AGENCY

Office of Pesticide Programs Registration Division (7505P) Ariel Rios Building 1200 Pennsylvania Ave., NW Washington, D.C. 20460

EPA Reg. Number:	
100-1316	

Date of Issuance:

JUL 28 2008

NOTICE OF PESTICIDE:

x Registration

Reregistration

(under FIFRA, as amended)

Term of Issuance: conditional

Name of Pesticide Product:

Cyclone Star

Name and Address of Registrant (include ZIP Code):

Syngenta Crop Protection Inc. PO Box 18300

Greensboro, NC 27419-8300

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

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

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

- 1. Submit and/or cite all data required for registration/reregistration review of your product when the Agency requires all registrants of similar products to submit data.
 - 2. Make the following label changes:
 - a. Revise the EPA Registration Number listed on the label from 100- to 100-1316
 - b. Add an appropriate EPA Establishment Number to the label
 - c. Add "exist" after "washables" in the statement "If no such instructions for washables, use detergent and hot water" on pages 3 and 5.
 - d. Add "/PPE" after "clothing" in the statement "Remove clothing immediately if pesticide gets inside" on pages 3, 6 and 7.
 - e. On page 5, revise "Have person sip a glass of water if able to swallow" to "Do not give ANY liquid to the person" in the IF SWALLOWED statement. This is required due to the presence of petroleum distillates. Also add "Contains petroleum distillates- vomiting may cause aspiration pneumonia" to the NOTE TO PHYSICIAN section on page 5.
 - f. On page 5, revise "waterproof gloves" to "chemical-resistant gloves made of any waterproof material"
 - On page 10, add "in cotton only in Texas and Oklahoma" to the end of the statement "Cyclone Star is a contact herbicide used as a desiccant/defoliant at harvest"

Signature of Approving Official:	Date:
James Tompkins	JUL 28 2008
Product Manager 25	
Herbicide Branch	· ·
Registration Division (7505P)	

EPA Form 8570-6

- h. On page 10, add the statements "Extremes in environmental conditions such as temperature, moisture, soil conditions, and cultural practices may effect the activity of this product. Under warm, moist conditions, herbicide symptoms may be accelerated. While under very dry conditions, the expression of herbicide symptoms may be reduced as weeds hardened off by drought are less susceptible to this product" from the AIM EC label
- i. On page 11, revise "shall" to "must" in the statement "Where states have more stringent regulations, they shall be observed"
- j. On page 13, add "(lbs ai)" after "Use Rate" in the first 2 columns of the 2nd row of the table "Buffers to Indigenous Endangered Plant Species"
- k. On page 14, revise "recommended" to "specified" in the statement "Follow recommended rates of Cyclone Star listed"
- 1. On page 14, remove "recommended" from the statement "Follow recommended minimum spray volumes listed with each use of Cyclone Star"
- m. On page 16, move the LIMITATIONS AND PRECAUTIONS section from page 16, to page 17, prior to the Restrictions section. Remove the statement "Do not pasture livestock in treated fields or feed treated foliage" from the LIMITATIONS AND PRECAUTIONS section, as it already is listed in the Restrictions section. Move the statement "DO NOT use around home gardens, schools, recreational parks, or playgrounds" to the RESTRICTIONS section.
- n. On page 16, add the statement "Development of immature bolls will be inhibited" after the statement "Make application when 60 to 70 percent of the bolls are open...."
- o. On page 17, remove the statement "Repeat application if necessary to remove remaining foliage or control regrowth"
- p. On page 17, remove "initial" and "and increase the need for a second application" from the statement "Dense cotton canopy, large plant size, and environmental conditions not conducive to complete plant coverage may reduce initial application performance and increase the need for a second application"
- q. Add the statement "Apply only 1 application of Cyclone Star per season" to the RESTRICTIONS section on page 17.
- r. On page 17, remove the restriction "If multiple applications are made, allow 7 days between applications"
- s. Revise "dp" to "do" in the last statement of the RESTRICTIONS section.

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

Submit one copy of the revised final printed label for the record. A stamped copy of the label is enclosed for your records. Please contact Hope Johnson at 703-305-5410 if you have any questions.

James Tompkins
Product Manager 25
Herbicide Branch

Herbicide Branch

Registration Division (7505P)

RESTRICTED USE PESTICIDE **Due to Acute Toxicity**

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.

Cyclone Star Herbicide

For Harvest Aid Desiccation/Defoliation and Weed Control in Cotton Only in Texas and Oklahoma

Gramoxone Inteon® (Component A)

Active Ingredient:

Paraguat dichloride (1,1'dimetyl-

4,4'-bipyridinium dichloride)..... 30.1% Other Ingredients: 69.9% Total: 100.0%

Contains 2.0 pounds paraquat cation per gallon as 2.762 pounds salt per gallon.

Contains alerting agent (odor), emetic, dye and Inteon Technology

Aim® EC Herbicide (Component B)

Active Ingredient:

Carfentrazone-ethyl. Other Ingredients: Total: 100.0%

Contains 2.0 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN.

Contains petroleum distillates.

KEEP OUT OF REACH OF CHILDREN.



DANGER/POISON **PELIGRO**

Si usted no entiende la etiqueta, busque a alquien 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.)

8 ounces **Net Contents**

CAUTION

- **NEVER PUT INTO FOOD, DRINK OR OTHER** CONTAINERS.
- IF SWALLOWED. TAKE IMMEDIATE **ACTION AS PRESCRIBED IN FIRST AID** STATEMENT. SYMPTOMS ARE PROLONGED AND PAINFUL.
- DO NOT USE OR STORE IN OR AROUND THE HOME.
- DO NOT REMOVE CONTENTS EXCEPT FOR IMMEDIATE USE.
- THE ODOR OF THIS PRODUCT IS FROM THE ALERTING AGENT WHICH HAS BEEN ADDED, NOT FROM PARAQUAT.

EPA Reg. No. 100-EPA Est.

1.95 gallons **Net Contents**

ACCEPTED with COMMENTS in EPA Letter Dated

JUL 28 2008

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

100 - 1316

GRAMOXONE INTEON (COMPONENT A)

	FIRST AID
	Contains Paraquat, a Bipyridylium Herbicide
If swallowed	 SPEED IS ESSENTIAL. Immediate medical attention is required. If available, give an adsorbent such as activated charcoal, bentonite or Fullers Earth.
	Call a poison control center or doctor immediately for treatment advice.
	Do not give anything by mouth to an unconscious person
If inhaled	Move person to fresh air.
	The odor of this product is from the alerting agent, which has been added, not from the paraquat.
	If person is not breathing, call 911 or an ambulance.
	Call a poison control center or doctor for further 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.
lf on skin or	Take off contaminated clothing.
clothing	IMMEDIATELY wash with soap and water and rinse for 15-20 minutes.
	Prolonged contact will cause severe irritation. Contact with irritated skin
	or a cut or repeated contact with intact skin may result in poisoning.
	 GET MEDICAL ATTENTION. Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN

Refer to the booklet 'Paraquat Poisoning. A Practical Guide to Diagnosis, First Aid and Hospital Treatment' (http://www.syngenta.com/pqmedguide/). Administer either activated charcoal (100g for adults or 2g/kg body weight in children) or Fuller's Earth (15% solution; 1 liter for adults or 15ml/kg body weight in children). NOTE: The use of gastric lavage without administration of an adsorbent has not shown any clinical benefit. Do not use supplemental oxygen. Eye splashes from concentrated material should be treated by an eye specialist after initial treatment. With the possibility of late onset corneal ulceration, it is advised that patients with paraquat eye injuries are reviewed by an eye specialist the day after first presentation. Use treatment that is appropriate for chemical burns. Intact skin is an effective barrier to paraquat, however contact with irritated or cut skin or repeated contact with intact skin may result in poisoning.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

HOT LINE NUMBER

For 24-Hour Medical Emergency Assistance (Human or Animal)
Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident)
Call

1-800-888-8372

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS



May be fatal if swallowed. Fatal if inhaled. Do not breathe spray mist. Wear a dust mist NIOSH-approved respirator with any N, R, P, or HE filter. Causes substantial but temporary eye injury. Wear protective eyewear (face shield required when mixing/loading). Harmful if absorbed through skin. Do not get in eyes, on skin, or on clothing. Avoid contact with skin.

Important: Inhalation is an unlikely route of exposure due to low vapor pressure and large spray droplet size, but mucosal irritation or nose bleeds may occur. Prolonged contact with this concentrated product can irritate your skin.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers (other than Mixers and Loaders) must wear:

- Long-sleeve shirt and long pants
- Shoes plus socks
- Protective evewear
- Chemical Resistant Gloves Category A (e.g. barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton)
- A dust mist NIOSH-approved respirator with any N, R, P, or HE filter

Mixers and Loaders must wear:

- Long-sleeve shirt and long pants
- Shoes plus socks
- A dust mist NIOSH-approved respirator with any N, R, P, or HE filter
- Chemical Resistant Gloves Category A (e.g. barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton)
- Chemical resistant apron
- Face shield

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 instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS Users should:

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

ENVIRONMENTAL HAZARDS

Wildlife: This product is very toxic to algae and toxic to other wildlife. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Drift: Cyclone Star is a contact herbicide that desiccates all green plant tissue. Paraquat dichloride is a nonselective herbicide and will cause damage to nontarget crops and plants if offtarget movement occurs. Extreme care must be taken to ensure that off-target drift is minimized to the greatest extent possible. Do not apply under conditions involving possible drift to food, forage, or other plantings that might be damaged or the crops thereof rendered unfit for sale. use, or consumption. Do not apply when weather conditions favor drift from treated areas. To avoid drift, do not make aerial applications during periods of thermal inversion. Refer to the local state laws, regulations, guidelines and spray drift information contained in the Directions for Use section for proper application to avoid off-target movement.

PHYSICAL AND CHEMICAL HAZARDS

This product is mildly corrosive to aluminum and produces hydrogen gas which may form a highly combustible gas mixture. Do not mix or store in containers, spray tanks, nurse tanks, or such systems made of aluminum or having aluminum fittings. This product is compatible with high density polyethylene and rubber lined steel containers. Do not use or store near heat or open flame.

AIM EC HERBICIDE (COMPONENT B)

	FIRST AID
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 further treatment advice.
If on skin or clothing	 Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minute. Call a poison control center or doctor for further 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.
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.

NOTE TO PHYSICIAN

Carfentrazone-ethyl is expected to have low oral and dermal toxicity, and moderate inhalation toxicity. It is expected to be slightly irritating to the skin and minimally irritating to the eyes. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-331-3148 for emergency medical treatment information.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed, absorbed through the skin or inhaled. Causes moderate eye irritation. Avoid breathing vapors. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- · long-sleeved shirt and long pants,
- waterproof gloves, and
- shoes plus socks

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 instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

 Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

Carfentrazone-ethyl is very toxic to algae and moderately toxic to fish. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark, except as specified on this label. Do not contaminate water when disposing of equipment wash waters.

PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

PRECAUTIONARY STATEMENTS – GRAMOXONE INTEON & AIM EC HERBICIDE (COMPONENTS A&B)

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers (other than Mixers and Loaders) must wear:

- Long-sleeve shirt and long pants
- Shoes plus socks
- Protective eyewear
- Chemical Resistant Gloves Category A (e.g. barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton)
- · A dust mist NIOSH-approved respirator with any N, R, P, or HE filter

Mixers and Loaders must wear:

- Long-sleeve shirt and long pants
- Shoes plus socks
- A dust mist NIOSH-approved respirator with any N, R, P, or HE filter
- Chemical Resistant Gloves Category A (e.g. barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton)
- Chemical resistant apron
- Face shield

ENGINEERING CONTROLS

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.

USER SAFETY RECOMMENDATIONS Users should:

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

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and 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.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, INC. or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

DIRECTIONS FOR USE RESTRICTED USE PESTICIDE

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

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

DO NOT USE AROUND HOME GARDENS, SCHOOLS, RECREATIONAL PARKS, GOLF COURSES OR PLAYGROUNDS.

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.

For Harvest Aid and Desiccation Applications: Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

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
- Shoes plus socks
- Protective eyewear
- Chemical Resistant Gloves Category A (e.g. barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or Viton®)

GENERAL INFORMATION

Cyclone Star is a contact herbicide used as a desiccant/defoliant at harvest and to control or suppress a broad spectrum of emerged weeds.

Cyclone Star is a combination of paraquat and carfentrazone herbicides. Paraquat is formulated as a liquid and contains 2 pounds of active ingredient per gallon. The paraquat formulation contains a nontoxic odor and an emetic (an agent which will induce vomiting if the product is swallowed). The odor is included in the formulation to help prevent accidental ingestion of paraquat. Carfentrazone is formulated as a liquid and contains 2 pounds of active ingredient per gallon.

Cyclone Star is rapidly absorbed by green plant tissue and interacts with the photosynthetic process and destroys the plant cells. Cyclone Star requires actively growing green plant tissue to function. Thorough coverage of all green foliage is essential for effective crop desiccation/defoliation and effective weed control.

Clay and organic matter rapidly tie up Cyclone Star. As a result, Cyclone Star has no residual soil activity to affect later-planted crops or later germinating weeds.

RAINFASTNESS

Because the active ingredients in Cyclone Star are rapidly absorbed by the foliage, rain occurring 15-30 minutes or more after application will have no effect on activity

APPLICATION

Since Cyclone Star is a contact-type herbicide, it is essential to obtain complete coverage of target vegetation. Improper application technique will usually result in unacceptable crop desiccation/defoliation. See details below for specific application instructions.

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

When applied at less than 10 gallons per acre finished spray volume, a drift control or spray deposition additive **SHOULD** be used. Refer to the additive label for use directions.

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

Aerial Drift Reduction Advisory Information

(This section is advisory in nature and does not supersede the mandatory label requirements.)

Spray Drift Information

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.

- The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45°.

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

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 usually 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

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

Swath Adjustment

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

Wind

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

Temperature and Humidity

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

Temperature Inversions

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

Sensitive Areas

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

Spray buffer zones for ground applications, listed in chart below, are required where local indigenous endangered plant species are found.

Buffers to Indigenous Endangered Plant Species			
Gramoxone Inteon (Component A) Use Rate	Aim EC Herbicide (Component B) Use Rate	Low Spray Boom Buffer (ft.)	High Spray Boom Buffer (ft.)
0.5	0.016	20	33

USE OF A NONIONIC SURFACTANT

When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Chemical Producers and Distributors Association (CPDA) adjuvant certification program is recommended.

Always add the following adjuvant (failure to use the following adjuvant at recommended rates will result in reduced performance of Cyclone Star).

Nonionic Surfactant: Add nonionic surfactant containing 80% or more surface-active agent at 0.25% v/v (2 pt./100 gallons) of the finished spray volume for both aerial and ground applications.

NOZZLE SELECTION

The use of flat-fan nozzles will result in the most effective application of Cyclone Star. Flood nozzles are generally not as good as flat fans since they produce large uneven droplets. The use of flood nozzles may result in reduced weed control due to inadequate coverage.

WHEN SPRAYING LESS THAN 20 GALLONS OF SPRAY CARRIER PER ACRE, USE <u>ONLY</u> FLAT FAN NOZZLES AS RECOMMENDED IN THE CHART BELOW.

Table 1: Recommended Nozzles, Pressures and Setup.

	Nozzle Type	
	Flat Fan	Flood
Maximum Size	8	15
Spray Pressure (at nozzle)	30-50 psi	30-50 psi
Maximum Nozzle Spacing	30"	40"
Direction of Spray Pattern	Down	Down
Maximum Speed	10 mph	10 mph
Spray Overlap (at each edge)	30%	50%

Flat-Fan Nozzles 30% (60% Total) Overlap



Flood Nozzies 50% (100% Total) Overtap



Using nozzles, pressures, or setups different from the above chart will result in reduced control.

SPRAY CARRIER

Always use clean water (free of mud or clay), clear liquid nitrogen, or completely clear liquid fertilizers as the carrier when spraying Cyclone Star. Muddy water, or suspension-type fertilizers containing clay, can inactivate Cyclone Star. Never use suspension-type fertilizers containing clay as the spray carrier. If using a completely clear liquid fertilizer containing high phosphate levels as the spray carrier, always use the higher rate of Cyclone Star and surfactant.

Note: When using liquid fertilizers such as 28% N as a spray carrier, it is important that nonionic surfactant still be used with Cyclone Star. Liquid fertilizer carriers cannot substitute for surfactant.

RATES OF CYCLONE STAR

Follow recommended rates of Cyclone Star listed. Use higher label rates for harvest aid when crop vegetation is dense.

SPRAY VOLUME

Follow recommended minimum spray volumes listed with each use of Cyclone Star. These are **minimum** volumes only, and spray volumes should be increased as necessary to obtain complete coverage of the target weed or plant without runoff from the foliage.

WHEN SPRAYING LESS THAN 20 GALLONS OF SPRAY CARRIER PER ACRE, TARGET WEEDS SHOULD NOT EXCEED 6 INCHES IN HEIGHT.

ENVIRONMENTAL CONDITIONS

Cyclone Star is active over a wide range of environmental conditions. Cool weather (below 55°) will slow the activity of Cyclone Star, as will cloudy, overcast weather, but will not affect performance.

Cyclone Star Page 15 of 18

ORDER OF TANK MIXING

In general, Cyclone Star tank mixes with other products should be mixed as follows:

- 1. Fill spray tank 3/4 full with clean water.
- 2. Begin tank agitation and continue throughout mixing and spraying.
- 3. Add Component B (Aim EC) to tank.
- 4. Add dry formulations (WP, DF, etc.) to tank.
- 5. Add liquid formulations (SC, EC, L, etc.) to tank.
- 6. Add Component A (Gramoxone Inteon) to tank.
- 7. Add nonionic surfactant to tank.
- 8. Fill remainder of spray tank.

Always refer to labels of other pesticide products for mixing directions and precautions which may differ from those outlined here.

Since many of the herbicides listed on this label are available in several types of formulations, it is advisable to perform a jar test to check physical compatibility.

Do not use with tank additives that alter the pH of the spray solution below pH 5 or above pH 8. Buffer spray solution to alter the pH range as appropriate.

PRECAUTIONS AND RESTRICTIONS

EQUIPMENT/CONTAINER

Flush all spray equipment with water after use each day. Cyclone Star is corrosive to aluminum. Aluminum spray equipment and aluminum aircraft structures that are exposed to spray solution or spray drift should be flushed thoroughly with water immediately after use.

In dry areas, dust stirred up by high winds or equipment tires can coat weed or plant leaves and reduce Cyclone Star activity. Avoid applying Cyclone Star in extremely dusty conditions.

SPRAY EQUIPMENT CLEAN OUT

Many new pesticides are very active at low rates, especially to sensitive crops. Residues left in mixing equipment, spray tanks, hoses, spray booms and nozzles can cause crop effects if they are not properly cleaned. As soon as possible after spraying Cyclone Star and before using the sprayer equipment for any other applications, the sprayer equipment must be thoroughly cleaned using the following procedure. In addition, users must take appropriate steps to ensure proper equipment clean-out for any other products mixed with Cyclone Star as required on the other product labels. More complete cleaning can be achieved if the spray system is cleaned immediately following the application.

 Drain sprayer tank, hoses, spray boom and spray nozzles. Use a high-pressure detergent wash to remove physical sediment and residues from the inside of the sprayer tank and thoroughly rinse. Then, thoroughly flush sprayer hoses, spray boom and spray nozzles with a clean water rinse. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tips) separately in the ammonia solution of Step 2.

- 2. Next, prepare a sprayer cleaning solution by adding three gallons of ammonia (containing at least 3% active) per 100 gallons of clean water. Prepare sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush hoses, spray boom and spray nozzles.
- 3. Convenient and thorough cleaning of the sprayer can be achieved if the ammonia solution or fresh water is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.
- 4. Before using the sprayer, completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles with clean water. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tip) separately in an ammonia solution.
- 5. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State, and local regulations and guidelines.

Do not apply sprayer cleaning solutions or rinsate to sensitive crops.

Do not store the sprayer overnight or for any extended period of time with Cyclone Star spray solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers.

If the sprayer has been stored or idle, purge the spray boom and nozzles with clean water before beginning any application.

Should small quantities of Cyclone Star remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to certain crops and other vegetation. Syngenta accepts no liability for any effects due to inadequately cleaned equipment.

LIMITATIONS AND PRECAUTIONS

- Do not pasture livestock in treated fields or feed treated foliage.
- DO NOT use around home gardens, schools, recreational parks, or playgrounds.
- Weeds and grasses emerging after application of Cyclone Star will not be controlled or suppressed.
- Unless otherwise indicated, crop plants emerged at time of application may be severely injured or killed if contacted by sprays of Cyclone Star.

APPLICATION INSTRUCTIONS AND CROP USE DIRECTIONS

COTTON

Harvest Aid Application

Cyclone Star may be applied as a harvest aid to defoliate and desiccate cotton and troublesome weeds that may be present at harvest. It may be used alone or as a tank mixture with other cotton harvest aids.

Make application when 60 to 70 percent of the bolls are open, or according to the State Agricultural Extension Service recommendations in the use area.

Apply Cyclone Star as a broadcast spray at the rates noted in Table 2, in spray volume sufficient to provide complete coverage of cotton foliage.

Table 2: Rate Table for Cyclone Star for Cotton Harvest Aid.*

	Amount of Product (fl. oz./A)	
Acres per Container	Gramoxone Inteon Component A (2 lb. a.i./gallon)	Aim EC Component B (2 lb. a.i./gallon)
8	31.3	1.0
10	25	0.8

^{*}Assuming 250 fl. oz. Gramoxone Inteon and 8 fl. oz. Aim EC per container.

Use a minimum of 10 gallons of finished spray per acre for ground application and 5 gallons per acre for aerial application. Coverage is essential for good defoliation. Repeat application if necessary to remove remaining foliage or control regrowth. Dense cotton canopy, large plant size, and environmental conditions not conducive to complete plant coverage may reduce initial application performance and increase the need for a second application.

Cyclone Star may be applied alone or as a tank mix or as a sequential application alone or tank mixed with Dropp®, Def®, Finish®, Prep™, Folex®, Harvade®, Ginstar®, CottonQuik®, or other registered cotton harvest aid.

Refer to the other product's label for restrictions on tank mixing, and observe all label precautions, instructions and rotational cropping restrictions.

Restrictions

- Do not pasture livestock in treated fields or feed treated foliage.
- Do not use crop oil concentrate when using Cyclone Star for cotton harvest aid.
- If multiple applications are made, allow 7 days between applications.
- Do not apply to cotton within 7 days of harvest.
- Development of immature bolls will be inhibited.
- Do not apply more than 32 fl. oz. (0.5 lb. active ingredient) per acre total Gramoxone Inteon (Component A) or 3.2 fl. oz. (0.05 lb. active ingredient) per acre total Aim EC (Component B) as a harvest aid per season.
- If additional paraquat products are to be used on the same acreage per season, do not exceed 3.0 lb. of paraquat per acre per season.
- If additional carfentrazone-ethyl products are to be used on the same acreage per season, dp not exceed 0.124 lb. of carfentrazone-ethyl per acre per season.

STORAGE AND DISPOSAL

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

Pesticide Storage

Store at temperatures above 32°F.



Pesticide Disposal

Pesticides 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

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available.

Residue Removal

Triple 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 ¼ 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.

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 1-800-888-8372, day or night.

CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER!

Cyclone Star and the Syngenta logo trademarks of a Syngenta Group Company

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Aim® trademark of FMC Corporation

CottonQuick™ trademark of DuPont

Folex® trademark of Amvac

Harvade® trademark of Chemtura Corporation

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For non-emergency (e.g., current product information), call Syngenta Crop Protection at 1-800-334-9481.

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