2013-4769 2014-12-08

GROUP 27 HERBICIDE

MESOTRIONE[™] 50WG Herbicide

AGRICULTURAL

Wettable Granules

A herbicide for pre-emergence and post-emergence use in field, seed and sweet corn and postemergence use in Optimum GAT Corn for control of annual broadleaf weeds.

PRE-EMERGENT USE, POST-EMERGENT USE IN FIELD CORN AND USE IN OPTIMUM GAT CORN IN EASTERN CANADA ONLY

POST-EMERGENT USE ON SEED AND SWEET CORN FOR USE IN EASTERN CANADA AND BRITISH COLUMBIA ONLY

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

REGISTRATION NO.: 29655 PEST CONTROL PRODUCTS ACT

NET CONTENTS: 200 g - Bulk

Syngenta Canada Inc. 140 Research Lane, Research Park Guelph, Ontario N1G 4Z3 Telephone: 1-877-964-3682

Label

NOTICE TO USER

This pest control product is to be used only in accordance with the directions 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 on the label. The user assumes the risk to persons or property that arises from any such use of this product.

FIRST AID

IN CASE OF POISONING, contact a physician or a poison control centre **IMMEDIATELY.** Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

If swallowed, call a poison control centre or doctor **IMMEDIATELY** for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. 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 centre 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 centre 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 centre or doctor for treatment advice.

TOXICOLOGICAL INFORMATION

There is no specific antidote if this product is ingested. Treat symptomatically if ingested or in contact with eyes or skin. There is no known medical condition likely to be aggravated by exposure

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

Avoid contact with eyes. Do not ingest.

When handling the granular product (e.g., during mixing/loading of MESOTRIONE[™] 50WG Herbicide into the sprayer), wear a long sleeve shirt, long pants, chemical-resistant gloves and eye protection. Wash the outside of the gloves before removing. Wash splashes from skin and eyes IMMEDIATELY with plenty of water. While spraying, wear a long sleeve shirt and long pants. Wear chemical-resistant gloves if contact with spray nozzles is necessary. Avoid working in spray mist. Avoid all drift or contact with other vegetation. After spraying, wash

hands and shower thoroughly with soap and water. While using product, do not eat, drink or smoke. Wash hands and exposed skin with soap and water thoroughly before eating, drinking, smoking, applying cosmetics or using the toilet. Keep product away from food, drink and animal feed. Store product in original container, tightly closed and in a safe place.

DO NOT use or store product near heat or open flame. **DO NOT** apply beyond the field boundary.

DO NOT apply more than 288 g product/ha per season. **DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours after application.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at <u>www.croplife.ca</u>.

SPRAY DRIFT MANAGEMENT FOR GROUND APPLICATIONS

GENERAL INFORMATION:

Use good pesticide practices and apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and parks is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings used for applications.

ENVIRONMENTAL HAZARDS

Toxic to small wild mammals, aquatic organisms and to non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

STORAGE CONDITIONS

Always store product in original container with top closed in a cool, dry place. Avoid contamination of seed, feed and foodstuffs. MESOTRIONE 50WG Herbicide can be stored in freezing conditions. If frozen, allow to warm to ambient temperature before use.

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 reuse this container for any other purpose.

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

MESOTRIONE[™] is a trademark of a Syngenta Group Company.

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DO NOT apply more than 288 g product/ha per season. **DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours after application.

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GENERAL INFORMATION:

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ENVIRONMENTAL HAZARDS

Toxic to small wild mammals, aquatic organisms and to non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

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

GENERAL INFORMATION

MESOTRIONE 50WG Herbicide is a granular-based herbicide that provides selective control of annual broadleaf weeds when applied pre-emergent or post-emergent in corn. In post-emergent applications, MESOTRIONE 50WG Herbicide is absorbed through the leaves and is rapidly translocated to the plant's growing points.

DIRECTIONS FOR USE

When applied as a tank-mix combination, read and observe all label directions, including rates, restrictions, and grazing limitations for each product used in the tank-mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on both product labels.

1) Optimum GAT CORN:

Apply MESOTRIONE 50WG Herbicide at 200 g per hectare in a spray volume of 100-200 L of water and a minimum pressure of 206 kPa (refer to the "*MIXING AND SPRAYING INSTRUCTIONS*" section of this label). Apply at 3 to 8 leaf stage of corn and up to 8 leaf stage of broadleaf weeds.

Always add a spray surfactant. Use the non-ionic surfactant AGRAL[®] 90 at 0.20% v/v.

For best results, apply MESOTRIONE 50WG Herbicide to actively growing weeds. Weeds that emerge after an application of MESOTRIONE 50WG Herbicide will be controlled after they absorb the herbicide from the soil provided there is sufficient moisture for uptake.

MESOTRIONE 50WG Herbicide will control:

eastern black nightshade	redroot pigweed
velvetleaf	common ragweed (suppression only)

up to the 8 leaf weed stage.

(3 to 8 leaf stage of corn and up to 8 leaf stage of broadleaf weeds):

WEED CONTROLLED	RATE/HA MESOTRIONE 50WG ¹	RATE/HA TANK MIX PARTNER ²
Weeds controlled by MESOTRIONE 50WG Herbicide plus emerged annual and perennial weeds	200 g	1.8 L TOUCHDOWN TOTAL ^{®3}

¹Add AGRAL 90 at 0.2% v/v.

²Consult the TOUCHDOWN TOTAL label for specific instructions regarding soil-type variations, and rotational crop, grazing or other restrictions.

³ Some perennial weeds may not be controlled with these rates of TOUCHDOWN TOTAL. Consult the TOUCHDOWN TOTAL label regarding perennial weeds controlled.

2) <u>Pre-emergent Application</u>: (Field Corn, Production Seed Corn and Sweet Corn) – Eastern Canada Only

Apply MESOTRIONE 50WG Herbicide at 288 g per hectare in a spray volume of 100-200 L and

a minimum pressure of 206 kPa (refer to the "*MIXING AND SPRAYING INSTRUCTIONS*" section of this label).

MESOTRIONE 50WG Herbicide will control:

lamb's-quarters	wild mustard
redroot pigweed	common ragweed (suppression)
velvetleaf	

3) <u>Early Post-emergent Application</u>: (Field Corn Only) – Eastern Canada Only

Early post-emergent application can be applied from spike to 2 leaf stage of corn and cotyledon to 2 leaf stage of weeds.

Apply MESOTRIONE 50WG Herbicide at 288 g per hectare in a spray volume of 100-200 L and a minimum pressure of 206 kPa (refer to the "*MIXING AND SPRAYING INSTRUCTIONS*" section of this label).

MESOTRIONE 50WG Herbicide will control:

lamb's-quarters	wild mustard
redroot pigweed	common ragweed (suppression)
velvetleaf	

4) Late post-emergent Application: (Field Corn Only) – Eastern Canada Only

Late post-emergent application can be applied from 3 to 8 leaf stage corn and up to 8 leaf stage of broadleaf weeds.

Apply MESOTRIONE 50WG Herbicide at 200 g per hectare in a spray volume of 100-200 L and a minimum pressure of 206 kPa (refer to the "*MIXING AND SPRAYING INSTRUCTIONS*" section of this label).

Always add a spray surfactant. Use the non-ionic surfactant AGRAL[®] 90 at 0.20% v/v.

For best results, apply MESOTRIONE 50WG Herbicide to actively growing weeds. Weeds that emerge after an application of MESOTRIONE 50WG Herbicide will be controlled after they absorb the herbicide from the soil provided there is sufficient moisture for uptake.

MESOTRIONE 50WG Herbicide will control:

eastern black nightshade	redroot pigweed
velvetleaf	common ragweed (suppression only)

up to the 8 leaf weed stage.

Pre-Harvest Intervals:

Crops	PHI (days)
Field corn grain/stover	100
Field corn forage	90
Sweet corn	50

USE PRECAUTIONS:

MESOTRIONE 50WG Herbicide may be used on field corn, production seed corn and sweet corn. Not all seed corn in-breds and sweet corn varieties have been tested; the use of MESOTRIONE 50WG Herbicide must be approved by the seed company and comply with the directions given by the seed corn company.

Although MESOTRIONE 50WG Herbicide has a flexible recropping profile, certain crops may be sensitive to low concentrations in the soil. Therefore, careful consideration should be given to crop rotation plans prior to using MESOTRIONE 50WG Herbicide (refer to *"RECROPPING GUIDELINES"*).

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and parks is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings used for application.

Do not apply when weather conditions may cause drift to non-target areas. To avoid spray drift, do not apply when wind speed is greater than 10 mph or during periods of temperature inversions. Use of larger droplet sizes will also reduce spray drift.

Dry conditions following application may reduce the pre-emergent activity of MESOTRIONE 50WG Herbicide. If an activating rain (12 mm) is not received within 7-10 days after a pre-emergent application, rotary hoeing is suggested to activate the herbicide.

Do not apply to soils that contain less than 1% or more than 10% organic matter.

Thorough coverage of emerged weeds is essential for effective control with MESOTRIONE 50WG Herbicide. Although weed competition is quickly halted, visual symptoms of dying weeds (discolouration) may take up to 2 weeks to appear depending on the weed species and growing conditions.

Optimum control of emerged weeds will be obtained when weeds are actively growing. Under unfavourable conditions, such as drought, heat, flooding, prolonged cool temperatures or insufficient fertility, adequate control may not be achieved and re-growth may occur.

Temporary crop injury (bleaching) may occur under extreme weather conditions or when the crop is under stress due to inadequate or abnormally high moisture levels or extreme temperatures. The symptoms are most visible where excessive rates have been applied, such as sprayer overlaps. Corn quickly outgrows these effects and continues to grow normally.

Do not make a foliar post-emergent application of any organophosphate or carbamate insecticide within 7 days before or 7 days after a MESOTRIONE 50WG Herbicide application or severe corn injury may occur. Syngenta Canada Inc. will not be held responsible for losses or damage resulting from such use.

Severe corn injury and crop yield loss may occur if MESOTRIONE 50WG Herbicide is applied to corn crops that are treated with Lorsban[™].

When applied as a tank-mix combination, read and observe all label directions, including rates, restrictions, and grazing limitations for each product used in the tank-mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on both product labels.

MESOTRIONE 50WG Herbicide may be applied prior to or following a pyrethroid-type insecticide such as FORCE[®] or MATADOR[®].

Do not cultivate corn within 7 days before or after a post-emergent MESOTRIONE 50WG Herbicide application.

Make only one application of MESOTRIONE 50WG Herbicide per year.

As this product is not registered for the control of pests in aquatic systems, **DO NOT** use to control aquatic pests.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

MIXING AND SPRAYING INSTRUCTIONS:

Field sprayer application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification. Boom height must be 60 cm or less above the crop or ground.

DO NOT apply by air.

Buffer zones:

Use of the following spray methods or equipment DO NOT require a buffer zone: hand-held or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands,

forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of application	Buffer zone (metres) required for the protection of:	
	Aquatic habitat	Terrestrial habitat
Field sprayer*	1	4

* For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

GROUND APPLICATION ONLY:

Water Volume:

Apply in 100 – 200 litres per hectare.

Spray Pressure:

206 – 300 kPa

Spray Nozzles:

Flat Fan with 50 mesh or larger screens. For uniform coverage and increased penetration of the crop canopy, set the nozzles at a downward angle of 90 degrees (90°).

Surfactant:

Applications of MESOTRIONE 50WG Herbicide must be applied with the non-ionic surfactant AGRAL 90 at 0.2% v/v (2.0 L for each 1000 L of spray mixture).

Mixing Procedure:

- 1. Ensure that the sprayer is totally clean.
- 2. Fill the sprayer half full with water. Engage gentle agitation.
- 3. Ensure that the agitation system is working properly and that it creates a rippling or rolling action on the water surface.
- 4. Add MESOTRIONE 50WG Herbicide and slowly and agitate until completely dispersed. To ensure complete dispersion, wait 2 or 3 minutes after the last of the herbicide has been added to the tank.
- 5. Fill the tank to three quarters full with water.
- 6. Add TOUCHDOWN TOTAL, if required. Refer to the label of the tankmix partner and the surfactant for the specific mixing instructions.
- 7. Add the non-ionic surfactant (e.g., AGRAL 90) at 0.2% v/v.

- 8. Continue agitation while completing the filling of the sprayer with water.
- 9. Always ensure that agitation is maintained until spraying is completed, even if stopped for brief periods of time.
- 10. If agitation is stopped for more than 5 minutes, re-suspend the spray solution by running on full agitation until re-suspended into solution prior to spraying. **MESOTRIONE 50WG Herbicide must be sprayed the same day as mixing**.
- 11. Do not mix, load or clean spray equipment where there is a potential to contaminate wells or aquatic systems.

SPRAYER CLEANUP:

To avoid subsequent injury to other crops, thoroughly clean application equipment immediately after spraying. Ensure that all traces of the product are removed. The following procedures are recommended:

- 1. Drain and flush tank, boom and all hoses for several minutes with clean water containing a household detergent. <u>Do not</u> clean the sprayer near desirable vegetation, wells or other water sources.
- 2. Fill the sprayer tank with clean water and add one litre of household ammonia (containing 3% ammonia) per 100 litres of water. Allow the solution to agitate for 15 minutes prior to flushing the solution through the boom and nozzles. Drain the system.
- 3. Remove the nozzles and screens and wash separately in a bucket containing the ammonia solution.
- 4. Thoroughly rinse the tank, hoses, booms, nozzles and screens with clean water for a minimum of 5 minutes to remove all traces of ammonia.
- 5. Dispose of all rinsings in accordance with provincial regulations.

NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS

The DIRECTIONS FOR USE for this product for the uses described below were developed by persons other than Syngenta Canada Inc. and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. Syngenta Canada Inc. itself makes no representation or warranty with respect to performance (efficacy) and/or crop tolerance (phytotoxicity) claims for this product when used on the crops listed below.

Accordingly, the Buyer and User assumes all risks related to performance and crop tolerance arising, and agree to hold Syngenta Canada Inc. harmless from any claims based on efficacy and/or phytotoxicity in connection with the uses described below.

TIMING ¹	WEEDS CONTROLLED	RATE/HA MESOTRIONE 50WG HERBICIDE	RATE ² /HA TANK MIX PARTNER	REMARKS
Pre- emergent	Tall Waterhemp	288 g	3 – 4 L PRIMEXTRA II MAGNUM ³ in 200 L carrier/ha	Make only one application per year. Apply by ground equipment only.
Post- emergent⁴	Volunteer Adzuki Bean (<i>Vigna</i> <i>angularis</i>), large crabgrass (<i>Digitaria</i> sanguinalis), Giant Ragweed ⁵ and Tall Waterhemp, Common Cocklebur ⁵	200 g	0.58 L AATREX Liquid 480 Herbicide + 0.2% v/v AGRAL 90 in 100 - 200 L water/ha	Make only one application per year. Apply by ground equipment only.

FIELD CORN (EASTERN CANADA ONLY)

¹Apply at 3-8 leaf stage of corn.

²Consult tank mix partner label for precautions.

³ Use higher rate of PRIMEXTRA II MAGNUM Herbicide for heavier weed problems.

⁴ Apply at the unifoliate to trifoliate leaf stage of adzuki bean, at the 1-6 leaf stage of large crabgrass, when giant ragweed is at the cotyledon-10 leaf stage, up to the 8 leaf stage of Tall Waterhemp and when common cocklebur is up to the cotyledon – 6 leaf stage.

⁵ Suppression only.

TIMING	RATE/HA MESOTRIONE 50WG HERBICIDE	RATE ¹ /HA TANK MIX PARTNER	REMARKS
Post- emergent ²	200 g	0.2% v/v AGRAL 90	Make only one application per year. Apply in 100-200 L water/ha at 205-300 kPa. DO NOT APPLY BY AIR. Do not harvest sweet corn treated with MESOTRIONE 50WG within 50 days of treatment. Harvest seed corn at the normal interval. Seed corn inbreds and sweet corr varieties may vary in their tolerance to herbicides, including MESOTRIONE 50WG. Since not all seed corn inbreds or sweet corn varieties have been tested for tolerance to MESOTRIONE 50WG first use of MESOTRIONE 50WG first use of MESOTRIONE 50WG should be limited to a small area of each variety to confirm tolerance prior to adoption as a general field practice. Additionally consult your seed supplier for information on the tolerance of specific seed corn inbreds to MESOTRIONE 50WG. Do NOT apply on Delmonte 2038 as unacceptable crop injury will occur. DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

RECROPPING GUIDELINES:

Certain crops have been shown to be sensitive to low residues of MESOTRIONE 50WG Herbicide in the soil. The minimum recropping interval is the time between the last application of MESOTRIONE 50WG Herbicide and the anticipated date of planting of the next crop.

To avoid injury to subsequent crops after an application at the recommended rate of MESOTRIONE 50WG Herbicide, the following recropping intervals should be observed.

CROP	MINIMAL RECROPPING INTERVAL
Winter Wheat	4 months
Spring Wheat, Field Corn (grain or silage), Seed Corn, Sweet Corn	10 months
Alfalfa, Potato, Soybeans, Transplanted Tomato, White Beans	11 months
All Other Crops	Bioassay

Observe the recropping guidelines of any product(s) to be tank mixed with MESOTRIONE 50WG Herbicide.

In the event of crop failure, only field corn (grain or silage), seed corn, or sweet corn can be planted as a salvage crop in the same fields in which the failed crop was treated with MESOTRIONE 50WG Herbicide. An application of MESOTRIONE 50WG Herbicide must NOT be made to the salvage crop.

Land treated with MESOTRIONE 50WG Herbicide CAN ONLY BE PLANTED TO A CROP NOT LISTED IN THE PREVIOUS TABLE if a field bioassay can be successfully performed. The bioassay must indicate normal growth with no yield reductions.

A bioassay may be conducted in any year following the year of application to assess the tolerance of the tested crop intended for planting in the year following the bioassay. Do not conduct a bioassay in the year of application. When conducting a field bioassay, it is very important to select a representative area(s) of the field previously treated with MESOTRIONE 50WG Herbicide to plant the test crop(s).

FIELD BIOASSAY

1. <u>Representative Sample:</u>

Ensure that soil parameters such as soil texture, depth of topsoil layer, soil pH and drainage of the test area selected are representative of the remainder of the field.

2. <u>Sample Size:</u>

The seeded area of each selected bioassay crop must be large enough to ensure that reliable results are obtained. The seedbed preparations and seeding of the bioassay crop(s) should be conducted the same way as when the entire field would be planted.

3. <u>Other Residual Herbicides:</u>

It is important that other herbicide products which are known to have residual activity were not applied to the field between the last application of MESOTRIONE 50WG Herbicide and the bioassay testing period. Avoid the use of other pesticides during the duration of the bioassay as they may damage the indicator crop(s).

4. <u>Comparisons:</u>

Ideally, an untreated check strip in a neighbouring field should be established and

monitored for comparison since growing conditions can vary greatly from year to year and may result in erroneous results.

5. <u>Assessment:</u>

The site should be monitored regularly throughout the growing season. Watch for any damage to the crop such as thinning, yellowing or stunting. A yield sample should be taken and compared to an adjacent untreated field.

DO NOT ROTATE TO OTHER CROPS UNTIL THE BIOASSAY INDICATES NORMAL GROWTH WITH NO YIELD REDUCTIONS.

Failure to follow these recropping guidelines could result in injury to seeded crop(s).

ADHERE TO THESE PRODUCT LABELS FOR BROADLEAF WEEDS CONTROLLED, PRECAUTIONS, WARNINGS, RESTRICTIONS, TANK MIXING AND SPRAYING INSTRUCTIONS, ROTATIONAL CROPS AND DETAILED DIRECTIONS FOR USE REGARDING DOSAGE VARIATIONS ACCORDING TO SOIL TYPE.

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, MESOTRIONE 50WG Herbicide is a Group 27 herbicide. Any weed population may contain or develop plants naturally resistant to MESOTRIONE 50WG Herbicide and other Group 27 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance:

Where possible, rotate the use of MESOTRIONE 50WG Herbicide or other Group 27 herbicides with different herbicide groups that control the same weeds in a field.

Use tank mixtures with herbicides from a different group when such use is permitted.

Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural, biological and other chemical control practices.

Monitor treated weed populations for resistance development.

Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.

Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.

For further information and to report suspected resistance, contact company representatives at 1-87-SYNGENTA (1-877-964-3682) or at <u>www.syngenta.ca</u>.

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