252 0	42 11/10/2010						
	U CNVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs	i Reg. Number:	Date of Issuance:				
	Registration Division (7505P) Ariel Rios Building 1200 Pennsylvania Ave., NW Washington, D.C. 20460	352-842	NOV 10 200				
		Term of Issuance:					
	NOTICE OF PESTICIDE: <u>X</u> Registration Reregistration (under ETRA - communded)	Conditional					
		Name of Pesticide Product:					
	(under Fir KA, as aniended)	Mesotrione 50WG					
	Name and Address of Registrant (include ZIP Code):						
	E.I. duPont de Nemours & Company 1007 Market Street Wilmington, DE 19898						
調	Note: Changes in labeling differing in substance from that accepted in connection with this re	sistration must be submit	ted to and accepted by the				
	On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others. This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided the						
	you:						
	1) Submit and/or cite all data required for registration/reregistration review of your product when the Agency requires all registrants of similar products to submit data. If required, failure to submit acceptable data to fulfill these requirements may result in registration cancellation in accordance with FIFRA section 6(e).						
	2) Add the phrase "EPA Reg. No. 352-842" to the labeling an Establishment Number and Net Contents are also on the label	d assure that the	at the EPA				
	3) For the purpose of clarity, place the "KEEP OUT OF REACH OF CHILDREN" and "CAUTION" above the FIRST AID box, rather than inside the FIRST AID box.						
	4) Assure the type point is appropriate for the signal word and the Keep out of Reach of Children statement meets the standards established by 40 CFR 156.60 (b) (1) and outlined in Chapter 3 of the Label Review Manual. For additional information consult "http://www.epa.gov/oppfead1/labeling/lrm/chap-03.pdf".						
	5) Correct the typographical error in the last sentence in ENVIRONMENTAL HAZARDS statement box replacing "product=s" with "product's".						
	SEE NEXT PAGE FOR ADDITIONAL COMMENTS						
	Signature of Approving Official:	Date:					
	Kathryn V. Montague Product Manager 23 Herbicide Branch Registration Division (7505P)	NOV 7 (2010				

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Page 2 of 2 New Product Registration EPA Registration #: 352-842 Product Name: Mesotrione 50WG Decision Number: 437937

6) Correct the typographical error in the last sentence of the PESTICIDE DISPOSAL statement in the STORAGE AND DISPOSAL box replacing the two periods ("..") with one period (".") for the statement to read "PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility."

7) NOTE: While no additional data is being requested at this time, any marketing claims made on the pesticide label must be substantiated by data maintained in your files. If data supporting marketing claims made on the product label is not available then those claims must be removed.

8) NOTE: Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

9) Submit one (1) copy of the revised final printed label before the product is released for shipment.

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



DuPont[™]

Mesotrione 50WG

herbicide

INSECTICIDE

A Postemergence and Preemergence Herbicide for Control of Annual Broadleaf Weeds in Field Corn, Production Seed Field Corn. Field Corn Grown for Silage. Yellow Popcorn and Sweet Corn

28

Active Ingredients	By Weight
Mesotrione: (CAS No. 104206-82-8)	50.0%
Other Ingredients	50.0%
TOTAL	100.0%
EPA REG. NO. 352-xxx EPA Est. No	

Nonrefillable Container Net:

OR

GROUP

Refillable Container

Net:

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF 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 mouth-to mouth, if possible. Call a poison control center or doctor for further treatment advice.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for emergency medical treatment information.

ACCEPTED with COMMENTS In EPA Letter Dated:

NOV 10 2010 Under the Federal Insusticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.



PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Causes moderate eve irritation. Avoid contact with eyes or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

Long-sleeved shirt and long pants. Shoes plus socks.

Chemical resistant gloves.

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.

USER SAFETY RECOMMENDATIONS

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

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean c high water mark. Do not contamifiate water when disposing of equipment wash water or rinsate. $c\,c\,c\,c\,c\,c\,c$

Surface Water Advisory

This product may contaminate water through drift of spray in wind. This product has a high potential for runoff for several weeks after application. Poorly draining soils and soils with shallow water tables are more produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponde, streams, and springs will reduce the potential for contamination of water from runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product=s contribution to surface water contamination.

DIRECTIONS FOR USE

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

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

AGRICULTURAL USE REQUIREMENTS

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

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

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

Coveralls. Shoes plus socks. Chemical resistant gloves

INFORMATION

Mesotrione 50WG is a systemic preemergence and postemergence herbicide for the selective contact and residual control of broadleaf weeds in field corn, production seed field corn, field corn grown for silage, yellow popcorn, sweet corn, and other listed crops. When used preemergence, weeds take up the product through the soil during emergence. Dry conditions following application may reduce the preemergence activity of Mesotrione 50WG. If an activating rain (0.25 inches) is not received within 7-10 days after a preemergence application, where appropriate, rotary hoeing is suggested to activate the herbicide. When used postemergence, susceptible weeds take up the herbicide through the treated foliage and cease growth soon after application. Complete death of the weeds may take up to 2 weeks. The product is absorbed through the soil and/or by the foliage of emerged weeds.

Mesotrione 50WG is not effective for the control of most grass weeds. Preemergence grass herbicides or postemergence grass herbicides can be tank mixed with Mesotrione 50WG to provide broad spectrum weed control in corn (see appropriate section of label for this information). Mesotrione 50WG can be applied postemergence following a preemergence grass herbicide application. Mesotrione 50WG can also be used in combination with a burndown herbicide, prior to planting, to provide added burndown and residual weed control in field corn, production seed field corn, field corn grown for silage, yellow popcorn, and sweet corn.

RESISTANCE MANAGEMENT

Mesotrione 50WG is a Group 28 Herbicide (contains the active ingredient mesotrione).

Naturally occurring biotypes of certain broadleaf weed species with resistance to triazines, glyphosate, or ALS inhibiting herbicides are known to exist. However, no known resistance to Mesotrione 50WG exists, and there are no known instances of cross resistance between Mesotrione 50WG (HPPD inhibitor) and other classes of herbicides, or modes of action. Performance of Mesotrione 50WG is not affected by the presence of biotypes resistant to triazines, glyphosate, or ALS inhibiting herbicides.

To help prevent the development of resistance to Mesotrione 50WG in corn, always use full labeled rates. If applying Mesotrione 50WG postemergence after a preemergence application of an HPPD inhibiting herbicide, always add atrazine as a tank mix partner, or use a herbicide with an alternate mode of action that is active on the target species in areas where the use of triazines is not appropriate. No more than 0.24 lb. of mesotrione active ingredient should be applied per acre of corn per year (equivalent of 7.7 oz. per acre per year of Mesotrione 50WG). If additional herbicide must be applied, it is recommended that a different mode of action be used, i.e., other than an HPPD inhibitor (Group 28 Herbicide). Mesotrione 50WG should be applied at full label rates to help prevent selection for, or population shifts toward, marginally tolerant weed species and/or species biotypes.

INTEGRATED PEST MANAGEMENT

Mesotrione 50WG should be integrated into an overall weed and pest management strategy whenever the use of a herbicide is required. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

WEEDS CONTROLLED

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Table 1. Weeds Controlled with Postemergence Applications of Mesotrione 50WG

	12.5 oz/A + 1 pt (0.5 lb) 3.0 oz/A + 1 pt (0.5 l 3.0 oz/A + 1 nt (0.5 lb))				
		$a_i/A_a trazine 4I_+$	lh a i/A) Atrazine	a i/A Atrazine 4I/A or	
		COC UAN or	AT /A or Equivalant	Equivalent + COC +	
			4L/A of Equivalent +	Equivalent + COC +	
		ANIS	CUC + UAN OF AMS	UAN OF ANIS	
		· · · · · · · · · · · · · · · · · · ·			
		Apply to Weeds <5	Apply to Weeds <5	Apply to weeds	
Common Name	Scientific Name	Inches Tall	Inches Tall	5-10 Inches Tall	
Amaranth, palmer	Amaranthus palmeri	C ^{2,3}	С	С	
Amaranth, Powell	Amaranthus powellii	С	С	С	
Amaranth, spiny	Amaranthus spinosus	С	С	С	
Atriplex	Chenopodium orach	l C	С	С	
Broadleaf signalgrass	Bracharia platphylla	C ¹	C'	PC	
Buckwheat, wild	Polygonum convolvulus	PC	PC	PC	
Buffalobur	Solanum rostratium	С	C C	С	
Burcucumber	Sicyos angulatus	PC	С	С	
Carpetweed	Mollugo verticillata	С	С	с	
Carrot, wild	Daucus carota	с	С	с	
Chickweed, common	Stellaria media	С	С	С	
Cocklebur, common	Xanthium strumarium	С	С	С	
Crabgrass, large	Digitaria sanguinalis	C ¹	C'	PC	
Dandelion	Taraxacum officinale	NC	PC	PC	
Dock, curly	Rumex crispus	PC	PC	PC	
Galinsoga	Galinsoga parviflora	Ċ	C	С	
Hemp	Cannabis sativa	Č	Ċ	Ċ	
Horse nettle	Solanum carolinense	Č	Č	Č I	
Jimsonweed	Datura stramonium	Č	Ċ	Ċ	
Knotweed, prostrate	Polygonum aviculare	PC	PC	PC	
Kochia	Kochia scoparia	PC ¹	C^2	PC	
Lambsquarters, common	Chenopodium album	C ²	C	с	
Mallow, Venice	Hibiscus trionum	NC	С	PC	
Morningglory, entireleaf; ivyleaf	Ipomoea hederacea	PC	С	PC	
Morningglory, pitted	Ípomoea lacunosa	PC	С	PC	
Mustard, wild	Brassica kaber	l c	С	С	
Nightshade, black	Solanum nigrum	С	С	С	
Nightshade, eastern black	Solanum ptycanthum	С	С	С	
Nightshade, hairy	Solanum sarrachoides	С	С	С	
Nutsedge, yellow	Cyperus esculentus	PC	PC	PC	
Pigweed, redroot	Amaranthus retroflexus	С	С	C	
Pigweed, smooth	Amaranthus hybridus	С	С	C	
Pigweed, tumble	Amaranthus albus	С	C	C	
Pokeweed, common	Phytolacca americana	PC	PC	PC	
Potatoes, volunteer	Solanum spp.	C	C C	C J	
Pusley, Florida	Richardia scabra			PC	
Ragweed, common	Ambrosia artemisiifolia	PC	C	C	
Ragweed, giant	Ambrosia trifida	C ²	C	C	
Sesbania, hemp	Sesbania exaltata	c c	l C	C C	
Sida, prickly (teaweed)	Sida spinosa	NC	C ¹	PC	
Smartweed, ladysthumb	Polygonum persicaria	C	C	C	
Smartweed, pale	Polygonum lapathifolium	C	C	C	
Smartweed, Pennsylvania	Polygonum pensylvanicum	C C	C C	C	
Suntlower, common	Helianthus annuus	C C	C C	C	
I nistle, Canada	Circium arvense	NC	C C		
veivetleat	Abutilon theophrasti				
waternemp, common	Amaranthus ruais				
w aternemp, tall	rimaraninus tuberculatus	U			

¹Apply before weed exceeds 2 inches in height. ²For control add atrazine at 1 pt. (0.5 lb.) per acre. ³Apply before weed exceeds 3 inches in height. C = Control PC = Partial Control NC = No Control

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Table 2. Weeds Controlled With Preemergence Applications of Mesotrione 50WG

		6.0-7.7 oz./A When Used Alone or Applied With a	Controlled by 5.0-6.0 oz./A Used With an Atrazine
Common Name	Scientific Name	Preemergence Grass Herbicide	Premix
Amaranth, palmer	Amaranthus palmeri	C	С
Amarath, Powell	Amaranthus powellii	C	С
Amaranth, spiny	Amaranthus spinosus	С	С
Broadleaf signalgrass	Bracharia platyphylla	C^1	С
Buffalobur	Solanum rostratum	С	· C
Carpetweed	Mollugo verticillata	С	С
Chickweed, common	Stellaria media	С	С
Cocklebur, common	Xanthium strumarium	PC	С
Crabgrass, large	Digitaria sanguinalis	C	С
Galinsoga	Galinsoga parviflora	С	С
Jimsonweed	Datura stramonium	С	С
Kochia	Kochia scoparia	PC	С
Lambsquarters, common	Chenopodium album	С	С
Morningglory, entireleaf; ivyleaf	Ipomoea hederacea	PC	С
Morningglory, pitted	Ípomoea lacunosa	PC	С
Nightshade, eastern black	Šolanum ptycanthum	С	С
Nightshade, hairy	Solanum sarrachoides	C	С
Pigweed, redroot	Amaranthus retroflexus	С	С
Ragweed, giant	Ambrosia trifida	PC	С
Smartweed, ladysthumb	Polygonum persicaria	C	С
Smartweed, pale	Polygonum lapathifolium	С	С
Smartweed, Pennsylvania	Polygonum pensylvanicum	С	С
Sunflower, common	Helianthus annuus	С	С
Velvetleaf	Abutilon theophrasti	С	С
Waterhemp, common	Amaranthus rudis	С	С
Waterhemp, tall	Amaranthus tuberculatus	С	С

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C = Control PC = Partial Control C¹ = Partial Control When Mesotrione 50WG is Applied Alone

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ROTATIONAL CROPS

Immediate: Corn (all types), asparagus, cranberry, flax, millet (pearl), grasses grown for seed (Kentucky bluegrass, perennial ryegrass, and tall fescue), oats, rhubarb, sorghum (grain and sweet), and sugarcane may be replanted immediately.

120 Days: Small grains may be planted 120 days after application.

10 Months: Alfalfa, blueberry, canola, cotton, ligonberry, peanuts, potatoes, soybeans, sunflowers, sweet potatoes, and tobacco, can be planted back the following season but not less than 10 months after the last Mesotrione 50WG application. If Mesotrione 50WG is applied postemergence following a mesotrione containing preemergence herbicide, only corn (all type) or grain sorghum may be replanted the year following application or severe crop injury may occur.

18 Months: Sugar beets, peas, dry beans, snap beans, cucurbits, red clover, and all other rotational crops may be replanted 18 months after application of Mesotrione 50WG. Planting unspecified rotational crops, or those rotational crops that are specified at shorter than recommended intervals may result in injury to the rotational crop.

USE PRECAUTIONS

Do not apply Mesotrione 50WG to white popcorn or ornamental (Indian) corn.

Avoid drift onto adjacent crops.

Severe corn injury may occur if Mesotrione 50WG is applied postemergence to corn crops that were treated with Counter® or Lorsban®, which may result in corn crop yield loss.

Severe corn injury may occur if Mesotrione 50WG is applied foliar postemergence in a tank mix with any organophosphate or carbamate insecticide which may result in corn crop yield loss.

Severe corn injury may occur if any organophosphate or carbamate insecticide is applied foliar postemergence within 7 days before or 7 days after Mesotrione 50WG application, which may result in corn crop yield loss.

Do not cultivate corn within 7 days before or after a Mesotrione 50WG application as weed control from the Mesotrione 50WG application may be reduced.

When weeds are stressed due to drought, heat, lack of fertility, flooding, or prolonged cool temperatures, control can be reduced or delayed since the weeds are not actively growing. Weed escapes or regrowth may occur when application is made under prolonged stress conditions. Optimum weed control will be obtained if an application of Mesotrione 50WG is made following label directions when weeds are actively growing.

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

Do not apply with suspension fertilizers as the carrier, unless specifically address under one of the tank mixes sections of this label or other product labels containing Mesotrione 50WG, or injury may occur.

Do not apply Mesotrione 50WG postemergence in a tank mix with emulsifiable concentrate grass herbicides, unless

specifically addressed under one of the tank mix sections of this label, or injury may occur.

Do not use aerial application to apply Mesotrione 50WG.

Mesotrione 50WG may be applied with pyrethroid type insecticides like Warrior®.

SPRAY DRIFT

Do not apply when weather conditions may cause drift to nontarget areas. Drift may result in injury to adjacent crops and vegetation. 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.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making a decision.

Information on Droplet Size

The most effective way to reduce spray 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.

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 rate nozzles instead of increasing pressure.
- Number of Nozzles Use the minimum number of nozzles that provide uniform coverage.

Sensitive Areas

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

APPLICATION PROCEDURES POSTEMERGENCE

For best results, apply Mesotrione 50WG to actively growing weeds. For a list of weeds controlled see Table 1. Susceptible weeds which emerge soon after application of c^{c} Mesotrione 50WG may be controlled after they absorb the " herbicide from the soil. Mesotrione 50WG will not control ζ_{i} most grass weeds.

Postemergence Ground Spray Equipment

Spray nozzles should be uniformly spaced, the same size and type, and should provide accurate and uniform application. Use spray nozzles that provide medium to coarse droplet size to provide good coverage and avoid drift. Good weed

coverage is essential for optimum weed control. Boom height for broadcast over-the-top applications should be based on the height of the crop - at least 15 inches above the crop canopy.

Apply in a spray volume of 10-30 gals./A. Use a pump that can maintain a pressure of at least 35-40 psi at the nozzles and provide proper agitation within the tank to keep the product dispersed. Lower pressures may be used with extended range or drift reduction nozzles. When weed foliage is dense, use a minimum of 20 gals.

Flat fan nozzles of 80° or 110° are recommended for optimum postemergence coverage. Do not use floodjet nozzles or controlled droplet application equipment for postemergence applications.

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.

Always ensure that agitation is maintained until spraying is completed, even if stopped for brief periods of time. If the agitation is stopped for more than 5 minutes, resuspend the spray solution by running on full agitation prior to spraying.

Postemergence Adjuvants

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

The following adjuvant recommendations are intended primarily for Mesotrione 50WG use in corn. Refer to the use directions section of each crop section for specific adjuvant recommendations

For postemergence applications made after the crop has emerged, add crop oil concentrate (COC) to the spray solution at rate of 1.0 gal./100 gals. of water (1.0% v/v) or add a high surfactant oil concentrate (HSOC) to the spray solution at a rate of 2 qt/100 gallons of water. The use of a nonionic surfactant (NIS) at 1 qt./100 gallons of water (0.25% v/v) instead of a COC or HSOC is allowed, but the weed control achieved with COC or HSOC is consistently better than NIS. The use of methylated seed oil (MSO) adjuvants or MSO blend adjuvants for postemergence applications of Mesotrione 50WG may cause severe crop injury to occur. MSO adjuvants are not recommended unless directed for a specific tank mix under the MESOTRIONE 50WG COMBINATIONS - POSTEMERGENCE section of this label, or other product labels containing Mesotrione 50WG or unless permitted by a supplemental Mesotrione 50WG label. In addition to COC or HSOC, always add spray grade UAN (e.g., 28-0-0) to the spray solution at a rate of 2.5% (v/v) or AMS at 8.5 lbs:/100 gals. of spray solution, except if precluded elsewhere on this label or unless by a supplemental Mesotrione 50WG label.

Do not add UAN or AMS when making postemergence applications of Mesotrione 50WG to yellow popcorn or sweet corn, or severe crop injury may occur.

For postemergence applications to yellow popcorn and sweet corn, the use of a nonionic surfactant (NIS) instead of a crop oil concentrate (COC) is recommended, so as to minimize the risk of crop injury. A COC may be used, and will increase the level of weed control achieved, especially under dry growing conditions, but the risk of crop injury is increased significantly under lush growing conditions. Because the adjuvant benefits of UAN or AMS are not available in yellow popcorn or sweet corn, weeds less than five inches should be targeted, and the addition of atrazine is recommended wherever rotational or local atrazine restrictions will allow, in order to achieve the level of weed control that is listed for Mesotrione 50WG plus COC plus UAN or AMS (third column) in Table 1.

PREEMERGENCE

For a list of weeds controlled preemergence, refer to Table 2.

Preemergence Ground Spray Equipment

Spray nozzles should be uniformly spaced, the same size and type, and should provide accurate and uniform application. Use spray nozzles that provide medium to coarse droplet size to provide good coverage and avoid drift. Apply in a spray volume of 10-80 gals./A using water or liquid fertilizer (excluding suspension fertilizers) as the carrier. Use a pump that can maintain a pressure of at least 35-40 psi at the nozzles and provide proper agitation within the tank to keep the product dispersed. Lower pressures may be used with extended range or drift reduction nozzles.

Always ensure that agitation is maintained until spraying is completed, even if stopped for brief periods of time. If the agitation is stopped for more than 5 minutes, resuspend the spray solution by running on full agitation prior to spraying.

Preemergence Adjuvants

For Mesotrione 50WG preplant or preemergence applications, and where weeds are present, the use of any adjuvant for agricultural use is permitted. In these situations, MSO type adjuvants are typically better than COC type adjuvants, which are typically better than NIS type adjuvants for enhancing weed control. UAN or AMS can be added and typically provides better weed control than not adding one of these. If Mesotrione 50WG is being tank mixed with another registered herbicide in this situation, refer to the tank mix partner label for adjuvant precautions and restrictions.

SPRAY EQUIPMENT

Cleaning Equipment After Mesotrione 50WG Application

Special attention must be given to cleaning equipment before spraying a crop other than corn. Mix only as much spray^c c^{c} solution as needed.

- 1. Flush tank, hoses, boom, and nozzles with elean water.
- 2. Prepare a cleaning solution of 1 gal. of household ammonia per 25 gals. of water. Many commercial spray
- 3. Use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface. If a pressure washer is not available, completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.

- 4. Flush hoses, spray lines, and nozzles for at least 1 minute with the cleaning solution.
- 5. Dispose of rinsate from steps 1-3 in an appropriate manner.
- 6. Repeat steps 2-5.
- Remove nozzles, screens, and strainers and clean separately in the ammonia solution after completing the above procedures.
- 8. Rinse the complete spraying system with clean water.

MIXING PROCEDURES

Refer to the Crop Use Directions section of this label for recommended tank mixes.

Always refer to labels of other pesticide products for mixing directions and precautions which may differ from those outlined here. Use in accordance with the most restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing. Do not tank mix Mesotrione 50WG with any other insecticide, fungicide, fertilizer solution, or adjuvant not recommended on the label without testing compatibility, as poor mixing may result. It is recommended that the compatibility of any tank mix combination be tested on a small scale such as a jar test before actual tank mixing.

Follow the mixing instructions for adding Mesotrione 50WG to the spray tank:

- 1. Only use sprayers in good running condition with good agitation. Ensure the sprayer is cleaned according to instructions on label of the product used prior to Mesotrione 50WG. For postemergence applications, 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 finer than 50-mesh should not be used.
- 2. Liquid fertilizer (excluding suspension fertilizers) may be used as the carrier for preemergence applications.
- 3. 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.
- 4. When the sprayer or premix tank is half full of water, add AMS and agitate until completely dispersed.
- 5. Next add Mesotrione 50WG slowly and agitate until completely dissolved. Wait at least 1 minute after the last of the Mesotrione 50WG has been added to the tank to allow for complete dispersion. A longer agitation period may be required to disperse Mesotrione 50WG when using cold water from sources such as deep drilled wells.
- 6. If tank mixing, add the tank mix product next.
- 7. Finally, add adjuvant and UAN, if needed, and then continue to fill tank to desired level with water.

CORN CROP USE DIRECTIONS

Mesotrione 50WG may be used preemergence or postemergence on field corn, production seed field corn, field corn grown for silage, yellow popcorn, and sweet corn. Refer to seed company recommendations for use on field corn inbred lines. Special adjuvant restrictions must be followed for postemergence applications of Mesotrione 50WG in yellow popcorn or sweet corn (see the Postemergence Adjuvant section of this label). Do not apply Mesotrione 50WG to white popcorn or ornamental (Indian) corn.

Postemergence applications (after crop emergence) of Mesotrione 50WG may cause crop bleaching in some yellow popcorn and sweet corn hybrids. Crop bleaching is typically transitory and has no affect on final yield or quality. However, herbicide sensitivity in yellow popcorn and sweet corn varies widely, and all yellow popcorn and sweet corn hybrids have not been tested. Contact your popcorn or sweet corn company, Fieldman, or University Specialist about hybrid recommendations before making a postemergence application of Mesotrione 50WG to yellow popcorn or sweet corn. Do not include nitrogen based adjuvants (UAN or AMS) when making postemergence applications of Mesotrione 50WG to yellow popcorn or sweet corn.

Temporary crop response (transient bleaching) from postemergence applications to field corn may occur under extreme weather conditions or when the crop is suffering from stress. Field corn quickly outgrows these effects and develops normally.

Do not apply more than a total of 7.7 oz. (0.24 lb. mesotrione active ingredient) of Mesotrione 50WG per acre per season. Do not make more than 2 applications of Mesotrione 50WG per season. Do not exceed 3.0 oz. (0.094 lb. a.i./A) in a single postemergence application. Do not make the second application of Mesotrione 50WG within 14 days of the first application.

Apply Mesotrione 50WG for the control of broadleaf and grass weeds listed in Tables 1 and 2. Corn may be treated up to 30 inches tall or up to the 8-leaf stage of corn growth. Do not feed or harvest forage, grain, or stover within 45 days after application.

MESOTRIONE 50WG USED ALONE -POSTEMERGENCE

Apply Mesotrione 50WG alone at 3.0 oz./A per application. Always add an appropriate adjuvant to the spray tank (see the Postemergence Adjuvant section under APPLICATION PROCEDURES of this label).

For best results, apply Mesotrione 50WG to actively growing weeds. For a list of weeds controlled see Table 1. Susceptible weeds which emerge soon after application of $c_{c}^{c}c_{c}^{c}$ Mesotrione 50WG may be controlled after they absorb the herbicide from the soil. Mesotrione 50WG evel into control $c_{c}^{c}c_{c}^{c}$ most grass weeds.

Two postemergence applications of Mesotrione 50WG may, the made with the following restrictions.

- Do not exceed a total of 7.7 oz./A (0.24 lb. a.i./A) of Mesotrione 50WG per season.
- Do not make the second application within 14 days of the contract of the con
- Application of Mesotrione 50WG at rates less than $3.0^{\text{cccc}}_{\text{cccc}}$ oz./A (0.094 lb. a.i./A) postemergence may result in incomplete weed control and loss of residual control.
- Do not exceed a total of 6.0 oz./A (0.19 lb. a.i./A) for the two postemergence applications.

- If Mesotrione 50WG is applied postemergence to ground that received a preemergence application of an HPPD inhibiting herbicide, atrazine must be tank mixed with Mesotrione 50WG, or use a herbicide with an alternate mode of action that is active on the target species in areas where the use of triazines is not appropriate
- If atrazine is mixed with Mesotrione 50WG, do not apply to corn that is more than 12 inches in height.
- Corn may be treated up to 30 inches tall or up to the 8-leaf stage of corn growth. Do not harvest forage, grain, or stover within 45 days after application.

MESOTRIONE 50WG USED ALONE - PREEMERGENCE

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Apply Mesotrione 50WG alone at 6.0-7.7 oz./A (0.188-0.24 lb. a.i./A) by ground sprayers in a spray volume of 10-30 gals. of water (up to 80 gals. if applied with liquid fertilizers) per acre for broadleaf weed control. For a list of weeds controlled, refer to Table 2. Mesotrione 50WG may be tank mixed with preemergence grass herbicides for grass control. Refer to the tank mix section for a list of partners.

MESOTRIONE 50WG COMBINATIONS -POSTEMERGENCE

Apply Mesotrione 50WG at a rate of 2.5-3.0 oz./A (0.078-0.094 lb a.i./A) per application. Always add an appropriate adjuvant to the spray tank (see the Postemergence Adjuvant section under APPLICATION PROCEDURES of this label). Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled. Not all of the tank mix pesticides listed are registered for field corn, yellow popcorn, or sweet corn.

Tank Mixed with AAtrex® 4L or AAtrex® Nine-O® -Postemergence (see Table 1)

In these tank mixes, apply Mesotrione 50WG at a rate of 2.5-3.0 oz./A. If weeds are more than 5 inches tall, or for improved control of common ragweed, Florida pusley, kochia, large crabgrass, morningglory spp., palmer amaranth, prickly sida, prostrate knotweed, Venice mallow, and wild buckwheat, or for faster weed control, add AAtrex 4L or AAtrex Nine-O at a minimum rate of 0.5-1.0 pt./A (or equivalent rate of other formulations of atrazine). Do not use any atrazine formulation if corn is greater than 12 inches tall.

Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled.

Tank Mixed with Liberty® or Ignite® 280SL – Postemergence

Mesotrione 50WG at a rate of 2.5-3.0 oz./A (see Table 1) can be tank mixed with Liberty or Ignite 280SL. Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled.

Use tank mixes with Liberty or Ignite 280SL only on seed designated as LibertyLink® or warranted by Bayer CropScience as being tolerant to Liberty or Ignite 280SL Herbicides. Failure to follow these directions will lead to severe crop injury. Follow all other directions for use, including adjuvants, as specified on the Liberty product label. However, do not use crop oil concentrate (COC) as an adjuvant when tank mixing Mesotrione 50WG with Liberty or Ignite 280SL, or severe crop injury may occur

Mesotrione 50WG Tank Mixed with Glyphosate – Postemergence

Mesotrione 50WG may be applied postemergence at a rate of 2.5-3 oz./A in tank mixture with a solo glyphosate product (such as Touchdown® or Roundup® brands) that is registered for use over-the-top in glyphosate tolerant (such as AgrisureTM GT Corn or Roundup Ready®) field corn. See Table 1 for the weeds controlled by Mesotrione 50WG postemergence.

Always add spray-grade ammonium sulfate (AMS) at 8.5-17.0 lbs./100 gallons to the tank mixture of Mesotrione 50WG plus solo glyphosate. When using liquid AMS products, use a rate that delivers an AMS equivalent of 8.5-17.0 lbs./100 gals of water.

If the glyphosate product has a built-in adjuvant system (i.e. the product label does not recommend additional adjuvant), add only AMS to the tank mixture. If the glyphosate product label calls for an adjuvant in addition to AMS, add a non-ionic surfactant (NIS) at 0.25-0.5 % v/v (1-2 quart/100 gallons).

Precautions for Glyphosate Mixtures:

- 1. Do not add urea ammonium nitrate (UAN), crop oil concentrate (COC), or methylated seed oil (MSO) type adjuvants to the tank mixture of Mesotrione 50WG plus glyphosate or crop injury may occur.
- 2. Application of the tank mixture of Mesotrione 50WG plus glyphosate to a corn hybrid that is not glyphosate tolerant will result in crop death.
- 3. Read and follow the Roundup Ready Gene or Glyphosate Tolerant Gene requirements on the glyphosate product label.

Tank Mixed with Lightning® - Postemergence

Mesotrione 50WG at a rate of 2.5-3.0 oz./A (see Table 1) can be tank mixed with Lightning Herbicide. Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled.

Use Mesotrione 50WG tank mixes with Lightning only on seed designated as CLEARFIELDTM corn, or warranted by BASF as being tolerant to Lightning Herbicide. Failufe to follow these directions will lead to severe crop injuty, cFollow all other directions for use as specified on the Lightning⁶ of product label. However, do not use a Methylated Seed Qil (MSO), or an MSO blend, as an adjuvant when tank mixing Mesotrione 50WG with Lightning, or severe prop injury may result.

Tank Mixed with Basagran® – Postemergence

Mesotrione 50WG at a rate of 2.5-3.0 cz.kA (see Table 1) can be tank mixed with Basagran. Refer to individual product ^{CC} labels for precautionary statements, restrictions, rates, cccc approved uses, and a list of weeds controlled.

Tank Mixed with Accent®, Basis®, Steadfast®, Steadfast® ATZ or Stout[™] – Postemergence

Mesotrione 50WG at a rate of 2.5-3.0 oz./A can be tank mixed with Accent, Basis, Steadfast, Steadfast ATZ, or Stout. Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled.

Tank Mixed with Buctril[®] or Moxy[™] (2 lb./gallon) – Postemergence

To aid in the control of certain broadleaf weeds (e.g. ragweeds), Mesotrione 50WG at a rate of 2.5-3.0 oz./A can be tank mixed with Buctril or Moxy at a rate up to 6 oz./A. Buctril or Moxy can be used in place of atrazine in corn that is greater than 12 inches tall, which is the corn height limit for the use of atrazine. Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled.

Tank Mixed with Dual Magnum® or Dual II Magnum® – Postemergence

Mesotrione 50WG at a rate of 2.5-3.0 oz./A can be tank mixed with Dual Magnum or Dual II Magnum, but special attention must be paid to adjuvant selection and/or application method. As EC formulations, Dual Magnum and Dual II Magnum can act like an adjuvant in certain combinations and thus increase the risk of crop injury. If either of these tank mixtures are used, the user should either leave the crop oil concentrate (COC) out of the adjuvant mix or apply as a postdirected spray to minimize contact with crop foliage. In either case, the control of emerged weeds may be reduced somewhat due to less than optimum adjuvant effect or weed coverage and there is still a risk of temporary crop injury in the form of leaf burn with this these mixtures. Refer to individual product labels for precautionary statements. restrictions, rates, approved uses, and a list of weeds controlled.

Tank Mixed with Bicep II Magnum® or Bicep Lite II Magnum® – Postemergence

Mesotrione 50WG at a rate of 2.5-3.0 oz./A can be tank mixed with Bicep II Magnum or Bicep Lite II Magnum, but special attention must be paid to adjuvant selection and/or application method. If either of these tank mixtures are used, the user should either leave the nitrogen based adjuvant (UAN or AMS) out of the mix or apply as a post-directed spray to minimize contact with crop foliage. There is still a risk of temporary crop injury in the form of leaf burn with these mixtures. To further reduce the risk of crop injury, the user may also leave out the crop oil concentrate (COC), or replace it with a nonionic surfactant (NIS). In all cases, the control of emerged weeds may be reduced somewhat due to less than optimum adjuvant effect or weed coverage. Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled. Do not apply either of these tank mixtures to corn greater than 12 inches tall.

MESOTRIONE 50WG COMBINATIONS – PREEMERGENCE

Tank Mixed with Axiom®, Define™ DF, Degree™, Dual II Magnum, Dual Magnum, Frontier®, Harness®, Outlook™, Surpass® EC, Prowl®, or Topnotch® – Preemergence

Mesotrione 50WG at a rate of 4.3-7.7 oz./A (see Table 2) can be tank mixed with Axiom, Define DF, Degree, Dual II Magnum, Dual Magnum, Frontier, Harness, Outlook, Surpass EC, Prowl, or Topnotch. Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled.

Tank Mixed with AAtrex, Bicep II Magnum, Bicep Lite II Magnum, Degree Xtra[™], Guardsman®, Guardsman Max®, Fultime[™], Harness Xtra®, Harness Xtra® 5.6L, Keystone[™] LA, or Keystone[™] – Preemergence

Mesotrione 50WG at a rate of 4.3-6.0 oz./A (see Table 2) can be tank mixed with AAtrex, Bicep II Magnum, Bicep Lite II Magnum, Degree Xtra, Guardsman, Guardsman Max, Fultime, Harness Xtra, Keystone LA, or Keystone. Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled.

Used in Combination with Preemergence Burndown Herbicides: Tank Mixed with Expert®, Gramoxone Inteon®, Roundup Brands, Touchdown Brands, and/or 2,4 D – Preemergence

For improved broadleaf weed control with limited residual control prior to planting corn and before corn emergence, apply Mesotrione 50WG at 2.5-3.0 oz./A by ground sprayers in tank mixes with Gramoxone Inteon, Roundup brands, Touchdown brands, and/or 2,4-D. For greater residual control, use 4.3-7.7 oz./A of Mesotrione 50WG (see Table 2) with the above products. Use the adjuvant system recommended by the burndown herbicide. Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled.



STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Keep container tightly closed when not in use. Do not store near seed, fertilizers, or foodstuffs. Keep away from heat and flame.

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

Container Handling [Plastic Containers]

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment of a mix tank. And drain for 10 seconds after the flow begins to drip. Fill the container ? 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. Then, offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Container Handling [Paper and Plastic Bags]

Non-refillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then, offer for recycling if available, or dispose of empty bag in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

This product is protected by U.S. Patent Nos. 5,006,158 and 5,698,493. Other patents pending. No license granted to prepare any tank mixtures other than those expressly provided herein.

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