 can attack cotton, nylon and leather clothing. If ETK-2201 contacts clothing of this type, flush with plenty of water to minimize damage.

DO NOT MIX with materials containing chlorates as this could result in the formation of hypochlorous acids which on heating will emit toxic chlorine fumes.

DO NOT APPLY this product through any type of irrigation system.

DO NOT PLANT another crop within 30 days after treatment.

Avoid spray drift to nearby crops as this product may cause modifications in plant growth. Plant injury or reduced yields may result.

Mix only the amount of spray you expect to use each day. Do not allow mixed solution to stand overnight.

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 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 in this labeling 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 48 hours. The REI increases to 72 hours in outdoor areas where average rainfall is less than 25 inches a year.

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:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks
- Protective eyewear

Notify workers of the application by warning them orally and posting signs at entrances to treated areas.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Follow all applicable directions, restrictions and precautions on the EPA-registered label. 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. This label must be in the possession of the user at the time of application.

APPLICATION INFORMATION

ETK-2201, or a tank mix of ETK-2201 and an approved partner, when applied as a foliar spray to cotton, provides fast, effective defoliation of cotton plants and increases the speed and efficacy of opening of mature bolls. ETK-2201 may be applied alone to cotton that is very physiologically mature; however, under most conditions, most consistent defoliation and regrowth inhibition is achieved with tank mixes of ETK-2201 and an approved defoliant. Typically, satisfactory defoliation is achieved in 7 to 10 days. Under adverse conditions, such as low temperatures and/or toughened foliage, up to 14 days may be required for satisfactory defoliation. ETK-2201 provides limited control of cotton regrowth.

APPLICATION TIMING

Apply ETK-2201 when sufficient, mature, unopened bolls have developed to produce the desired cotton yield (approximately 65% opened bolls in most cases). Consult University recommendations in your area for testing of boll maturity. Treatment with ETK-2201 before the appropriate number of bolls have reached maturity may result in reduction of yield and lint quality.

APPLICATION RATES

ETK-2201 Tank Mixes

Apply ETK-2201 at 1.5 to 2 quarts per acre, in tank mix with a defoliant for defoliation and boll opening (see Table below). Under less than optimum conditions and with rank cotton, higher rates of the defoliant are required.

Defoliant	Defoliant Rates for ETK-2201 tank mixes
"Aim" EC	0.5-1.0 fl oz/A
"Def" 6/"Folex" 6EC DuPont™ FREEFALL™ SC/ "Dropp" SC	4.0-12 fl oz/A*
"ET"	0.8-3.2 fl oz/A
"Ginstar" EC	1.0-2.0 fl oz/A
"Harvade" 5F	3.0-8.0 fl oz/A
"Resource"	4.0-6.4 fl oz/A
	3.0-6.0 fl oz/A

*Under extreme cool, wet conditions, the rate of "Def" 6/"Folex" may be increased to 24 fl oz.

For most consistent regrowth inhibition, ETK-2201 should be applied in a tank mix with a defoliant that contains the active ingredient thidiazuron, such as FREEFALL™ SC.

DuPont™ ETK-2201 may also be applied in tank mixes with any approved desiccants/herbicides, including “Gramoxone Inteon”, and “Roundup” (and other labeled glyphosate products).

Refer to product labels for rates and additional product information. Tank mixes must be made in accordance with the more restrictive of label limitations and precautions. No label dosage rate should be exceeded. ETK-2201 cannot be mixed with any product containing a label prohibition against such mixing.

Defoliation Enhancement. ETK-2201 may be applied at 0.4 quarts per acre in tank mixes with “Def” 6/“Folex” or “Dropp” SC/DuPont™ FREEFALL™ SC for defoliation enhancement. Refer to the “Def” 6/“Folex” and “Dropp” SC/FREEFALL™ SC labels for rates of application. Application of ETK-2201 at 0.4 quarts per acre in tank mixes for defoliation enhancement is not sufficient to provide substantial boll opening.

Planned Two-Pass Defoliation. ETK-2201 may be used in a planned two-pass defoliation program. Apply ETK-2201 at 0.4 to 1.5 quarts per acre in a tank mix with any of the defoliant in the table above. Make the second application at 4 to 7 days after the initial application using ETK-2201 at 1.5 to 2.5 quarts per acre in a tank mix with any of the defoliant in the table above. Consult your agricultural advisor, University contact or Extension Service for recommended defoliation practices for your area.

ETK-2201 Alone

Apply 3.0 to 3.5 quarts of ETK-2201 per acre for effective defoliation and boll opening of very mature cotton under optimum conditions, i.e., relatively dry with average temperatures of 80°F and above.

SPRAY VOLUMES

To ensure optimum activity, thorough and uniform spray coverage is required. It is essential that cotton leaves and unopened bolls are contacted in order to achieve satisfactory results. Apply as a dilute spray in 10 to 30 gallons of water per acre by ground application or 3 to 10 gallons of water per acre by aerial application.

SPRAY ADDITIVES

The use of adjuvants with ETK-2201 is required only where necessary for optimum performance of the tank mix partner. To reduce the potential for dessication of cotton foliage, minimum rates of nonionic surfactant should be used.

USE LIMITATIONS

Two applications of ETK-2201 are allowed per year, but do not exceed a maximum of 3.5 quarts of ETK-2201 per acre per year (equivalent to 2.0 pounds ethephon active ingredient per acre per year).

The maximum amount of ethephon active ingredient that can be applied to cotton per acre per year from all sources of ethephon is 2.0 pounds.

Do not harvest cotton sooner than 7 days after treatment with ETK-2201.

MIXING PROCEDURE

Add 1/2 to 3/4 of the required amount of water to the spray tank and begin agitation. Add any dry formulations first. Then add ETK-2201. Next add any other liquid formulations. Add adjuvants last before adding the remaining amount of water. Prepare only as much spray solution as can be used on the day of mixing. Do not allow the spray solution to stand overnight. Do not permit undiluted ETK-2201 to contact painted surfaces, spray equipment or any airplane parts. All spills should be rinsed immediately with plenty of water.

EQUIPMENT CLEANING

ETK-2201 is entirely water soluble. Rinse equipment inside and out at the end of each day with ample quantity of water. Rinse the empty tank with fresh water and spray rinsate over the labeled crop. Rinse the exterior well with water and flush the liquid spray system with water. Run the pump long enough to clear the lines and nozzles of ETK-2201 residues. If spraying is interrupted, close the bottom tank valve and flush the liquid spray system with fresh water.

EQUIPMENT GUIDANCE

ETK-2201, like all ethephon-containing products, produces an acidic solution in the spray tank. Before using these products, check all equipment for durable components and change out suspect parts for acid resistant parts. Stainless steel, polypropylene, polyethylene, 6061 and 7075 aluminum, EPDM, Viton, Teflon, Kynar, nylon nozzle bodies, ceramic, and glass filled poly are preferred materials. Avoid galvanized, unpainted mild steel, 2024 aluminum, cast iron, nylon impellers, polyacetal, acrylic plastic, leather seals, and cardboard gaskets. Check with a reputable equipment supplier if you have questions.

SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

• Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS!** See **Wind, Temperature and Humidity, and Temperature Inversions** sections of this label.

• Controlling Droplet Size - General Techniques

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. **WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.**
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.
- **Controlling Droplet Size - Aircraft**
 - **Number of Nozzles** - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
 - **Nozzle Orientation** - Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
 - **Nozzle Type** - Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
 - **Boom Length** - The boom length should not exceed 3/4 of the wing or rotor length - longer booms increase drift potential.
 - **Application Height** - Application more than 10 ft above the canopy increases the potential for spray drift.

- **Boom Height (Ground)**

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

- **Wind**

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. **AVOID GUSTY OR WINDLESS CONDITIONS.**

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

- **Temperature and Humidity**

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

- **Temperature Inversions**

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

laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

- **Shielded Sprayers**

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Material crystallizes below 32°F. Do not heat above 176°F.

Materials recommended for use with DuPont™ ETK-2201 include polyethylene, polypropylene, PVC, CPVC, fiberglass made with reinforced resins such as polyesters and epoxides, most rubbers and 316 stainless steel.

Do not expose mild steel, leather, nylon, or acid sensitive resins such as delrin and celcon to undiluted ETK-2201.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. 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 Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. For Fiber Sacks: Completely empty fiber sack by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then dispose of sack in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. For Fiber Drums With Liners: Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by state and local authorities. If drum is contaminated and cannot be reused, dispose of in the same manner. For Bags Containing Water Soluble Packets: Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple-rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above.

516

STORAGE AND DISPOSAL (cont'd)

For Metal Containers (non aerosol): Triple rinse (or equivalent) the container. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. For Paper and Plastic Bags: Completely empty bag into application equipment.

Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Container Refilling and Disposal (For Containers up to 250 gal): This is a refillable container. If the container is to be refilled, do not rinse with any material or introduce any pesticide other than DuPont™ ETK-2201. Reseal and return the container to any authorized DuPont refilling facility. If the container is not to be refilled, triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke. For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire or other emergency, call 1-800-441-3637 day or night.

Container Disposal for Bulk Containers: When this container is empty, replace the cap and seal all openings that have been opened during use, and return the container to the point of purchase or to a designated location named at time of purchase of this product. The container must only be refilled with this pesticide product. **DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE.** Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transporting. Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, contact DuPont at 1-800-441-3637. If not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling. Disposal of this container must be in compliance with state and local regulations. For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire or other emergency, call 1-800-441-3637 day or night.

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6/6

LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read this Limitation of Warranty and Liability Before Buying or Using This Product. If the Terms Are Not Acceptable, Return the Product at Once, Unopened, and the Purchase Price Will Be Refunded.

It is impossible to eliminate all risks associated with the use of this product. Such risks arise from weather conditions, soil factors, off target movement, unconventional farming techniques, presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of DuPont. These risks can cause: ineffectiveness of the product, crop injury, or injury to non-target crops or plants. WHEN YOU BUY OR USE THIS PRODUCT, YOU AGREE TO ACCEPT THESE RISKS.

DuPont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purpose stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions.

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To the extent consistent with applicable law that allows such requirement, DuPont or its Ag Retailer must have prompt notice of any claim so that an immediate inspection of buyer's or user's growing crops can be made. Buyer and all users shall promptly notify DuPont or a DuPont Ag Retailer of any claims, whether based on contract, negligence, strict liability, other tort or otherwise, or be barred from any remedy.

This Limitation of Warranty and Liability may not be amended by any oral or written agreement.

For product information call: 1-888-6-DUPONT

Internet address: <http://cropprotection.dupont.com/>

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