

U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505C) 401 "M" St., S.W. Washington, D.C. 20460

NOTICE OF PESTICIDE:

x Registration
Reregistration

under FIFRA, as amended)

EPA Reg. Number:

Date of Issuance:

FEB 15 2001

10182-455

Term of Issuance:

Conditional

Name of Pesticide Product:

Achieve® SC Herbicide

Name and Address of Registrant (include ZIP Code):

Zeneca AG Products 1800 Concord Pike P.O. Box 15458 Wilmington, DE 19850-5458

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.

In the basis of information furnished by the registrant, the above named pesticide is hereby requistered/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 tancel 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 of your product when the Agency requires all registrants of similar products to submit such data.
  - 2. Make the following label change before you release the product for shipment:
    - a. Revise the EPA Registration Number to read "EPA Reg. No. 10182-455".
- 3. Submit production information (pounds or gallons produced) for this product for the fiscal years in which the use on wheat and barley is conditionally registered, in accordance with FIFRA section 29. The fiscal year begins October 1, and ends September 30. The product information will be submitted to the Agency no later than November 15, following the end of the preceding fiscal year. This information is to be submitted to:

Registration Support Branch Registration Division (7505C) Environmental Protection Agency 1200 Pennsylvania Ave., N.W. Washington, DC 20460

Signature of Approving Official:

Date

FEB 1 5 2001

page 2 EPA Reg. No. 10182-455

- 4. Submit one copy of the revised final printed label for the record before you release the product for shipment.
- 5. Submit by February 28, 2003 the following Studies conducted with tralkoxydim in accordance with the Good Laboratory Practice Standards, 40 CFR Part 160 and appropriate test guidelines as referenced in EPA's Data Requirements for Registration Regulations, 40 CFR Part 158:
  - a. Oncogenicity study Second Species [Guideline #83-2]
  - b. Aerobic Soil Metabolism using representative U.S. soils [Guideline #162-1]
  - c. Aerobic Aquatic Metabolism with emphasis on degradates tralkoxydim acid (Compound 8), Compound 3 and Compound 17 [Guideline #162-4]
  - d. Leaching-Adsorption-Desorption Data for the degradate Compound 3 [Guideline #163-1]
  - e. Terrestrial Field Dissipation [Guideline #164-1]
  - f. Freshwater Fish LC<sub>50</sub> for degradate tralkoxydim acid [Guideline #72-1]
  - g. Freshwater Invertebrate LC<sub>50</sub> for degradate tralkoxydim acid [Guideline #72-2]

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

A stamped copy of the label is enclosed for your records.

Daniel Rosenblatt Acting Product Manager (25) Herbicide Branch Registration Division (7505C)

## **Enclosure**

RD:STANTON:PM Team 23:Rm. 239:CM-2:305-5218:Disk #14:

CONCURRENCES									
SYMBOL >	7505C								
SURNAME >	S. Stanton								
DATE >	Feb 15, 2001			***************************************					
EPA Form 1320-1 (12-70)				OFFICIAL FILE COPY					

## **ACHIEVE® SC Herbicide**

# Postemergence Herbicide for Control of Certain Annual Grassy Weeds in Wheat and Barley

## **ACTIVE INGREDIENT:**

Tralkoxydim

2-Cyclohexen-1-one, 2-[1-(ethoxyimino)propyl]-3-hydroxy-

 INERT INGREDIENTS:
 65.0%

 Total
 100.0%

Contains 3.33 lbs active ingredient per gallon or 400 grams ai/L.

EPA Reg No. 10182-xxx EPA Est. No. 10182-xxx Net Contents:

# ACCEPTED

FEB | 5 2001

Under the Federal Insecticide. Fungicide. and Rodenticide Act. as amended. for the pesticide registered under EPA Reg. No. 101 82. 455 KEEP OUT OF REACH OF CHILDREN

**CAUTION** 

Active Ingredient Made in the United Kingdom, Packaged in U.S.A.

**ZENECA Ag Products** 

ZENECA Ag Products Inc. Wilmington, DE 19850-5458

See side panels for additional precautionary statements

## **FIRST AID**

If swallowed:	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>				
If in eyes:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>				
If on skin or clothing:	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>				
If inhaled:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>				

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

FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE, CALL 1-800-F-A-S-T-M-E-D (327-8633).

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

## PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

## **CAUTION**

HARMFUL IF SWALLOWED. CAUSES MODERATE EYE IRRITATION. Avoid contact with eyes or clothing.

# **Personal Protective Equipment**

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- · Waterproof gloves
- · Shoes plus socks



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.

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 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**

Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

**Spray Drift:** Do not make aerial applications under conditions involving possible drift to nontarget plants. Refer to the local state laws, regulations, and guidelines for proper application to avoid off-target movement.

## PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.



# 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 should 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 ZENECA or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold ZENECA and Seller harmless for any claims relating to such factors.

ZENECA 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. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or ZENECA, and Buyer and User assume the risk of any such use. ZENECA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

In no event shall ZENECA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ZENECA 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 ZENECA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

ZENECA and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of ZENECA.

## **DIRECTIONS FOR USE**

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.

## AGRICULTURAL USE REQUIREMENTS

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

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

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

- Coverails
- Waterproof gloves
- Shoes plus socks

## STORAGE AND DISPOSAL

**PROHIBITIONS:** Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Keep away from heat and flame.

**STORAGE:** Keep container tightly closed when not in use. Do not store near seed, fertilizers, or foodstuffs. Can be stored at temperatures as low as minus 50°F.

**PESTICIDE DISPOSAL:** Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Triple rinse (or equivalent); then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

#### **GENERAL INFORMATION AND INSTRUCTIONS**

ACHIEVE® SC Herbicide is a systemic, postemergence herbicide for the selective control of wild oats, volunteer tame oats, green foxtail, yellow foxtail, annual ryegrass (Italian), and Persian darnel in all wheat and barley varieties. Perennial grasses such as quackgrass will not be controlled. Although susceptible grassy weeds treated with ACHIEVE SC cease growth soon after application, complete die-back of the weeds could take up to 4 weeks.

ACHIEVE SC does not control broadleaf weeds; however, some broadleaf weed herbicides can be tank mixed with ACHIEVE SC to provide broad spectrum weed control in cereals (see appropriate section of label for this information).

ACHIEVE SC is not affected by rain falling one hour or more after application.

#### SPRAY DRIFT

Avoid spray drift. Do not apply when weather conditions may cause drift. Do not allow this product to drift onto nontarget areas. Drift may result in illegal residues or injury to adjacent crops and vegetation. To avoid spray drift, DO NOT apply aerially when wind speed is greater than 10 mph or during periods of temperature inversions. Use of larger droplet size will also reduce spray drift.

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 is responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target 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 ¾ 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 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" below.

#### AERIAL DRIFT REDUCTION ADVISORY

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

#### • 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 ¾ 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 feet above the top of the target 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 cross wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator should 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).

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

#### INFORMATION ON WEED RESISTANCE

Naturally occurring biotypes of certain grass species with resistance to this herbicide and related products (same mode of action) are known to exist. Selection of resistant biotypes through repeated use of these herbicides may result in control failures. If poor performance cannot be attributed to adverse weather conditions or improper application methods, a resistant biotype may be present. In such a case, additional treatments with this herbicide or related products is not recommended. Consult your local Zeneca Ag Products representative or agricultural advisor for assistance.

## **GENERAL USE PRECAUTIONS**

ACHIEVE SC is a postemergence herbicide for use in wheat and barley. Do not use in tame oat crops. Avoid drift onto tame oat and corn crops. Tillered cereal crops may incur injury if applications are made within 48 hours of freezing temperatures. Nontillering cereal crops which are exposed to temperatures of less than 40°F up to 48 hours either before or after application, may incur injury. Unacceptable crop injury could also occur when ACHIEVE SC is applied to crops under stress due to high temperatures, drought, excess soil moisture, foliar diseases, insect damage, or lack of fertility.

When weeds are stressed due to drought, heat, lack of fertility, flooding, or prolonged cool temperatures, control can be reduced or delayed since the grasses are not actively growing. Grass escapes or re-tillering may occur when application is made under prolonged stress conditions. Optimum weed control will be obtained if application of ACHIEVE SC is delayed until the stress conditions have ended and weeds are once again actively growing.

Do not apply ACHIEVE SC to crops or weeds that have heavy dew cover.

Do not tank mix with amine formulations of labeled herbicides or any other herbicide, insecticide, fungicide, fertilizer solution, or adjuvant not recommended on the label as poor grass control and/or unacceptable crop injury may result.

Crop injury may occur with registered tankmixes under extreme weather conditions or when the crop is suffering from stress due to inadequate or abnormally high moisture levels, extreme temperature, or from spray overlaps.

Weed control can be reduced when ACHIEVE SC is applied to fields which received a soil residual sulfonylurea herbicide treatment the previous year.

Unacceptable weed control may be obtained when ACHIEVE SC is applied with spray equipment containing residual spray solution or other spray residues from a previous sulfonylurea herbicide application. Ensure such sprayers are thoroughly cleaned before adding ACHIEVE SC to the spray tank.

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

Flood or sprinkler irrigation can cause subsequent germination of wild oats and other grassy weeds. For optimum weed control in irrigated crops, apply ACHIEVE SC after irrigation when new weed germination is complete.

#### **ROTATIONAL CROPS**

Rotational crops of cereal grains and leafy crop groups may be planted 30 days after application of ACHIEVE SC. All other rotational crops may be planted 106 days after application of ACHIEVE SC.

#### **CROPS**

ACHIEVE SC can be used in all varieties of wheat and all 2- or 6-row varieties of barley (malting and general-purpose varieties including semidwarf and hulless). ACHIEVE SC may be applied to wheat or barley up to the flag leaf stage.

# Harvesting Intervals:

Minimum interval to harvest is 60 days after treatment with ACHIEVE SC.

Immature crops (forage) may be grazed or cut for hay 30 days after treatment.

Mature straw and grain may be fed to livestock 45 days after treatment.

## **APPLICATION DIRECTIONS**

#### Weeds Controlled and Use Rates

The maximum seasonal application rate for ACHIEVE SC is 9.6 oz/A. For control of wild oats, volunteer tame oats, green foxtail, yellow foxtail, annual ryegrass (Italian) and Persian darnel, apply ACHIEVE SC at 6.9 to 9.2 oz/A (0.18 to 0.24 lb ai/A). Use the high rate when soil is dry, weeds are large, weed population is high, or crop canopy is dense.

NOTE: In Minnesota, Montana, North Dakota, and South Dakota, apply ACHIEVE SC only at 6.9 oz/A (0.18 lb ai/A). Apply by ground sprayers in a spray volume of 10 to 15 gallons of water per acre. When grass foliage is dense, use the higher end of water volume range. Using a spray volume greater than 15 gallons of water per acre can result in reduced weed control. For aerial application, 3 to 5 gallons of water per acre should be used. Using a spray volume greater than 5 gallons of water per acre can result in reduced weed control.

Apply ACHIEVE SC to actively growing grasses for best results. Grasses emerging after application of ACHIEVE SC will not be controlled. ACHIEVE SC will not control broadleaf weeds. See **Tank Mixing Instructions** section of label for information on approved tankmixes for broad spectrum weed control.

Apply ACHIEVE SC to wild oats or volunteer tame oats at the 1 to 6 leaf stage of growth (total leaves including tillers). Wild oats will be controlled up to the emergence of the third tiller.

For control of green foxtail and yellow foxtail, apply ACHIEVE SC at 1 to 5 leaf stage of growth (total leaves including tillers).

For control of annual ryegrass (Italian) and Persian darnel, apply ACHIEVE SC at the 1 to 4 leaf stage of growth (total leaves including tillers). Best control of ryegrass is obtained when application is made in the fall, prior to the dormancy period.

# Spray Adjuvants

Always add SUPERCHARGE® adjuvant to the spray solution at a rate of 4 pints per 100 gallons of water (0.5% v/v). Use of incorrect SUPERCHARGE rates or alternative adjuvants may result in unacceptable weed control or crop injury. In addition, always add ammonium sulfate to the spray solution at a rate of 7 to 15 pounds per 100 gallons when spray water contains more than 400 ppm bicarbonate ions. Only use granular or liquid ammonium sulfate formulations which do not contain additional wetters or surfactants. Water from deep wells is more likely to require addition of ammonium sulfate compared to surface water sources. Addition of ammonium sulfate can also provide enhanced weed control under low moisture or high temperature stress conditions as well as when tank mixing with broadleaf weed herbicides.

# **Tank Mixing Instructions**

Follow the recommendations on the tankmix products for all use directions and restrictions.

For broad spectrum control of both annual grasses and many broadleaf weeds, ACHIEVE SC can be tank mixed with MCPA ester, bromoxynil/MCPA esters (such as Bronate®), bromoxynil ester (such as Buctril®), Curtail® M, and Stinger®. Do not exceed 1 pint per acre for Bronate and 2 pints per acre for Curtail M when tank mixed with ACHIEVE SC in Minnesota, Montana, North Dakota and South Dakota. ACHIEVE SC may be tank mixed with Starane®, either with or without 2,4-D ester\* or MCPA ester. A tankmix of ACHIEVE SC and Harmony® GT is recommended only for wild oats control. Note: Green foxtail, volunteer tame oats, yellow foxtail, Persian darnel, and other grass weeds will not be controlled by this tankmix, and the wild oats control may be reduced. To minimize the reduction in wild oats control, use the higher rate of ACHIEVE SC when using rates of Harmony GT greater than 0.3 ounce per acre. Do not exceed 0.5 ounce per acre rate of Harmony GT with this tankmix. For greater spectrum of broadleaf weed control, this tankmix may also include 2,4-D ester\*, MCPA ester, bromoxynil or bromoxynil/MCPA.

\*Addition of 2,4-D ester to ACHIEVE SC with either the Starane or Harmony GT tankmixes is recommended only in Minnesota, Montana, North Dakota, and South Dakota.

In Minnesota, Montana, North Dakota, and South Dakota, ACHIEVE SC may also be tank mixed with 2,4-D ester when ammonium sulfate is also used. When tank mixing ACHIEVE SC with 2,4-D ester or bromoxynil ester, green and yellow foxtail control may be reduced with adverse growing conditions. Do not exceed 8 oz. ai/A of MCPA ester or 2,4-D ester as reduced weed control may occur.

Read and strictly adhere to the use directions and precautions on the label of the product tank mixed with ACHIEVE SC.

Herbicides not approved on this label for tank mixing with ACHIEVE SC may be applied separately in sequence. For best results, always apply ACHIEVE SC first and allow at least 5 days after the application of ACHIEVE SC before applying other herbicides. If other herbicides have been applied, wait at least 15 days before ACHIEVE SC application. Reduced grass control should be expected if ACHIEVE SC is not applied first.

## **Sprayer Loading And Mixing Instructions**

Follow the mixing instructions below for adding ACHIEVE SC to the spray tank.

- 1. Only use sprayers in good running condition with high agitation. Ensure the sprayer is cleaned according to instructions on label of the product used prior to ACHIEVE SC. Use only clean water for the spray solution. Ensure that all in-line strainer and nozzle screens in the sprayer are 50 mesh or coarser. Screens of 80 mesh size or finer should not be used.
- 2. Begin to fill sprayer tank or premix tank with clean water, and engage agitator. Agitation must be continued throughout the entire mixing and spraying procedure.
- 3. When the sprayer or premix tank is three-quarters full of water, add ammonium sulfate and agitate until completely dissolved. Then add ACHIEVE SC slowly. Remove straining screen from filler opening of spray tank before adding ACHIEVE SC. (NOTE: ACHIEVE SC must be added directly into the sprayer through the tank opening and not through injector or hopper systems, for sprayers so equipped.) For shallow spray tanks where water depth is 24 inches or less, add ACHIEVE SC towards agitator unit and away from outlet in the bottom of the tank to enhance dispersion.

- 4. Wait at least one minute after the last of the ACHIEVE SC has been added to the tank to allow for complete dispersion of the granules. A longer agitation period may be required to disperse ACHIEVE SC when using cold water from sources such as deep drilled wells.
- 5. If tank mixing, add the recommended product(s) next.
- 6. Lastly, add adjuvant and then continue to fill tank to desired level with water.

# Spraying Instructions

ACHIEVE SC may be applied by either ground sprayers or by aerial application.

For <u>ground</u> sprayers, apply in a spray volume of 10 to 15 gallons per acre. Use the higher end of water volume range when grass foliage is dense. Apply at a pressure of 30 PSI to 40 PSI to ensure proper dispersion, spraying characteristics, and performance of ACHIEVE SC.

Flat fan nozzles of 80° or 110° are recommended for optimum coverage. Do not use floodjet nozzles or controlled droplet application equipment. Ensure that all in-line strainer and nozzle screens in the sprayer are 50 mesh or coarser. Screens of 80 mesh size or finer should not be used.

Always ensure that agitation is maintained until spraying is completed, even if stopped for brief periods of time. If the agitation is stopped for more than 5 minutes, resuspend the spray solution by running on full agitation prior to spraying. ACHIEVE SC must be sprayed within the same day of mixing.

For <u>aerial</u> applications, 3 to 5 gallons water per acre should be applied. When grass foliage is dense, use the higher end of water volume range. Use sufficient spray water volume to ensure complete dispersion of ACHIEVE SC in the spray tank when mixing and during application. When making aerial applications, care should be taken to avoid drift to crops other than wheat or barley. Avoid drift to nontarget areas. Do not spray when conditions are favorable for drift or when wind velocity exceeds 10 mph.

When spraying is completed and prior to using other products, ensure the spray system is thoroughly rinsed with clean water to remove any remaining ACHIEVE SC residues. Using a pressure washer and the addition of a detergent or a nonionic surfactant to the rinse water will enhance removal of residues.

ACHIEVE® and SUPERCHARGE® are trademarks of a ZENECA company. Bronate® and Buctril® are trademarks of Rhone-Poulenc. Curtail®, Starane®, and Stinger® are trademarks of Dow AgroSciences. Harmony® is a trademark of DuPont Agricultural Products.

(Note: A weed leaf-stage diagram will be placed at end of text on printed label.)