352-624

# 08/02/2007

1/14

	EPA Reg. Number:	Date of Issuance:
UNITED STATES		7-2-0
	352-624	000
WIN PROTECT	Term of Issuance:	
U.S. ENVIRONMENTAL PROTECTION AGENCY	Unconditio	onal
Office of Pesticide Programs	Name of Pesticide P	roduct:
Registration Division (7505P)	DuPont Cir	ich ATZ
1200 Pennsylvania Ave., N.W.		
Washington, D.C. 20460		
NOTICE OF PESTICIDE:		
Registration		
X Reregistration		
(under FIFRA, as amended)		
	_1	
Name and Address of Registrant (include ZIP Code):		
E.I. DuPont de Nemours & Company		
DuPont Crop Protection		
Stine-Haskell Research Center		
P.O. Box 30		
Newark, DE 19714-0030 Note: Changes in labeling differing in substance from that accepted in connection with accepted by the Registration Division prior to use of the label in commerce. In any		
Note: Changes in labeling differing in substance from that accepted in connection with	product by the Agency. or cancel the registrat	roduct always refer distered under the In order to protection of a pesticide whis Act is not to b
accepted by the Registration Division prior to use of the label in commerce. In any of the above EPA registration number.	hereby registered/rereg product by the Agency. or cancel the registrat on of a product under t if it has been covered tion 4(g)(2)(C) p	istered under the In order to protection of a pesticide this Act is not to by others.
Note: Changes in labeling differing in substance from that accepted in connection with accepted by the Registration Division prior to use of the label in commerce. In any of the above EPA registration number. On the basis of information furnished by the registrant, the above named pesticide is Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this health and the environment, the Administrator, on his motion, may at any time suspend accordance with the Act. The acceptance of any name in connection with the registrati- construed as giving the registrant a right to exclusive use of the name or to its use This product is reregistered in accordance with FIFRA sec	hereby registered/rereg product by the Agency. or cancel the registrat on of a product under t if it has been covered tion 4(g)(2)(C) p	istered under the In order to protection of a pesticide this Act is not to by others.
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chemical-resistant category selection chart. Mixers, loaders, applicators, flaggers, and other handlers not using engineering controls must wear: Coveralls over short sleeved shirt and short pants, Chemical-resistant gloves, Chemical-resistant footwear plus socks, Chemical-resistant headgear if overhead exposure, and a Chemical-resistant apron when cleaning equipment, mixing and loading or exposed to the concentrate. Mixers, loaders, applicators and other handlers using engineering controls must wear: Long sleeved shirt and long pants, Shoes plus socks, and Chemicalresistant gloves and apron for mixers and loaders. See engineering control for additional requirements.".

4. Change the engineering controls required for mixers and loaders supporting aerial application to "Mixers and loaders supporting aerial application must use a closed system that meets the requirements for dermal protection listed in the Worker Protection Standard (WPS) for Agricultural Pesticides [40 CFR 170.240(d)(4)] and must: wear the personal protective equipment required for mixers and loaders, wear protective eyewear if the system operates under pressure, and be provided and have immediately available for use in an emergency, such as a spill or equipment breakdown: chemical resistant footwear.".

5. As required by the Metolachlor RED, to the Environmental Hazards section, add "Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas. Avoid treating powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation. Do not apply to impervious substrates such as paved or highly compacted surfaces. Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least ½ inch of rainfall has occurred between application and the first irrigation.".

6. Change the REI to "24 hours" as specified by the Metolachlor RED.

7. Change the early entry PPE to "Coveralls over short-sleeve shirt and short pants, Chemicalresistant gloves made of any waterproof material, Chemical-resistant footwear plus socks, and Chemical-resistant headgear for overhead exposures.".

8. To the Storage and Disposal section Change "Storage" to "Pesticide Storage" and move "Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment" to directly under the heading "Storage and Disposal".

9. On page 3, change "When tank mixing or sequentially applying atrazine or products containing atrazine, the total pounds atrazine applied (lb ai/A) must not exceed the specific seasonal rate limits from preemergence or postemergence..." to "When tank-mixing or sequentially applying atrazine or products containing atrazine to corn or sorghum, the total pounds of atrazine applied (lbs ai/A) must not exceed 2.5 lbs a.i. per year.".

10. Change the PHI text for sorghum to "Preemergent sorghum forage 60 day PHI and Postemergent sorghum forage 45 day PHI".

11. The text on page 9-10 of the label, "Apply to corn not exceeding 12 inches in height" under the

postemergent section for corn must be changed to "Postemergence applications to corn and sorghum must be made before crop reaches 12 inches in height" and relocated to the general application section.

12. Change the maximum broadcast rates for atrazine on page 4 to also include sorghum.

13. The text on page 10 of the label is confusing and must be clarified "...not to exceed a total of 2.5 lbs of the active ingredient in atrazine or 3.75 lbs. of the active ingredient in the CINCH product...".

14. Add "exist" after "washables" on page 1 of the label.

15. To the Limitation of Warranty and Liability section change "Dupont makes no" to "To the extent consistent with applicable law, Dupont makes no", "In no event" to "To the extent consistent with applicable law, in no event", and "the exclusive remedy" to "To the extent consistent with applicable law, the exclusive remedy".

Date

8-2.07

Signature of Approving Official:

Jim Tompkins, Product Manager (25) Herbicide Branch, Registration Division (7505P)

EPA Form 8570-6

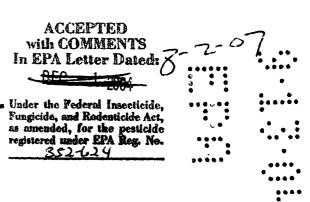
You will submit one copy of your final printed labeling before you release the product for shipment. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). If you have any questions please call Erik Kraft at 703-308-9358.

RESTRICTED USE PESTICIDE (GROUND AND SURFACE WATER CONCERNS) FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION. THIS PRODUCT IS A RESTRICTED-USE HERBICIDE DUE TO GROUND AND SURFACE WATER CONCERNS. USERS MUST READ AND FOLLOW ALL PRECAUTIONARY STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO MINIMIZE POTENTIAL FOR ATRAZINE TO REACH GROUND AND SURFACE WATER.



herbicide

For weed control in corn and grain or forage sorghum



### Active Ingredients

Atrazine (CAS No. 1912-24-9)	33%
Atrazine related compounds	0.7%
S-metolachlor (CAS No. 87392-12-9)	26.1%
Other Ingredients	40.2%
TOTAL	100.0%

CINCH® ATZ contains 3.1 lbs. atrazine + relateds per gallon and 2.4 lbs. S-metolachlor active ingredient per gallon.

EPA Reg. No. 352-624

# **KEEP OUT OF REACH OF CHILDREN** CAUTION

## **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 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 by mouth-to-mouth, if possible. 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 1-800-441-3637 for medical emergencies involving this product.

# PRECAUTIONARY STATEMENTS HAZARD TO HUMANS AND DOMESTIC ANIMALS

CAUTION! Causes eye irritation. Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. This product may cause skin sensitization reactions in some people.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

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

- Long-sleeved shirt and long pants
- Chemical Resistant Gloves Category A (such as buty) rubber, natural rubber, neoprene rubber, or nitrile rubber)  $\geq 14$  mils
- 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, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have drenched or heavily contaminated with this product's concentrate. Do not reuse them.

# 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.

# PRECAUTIONARY STATEMENTS cont'd

### ENGINEERING CONTROL STATEMENT

Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)]. When using the closed system, the mixers' and loaders' PPE requirements may be reduced or modified as specified in the WPS.

Pilots must use an enclosed cockpit in a manner that is consistent with the WPS for agricultural pesticides [40 CFR 170.240(d)(6)]. Pilots must wear the PPE required on this labeling for applicators, however, they need not wear chemical-resistant gloves when using an enclosed cockpit.

Flaggers supporting aerial applications must use an enclosed cab that meets the definition on the Worker Protection Standard for agricultural pesticides [40 CFR 170.240(d)(5)] for dermal penetration.

When applicators use closed 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

### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate. This pesticide contains atrazine, which has been shown to be toxic to aquatic invertebrates. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply when weather conditions favor drift from treated areas.

## **GROUND WATER ADVISORY**

DuPont<sup>™</sup> CINCH<sup>®</sup> ATZ contains both the active ingredients atrazine and S-metolachlor.

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

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

### SURFACE WATER ADVISORY

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

### **MIXING/LOADING INSTRUCTIONS**

Care must be taken when using this product to prevent backsiphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check-valves or antisiphoning devices must be used on all mixing equipment.

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

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

# TILE-TERRACED FIELDS CONTAINING STANDPIPES

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

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

# DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

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 DuPont for a refund.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

# AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours. Exception: If the product is soil-injected or soilincorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

- Coveralls
- Chemical-resistant gloves such as barrier laminate, butyl rubber  $\ge 14$  mils, polyvinyl chloride (PVC)  $\ge 14$ mils, or viton  $\ge 14$  mils
- Shoes plus socks

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

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

### **GENERAL INFORMATION**

DuPont<sup>™</sup> CINCH® ATZ is a selective herbicide recommended before planting, before or after emergence (see directions) for control of most annual grasses and broadleaf weeds in corn. CINCH® ATZ can also be used before crop emergence for control of most annual grasses and broadleaf weeds in grain or forage sorghum, provided the sorghum seed has been properly treated by the seed company with "Concep" or "Screen". This product may be tank mixed with other herbicides specified on this label for weed control in conventional, minimum-till, and no-till corn, grain sorghum, or forage sorghum.

Note: Tank mixtures are permitted only in those states where the tank mix partner is registered. Refer to and follow the label of each tank mix product used for precautionary statements, directions for use, geographic and other restrictions.

When tank-mixing or sequentially applying, atrazine or products containing atrazine, the total pounds atrazine applied (lb ai/A) must not exceed the specific seasonal rate limits from preemergence or postemergence or preemergence + postemergence applications as specified below.

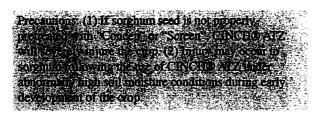
### **Maximum Broadcast Rates for Atrazine**

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

# Forage Interval: Do not graze or feed forage from treated areas for the following intervals:

Field Corn	60 days after application
Sweet Corn	45 days after application
Sorghum	60 days after application

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



CINCH® ATZ alone or in tank mixture with "AAtrex", "Balance", CINCH®, or "Princep" may be applied early preplant, preplant surface, preplant incorporated, or preemergence on corn, in water or fluid fertilizer. Apply postemergence treatments of CINCH® ATZ to corn, alone or in combination, using water only as the carrier. CINCH® ATZ may be applied in tank mix combination with "Gramoxone" Extra, "Landmaster" BW, "Touchdown" or "Roundup UltraMax" (or other formulations of glyphosate) with or without the above herbicides preplant surface or preemergence to corn. CINCH® ATZ alone may also be applied on sorghum early preplant, preplant incorporated, preplant surface, or preemergence in water or in fluid fertilizer.

CINCH® ATZ may be applied in water by aircraft. Applications in fluid fertilizer should be only by ground equipment. To avoid spray drift, do not apply under windy conditions. Avoid spray overlap, as crop injury may result.

Do not apply this product through any type of irrigation system.

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

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

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

Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor or consistent control at a level below that generally considered acceptable for commercial weed control.

Dry weather following preemergence application of CINCH® ATZ or a tank mixture may reduce effectiveness. Cultivate if weeds develop in conventional tillage corn or sorghum.

Observe all precautions and limitations on the label of each product used in tank mixtures.

Thoroughly clean sprayer or other application device before using. Dispose of cleaning solution in a responsible manner. Do not use a sprayer or applicator contaminated with other materials, or crop damage or sprayer clogging of the application device may occur.

Do not apply metolachlor containing products such as "Inter AB III" herbicide or "Inter Plus II" herbicide in mixture or as sequential applications with CINCHO ATZ.

### SOIL TEXTURE INFORMATION

Within rate ranges in all tables on this label, use the lower rate on soil relatively coarse-textured or low in organic matter; use the higher rate on soil relatively fine-textured or high in organic matter.

Recommendations are based upon soil textures, which are defined as follows:

COARSE	Sand, loamy sand, sandy loam
MEDIUM	Loam, silt loam, silt
FINE	Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay

## DUPONT™ CINCH® ATZ APPLIED ALONE -CORN (ALL TYPES), GRAIN SORGHUM, OR FORAGE SORGHUM

Early Preplant, Preplant Surface-Applied, Preplant Incorporated, or Preemergence

#### Weeds Controlled

barnyardgrass (watergrass) henbit iimsonweed browntop panicum carpetweed lambsquarters morningglory chickweed mustards cocklebur' common purslane nightshades pigweed common ragweed prairie cupgrass crabgrass crowfootgrass red rice signalgrass (Brachiaria)\* fall panicum Florida pusley smartweed southwestern cupgrass foxtail millet velvetleaf\* galinsoga giant foxtail waterhemp giant ragweed\* witchgrass yellow foxtail goosegrass yellow nutsedge\* green foxtail

#### Weeds Partially Controlled\*\*

sandbur	sicklepod
seedling johnsongrass	volunteer sorghum
shattercane	woolly cupgrass

- Control of these weeds can be erratic, especially under dry weather conditions. Control escaped weeds with cultivation or application of an appropriate EPA-registered postemergence herbicide. On fine-textured soils, only partial control can be expected.
- \*\* Control may be improved by following these suggested procedures:
- 1. In corn, apply up to the maximum single application rate in Table 1 for your given soil texture and rate limitation based on your soil conservation practices.
- 2. Thoroughly till moist soil to destroy germinating and emerged weeds. If CINCH® ATZ is to be applied preplant incorporated, this tillage may be used to incorporate CINCH® ATZ if uniform 2-inch incorporation is achieved as recommended under Application Procedures.
- 3. Plant crop into moist soil immediately after tillage. If CINCH® ATZ is to be used preemergence, apply at planting or immediately after planting.
- 4. If available, sprinkler irrigate within 2 days after application. Apply 1/2-1 inch of water. Use lower water volume (1/2 inch) on coarse-textured soils and higher volume (1 inch) on fine-textured soils.
- 5. If irrigation is not possible and rain does not occur within 2 days after planting and application, weed control may be decreased. Under these conditions, a uniform, shallow cultivation is recommended as soon as weeds emerge.

### CINCH® ATZ Rate Limitations - Corn and Sorghum\*

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

Note: For purposes of calculating total atrazine active ingredient applied, CINCH® ATZ contains 3.1 lbs. a.i. atrazine + relateds per gal. (0.775 lb. a.i./qt.).

### FOR ALL SOIL APPLICATIONS PRIOR TO CROP EMERGENCE

On Highly Erodible Land (as defined by SCS)

If conservation tillage is practiced, leaving at least 30%.

of the soil covered with plant residues at planting, apply

a maximum of 5.2 pt/A as a broadcast spray. Refer to "B" in tables following.

If the soil coverage with plant residue is less than 30% at plaining, a maximum of 4.2 pt/A may be applied. Refer to "A" in tables following.

On Land Not Highly Erodible

Apply a maximum of 5.2 pt/A as a broadcast spray Refer to "B" in tables following.

FOR POSTEMERGENCE APPLICATION TO CORN

If no atrazine was applied prior to com emergence

a maximum of 5.2 pC/A broadcast. If a postern treatment to required following an earlier them

application, the total attazine applied may not accessible application and attazine applied may not accessible applied to a provide a statement of a provide attack of

per ollendar year.

### **Rotational Crops**

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

(1) If treated crop is lost due to poor germination, hail, flood, insects, etc., corn may be replanted immediately or sorghum may be replanted immediately, provided the seed has been properly treated with "Concep" or "Screen". Do not make a second broadcast application. If the original application was banded and the second crop is planted in the untreated row middles, a second banded treatment may be applied. (2) Corn, sorghum, soybeans, cotton, or peanuts may be planted the spring following treatment. Do not graze or feed forage or fodder from cotton to livestock, or illegal residues may result. (3) Injury may occur to soybeans planted the year following application on soils having a calcareous surface layer. (4) In eastern parts of the Dakotas, KS, western MN, and NE, do not rotate to soybeans for 18 months following application if the rate applied to corn or sorghum was more than 2.0 lbs. a.i. of atrazine or equivalent band application rate, or soybean injury may occur. (5) If applied after June 10, do not rotate with crops other than corn or sorghum the next year, or crop injury may occur. (6) In the High Plains and Intermountain areas of



the West, where rainfall is sparse and erratic or where irrigation is required, use only when corn or sorghum is to follow corn or sorghum, or a crop of untreated corn or sorghum is to precede other rotational crops. (7) Do not plant sugar beets, tobacco, vegetables (including dry beans), springseeded small grains, or small-seeded legumes the year following application, or injury may occur.

# **APPLICATION PROCEDURES**

Early Preplant (Corn): Use on medium- and fine- textured soils with minimum-tillage or no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, and WY. Apply 2/3 the recommended rate of DuPont<sup>™</sup> CINCH® ATZ as a split treatment 30-45 days before planting and the remainder at planting, using the rates in Table 1. Applications made less than 30 days prior to planting may be as either a split or single treatment. Use the lower rate for light expected weed infestations and the higher rate for heavy expected weed infestations. On coarse-textured soils, apply 4.2 pt./A not more than 2 weeks prior to planting. The above procedure may be followed if "AAtrex", CINCH®", or "Princep" is used in tank mixtures with CINCH® ATZ. Tank mixtures with "Balance" may be applied up to 14 days before planting field corn. Substitute a fluid fertilizer for some or all of the water carrier for burndown of existing annual weeds listed on this label up to the 2-leaf stage of development. The addition of crop oil concentrate to the spray mixture will enhance the burndown activity. If larger weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (for example, "Gramoxone" Extra, "Touchdown" or "Roundup UltraMax"). Observe directions for use, precautions, and restrictions on the label of the contact herbicide.

On medium- and fine-textured soils with minimum- or notillage systems in DE, MD, MI, NY, OH, PA, VA, and WV, early preplant applications may be applied following the directions for use above. If the amount of rainfall results in unsatisfactory length of weed control following the earlier treatment, a postemergence application of an appropriately labeled broadleaf and/or grass weed herbicide may be used, i.e., atrazine, DuPont<sup>TM</sup> BASIS®, BASIS GOLD®, ACCENT®, ACCENT GOLD®, STEADFAST® or dicamba. If the postemergence treatment includes the herbicide used early preplant, do not exceed the labeled rate for corn on a given soil texture. Observe all directions for use, precautions, and limitations on the label of the postemergent herbicide.

CINCH® ATZ may be used according to the above directions to control winter wheat planted as a cover crop in IN, KY, and OH, in addition to providing residual weed control. The wheat must be less than 6 inches tall (preferably still in a dormant or semi-dormant state coming out of winter) at the time of application. Depending on rainfall, 10-20 days may be required to completely kill the wheat. In the event that adequate rainfall does not occur, control of the winter wheat may be unsatisfactory and the application of a contact herbicide (i.e., "Gramoxone" Extra, "Touchdown" or "Roundup UltraMax") may be required before planting the crop.

CINCH® ATZ may be applied in the fall, as a single application, for control of the winter weeds listed on this label

within the ecofallow (no-till) production areas of NE and KS where wheat (or other small grain cereals) will be rotated to corn. The application must be made to untilled wheat stubble in the fall following wheat harvest, but before soil freeze-up. The ground must remain untilled through the establishment of the corn crop.

On medium- and fine-textured soils following final seedbed preparation in the Blacklands and Gulf Coast areas of TX, an early preplant application of CINCH® ATZ at 3.2-3.8 pt./A may be made 30-45 days before planting. Grass suppression of 2-3 weeks after planting can be expected as a result of this application. Do not incorporate or disturb the soil before planting, and avoid moving the soil during the planting operation. A follow-up application of CINCH® may be needed in fields with a history of heavy grass pressure. Apply after planting, but before corn and grass weeds emerge.

Notes: (1) If a follow-up application of CINCH® is needed, do not exceed a total of 1.6 lbs. a.i. of S-metolachlor per acre, including the preplant CINCH® ATZ application on mediumor fine-textured soils. On fine-textured soils with more than 3% organic matter, do not exceed 1.9 lbs. a.i. of S-metolachlor.

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

- A. Determine the lbs. a.i. of S-metolachlor applied as CINCH® ATZ (2.0 pt. = 0.6 lb. a.i. of S-metolachlor); then,
- B. If CINCH® is to be used, add the lbs. a.i. to be applied in these products to the lbs. in Step A above.]

(2) To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

### Table 1: CINCH® ATZ - Early Preplant - Corn

	Split Application*		plication*
Soil <u>Texture</u>	Single Application	30-45 DBP**	At Planting
COARSE Sand, loamy sand sandy loam	4.2 pt/A	DO NO	T APPLY
MEDIUM Loam, silt loam silt	A. 4.2 pt/A B. 4.2-5.2 pt/A	2.8 pt/A 2.8 pt/A to 3.5 pt/A	1.4 pt/A 1.4 pt/A to 1.8 pt/A
FINE Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	A. 4.2 pt/A B. 5.2 pt/A	2.8 pt/A 3.5 pt/A	1.4 pt/A 1.8 pt/A

\*Split applications can be made less than 30 days before planting if desired.

\*\*DBP - Days before planting

- A. Do not exceed this rate on highly erodible land with less than 30% plant residue cover. Control of certain weeds may be reduced and a tank mix partner or an application of a postemergence herbicide may be needed.
- B. Use these rates for all other applications.

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Early Preplant (Sorghum-Seed Treated with "Concep" or "Screen"): For minimum-tillage and no-tillage systems only, DuPont<sup>TM</sup> CINCH® ATZ may be applied up to 45 days before planting grain sorghum in IA, IL, eastern KS, MO, NE, and SD, using the rates in Table 2. Use only split applications for treatments made 30-45 days before planting with 2/3 the recommended rate applied initially and the remaining 1/3 at planting. Applications made less than 30 days prior to planting may be made as either a split or single application.

Substitute a fluid fertilizer for some or all of the water carrier for burndown of existing annual weeds listed on this label up to the 2-leaf stage of development. The addition of crop oil concentrate to the spray mixture will enhance the burndown activity. If larger weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (for example, "Gramoxone" Extra, "Landmaster" BW, "Touchdown" or "Roundup UltraMax"). Observe directions for use, precautions, and restrictions on the label of the contact herbicide. Under dry conditions, irrigation after application is recommended to move CINCH® ATZ into the soil.

Note: To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished. Do not use on coarse soils. Do not use on medium soils with less than 1.0% organic matter.

On medium- and fine-textured soils following final seedbed preparation in the Blacklands, Panhandle, and Gulf Coast areas of TX, an early preplant application of CINCH® ATZ at 3.2-3.8 pt./A may be made 30-45 days before planting. Grass suppression of 2-3 weeks after planting can be expected as a result of this application. Do not incorporate or disturb the soil before planting, and avoid moving the soil during the planting operation. A follow-up application of a CINCH® product may be needed in fields with a history of heavy grass pressure. Apply after planting, but before sorghum and grass weeds emerge.

Notes: (1) Do not use on soils with a pH greater than 8.0 if grain sorghum is to be planted. (2) If a follow-up application of a CINCH® formulation is needed, do not exceed a total of 1.4 lbs. of S-metolachlor a.i. per acre, including the early preplant CINCH® ATZ application on medium-textured soils. On fine-textured soils, do not exceed 1.6 lbs. of S-metolachlor a.i. per acre.

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

- A.Determine the lbs. a.i. of S-metolachlor applied as CINCH® ATZ (2.0 pt. = 0.6 lb. a.i. of S-metolachlor); then,
- B.If CINCH® is to be used, add the lbs. a.i. to be applied in these products to the lbs. in Step A above.]

Preplant Surface, Preplant Incorporated, or Preemergence (Corn or Sorghum-Seed Treated with "Concep" or "Screen"): Apply CINCH® ATZ preplant surface, preplant incorporated, or preemergence, using the appropriate rates from Table 3 for corn, or from Table 4 for sorghum.

**Preplant Surface:** Apply uniformly to the soil surface within 14 days before planting. Where applications are made to coarse soils more than 7 days before planting, use the rates in Table 1 for corn.

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

**Preemergence:** Apply to the soil surface at planting (behind the planter) or after planting, but before weeds or crop emerge.

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Table 2: DuPont <sup>™</sup> CINCH® ATZ -	<ul> <li>Early Preplant – Grain or Forage</li> </ul>	e Sorghum (Seed treated with "Concep" or
"Screen")		

				Split Application*	
Soil Texture	Organic Matter Content	Single Application	30-45 DBP**	At Planting	
COARSE Sand, loamy sand, sandy loam	any level	DO NOT USE	DO N	IOT USE	
MEDIUM Loam, silt loam, silt	A. more than 1.0%	4.2 pt./A	2.8 pt./A	1.4 pt./A	
	B. less than 1.0%	DO NOT USE	DO N	OT USE	
	B. more than 1.0%	4.2 pt./A	2.8 pt./A	1.4 pt./A	
		to	to	to	
		4.66 pt./A	3.2 pt./A	1.6 pt./A	
FINE	A. more than 1.0%	4.2 pt./A	2.8 pt./A	1.4 pt./A	
Sandy clay loam,	B. 1.0%-1.5%	4.2 pt./A	2.8 pt./A	1.4 pt./A	
silty clay loam,		to	to	to	
clay loam, sandy	· · ·	4.66 pt./A	3.2 pt./A	1.6 pt./A	
clay, silty clay,	B. more than 1.5%	4.66 pt./A	3.2 pt./A	1.6 pt./A	
clay		to	to	to	
		5.2 pt./A	3.5 pt./A	_ 1.8 pt./A	

\*Split applications can be made less than 30 days before planting if desired.

\*\*DBP - Days before planting

A.Do not exceed this rate on highly erodible land with less than 30% plant residue cover. Control of certain weeds may be reduced and a tank mix partner or an application of a postemergence herbicide may be needed.

B. Use these rates for all other applications.

# Table 3: CINCH® ATZ – Preplant Surface, Preplant Incorporated, or Preemergence – Corn

B. Use this rate for all other applications.

_	Broadcast	Rate Per Acre
	Less Than 3%	3% Organic Matter
Soil Texture	Organic Matter	or Greater
COARSE		
Sand, loamy sand,	2.6 pt.	3.2 pt.
sandy loam		
MEDIUM		,
Loam, silt loam, silt	3.2 pt.	4.2 pt
FINE		
Sandy clay loam,		
silty clay loam,	4.2 pt.	A. 4.2 pt.
clay loam,		B. 4.2-5.2 pt.*
sandy clay,		
silty clay,		
clay		
Muck or peat		
soils (more than	DO N	OT USE
20% organic matter)		
		1

\*For cocklebur, yellow nutsedge, and velvetleaf control on fine-textured soils above 3% organic matter: Apply 5.2 pt. of CINCH® ATZ per acre.

A. Do not exceed this rate on highly erodible land with less than 30% plant residue cover. Control of certain weeds may be reduced and a tank mix partner or an application of a postemergence herbicide may be needed. Notes: (1) In the event of escape of annual weeds following an early preplant, preplant surface, preplant incorporated, or preemergence treatment of CINCH® ATZ applied alone or in combination, follow with a postemergence application of an appropriately labeled broadleaf and/or grass weed herbicide, i.e., atrazine, DuPont<sup>™</sup> BASIS®, BASIS GOLD®, ACCENT®, ACCENT GOLD®, STEADFAST® or dicamba. If the postemergence treatment includes the herbicide used in the earlier treatment, do not exceed the labeled rate for corn on a given soil texture. (2) If "AAtrex" or another product containing atrazine is used postemergence following application of CINCH® ATZ, do not exceed a total of 2.5 lbs. a.i./A of atrazine per year. (3) Substitute a fluid fertilizer for some or all of the water carrier for burndown of existing annual weeds listed on this label up to the 2-leaf stage of development. The addition of crop oil concentrate to the spray mixture will enhance the burndown activity. If larger weeds are present, add a contact herbicide as noted in the CINCH® ATZ Combinations section of this label.

Table 4: DuPont<sup>™</sup> CINCH® ATZ – Preplant Surface, Preplant Incorporated, or Preemergence – Grain or Forage Sorghum\* (Seed treated with "Concep" or "Screen")

	Broadcast Rate	
Soil Texture	Organic Matter	Per Acre
COARSE Sand, loamy sand, sandy loam	any level	DO NOT USE
MEDIUM and FINE Loam, silt loam, silt,	less than 1.0%	DO NOT USE
sandy clay loam,	more than 1.0%	3.2 - 4.2 pt.
silty clay loam, clay loam, sandy clay, silty clay, clay	·······	

\*Do not use in NM or TX, except in the TX Panhandle, Gulf Coast, and Blacklands areas. Do not apply preplant incorporated in AZ or the Imperial Valley of CA.

Note: Substitute a fluid fertilizer for some or all of the water carrier for burndown of existing annual weeds listed on this label up to the 2-leaf stage of development. The addition of crop oil concentrate to the spray mixture will enhance the burndown activity. If larger weeds are present at the time of treatment, add a contact herbicide as noted in the CINCH® ATZ Combinations section of this label.

Precautions: To avoid possible cropinjury: (1) Do not? apply CINCH@ AIZ on highly alkaline soils (pH greater than 80) or on eroded areas where calcareous subsoils are exposed: (2) Do not apply CINCH@ AIZ when sorghum is planted in deep furrows because heavy rains following application can cause excessive concentrations of herbicide in the furrow. (3) Do not apply to sorghum, grown under dry mulch illage: (4) Thiury may occur if both CINCH@ AIZ applied early preplant, preplant, surface, preplant incorporated, or preemergence and anat-planting systemic-insecticide applied in-furrow are, used: (5) In addition; sorghum growing under stress caused by minor element deficiency may be injured by CINCH® AIZ

#### 2-Pass Grass Weed Control Programs - Corn

When used as a part of a 2-pass, preemergence followed by postemergence grass weed control program, CINCH® ATZ rates may be reduced to as low as 1.5 pt/A when followed with applications of full labeled rates of postemergence grass herbicides such as DuPont<sup>TM</sup> ACCENT®, ACCENT GOLD®, BASIS®, BASIS GOLD®, or STEADFAST®. Planned 2-pass weed control programs are the preferred method for managing difficult to control weeds such as woolly cupgrass, field sandbur, and wild proso millet. Consult the postemergence grass herbicide label for weeds controlled, use directions, precautions, and limitations.

### **Postemergence Broadcast - Corn**

### Weeds Controlled:

barnyardgrass (watergrass)	kochia
cocklebur	lambsquarters
common ragweed	morningglory
crabgrass	mustard
crowfootgrass	pigweed
fall panicum	prickly sida
flixweed	purslane
giant foxtail	smartweed
green foxtail	velvetleaf
yellow foxtail	waterhemp
jimsonweed	•

#### Weeds Partially Controlled:

yellow nutsedge

Application: Apply early postemergence, using the appropriate rate from Table 5. Apply this treatment before grass and broadleaf weeds pass the 2-leaf stage and before corn exceeds 5 inches in height. Application to weeds larger than the 2-leaf stage will generally result in unsatisfactory control. Occasional corn leaf burn may result, but this should not affect later growth or yield. Do not apply postemergence in fluid fertilizer, or severe crop injury may occur.

#### Table 5: Postemergence Broadcast - Corn

Soil Texture	Broadcast Rate Per Acre
COARSE	
Sand, loamy sand, sandy loam	3.2 pt.
MEDIUM	
Loam, silt loam, silt	4.2 pt.
FINE	
Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	4.2-5.2 pt.*

\*For better residual control of cocklebur, velvetleaf, and yellow nutsedge on fine-textured soils above 3% organic matter, apply 5.2 pt. of CINCH® ATZ per acre.

### Postemergence-Directed - Corn

CINCH® ATZ may be applied at 2.6-5.2 pt./A in a minimum of 15 gals. of water as a postemergence-directed treatment to corn to extend control of weeds listed in the Early Preplant, Preplant Surface-Applied, Preplant Incorporated, Preemergence, or Postemergence Broadcast section of the corn label. Apply using the appropriate rate from Table 6.

For best results, apply CINCH® ATZ to weed-free soil following use of a preplant surface, preplant incorporated, or preemergence herbicide, or following a lay-by cultivation. If weeds have emerged at the time of CINCH® ATZ application, apply before grass and broadleaf weeds exceed the 2-leaf stage. Application to weeds larger than the 2-leaf stage will generally give unsatisfactory control. Apply to corn not exceeding 12 inches in height. Minimize contact with corn leaves. Do not apply postemergence in fluid fertilizer, or severe crop injury may occur.

### Table 6: Postemergence-Directed – Corn

Soil Texture	Broadcast Rate Per Acre
COARSE	
Sand, loamy sand, sandy loam	2.6 pt.
MEDIUM	
Loam, silt loam, silt	4.2 pt.
FINE	
Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	4.2-5.2 pt.*

\*For better residual control of cocklebur, velvetleaf, and yellow nutsedge on fine-textured soils above 3% organic matter, apply 5.2 pt. of DuPont<sup>TM</sup> CINCH® ATZ per acre.

Notes: (1) If CINCH® ATZ has been applied early preplant, preplant surface, preplant incorporated, preemergence, postemergence or post-directed, do not exceed a total of 6.5 pt./A of CINCH® ATZ on a corn crop. (2) If atrazine tank mixtures have been applied preplant surface, preplant incorporated, or preemergence, limit the CINCH® ATZ postemergence or post-directed application not to exceed a total of 2.5 lbs. of the active ingredient in atrazine or 3.75 lbs. of the active ingredient in the CINCH® product or its component in the CINCH® ATZ product per acre on a corn crop, or illegal residues may result.

Rotational Crops: Follow the preceding crop rotation instructions for CINCH® ATZ – Early Preplant, Preplant Surface-Applied, Preplant Incorporated, or Preemergence.

### SPRAY EQUIPMENT

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

For band applications, calculate amount to be applied per acre as follows:

<u>band width in inches</u> X broadcast rate = amount needed row width in inches per acre per acre of field

Low Carrier Application (Broadcast Ground Application Only): Use sprayers, such as "Ag-Chem RoGator", Hagie, John Deere "Hi-Cycle", John Deere 4700 Sprayer, Melroe Spra-Coupe, Tyler Patriot<sup>TM</sup>, or "Willmar Air Ride", that provide accurate and uniform application. Only water may be used as a carrier. Screens in suction and in-line strainers should be 50-mesh. Manufacturers may require that tip screens as fine as 100-mesh be used with some nozzles. Use a pump with capacity to: (1) maintain up to 35-40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension. Use a minimum of 5.0 gals. of spray mixture per acre. Maximum recommended sprayer speed is 15 mph. Maintain uniform travel speed while spraying. Rinse sprayer thoroughly with clean water immediately after each use.

Note: Low pressure nozzles are recommended to reduce drift and increase application accuracy. Care should be taken when using automatic rate controlling devices to spray the material within the rated working pressure and flow ranges of the nozzle selected. Nozzle screens should be used when recommended by the manufacturer. All nozzles should be placed on 20-inch centers, except flooding types which should be placed on 40-inch centers. When Flat Fan-type nozzles are used, angles of 80° or 110° are recommended. Always read and follow the manufacturer's directions for optimum setup and performance of their nozzles or tips.

Aerial Application (for CINCH® ATZ alone): Use aerial application only where broadcast applications are specified. Apply a minimum of 1.0 gal. of water for each 1.0 gal. of this product applied per acre, but for rates below 1.0 gal./A, use in sufficient water to equal 2.0 gals./A of total spray. Avoid applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. In order to assure that spray will be controllable within the target area when used according to the label directions, make applications at a maximum height of 10 ft., using low-drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply CINCH® ATZ by aircraft at a minimum upwind distance of 400 ft. from sensitive plants.

Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin.

### **Aerial Drift Management**

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses, or to applications using dry formulations.

- 1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- 2. Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information section below.

# Aerial Drift Reduction Advisory Information

### Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

### **Controlling Droplet Size**

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

• **Pressure** – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

• Number of nozzles – Use the minimum number of nozzles that provide uniform coverage.

• Nozzle Orientation – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

• Nozzle Type – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

### **Boom Length**

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

### **Application Height**

Applications should not be made at a height greater than 10 ft. above the top of the largest plants, unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

### Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.)

### Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

### **Temperature and Humidity**

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

### **Temperature Inversions**

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

### **Sensitive Areas**

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

## **MIXING PROCEDURES**

Shake 2.5 gal. jugs well or thoroughly recirculate larger containers and bulk tanks before using. DuPont<sup>™</sup> CINCH® ATZ is a liquid that may be mixed with water or fluid fertilizer and applied as a spray. CINCH® ATZ may also be sprayed onto dry bulk granular fertilizer and applied with the granular fertilizer.

### **Dry Bulk Granular Fertilizers**

Many dry bulk granular fertilizers may be impregnated or coated with CINCH® ATZ and used to control weeds in corn or "Concep"-treated sorghum.

When applying CINCH® ATZ with dry bulk granular fertilizers, follow all directions for use and precautions on the CINCH® ATZ label regarding target crops, rates per acre, soil texture, application methods, and rotational crops.

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

