

24-OCT-2001

ACHIEVE® 60DG

HERBICIDE

AGRICULTURAL

A POST EMERGENCE HERBICIDE FOR CONTROL OF ANNUAL GRASSES
IN SPRING WHEAT, DURUM WHEAT, WINTER WHEAT, BARLEY, TRITICALE, SPRING RYE,
WINTER RYE AND SELECTED FORAGE GRASSES

FOR SALE FOR USE IN MANITOBA, SASKATCHEWAN, ALBERTA,
PEACE RIVER REGION, OKANAGAN DISTRICT & CRESTON FLATS AREA OF BRITISH
COLUMBIA AND EASTERN CANADA

GUARANTEE:

Tralkoxydim..... 60%

**READ LABEL BEFORE USING
KEEP OUT OF REACH OF CHILDREN**

CAUTION



POISON

CAUTION: EYE IRRITANT

REGISTRATION NO. **26276**
PEST CONTROL PRODUCTS ACT

NET CONTENTS: 2.67 Kg 5.34 Kg Bulk

Syngenta Crop Protection Canada, Inc.

140 Research Lane
Research Park, University of Guelph
Guelph, Ontario
N1G 4Z3

I98/A-1

NOTICE TO USER

This control product is to be used only in accordance with the directions on this label. It is an offence under the Pest Control Products Act to use a control product under unsafe conditions.

NOTICE TO BUYER

Seller's guarantee shall be limited to the terms set out on the label and subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.

FIRST AID

IF POISONING IS SUSPECTED, immediately contact a physician or a poison control center. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

If in eyes, flush immediately with a large volume of clean water for 10-15 minutes. If irritation persists, get medical attention.

If swallowed, do not induce vomiting. Call a physician or Poison Control Centre immediately.

If inhaled, remove from site of exposure.

If on skin, wash with soap and water. If irritation persists, get medical attention.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

Harmful if swallowed.

May cause skin and eye irritation. Do not get on skin or in eyes. Do not wear contact lenses when using chemicals.

Do not smoke, eat, or drink while using this product.

Wear chemically resistant gloves (nitrile), safety goggles, boots and coveralls when mixing, loading, and during clean up or when adjusting or repairing sprayer.

Wash gloves thoroughly with water before removing them during any operation.

Wash hands thoroughly with soap and water after using the product and before eating, drinking or smoking.

Do not contaminate food, water supplies or animal feed.

TOXICOLOGICAL INFORMATION

Treat symptomatically for ingestion and/or skin and eye contact. Symptoms are likely to be those of CNS depression. Avoid respiratory depressants unless otherwise indicated.

ENVIRONMENTAL PRECAUTIONS

When applied by ground, do not apply within 15 m of non crop areas. **When applied by air**, do not apply within 50 m of non crop areas. Non crop areas include, fish-bearing waters, wetlands (potholes, sloughs etc.) and wildlife habitat (hedgerows, rights-of-way etc.). Avoid drift onto other crops and non-target areas.

STORAGE

Store in a cool, dry place, away from children, animals, food, feed or fertilizers. Keep unused product in resealed original container. **Keep packages dry at all times.** Product is not affected by freezing.

SPILL CLEANUP

Follow safety precautions as directed for handling the product. Sweep spilled product with a broom and shovel into tightly closable container. If on a floor or hard surface, wash the surface or floor with detergent and water, then rinse. If on soil, collect contaminated surface soil with the product. If the product is clean, it may be used; otherwise, follow the DISPOSAL instructions.

DECONTAMINATION AND DISPOSAL:

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean up of spills.

CONTAINER DISPOSAL:

FOR DISPOSAL OF PLASTIC JUGS:

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

FOR REFILLABLE CONTAINERS:

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not use this container for any other purpose.

If the container is not being refilled, refer to the section "FOR DISPOSAL OF PLASTIC JUGS".

**IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING
CALL 1-800-327-8633 (FASTMED)**

PRODUCT INFORMATION

ACHIEVE 60DG is a systemic, postemergence herbicide for the selective control of wild oats, volunteer tame oats, green foxtail, yellow foxtail and Persian Darnel in spring wheat, winter wheat, durum wheat, barley, triticale, spring rye and winter rye. ACHIEVE 60DG can be used to control grass weeds in seedling and established Timothy and in the following forage grass crops grown for seed production only: intermediate and crested wheatgrass, creeping red fescue, meadow and smooth brome grass. ACHIEVE 60DG can also be used in the establishment of northern, western and slender wheatgrass.

DIRECTIONS FOR USE

RATE OF USE: Apply ACHIEVE 60DG at 0.33 kg/ha in 50-100 L/ha of water.

Note: Always add TURBOCHARGE to the spray solution at a rate of 0.5 L per 100 L of water (0.5% v/v). The incorrect TURBOCHARGE rate can result in unacceptable weed control or crop injury. See MIXING and SPRAYING INSTRUCTION sections.

One case of ACHIEVE 60DG (2 containers, 2.67 kg each) + TURBOCHARGE® will treat 16 ha (40 acres). One case of ACHIEVE 60DG Extra Gold (2.67 kg container of ACHIEVE 60DG + 1 container of TURBOCHARGE + 1 container of BUCTRIL M) will treat 8 ha (20 acres).

ACHIEVE 60DG can be used on the following crops:

CEREAL CROPS (Spring Wheat, Winter Wheat, Durum Wheat, Barley, Triticale, Spring Rye and Winter Rye) including all varieties of spring wheat (including Canada Western red spring, amber durum, soft white spring, extra strong and Canada prairie spring), red winter wheat, all 2 or 6 row varieties of barley (malting and feed varieties), all varieties of triticale, spring rye and winter rye.

Note: Tillered cereal crops may incur injury if applications are made within 48 hours of freezing temperatures. Non-tillering cereal crops which are exposed to temperatures of 4°C or less up to 48 hours before or after application may incur injury. Tankmixing ACHIEVE 60DG with a broadleaf weed herbicide under adverse conditions may increase severity of crop injury. Crops under stress from foliar diseases or low fertility are more susceptible to injury from ACHIEVE 60DG.

Do not use in tame oat crops. Avoid drift onto tame oat and corn crops.

Do not replant treated areas to tame oats or corn for at least 4 weeks after application.

In Eastern Canada ACHIEVE 60DG is to be used only for the control of wild oats in spring wheat, winter wheat, durum wheat, barley and all varieties of triticale and spring and winter rye.

MINIMUM INTERVAL TO HARVEST: Immature cereal crops may be grazed or cut for hay 16 days after treatment. Grain may be harvested 60 days after treatment. Mature straw may be fed

to livestock. Do not feed or graze underseeded forage crops in the year of treatment, sufficient data are not available to support this use.

CEREAL CROPS UNDERSEEDED TO FORAGE LEGUMES including alfalfa, birdsfoot trefoil, sainfoin and clovers.

Note: Do not tankmix Achieve 60DG with any broadleaf herbicides when applying to cereal crops underseeded to forage legumes, as the forages maybe injured or killed. Achieve 60DG can be mixed with 2,4-DB when applying to cereals underseeded to alfalfa.

SELECTED FORAGE GRASS CROPS (PRAIRIE PROVINCES ONLY)

Seedling Timothy Grown for Seed Production:

ACHIEVE 60DG can be applied to seedling Timothy grown for seed production without a companion crop, in the year of establishment or the following spring. Apply at the 5-6 leaf stage of crop in 100 L/ha spray volume.

Caution: Some injury and subsequent reduction in seed yield will occur, however, this may be offset by the benefit of reduced weed seed contamination of the Timothy seed.

Established Timothy:

ACHIEVE 60DG can be used in established Timothy. Make one application per year at the 5-6 leaf growth stage of the Timothy crop. The treated crop may be harvested or cut for hay 16 days after treatment.

Caution: Crop injury and subsequent reduction in forage dry matter yield will be observed if the application is made earlier than the 5 leaf stage of the crop, or the water volume is reduced below 100 L/ha, or when the crop is under stress.

Wheatgrasses, Bromegrasses and Fescue:

ACHIEVE 60DG can be used in intermediate and crested wheatgrass, creeping red fescue, meadow and smooth bromegrass (grown for seed, established or seedlings) either underseeded to cereals or grown alone. ACHIEVE 60DG can also be used in the establishment of northern, western and slender wheatgrass. Crop injury or slight yield reductions may be expected following treatment in the year of establishment, however, the injury is transient and the crop will recover the following year.

Caution: Do not tank mix ACHIEVE 60DG with other herbicides when applying to these forage grasses. For forage grasses only, apply ACHIEVE 60DG prior to tillering of the weeds. Applications made after the weeds have tillered may result in unacceptable weed control due to poor crop competition compared to cereal crops.

WEEDS CONTROLLED: Apply ACHIEVE 60DG to actively growing weeds for best results. Weeds emerging after application of ACHIEVE 60DG will not be controlled.

CROP	WEEDS CONTROLLED	WEED GROWTH STAGE (ZADOKS or BBCH)
WHEAT DURUM BARLEY TRITICALE RYE	WILD OATS, VOLUNTEER OATS	1-6 leaf (11,20 to 14,22)
	GREEN FOXTAIL, YELLOW FOXTAIL	1-5 leaf (11,20 to 14,21)
	BARNYARD GRASS PERSIAN DARNEL	1-4 leaf (11 to 14)
SELECTED FORAGE GRASSES	WILD OATS, VOLUNTEER OATS, GREEN FOXTAIL, YELLOW FOXTAIL, PERSIAN DARNEL	1-4 leaf (11 to 14)

Optimum weed control and crop yield response occurs when grassy weeds are removed before they begin to tiller. Refer to the illustration.

***Insert illustration here.**

Weed Control Notes:

Perennial grasses such as quack grass will not be controlled.

Susceptible grassy weeds treated with ACHIEVE 60DG cease growth soon after application, however, complete die-back of the weeds could take up to 2 weeks.

When grass 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 60DG is delayed until the stress conditions have ended and weeds are once again actively growing.

ACHIEVE 60DG is not affected by rain falling one hour or more after application.

TANK MIXES OF ACHIEVE 60DG WITH BROADLEAF WEED HERBICIDES:

ACHIEVE 60DG alone will not control broadleaf weeds. For broad spectrum control of both annual grasses and broadleaf weeds, ACHIEVE 60DG can be tank mixed with 2,4-D Ester, MCPA Ester, 2,4-DB (eg. EMBUTOX® 625, CALIBER 400), ATTAIN®, BUCTRIL® M, BUCTRIL® M GEL, PARDNER®, THUMPER®, LONTREL®, CURTAIL® M or dichloroprop/2,4-D Ester products (eg. ESTAPROP®, TURBOPROP, Dichloroprop-D, etc). Read the appropriate broadleaf herbicide label for information on broadleaf weeds controlled. Refer to the following table for additional guidance.

Tank Mixing Notes:

Read and strictly adhere to the use directions and precautions on the label of the product(s) that is/are being tank mixed with ACHIEVE 60DG. Also note all environmental restrictions and guidance such as rain fastness and maximum spraying temperatures on the label of the other product(s) being tank mixed.

Do not tank mix with amine formulations of 2,4-D or MCPA 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.

With reduced water volumes, tank mixes with BUCTRIL M products, THUMPER or PARDNER may result in some initial injury in the form of "tip burn". This injury, however, will not have any adverse effect on crop maturity or yield.

Do not tank mix ACHIEVE 60DG with broadleaf herbicides when applying to cereal crops underseeded to forage legumes as the forages may be injured or killed. ACHIEVE 60DG can be tank mixed with 2,4-DB when applying to cereals underseeded to alfalfa. This tank mix may cause transient injury on alfalfa and wheat. The rate of 2,4-DB should not exceed 2 L/ha (assuming 625 g 2,4-DB ai/L). The minimum water volume is 100 L/ha for cereals and 125 L/ha for forage legumes.

Tank mixes with ATTAIN may cause temporary crop injury if applied before the 4-leaf stage, however, yield will not normally be affected. This tank mix may provide a lower level of wild oat control than ACHIEVE 60DG alone.

Temporary crop injury may occur with registered tank mixes, in particular 2,4-D Ester/dichloroprop products, under extreme weather conditions or when the crop is suffering from stress due to inadequate or abnormally high moisture levels, or extreme temperatures. Barley may be injured with tank mixes of 2,4-D Ester/dichloroprop and BUCTRIL M plus MCPA.

Herbicides not listed on this label for tank mixing with ACHIEVE 60DG may be applied separately in sequence. Always apply ACHIEVE 60DG first and allow at least 7 days after the application of ACHIEVE 60DG before applying the other herbicide. Herbicides labelled for tank mixing with ACHIEVE 60DG may also be applied sequentially, either before or after application of ACHIEVE 60DG.

TANK MIXES OF ACHIEVE 60DG WITH INSECTICIDE:

ACHIEVE 60DG alone or in combination with BUCTRIL M products or PARDNER can be tank mixed with DECIS® Flowable for one pass weed and insect control. Always add DECIS Flowable to the spray tank after the herbicides but before adding TURBOCHARGE.

FOR ALL TANK MIXES, USE 0.33 kg ACHIEVE 60DG/ha PLUS THE FOLLOWING:	
MIXING PARTNER	REMARKS
BUCTRIL M and BUCTRIL M GEL	Additional MCPA Ester may be added to this tank mix to improve control of certain broadleaf weeds (i.e. hemp nettle, volunteer canola). Refer to the BUCTRIL M label for recommended MCPA Ester rates. A reduction in control of green foxtail may occur with the tankmix of BUCTRIL M and additional MCPA Ester. Maximum rate of Buctril M of 1 L/ha, Buctril M Gel is 1 water soluble bag / 4 ha.
ATTAIN	Do not apply prior to the 4 leaf stage of the crop as temporary crop injury could occur, particularly in spray overlaps. Attain A 0.6 L/ha + Attain B 1.0 L/ha rates.
PARDNER	Maximum rate of 1 L/ha
THUMPER	Maximum rate of 1 L/ha
Dichloroprop/ 2,4-D Ester	Maximum rate of 1.75 L/ha (assuming 600 g dichloroprop/2,4-D Ester ai/L). To ensure optimum crop safety, do not apply prior to the 4 leaf stage of the crop as per the dichloroprop/2,4-D Ester label timing.
2,4-DB	Maximum rate of 2.0 L/ha (assuming 625 g 2,4-DB ai/L). Do not apply prior to the 5 leaf stage of the cereal crop as temporary injury may occur.
2,4-D Ester	Maximum rate of 0.9 L/ha (assuming 600 g 2,4-D ai/L). Do not apply prior to the 4 leaf stage of the crop as temporary crop injury could occur, particularly in spray overlaps.
MCPA Ester	Maximum rate of 1.12 L/ha (assuming 500 g MCPA ai/L).
LONTREL + MCPA Ester	Maximum rate of 0.28 L/ha + 1.12 L/ha (assuming 500 g MCPA ai/L). Apply between 3 leaf expanded to before flag leaf of the crop. DO NOT apply after 6 leaf stage of the crop.
CURTAIL M	Apply between 3 leaf expanded to before flag leaf of the crop. DO NOT apply after 6 leaf stage of the crop. Maximum rate of 2 L/ha.
DECIS Flowable	Maximum rate of 120 mL/ha.

MIXING INSTRUCTIONS:

Follow the mixing instructions below for adding ACHIEVE 60DG to the spray tank.

1. Only use sprayers in good running condition with high agitation. Ensure the sprayer and pre-mix tank is cleaned according to instructions on label of the product used prior to ACHIEVE 60DG. 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 ACHIEVE 60DG **slowly**. Do not enlarge the opening of the ACHIEVE 60DG container. Remove straining screen from filler opening of spray tank before adding ACHIEVE 60DG. ACHIEVE 60DG 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 60 cm or less, add ACHIEVE 60DG towards agitator unit and away from outlet in the bottom of the tank to enhance dispersion. If more than 1 case of ACHIEVE 60DG is to be used, add the ACHIEVE 60DG from all cases prior to adding tank mixed products or TURBOCHARGE.

4. Wait at least one minute after the last of the ACHIEVE 60DG has been added to the tank to allow for complete dispersion of the granules. A longer agitation period may be required to disperse ACHIEVE 60DG when using cold water from sources such as deep drilled wells.
5. If tank mixing, add the recommended product(s) next.
6. Lastly, add TURBOCHARGE, and then continue to fill tank to desired level with water. TURBOCHARGE must be added directly into the sprayer through the tank opening and **not through injector or hopper systems**, for sprayers so equipped.

SPRAYING INSTRUCTIONS:

Ground Spray Equipment

1. Apply in a spray volume of 50-100 L/ha at a pressure of 275 kPa to ensure proper dispersion, spraying characteristics and performance of ACHIEVE 60DG. Do not apply ACHIEVE 60DG through sprayers only equipped to spray less than 50L/ha spray solution, (eg. SPRAFOIL™ sprayers) since mixing problems and/or unacceptable crop injury could occur.
2. Flat fan nozzles of 80° or 110° are recommended for optimum coverage. Do not use floodjet nozzles or controlled droplet application equipment. Nozzles may be angled forward 45° to enhance penetration of the crop and provide better coverage. Ensure that all in-line strainer and nozzle screens in the sprayer are 50 mesh or coarser. Screens of 80 mesh or finer should not be used.
3. Always ensure that agitation is continued until spraying is completed, even if stopped for brief periods of time. **If the agitation is stopped for more than 5 minutes, re-suspend the spray solution by running on full agitation prior to spraying. Do not begin spraying until fully re-suspended. ACHIEVE 60DG must be sprayed within the same day of mixing.**
4. When spraying is completed and prior to using other products, ensure the sprayer tank is thoroughly rinsed with clean water to remove any remaining ACHIEVE 60DG residues. Using a pressure washer and the addition of a detergent or AGRAL® 90 to the rinse water will enhance removal of residues.

Aerial Spray Equipment

1. Apply in a spray volume of 30 to 45 L/ha at a pressure of 140-275 kPa to ensure proper dispersion, spraying characteristics and performance of ACHIEVE 60DG.
2. 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.
3. Always ensure that agitation is continued until spraying is completed, even if stopped for brief periods of time. **If the agitation is stopped for more than 5 minutes, re-suspend the spray solution by running on full agitation prior to spraying.**

ACHIEVE 60DG must be sprayed within the same day of mixing.

4. Do not apply ACHIEVE 60DG if the wind is more than 13 km/h. This will avoid spray drift onto non-target areas.
5. Do not spray ACHIEVE 60DG if tame oats are present in adjacent, downwind fields.
6. When spraying is completed and prior to using other products, ensure the sprayer tank is thoroughly rinsed with clean water to remove any remaining ACHIEVE 60DG residues. Using a pressure washer and the addition of a detergent or AGRAL 90 to the rinse water will enhance removal of residues.
7. **DO NOT APPLY within 50 m of non crop areas.** This includes fish-bearing waters, wetlands (potholes, sloughs etc.) and wildlife habitat (hedgerows, rights of way, etc.).

AERIAL APPLICATION DIRECTIONS FOR USE:

Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

AERIAL APPLICATION USE PRECAUTIONS:

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under conditions of good practice specific to aerial application as outlined in the *Basic Knowledge Requirements for Pesticide Education in Canada: Applicator Core and Aerial Module*, developed by CAPCO. Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas. Specified buffer zones should be observed. Coarse sprays are less likely to drift; therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Do not apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as a shelter-belt) or aquatic habitat.

AERIAL APPLICATION OPERATOR PRECAUTIONS:

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted. It is desirable that the pilot have communication capabilities at each treatment site at the time of application. The field crew and the

mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the ground boom label.

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