

100-1314

11/12/2008

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U.S. Environmental Protection Agency  
Office of Pesticide Programs  
Registration Division (7505P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:  
100-1314  
Date of Issuance:  
NOV 12 2008  
Date of Expiration:  
9/28/2011

Term of Issuance: **Conditional**

Name of Pesticide Product:  
**Axial TBC Herbicide**

**NOTICE OF PESTICIDE:**

- Registration
- Reregistration

(under FIFRA, as amended)

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 section 3(c)(7)(A) provided that:

1. You submit the outstanding data requirements 830.6317 Storage Stability, 830.6320 Corrosion Characteristics, and 830.6314 Oxidizing/Reducing within one year from the date of this letter.
2. Revise the EPA Registration Number from 100-XXXX to 100-1314 on the label.
3. Add an appropriate EPA Establishment Number to the label.

Signature of Approving Official:

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

Date:  
NOV 12 2008

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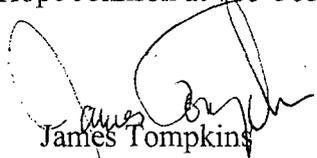
4. In the section FIRST AID, move the IF IN EYES section to before the IF SWALLOWED section
5. Revise the PRECAUTIONARY STATEMENTS to the following: "Causes substantial but temporary eye injury. Do not get in eyes, on skin, or on clothing. Harmful if swallowed or inhaled. Avoid breathing spray mist."
6. In the Personal Protective Equipment (PPE) section under Applicators and other handlers must wear add "protective eyewear".
7. Add the statement "If foliage is wet at time of application, control may be decreased" in the section APPLICATION PROCEDURES on page 8.

The basic formulation CSF [dated 3/18/08] of the product referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act are acceptable. The basic CSF will be added to your file.

Please note that the time limitation placed on this product (expires 9/28/2011) is due to outstanding data required as a condition of registration for the active ingredient florasulam.

You will submit one (1) 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). A stamped copy of labeling is enclosed for your records. All subsequent amendments to the base label must be submitted to Canada and the United States at the same time for joint review.

If you have any questions, please contact Hope Johnson at 703-305-5410.

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

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### IMPORTANT NOTICE

This product is registered in both the U.S. and Canada. It has **BOTH** U.S. and Canadian Labeling.

You must follow **ONLY** the U.S. label **WHEN USING THIS** product in the U.S.

You must follow **ONLY** the Canadian label **WHEN USING THIS** product in Canada.

## Axial® TBC<sup>†</sup>/Broadband<sup>††</sup>

Herbicide

GROUP 1 2 HERBICIDES

### HERBICIDE

### AGRICULTURAL

Emulsifiable Concentrate

**READ THE LABEL AND ATTACHED BOOKLET BEFORE USING**  
**KEEP OUT OF REACH OF CHILDREN**

#### ACTIVE INGREDIENT/GUARANTEES:

Pinoxaden* <sup>1</sup>	9.00%
Florasulam** <sup>2</sup>	0.75%
Other ingredients:	90.25%
Total:	100.00%

\*CAS No. 243973-20-8

\*\*CAS No. 145701-23-1

<sup>1</sup>Equivalent to 9.0% or 0.774 lbs. per U.S. gallon or 92.7 grams per liter of pinoxaden active ingredient.

<sup>2</sup>Equivalent to 0.75% or 0.0645 lbs. per U.S. gallon or 7.7 grams per liter of florasulam active ingredient.

Contains petroleum distillates.

<sup>†</sup>Axial TBC - Identical chemical composition to Broadband (PCPA Reg. No. 29138)

<sup>††</sup>Broadband - Identical chemical composition to Axial TBC (EPA Reg. No. 100-1314)

## WARNING/AVISO

### Eye Irritant

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Syngenta Crop Protection, Inc. / Syngenta Crop Protection Canada, Inc.  
PO Box 18300 / 140 Research Lane, Research Park  
Greensboro, NC 27409 / Guelph, ON N1G 4Z3 Telephone (Canada):  
1-877-964-3682

**IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL  
FIRE OR POISONING CALL 1-800-888-8372 (in the U.S.) or  
1-800-327-8633 (FASTMED) in Canada**

**NET CONTENTS: 2.77 Gallons/1 Litre to bulk;  
1L-Bulk**

EPA Reg. No. 100-1314/EPA Est. XXXXX  
REGISTRATION NO. 29138 PEST CONTROL PRODUCTS ACT

### FIRST AID

When seeking medical attention take the container label if possible. If not, take information which identifies the product, that is the product name and registration numbers.

**If swallowed:** Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

**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 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 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.

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

**STORAGE:** Store the product in closed original container in a well-ventilated room. Keep out of reach of children, unauthorized persons and animals.

**In the United States:** It is a violation of United States law to use this product without having obtained the United States label at the time of purchase and following the United States label at the time of application.

**In Canada: NOTICE TO USER:** This pest control product is to be used only in accordance with the directions for use on the label. It is an offence under the Pest Control Products Act to use this product in a way that is inconsistent with the directions for use on the label. The user assumes the risk to persons or property that arises from any such use of this product.

Refer to country specific label booklet for additional information including precautions, protective clothing and equipment, user safety recommendations, environmental hazards, storage and disposal directions and warranty information.

Product of the United Kingdom

Axial® TBC, Broadband and the Syngenta logo are trademarks of a Syngenta Group Company

Axial TBC NAFTA Container Label - bb - 11-12-08

**ACCEPTED**  
**with COMMENTS**  
**In EPA Letter Dated:**  
**NOV 12 2008**

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

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**IMPORTANT NOTICE**  
**U.S. LABEL – It is a violation of United States law to use this product in the United States in manner inconsistent with its United States labeling**

GROUP 1 | 2 HERBICIDES

Axial® TBC Herbicide

Postemergence herbicide for control of annual grass and broadleaf weeds in wheat and barley

Active Ingredient:	
Pinoxaden* <sup>1</sup> .....	9.00%
Florasulam** <sup>2</sup> .....	0.75%
<hr/>	
Other ingredients:	90.25%
<hr/>	
Total:	100.00%

\*CAS No. 243973-20-8  
\*\*CAS No. 145701-23-1

<sup>1</sup>Equivalent to 9.0% or 0.774 lbs. per U.S. gallon or 92.74 grams per liter of pinoxaden active ingredient.  
<sup>2</sup>Equivalent to 0.75% or 0.0645 lbs. per U.S. gallon or 7.7 grams per liter of florasulam active ingredient.

Contains petroleum distillates.

**KEEP OUT OF REACH OF CHILDREN.**

**WARNING/AVISO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-XXXX

EPA Est.

SCP

2.77 gallons  
Net Contents

**ACCEPTED**  
**with COMMENTS**  
**In EPA Letter Dated:**  
NOV 12 2008  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.

100-1314

<b>FIRST AID</b>	
<b>If swallowed</b>	<ul style="list-style-type: none"><li>• Immediately call a poison control center or doctor.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Do not give <b>any</b> liquid to the person.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>If in eyes</b>	<ul style="list-style-type: none"><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>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"><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>
<b>If inhaled</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by 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.	
<b>NOTE TO PHYSICIAN</b>	
Contains petroleum distillates - vomiting may cause aspiration pneumonia.	
<b>HOTLINE NUMBER</b>	
For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident) Call <b>1-800-888-8372</b>	

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## PRECAUTIONARY STATEMENTS

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### Hazards to Humans and Domestic Animals

#### WARNING/AVISO

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

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## Personal Protective Equipment (PPE)

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

### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves, Category A, such as barrier laminate, butyl rubber  $\geq 14$  mils, nitrile rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, polyethylene, polyvinyl chloride (PVC)  $\geq 14$  mils, or Viton®  $\geq 14$  mils

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

## Engineering Control Statements

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

## 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.

## Environmental Hazards

For terrestrial uses: 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.

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**Physical or Chemical Hazards**

Do not use or store near heat or open flame.

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**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before 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

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

Axial TBC Herbicide may be used only in accordance with directions on this label or in separately published Syngenta supplemental labeling directions for this product.

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 48 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
- Chemical-resistant gloves, Category A, such as barrier laminate, butyl rubber  $\geq 14$  mils, nitrile rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, polyethylene, polyvinyl chloride (PVC)  $\geq 14$  mils, or Viton  $\geq 14$  mils

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

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## GENERAL INFORMATION

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Axial TBC Herbicide is a systemic, postemergence herbicide for the control of annual grasses and broadleaf weeds in all varieties of spring wheat (excluding durum), winter wheat, and barley not underseeded with legumes.

Axial TBC Herbicide is absorbed by foliage and is rapidly translocated to the growing points of leaves and stems of target weeds. Actively growing susceptible grass and broadleaf weeds stop growing within 48 hours of treatment. Typical symptoms (discoloration) of dying broadleaf weeds may not be noticeable for 1 to 2 weeks after application. Susceptible grass weeds turn yellow within one to three weeks and are completely controlled within three to five weeks. Level and rate of control depend on weed species, growing conditions, crop competition, and coverage. Thorough spray coverage of the plants is essential for consistent control.

### Rainfastness

Axial TBC Herbicide is not affected by rain falling 4 hours or more after application.

### Management of Resistant Weeds

Axial TBC Herbicide contains a Group 1 (ACCase inhibitor) herbicide and Group 2 (ALS inhibitor) herbicide. Some naturally occurring weed populations have been identified as resistant to Group 1 and 2 herbicides. Selection of resistant biotypes, through repeated use of these herbicides in the same field, may result in control failures. A resistant biotype may be present if poor performance cannot be attributed to adverse weather conditions or improper application methods. If resistance is suspected, contact your local Syngenta representative for assistance.

The following practices will delay selection for resistant populations of weeds:

- Apply postemergence herbicides to small, actively growing weeds.
- Ensure that good spray coverage is achieved with proper spray volumes and calibrated equipment.
- Use the full label rate of product with the recommended tank mix spray adjuvant.
- Avoid tank mixes that may cause antagonism and reduced weed control.
- Where possible, avoid the repeated use of herbicides with the same mode of action (i.e., same group number) in successive seasons either in cereal crops or rotational crops.
- Use a diverse crop/fallow rotation to extend the range of available herbicides and agronomic practices.
- Use cultivation, fertilizer regimens, seeding rates and row widths that enhance crop competitiveness.

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- Prevent weed escapes from producing seed either in the crop or during fallow periods.

### Rotational Crop Restrictions

The following crops may be planted at the specified interval following application of Axial TBC Herbicide.

Crop	Rotation Interval (Months)
Barley, oats, wheat	0.5
Field corn, popcorn, seed corn, sweet corn, sorghum	4
Alfalfa, canola, chickpea, soybean, dry bean, pea, flax, lentil, potato, safflower, sugar beet, sunflower	9
Other crops not listed	12

### APPLICATION PROCEDURES

#### Timing of Application

Apply Axial TBC Herbicide to all varieties of spring wheat (excluding durum), winter wheat, and barley from the 3-leaf stage to pre-boot stage. Refer to the **Crop Use Directions** section for grazing and harvest restrictions.

*Precaution: Do not apply to a crop that is stressed by conditions such as frost, low fertility, drought, flooding, disease damage, or insect damage as crop injury may result.*

For optimum results, apply Axial TBC Herbicide to actively growing weeds. An early application will maximize crop yields by reducing weed competition. Weed control following application of Axial TBC Herbicide alone or in combination with other herbicides can be reduced or delayed under conditions of stress, such as drought, heat, insufficient fertility, flooding, and prolonged cool temperatures. Optimum weed control will be obtained if application of Axial TBC Herbicide is delayed until the conditions of stress have ended and weeds are once again actively growing. Weeds emerging after Axial TBC Herbicide application will not be controlled.

### USE RATE

Apply Axial TBC Herbicide at 8.85 oz./A + Adigor® Adjuvant at 9.6 oz./A in a minimum of 5 gallons up to 10 gallons of water per acre.

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## **WEEDS CONTROLLED**

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For broad-spectrum weed control of annual grasses and broadleaf weeds, Axial TBC Herbicide can be applied alone or tank mixed with broadleaf herbicides as described below. Consult the label of the tank-mix partner for a list of broadleaf weeds controlled, rates, application timing, recropping restrictions, grazing interval restrictions, directions for use, and precautions. Use in accordance with the most restrictive of label limitations and precautions. No label dosage rates may be exceeded. This product cannot be mixed with any other product whose label prohibits such a mixture. Under less than favorable environmental conditions, grass antagonism (i.e., reduced grass control) may occur with certain broadleaf herbicide tank mixes.

Refer to the following tables which lists the grasses and broadleaf weeds controlled by Axial TBC Herbicide alone and with broadleaf herbicide mixture partners.

**Weeds Controlled by Axial TBC Herbicide Alone or in Tank Mixes\***

	Axial TBC Herbicide (8.85 oz./A) + Adigor Adjuvant (9.6 oz./A)	+ MCPA Ester (10.8 oz./A) (assume 3.7 lb. ae per gal. product)	Weed Size or Growth Stage for Optimum Control (see key below)
<b>Grass Weeds Controlled</b>			
Barnyardgrass ( <i>Echinochloa crus-galli</i> )	C	C	■
Canarygrass ( <i>Phalaris</i> spp.)	C	C	■
Darnel, Persian ( <i>Lolium persicum</i> )	C	C	◆
Foxtail, Giant ( <i>Setaria faberi</i> )	C	C	■
Foxtail, Green ( <i>Setaria viridis</i> )	C	C	■
Foxtail, Yellow ( <i>Setaria pumila</i> )	C	C	■
Oat, Volunteer ( <i>Avena sativa</i> )	C	C	◆
Oat, Wild ( <i>Avena fatua</i> )	C	C	◆
Proso Millet, Wild ( <i>Panicum miliaceum</i> )	C	C	■
Ryegrass, Italian (Annual) ( <i>Lolium multiflorum</i> )	C	C	■
Windgrass ( <i>Apera</i> spp.)	C	C	■
<b>Broadleaf Weeds Controlled</b>			
Bedstraw, Catchweed ( <i>Galium aparine</i> )	C	C	●
Buckwheat, Wild ( <i>Polygonum convolvulus</i> )	S	C	○
Canola, Volunteer ( <i>Brassica napus</i> )	C <sup>1</sup>	C <sup>2</sup>	*
Chamomile, Corn ( <i>Anthemis arvensis</i> )	C	C	●
Chamomile, False (scentless) ( <i>Tripleurospermum perforata</i> )	C	C	●
Chamomile, Mayweed (dogfennel) ( <i>Anthemis cotula</i> )	C	C	●
Chamomile, Wild ( <i>Matricaria recutita</i> )	C	C	●
Chickweed, Common ( <i>Stellaria media</i> )	C	C	●
Flixweed ( <i>Descurainia sophia</i> )	C	C	*
Hempnettle, common ( <i>Galeopsis tetrahit</i> ) <sup>3</sup>		C	●
Knotweed ( <i>Polygonum</i> spp.)		C	●
Lambsquarters, Common ( <i>Chenopodium album</i> )		C	●
London Rocket ( <i>Sisymbrium irio</i> )	C	C	*
Mustard, Black ( <i>Brassica nigra</i> )	C	C	*
Mustard, Blue (purple) ( <i>Chorispora tenella</i> )	C	C	*
Mustard, Tansy ( <i>Descurainia pinnata</i> )	C	C	*

	Axial TBC Herbicide (8.85 oz./A) + Adigor Adjuvant (9.6 oz./A)	+ MCPA Ester (10.8 oz./A) (assume 3.7 lb. ae per gal. product)	Weed Size or Growth Stage for Optimum Control (see key below)
Mustard, Treacle (bushy wallflower) ( <i>Erysimum repandum</i> )		C	*
Mustard, Tumble (Jim Hill) ( <i>Sisymbrium altissimum</i> )	C	C	*
Mustard, Wild ( <i>Sinapis arvensis</i> )	C	C	*
Pennycress, Field ( <i>Thlaspi arvense</i> )	S	C	*
Pigweed, Redroot ( <i>Amaranthus retroflexus</i> )	S	C	●
Pineappleweed ( <i>Matricaria discoidea</i> )	C	C	●
Prickly Lettuce ( <i>Lactuca serriola</i> )	S	C	⊙
Ragweed, Common ( <i>Ambrosia artemisiifolia</i> )		C	●
Shepherdspurse ( <i>Capsella bursa-pastoris</i> )	C	C	*
Smartweed (green, ladythumb, Pennsylvania) ( <i>Polygonum</i> spp.)		C	●
Sunflower, Annual ( <i>Helianthus annuus</i> )		C	⊙

**Broadleaf Weeds Suppressed**

Dandelion ( <i>Taraxacum officinale</i> ) <sup>3</sup>		S	⊙
Filaree, Redstem ( <i>Erodium cicutarium</i> ) <sup>3</sup>		S	●
Sowthistle, Annual ( <i>Sonchus oleraceus</i> )		S	□
Sowthistle, Perennial ( <i>Sonchus arvensis</i> )		S	□

\*C = control, S = suppression which means significant activity, but not always at a level considered acceptable for commercial weed control.

<sup>1</sup>Except imidazolinone-tolerant canola varieties.

<sup>2</sup>Including imidazolinone-tolerant canola varieties.

<sup>3</sup>Improved control can be achieved with the addition of 2.2 oz./A of MCPA ester (of a 3.7 lb. ae per gallon product).

**Weed Size or Growth Stage Key:**

Symbol	Weed Growth stage
◆	1 to 6-leaf stage on main stem, prior to emergence of the 4 <sup>th</sup> tiller
■	1 to 5-leaf stage on main stem, prior to emergence of the 3 <sup>rd</sup> tiller
●	1 to 4-inch height or diameter
*	Up to pre-bolt stage
□	Rosette up to pre-bud stage
⊙	1 to 4-leaf stage
⊙	Seedlings and overwintered rosettes <6-inches in diameter

## Tanks Mixes for Specific Weed Problems

### Russian Thistle (*Salsola tragus*)

Axial TBC Herbicide at 8.85 oz./A + Adigor Adjuvant at 9.6 oz./A may be applied in combination with the following broadleaf tank-mix partners for improved control of Russian thistle. Apply when Russian thistle is less than 2 inches in height.

Tank-Mix Partner	Rate (oz./A)
Bronate Advanced™ <sup>1</sup>	12.8
Buctril® <sup>2</sup> 2 EC	16-24
Huskie™	11
Starane® NXT	14
Starane + Sword®	12-18

<sup>1</sup>Other equivalent products containing the active ingredient bromoxynil and MCPA ester may be used. Consult the specific product label for specified rates.

<sup>2</sup>Other equivalent products containing the active ingredient bromoxynil may be used. Consult the specific product label for specified rates.

### Kochia (*Kochia scoparia*)

Axial TBC Herbicide at 8.85 oz./A + Adigor Adjuvant at 9.6 oz./A may be applied in combination with the following broadleaf tank-mix partners for improved control of kochia. Apply when kochia is past the button stage (blue stage) but less than 4 inches in height.

Tank-Mix Partner	Rate (oz./A)
Bronate Advanced <sup>1</sup>	12.8
Buctril 2EC <sup>2,3</sup>	16
Colt™ AS	10-16
Huskie	11
Starane <sup>4</sup>	5.3-8
Starane NXT	14
Starane + Sword	12-18
WideMatch™	10-16

<sup>1</sup>Other equivalent products containing the active ingredient bromoxynil and MCPA ester may be used. Consult the specific product label for specified rates.

<sup>2</sup>Other equivalent products containing the active ingredient bromoxynil may be used. Consult the specific product label for specified rates.

<sup>3</sup>Less than 2-inch tall kochia.

<sup>4</sup>Other equivalent products containing the active ingredient fluoxypyr may be used. Consult the specific product label for specified rates.

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### Canada Thistle (*Cirsium arvense*)

Axial TBC Herbicide at 8.85 oz./A + Adigor Adjuvant at 9.6 oz./A may be tank mixed with clopyralid containing products like Stinger®, WideMatch, Colt AS, and Curtail® M for improved top growth suppression of Canada thistle. Apply when Canada thistle is in the rosette to pre-bud growth stage.

*Precaution: Temporary crop injury may occur with tank mixes under extreme weather conditions or when the crop is suffering from stress due to inadequate or abnormally high moisture levels or extreme temperatures.*

When tank mixing, add the broadleaf herbicide(s) to the spray tank first followed by Axial TBC Herbicide, then add Adigor Adjuvant last.

**Note:** Tank mixing is not recommended with any chemical additives, pesticides, or fertilizers that are not recommended on this label, or other Syngenta labeling or recommendations made by Syngenta as reduced weed control and/or crop injury may occur. Herbicides not approved for tank mixing on this Axial TBC label, or other Syngenta labeling or recommendations made by Syngenta may be applied sequentially. Always apply Axial TBC Herbicide first and allow at least 4 days after application of Axial TBC Herbicide before applying these herbicides sequentially.

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### TANK MIXES WITH FUNGICIDES, INSECTICIDES AND LIQUID NITROGEN FERTILIZER

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#### Tank Mix Application With Tilt® Fungicide

Axial TBC Herbicide may be tank mixed with Tilt Fungicide for annual grass and broadleaf weed control and early season disease suppression. Apply Axial TBC Herbicide at 8.85 oz./A in a tank mix with Tilt Fungicide at 2 oz./A. Add Tilt Fungicide to the tank first, followed by Axial TBC Herbicide, then Adigor Adjuvant last. Refer to the Tilt Fungicide label for specific use directions, application rates, restrictions, and a list of diseases suppressed and/or controlled.

#### Tank Mix Application With Quilt® Fungicide

Axial TBC Herbicide may be tank mixed with Quilt Fungicide for annual grass and broadleaf weed control and early season disease suppression. Apply Axial TBC Herbicide at 8.85 oz./A in a tank mix with Quilt Fungicide at 7 oz./A. Add Quilt Fungicide to the tank first, followed by Axial TBC Herbicide, then Adigor Adjuvant last. Refer to the Quilt Fungicide label for specific use directions, application rates, restrictions, and a list of diseases suppressed and/or controlled. **Note:** under certain environmental conditions, tank mixes of Quilt Fungicide plus herbicides may cause crop injury.

### **Tank Mix Application With Warrior II with Zeon Technology®**

Axial TBC Herbicide may be tank mixed with Warrior II with Zeon Technology for annual grass and broadleaf weed control and insect control. Apply Axial TBC Herbicide at 8.85 oz./A in a tank mix with Warrior II with Zeon Technology at specified use rates. Add Axial TBC Herbicide to the tank first, followed by Adigor Adjuvant, then add Warrior II with Zeon Technology last. Refer to the Warrior II with Zeon Technology label for specific use directions, application rates, restrictions, and a list of insects controlled.

### **Mixtures with Liquid Nitrogen Fertilizers**

Axial TBC Herbicide may be mixed in a spray solution containing up to 50% liquid nitrogen fertilizer. Add Axial TBC Herbicide to the water first followed by Adigor Adjuvant. Mix thoroughly, then add the liquid nitrogen fertilizer in an amount no greater than 50% of the final volume. **Note:** under certain environmental conditions, mixtures of liquid nitrogen fertilizers as a partial carrier may cause crop burn.

When using Axial TBC Herbicide with approved herbicide tank-mix partners, consult the label of the partner product and follow any additional instructions or restrictions on that label which relate to mixture with liquid nitrogen fertilizers.

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### **AVOIDING INJURIOUS SPRAY DRIFT**

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This product can affect broadleaf plants directly through foliage and indirectly by root uptake from treated soil. Do not apply directly to, or allow spray drift to come into contact with, broadleaf crops including, but not limited to, alfalfa, canola, beans, cotton, flowers, grapes, lettuce, lentils, mustard, peas, potatoes, radishes, soybeans, sugar beets, sunflowers, tobacco, tomatoes, vegetables, or other desirable broadleaf crops or ornamental plants or soil where sensitive crops will be planted the same season. Make application only when there is little or no hazard from spray drift. Very small quantities of spray, which may be visible, may seriously injure crops, whether dormant or actively growing. When applying, use low pressure equipment capable of producing sprays of uniform droplet size with minimum of fine spray droplets. Under adverse weather conditions, fine spray droplets that do not settle rapidly onto target vegetation may be carried a considerable distance from the treatment area.

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### **GROUND AND AERIAL APPLICATION PROCEDURES**

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For best accuracy, calibrate the sprayer before use.

#### **Ground Applications**

**Water Volume** - Use an application volume of 5-10 gallons of water per acre. Use 10 gallons of water per acre under dry conditions or dense weed populations.

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Application rates of greater than 10 gallons of water per acre should be avoided as reduced weed control may occur.

**Spray Nozzles** - 80° or 110° flat fan nozzles are recommended for optimum spray coverage. Nozzles must be uniformly spaced along the boom to provide accurate and uniform coverage. Point the nozzles forward in the direction of travel at an angle of 45° for optimum coverage of weeds. Follow the nozzle manufacturer's recommendations for pressure and screens. Do not use flood or hollow cone type nozzles.

**Screens** - Use a screen or strainer with 16-mesh or coarser on the suction side of the pump. Do not place a screen in the recirculation line unless using a roller or piston pump. Use 50-mesh or coarser screens between the pump and boom and at the nozzles.

**Pressure** - 35-40 psi at the nozzles. Lower pressure may be used with extended range or low pressure nozzles.

**Pump** - Must have capacity to maintain pressure (35-40 psi) and to maintain the product suspension through tank agitation. A centrifugal pump is recommended with an agitation rate of 20 gals./minute/100 gals. tank size. Agitation must be maintained during mixing and spraying.

Good weed coverage with the spray mixture is essential for optimum weed control results. Observe sprayer nozzles frequently during the spraying operation to ensure that the spray pattern is uniform. Avoid large spray overlaps which result in excessive rates in the overlap areas. Also, avoid application under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur. To reduce spray drift, do not apply under windy conditions. Allow adequate distance between target area and desirable vegetation to prevent drift to nontarget areas. Boom height for broadcast over-the-top application should be based upon the free-standing height of the crop, not height above the soil surface, and should be at least 12 inches above the crop.

### **Aerial Applications**

Apply Axial TBC Herbicide in water using a minimum spray volume of 5 gals./A. Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. Make applications at a maximum height of 10 ft. above the crop with low-drift nozzles at a maximum pressure of 40 psi and wind speed not exceeding 10 mph to help assure accurate application within the target area.

### **Drift Management**

Avoiding spray drift at the application site is the responsibility of the applicator and the grower. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator and grower must consider the interaction of

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equipment and related factors to ensure that the potential for drift to sensitive non-target plants is minimal.

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  $\frac{3}{4}$  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 must be observed.

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**

#### **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.

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- **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  $\frac{3}{4}$  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 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;

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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**

This pesticide may only be applied when the potential for drift to adjacent sensitive areas, e.g., residential areas, bodies of water, non-target plants is minimal, (i.e., when the wind is blowing away from the sensitive area.)

Avoid all direct or indirect contact (such as spray drift) of Axial TBC Herbicide with crops other than those specified for treatment on this label, since injury may occur.

### **Chemigation**

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

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## **MIXING PROCEDURES**

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Prior to using Axial TBC Herbicide, ensure that the spray tank, lines and screens and filters are thoroughly clean.

### **Mixing Instructions**

1. Clean spray tank and half fill with clean water. Start agitation or bypass system.
2. If a broadleaf herbicide mix partner is to be used, add the product **FIRST**, prior to adding Axial TBC Herbicide and agitate for 2-3 minutes.
3. Add correct amount of Axial TBC Herbicide.
4. Agitate for 2-3 minutes.
5. Add correct amount of Adigor Adjuvant
6. Agitate for 1-2 minutes before adding remainder of water and then maintain constant agitation.
7. After any break in spraying operations, agitate thoroughly before spraying again.
8. **Use the spray solution as soon as it is prepared.**

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## **CLEANOUT PROCEDURES FOR SPRAY EQUIPMENT**

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Thoroughly clean application equipment immediately after spraying Axial TBC Herbicide. Ensure that all traces of the product are removed. The following directions are provided:

1. Drain any remaining spray mixture from the application equipment.

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2. Hose down the interior surfaces of the tank while filling the tank  $\frac{1}{2}$  full of water.
3. Add household ammonia at a rate of 1 gallon per 100 gallons of water. Recirculate for 5 minutes and spray out part of this mixture for 5 minutes through the boom. Drain tank.
4. Remove all spray nozzles and screens and clean separately.
5. If spray equipment will be used for pesticide application to crops sensitive to Axial TBC Herbicide, steps 1-3 should be repeated. Exterior surfaces of spray equipment should also be thoroughly cleaned.

**Note:** Rinsate may be disposed of on site according to label use directions or at an approved waste disposal facility.

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## CROP USE DIRECTIONS

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### Wheat and Barley

Axial TBC Herbicide can be used on all varieties of spring wheat (excluding durum), winter wheat, and barley. Do not allow spray to drift to adjacent fields seeded to crops other than wheat or barley. Do not treat wheat or barley underseeded with legumes.

To avoid possible illegal residues:

- Make only one application per crop season.
- Do not graze livestock or harvest forage for hay from treated wheat and barley for a minimum of 30 days following application.
- Do not harvest grain for 60 days following application.
- Wheat and barley straw may be fed to livestock 60 days after application.
- Do not apply Discover® and Axial TBC Herbicide products to the same crop in the same season.

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## STORAGE AND DISPOSAL

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

### Pesticide Storage

Store in a cool, dry place. Do not store near seeds, fertilizers, or foodstuffs.

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### **Pesticide Disposal**

Pesticide wastes are toxic. Improper disposal of excess pesticides, 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.

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 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.

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

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

Manufactured for:  
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