

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

June 1, 2015

S.K. Theodorakis DuPont Crop Protection Stine-Haskell Research Center P.O. Box 30 Newark, DE 19714-0030

Subject: Label Amendment – minor label changes

Product Name: DuPont Instigate Herbicide

EPA Registration Number: 352-873

Application Date: 5-20-15 Decision Number: 505467

Dear Mr. Theodorakis:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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.

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

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with FIFRA section 6. If you have any questions, please contact Erik Kraft by phone at 703-308-9358, or via email at <a href="mailto:kraft.erik@epa.gov">kraft.erik@epa.gov</a>.

Sincerely,

Heather Garvie, Product Manager 24 Fungicide and Herbicide Branch Registration Division (7505P) Office of Pesticide Programs

in the for

Enclosure



# **DuPont™ Instigate**

#### **HERBICIDE**

		GROUP	2 and 27	HERBICIDE	
For preplant and preemergence week	d control in field corn.				
Active Ingredients				By Weight	
Rimsulfuron					
N-((4,6-dimethoxypyrimidin-2-y	l)aminocarbonyl)-3-(ethylsu	lfonyl)-2-pyridinesulf	onamide	4.17%	
Mesotrione				41.67%	
Other Ingredients				54.16%	
TOTAL					
EPA REG. NO. 352-873	ACCEPTED		EPA	EPA Est. No	
Nonrefillable Container Net: OR Refillable Container Net:	06/01/2015 Under the Federal Insecticide, Fungic and Rodenticide Act as amended, for pesticide registered under EPA Reg. No. 352-873	de			

# KEEP OUT OF REACH OF CHILDREN CAUTION

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

#### 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

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.

# PRECAUTIONARY STATEMENTS

#### HAZARD TO HUMANS AND DOMESTIC ANIMALS

**CAUTION!** Causes moderate eye irritation. Avoid contact with eyes or clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

Applicators and other handlers must wear:

Long-sleeve shirt and long pants. Chemical resistant gloves Category A (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber), all > 14 mils.

Shoes plus socks.

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

#### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

#### **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 prone to 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 ponds, 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

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 in your State responsible for pesticide regulation.

DuPont<sup>TM</sup> INSTIGATE<sup>TM</sup> herbicide, referred to below as DuPont<sup>TM</sup> INSTIGATE<sup>TM</sup>, INSTIGATE<sup>TM</sup> herbicide or INSTIGATE<sup>TM</sup>, must be used only in accordance with instructions on this label or in separately published DuPont instructions, Supplemental Labels, Special Local Need Registrations, FIFRA Section 18 exemptions, FIFRA 2(ee) Bulletins, or as otherwise permitted by FIFRA. Always read the entire label, including the Limitation of Warranty and Liability.

#### 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.

PPE required for early entry to the 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

Chemical-resistant gloves Category A (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber), all > 14 mils.

Shoes plus socks.

#### PRODUCT INFORMATION

INSTIGATE™ herbicide must be used only in accordance with instructions on this label or in supplemental DuPont publications. DuPont will not be responsible for losses or damage resulting from use of this product in any manner not specifically specified by DuPont.

INSTIGATE™ herbicide is a water dispersible blend containing 45.8% active ingredients by weight.

INSTIGATE™ is a selective herbicide for burndown and residual control of certain annual grass and broadleaf weeds. INSTIGATE™ can be tank mixed with a variety of corn herbicides such as atrazine, DuPont™ BREAKFREE®, DuPont™ CINCH® brands or simazine to improve burndown and residual control.

INSTIGATE $^{\text{TM}}$  is a blend of rimsulfuron and mesotrione, two active ingredients that have different mode-of-action on susceptible weeds.

When surface applied, rainfall or sprinkler irrigation is needed to move INSTIGATE<sup>TM</sup> into the soil root zone. INSTIGATE<sup>TM</sup> is absorbed through the roots, rapidly inhibiting plant growth. Susceptible weeds will generally not emerge from preemergence application. In some cases susceptible weeds may germinate and emerge a few days after application, but growth then ceases and leaves become chlorotic three to five days after emergence. Death of leaf tissue and growing point will follow in some species, while others will remain green but stunted and noncompetitive. Dry conditions following application may reduce the preemergence activity of INSTIGATE<sup>TM</sup>. If an activating rain (0.5 inches) is not received within 5-7 days after preemergence application, where appropriate, rotary hoeing is suggested to activate the herbicide.

When applied to emerged vegetation, susceptible weeds take up the herbicide through the treated foliage and cease growth soon after application. Complete death of susceptible weeds may take up to 2 weeks.

On all field corn hybrids, INSTIGATE<sup>TM</sup> can be used in a planned sequential application herbicide program such as INSTIGATE<sup>TM</sup> followed by an in-crop application of DuPont<sup>TM</sup> REALM® Q, DuPont<sup>TM</sup> RESOLVE® Q or DuPont<sup>TM</sup> STEADFAST® Q with appropriate tank mix partners not exceeding 1.0 ounce active ingredient rimsulfuron or 3.85 ounces active ingredient of mesotrione during the crop year.

For glyphosate-tolerant field corn hybrids, INSTIGATE<sup>TM</sup> can be followed by an in-crop application of a glyphosate product, such as DuPont<sup>TM</sup> ABUNDIT<sup>TM</sup> Extra, with appropriate tank mix partners and adjuvant products.

Refer to the label of the respective sequential partner for specific use directions. Consult local DuPont representatives, fact sheets or technical bulletins for additional information.

DuPont™ INSTIGATE™ may be applied to corn previously treated with non-organophosphate soil insecticides such as SmartChoice", Aztec", or "Force" regardless of soil type.

INSTIGATE™ may be applied with pyrethroid insecticides like DuPont™ ASANA® XL or "Capture".

Thoroughly clean application equipment immediately after use (See Sprayer Cleanup section of this label for instructions).

# **APPLICATION INFORMATION - Field Corn**

INSTIGATE™ herbicide may be used in either conventional, conservation tillage, or no-till crop management systems and may be applied either preplant, preplant incorporated (less than 2" deep), preemergence, or early post emerge to field corn. INSTIGATE™ herbicide can be applied to corn that exhibits up through 2 leaf collars.

#### APPLICATION TIMINGS

**Preplant Surface-Applied or Preplant Incorporated:** INSTIGATE™ herbicide may be up to 14 days applied prior to planting. For preplant incorporated treatments apply to the soil and uniformly incorporate in the top two inches of soil before planting using a finishing disc harrow, field cultivator or similar implement capable of providing uniform two inch incorporation. Do not incorporate INSTIGATE™ deeper than 2" or weed control may be reduced.

**Preplant/Preemerge Burndown**: INSTIGATE™ may be applied when weeds are present at the time of treatment. The addition of crop oil concentrate or methylated seed oil is recommended for burndown of labeled weeds 3 inches or less in height. When weeds are greater than 3" in height or weeds not controlled by INSTIGATE™ herbicide are present, the addition of a burndown herbicide (e.g. paraquat, glyphosate such as DuPont™ ABUNDIT™ Extra, dicamba and/or 2,4-D) is recommended. If giant ragweed, common cocklebur, henbit, Pennsylvania smartweed or purple deadnettle are present at the time of application, the addition of atrazine, or atrazine-containing herbicides will improve control. Observe directions for use and precautions and restrictions on the label of the burndown label herbicide. When mixing with liquid nitrogen fertilizer or glyphosate, substitute a non-ionic surfactant for crop oil concentrate. When tank mixing with EC formulation herbicides, such as DuPont™ CINCH® or DuPont™ BREAKFREE® brands, refer to TANK MIXING section for additional adjuvant information.

**Preemergence**: Apply INSTIGATE™ herbicide during planting (behind the planter after furrow closure) or after planting, but before crop emergence. Failure to thoroughly close and firm the seed furrow may allow herbicide to directly contact the seed which can cause injury.

Early Postemergence Rescue Treatment: In the event planned preemergence applications are delayed and corn is emerging, application may be made to emerged corn up through 2 collars. Use only clean water as the carrier when applying INSTIGATE<sup>TM</sup> after corn emergence.

For control of labeled emerged weeds, applications of INSTIGATE<sup>TM</sup> must include a crop oil concentrate or a nonionic surfactant. In addition, nitrogen based adjuvant (UAN or AMS) must be used unless specifically prohibited by tank mix partner labeling. Crop oil concentrate plus nitrogen based adjuvant is the preferred adjuvant system for INSTIGATE<sup>TM</sup> for control of labeled emerged weeds. When applied in tank mix combination with a glyphosate that contains a built-in adjuvant, ensure the total adjuvant load is equivalent to the recommendations on this label. Select adjuvants authorized for use with both products.

Best results are obtained when applications are made to actively growing plants. INSTIGATE $^{\text{TM}}$  is rainfast 1 hour after application.

Do not use with spray additives that alter the pH of the spray solution below 5.0 or above 9.0 as rapid product degradation can occur. Spray solutions of pH 6.0-8.0 allow for optimum stability of INSTIGATE<sup>TM</sup>.

# INSTIGATE™ RATE

The typical INSTIGATE™ use rate for most soils and application situations is 6 oz product per acre. INSTIGATE™ may be applied within a rate range of 5.25 - 7.0 oz product before corn emergence. Use higher rates on fine soils (silty clay loam, clay loam, sandy clay, silty clay or clay) or on soils with greater than 3% organic matter. Do not apply to coarse soils (sand, loamy sandy or sandy loam) with less than 1% organic matter. See cumulative rimsulfuron and mesotrione rate limitations noted under "Restrictions".

INSTIGATE $^{\text{TM}}$  may be applied at 5.25 to 5.4 oz product for early postemergence rescue treatment on corn exhibiting up through 2 leaf collars.

#### SPRAY 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. For preplant or preemergence burndown applications, for control of emerged labeled weeds, application of INSTIGATE<sup>TM</sup> must include a crop oil concentrate, modified seed oil or a nonionic surfactant. In addition, nitrogen based adjuvant (UAN or AMS) must be used unless specifically prohibited by the tankmix partner labeling. Crop oil concentrate/modified seed oil plus nitrogen based adjuvant is the preferred adjuvant systems. When applied in tank mix combination with a glyphosate or glufosinate

herbicide that contains a built-in adjuvant system, ensure the total adjuvant load is equivalent to the recommendations on this label. Select adjuvants authorized for use with both products.

DuPont<sup>TM</sup> INSTIGATE<sup>TM</sup> applied postemergence to the corn must include a crop oil concentrate or a nonionic surfactant. In addition, an ammonium nitrogen fertilizer must be used unless specifically prohibited by tank mix partner labeling. See TANK MIXING section for additional adjuvant information if tank mixing INSTIGATE<sup>TM</sup> with EC formulation herbicides.

#### WEEDS CONTROLLED

INSTIGATE™ applied as directed in this label will control or suppress the weeds listed in Tables 1 and 2. Additional weeds may be controlled with tank mixes. See the TANK MIXTURES section for recommended tank mix combinations.

TABLE 1: CONTACT WEED CONTROL WITH DUPONT  $^{\text{TM}}$  INSTIGATE\*

Addiff, volunteer  C C C C C C C Amaranh, Powell C C C C C C C C C C C C C C C C C C		INSTIGATE™ + 2,4-D	INSTIGATE™ + glyphosate	INSTIGATE™ + atrazine
Amaranth, Palmer Amaranth, Powell C C C C C C C C C C C C C C C C C C	A1C.1C. 1 4			
Deadnettel		C	C	C
Deadnettel		C	C	C
Deadnettel			C	C
Deadnettel	Porlay voluntar		C	C
Deadnettel	Barnyardarass	C	C	C
Deadnettel		C	C	C
Deadnettel		C	C	C
Deadnettel		C	C	C
Deadnettel		C	C	C
Deadnettel		Č	Č	C
Deadnettel		Č	Č	Č
Deadnettel		Č	Č	C
Deadnettel	Chamomile false	Č	Č	C
Deadnettel		C	C	C
Deadnettel		Č	Č	Č
Deadnettel		Č	Č	C
Deadnettel	Cuparass woolly (1")	Č	Č	C
Deadnettel		Č	Č	C
Knotweed, prostrate   Kochia   NC   C   C   C   C   C   C   C   C		Č	Č	C
Knotweed, prostrate   Kochia   NC   C   C   C   C   C   C   C   C		PC	Č	C
Knotweed, prostrate   Kochia   NC   C   C   C   C   C   C   C   C				
Knotweed, prostrate   Kochia   NC   C   C   C   C   C   C   C   C		, C		C
Knotweed, prostrate   Kochia   NC   C   C   C   C   C   C   C   C		ĺ	l č	Č
Knotweed, prostrate   Kochia   NC   C   C   C   C   C   C   C   C	Foxtail green	Č	Č	Č
Knotweed, prostrate   Kochia   NC   C   C   C   C   C   C   C   C	Foxtail vellow	Č	Č	Č
Knotweed, prostrate   Kochia   NC   C   C   C   C   C   C   C   C		ĺ	Č	Č
Knotweed, prostrate   Kochia   NC   C   C   C   C   C   C   C   C		ĺ	Č	Č
Knotweed, prostrate   Kochia   NC   C   C   C   C   C   C   C   C	Henhit	Č	Č	Č
Knotweed, prostrate   Kochia   NC   C   C   C   C   C   C   C   C		Č	Č	Č
Knotweed, prostrate   Kochia   NC   C   C   C   C   C   C   C   C		Č	Č	Č
Knotweed, prostrate   Kochia   NC   C   C   C   C   C   C   C   C		PC	Č	Č
Kochia   Kochia (ALS-sensitive)   C	Knotweed prostrate			PC
Kochia (ALS-sensitive)   C		NC	C	C
Mallow, Venice         C         C         C           Marestail         C         C         C           Millet, Wild Proso         PC         C         C           Montingglory, ivyleaf         C         C         C           Mustard, birdsrape         C         C         C           Mustard, wild         C         C         C           Mustard, wild         C         C         C           Nightshade, eastern black         C         C         C           Oat, wild         C         C         C         C           C         C         C         C			Č	Č
Mallow, Venice         C         C         C           Marestail         C         C         C           Millet, Wild Proso         PC         C         C           Montingglory, ivyleaf         C         C         C           Mustard, birdsrape         C         C         C           Mustard, wild         C         C         C           Mustard, wild         C         C         C           Nightshade, eastern black         C         C         C           Oat, wild         C         C         C         C           C         C         C         C	Lambaguarters common	Č	Č	Č
Marestail         C         C         C           Millet, Wild Proso         PC         C         C           Morningglory, ivyleaf         C         C         C           Mustard, birdsrape         C         C         C           Mustard, black         C         C         C           Mustard, wild         C         C         C           Nightshade, eastern black         C         C         C           Nightshade, hariy         C         C         C           Oat, wild         C         C         C           Cat, wild         C         C         C           Cot, wild         C         C         C           Cat, wild         C         C         C           Panicum, fall         C         C         C         C           Pigweed, profroot         C         C         C         C           Pigweed, redroot         C         C         C         C         C           Pigweed, redroot         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C				Č
Millet, Wild Proso         PC         C         C           Morningglory, ivyleaf         C         C         C           Mustard, birdsrape         C         C         C           Mustard, black         C         C         C           Mustard, wild         C         C         C           Nightshade, eastern black         C         C         C           Nightshade, barry         C         C         C           Nitsedge, yellow         C         C         C           Oat, wild         C         C         C           Panicum, fall         C         C         C           C Panicum, fall         C         C         C           C Pigweed, prostrate         C         C         C           C Pigweed, smooth         C         C         C           C Pigweed, smooth         C         C         C           C Pigweed, tumble         C         C         C           C Pokewed, common         C         C         C           C Pusley, FL         PC         PC         PC           PC         PC         PC         PC           Pusley, FL         PC		С	C	Č
Panicum, fall         C         C         C           Pigweed, prostrate         C         C         C           Pigweed, redroot         C         C         C           Pigweed, smooth         C         C         C           Pigweed, tumble         C         C         C           Pokeweed, common         C         C         C           Poweed, common         PC         PC         PC           Purslane, common         PC         PC         PC           Pusley, FL         PC         C         C           Quackgrass         C         C         C           Radish, wild         C         C         C           Ragish, wild         C         C         C           Ragweed, common         C         C         C           Ragweed, giant         C         C         C           Rayegrass, Italian         C         C         C           Sesbania, hemp         PC         C         C           Sesbania, hemp         PC         C         C           Signalgrass, broadleaf         C         C         C           Signalgrass, broadleaf         C <td< td=""><td></td><td>PC</td><td>Č</td><td>Č</td></td<>		PC	Č	Č
Panicum, fall         C         C         C           Pigweed, prostrate         C         C         C           Pigweed, redroot         C         C         C           Pigweed, smooth         C         C         C           Pigweed, tumble         C         C         C           Pokeweed, common         C         C         C           Poweed, common         PC         PC         PC           Purslane, common         PC         PC         PC           Pusley, FL         PC         C         C           Quackgrass         C         C         C           Radish, wild         C         C         C           Ragish, wild         C         C         C           Ragweed, common         C         C         C           Ragweed, giant         C         C         C           Rayegrass, Italian         C         C         C           Sesbania, hemp         PC         C         C           Sesbania, hemp         PC         C         C           Signalgrass, broadleaf         C         C         C           Signalgrass, broadleaf         C <td< td=""><td></td><td></td><td>Č</td><td>Č.</td></td<>			Č	Č.
Panicum, fall         C         C         C           Pigweed, prostrate         C         C         C           Pigweed, redroot         C         C         C           Pigweed, smooth         C         C         C           Pigweed, tumble         C         C         C           Pokeweed, common         C         C         C           Poweed, common         PC         PC         PC           Purslane, common         PC         PC         PC           Pusley, FL         PC         C         C           Quackgrass         C         C         C           Radish, wild         C         C         C           Ragish, wild         C         C         C           Ragweed, common         C         C         C           Ragweed, giant         C         C         C           Rayegrass, Italian         C         C         C           Sesbania, hemp         PC         C         C           Sesbania, hemp         PC         C         C           Signalgrass, broadleaf         C         C         C           Signalgrass, broadleaf         C <td< td=""><td>Mustard, birdsrape</td><td>Č.</td><td>Č</td><td>Č.</td></td<>	Mustard, birdsrape	Č.	Č	Č.
Panicum, fall         C         C         C           Pigweed, prostrate         C         C         C           Pigweed, redroot         C         C         C           Pigweed, smooth         C         C         C           Pigweed, tumble         C         C         C           Pokeweed, common         C         C         C           Poweed, common         PC         PC         PC           Purslane, common         PC         PC         PC           Pusley, FL         PC         C         C           Quackgrass         C         C         C           Radish, wild         C         C         C           Ragish, wild         C         C         C           Ragweed, common         C         C         C           Ragweed, giant         C         C         C           Rayegrass, Italian         C         C         C           Sesbania, hemp         PC         C         C           Sesbania, hemp         PC         C         C           Signalgrass, broadleaf         C         C         C           Signalgrass, broadleaf         C <td< td=""><td></td><td>Č</td><td>Č</td><td>Č</td></td<>		Č	Č	Č
Panicum, fall         C         C         C           Pigweed, prostrate         C         C         C           Pigweed, redroot         C         C         C           Pigweed, smooth         C         C         C           Pigweed, tumble         C         C         C           Pokeweed, common         C         C         C           Poweed, common         PC         PC         PC           Purslane, common         PC         PC         PC           Pusley, FL         PC         C         C           Quackgrass         C         C         C           Radish, wild         C         C         C           Ragish, wild         C         C         C           Ragweed, common         C         C         C           Ragweed, giant         C         C         C           Rayegrass, Italian         C         C         C           Sesbania, hemp         PC         C         C           Sesbania, hemp         PC         C         C           Signalgrass, broadleaf         C         C         C           Signalgrass, broadleaf         C <td< td=""><td></td><td>Č</td><td>Č</td><td>Č</td></td<>		Č	Č	Č
Panicum, fall         C         C         C           Pigweed, prostrate         C         C         C           Pigweed, redroot         C         C         C           Pigweed, smooth         C         C         C           Pigweed, tumble         C         C         C           Pokeweed, common         C         C         C           Poweed, common         PC         PC         PC           Purslane, common         PC         PC         PC           Pusley, FL         PC         C         C           Quackgrass         C         C         C           Radish, wild         C         C         C           Ragish, wild         C         C         C           Ragweed, common         C         C         C           Ragweed, giant         C         C         C           Rayegrass, Italian         C         C         C           Sesbania, hemp         PC         C         C           Sesbania, hemp         PC         C         C           Signalgrass, broadleaf         C         C         C           Signalgrass, broadleaf         C <td< td=""><td>Nightshade, eastern black</td><td>Č</td><td>Č</td><td>Č</td></td<>	Nightshade, eastern black	Č	Č	Č
Panicum, fall         C         C         C           Pigweed, prostrate         C         C         C           Pigweed, redroot         C         C         C           Pigweed, smooth         C         C         C           Pigweed, tumble         C         C         C           Pokeweed, common         C         C         C           Poweed, common         PC         PC         PC           Purslane, common         PC         PC         PC           Pusley, FL         PC         C         C           Quackgrass         C         C         C           Radish, wild         C         C         C           Ragish, wild         C         C         C           Ragweed, common         C         C         C           Ragweed, giant         C         C         C           Rayegrass, Italian         C         C         C           Sesbania, hemp         PC         C         C           Sesbania, hemp         PC         C         C           Signalgrass, broadleaf         C         C         C           Signalgrass, broadleaf         C <td< td=""><td>Nightshade, hariy</td><td>Č</td><td>Č</td><td>C</td></td<>	Nightshade, hariy	Č	Č	C
Panicum, fall         C         C         C           Pigweed, prostrate         C         C         C           Pigweed, redroot         C         C         C           Pigweed, smooth         C         C         C           Pigweed, tumble         C         C         C           Pokeweed, common         C         C         C           Poweed, common         PC         PC         PC           Purslane, common         PC         PC         PC           Pusley, FL         PC         C         C           Quackgrass         C         C         C           Radish, wild         C         C         C           Ragish, wild         C         C         C           Ragweed, common         C         C         C           Ragweed, giant         C         C         C           Rayegrass, Italian         C         C         C           Sesbania, hemp         PC         C         C           Sesbania, hemp         PC         C         C           Signalgrass, broadleaf         C         C         C           Signalgrass, broadleaf         C <td< td=""><td>Nutsedge, yellow</td><td>C</td><td>Č</td><td>С</td></td<>	Nutsedge, yellow	C	Č	С
Panicum, fall         C         C         C           Pigweed, prostrate         C         C         C           Pigweed, redroot         C         C         C           Pigweed, smooth         C         C         C           Pigweed, tumble         C         C         C           Pokeweed, common         C         C         C           Poweed, common         PC         PC         PC           Purslane, common         PC         PC         PC           Pusley, FL         PC         C         C           Quackgrass         C         C         C           Radish, wild         C         C         C           Ragish, wild         C         C         C           Ragweed, common         C         C         C           Ragweed, giant         C         C         C           Rayegrass, Italian         C         C         C           Sesbania, hemp         PC         C         C           Sesbania, hemp         PC         C         C           Signalgrass, broadleaf         C         C         C           Signalgrass, broadleaf         C <td< td=""><td>Oat, wild</td><td>С</td><td>С</td><td>С</td></td<>	Oat, wild	С	С	С
Pigweed, prostrate         C         C         C           Pigweed, smooth         C         C         C           Pigweed, smooth         C         C         C           Pigweed, tumble         C         C         C           Pokeweed, common         C         C         C           Purslane, common         PC         PC         PC           Pusley, FL         PC         C         C           Quackgrass         C         C         C           Radish, wild         C         C         C           Ragweed, common         C         C         C           Ragweed, giant         PC         C         C           Seshalia, hemp         PC         C         C           Sesbania, hemp         PC         C         C           Sida, prickly         C         C         C           Sida, prickly         C         C         C           Signalgrass, broadleaf         C         C	Panicum, fall			
Purslane, common         PC         PC         PC           Pusley, FL         PC         C         C           Quackgrass         C         C         C           Radish, wild         C         C         C           Ragweed, common         C         C         C           Ragweed, giant         C         C         C           Ryegrass, Italian         C         C         C           Sesbania, field         PC         C         C           Sesbania, hemp         PC         C         C           Shattercane         C         C         C           Shepherdspurse         C         C         C           Signalgrass, broadleaf         C         C         C           Signalgrass, broadleaf         C         C         C           Smartweed, annual         C         C         C           Sunflower         C         C         C           Thistle, Canada         C         C         C           C         C         C         C           C         C         C         C           Welvetleaf         C         C         C <tr< td=""><td></td><td>С</td><td>С</td><td>С</td></tr<>		С	С	С
Purslane, common         PC         PC         PC           Pusley, FL         PC         C         C           Quackgrass         C         C         C           Radish, wild         C         C         C           Ragweed, common         C         C         C           Ragweed, giant         C         C         C           Ryegrass, Italian         C         C         C           Sesbania, field         PC         C         C           Sesbania, hemp         PC         C         C           Shattercane         C         C         C           Shepherdspurse         C         C         C           Signalgrass, broadleaf         C         C         C           Signalgrass, broadleaf         C         C         C           Smartweed, annual         C         C         C           Sunflower         C         C         C           Thistle, Canada         C         C         C           C         C         C         C           C         C         C         C           Welvetleaf         C         C         C <tr< td=""><td>Pigweed, redroot</td><td>С</td><td>С</td><td>С</td></tr<>	Pigweed, redroot	С	С	С
Purslane, common         PC         PC         PC           Pusley, FL         PC         C         C           Quackgrass         C         C         C           Radish, wild         C         C         C           Ragweed, common         C         C         C           Ragweed, giant         C         C         C           Ryegrass, Italian         C         C         C           Sesbania, field         PC         C         C           Sesbania, hemp         PC         C         C           Shattercane         C         C         C           Shepherdspurse         C         C         C           Signalgrass, broadleaf         C         C         C           Signalgrass, broadleaf         C         C         C           Smartweed, annual         C         C         C           Sunflower         C         C         C           Thistle, Canada         C         C         C           C         C         C         C           C         C         C         C           Welvetleaf         C         C         C <tr< td=""><td>Pigweed, smooth</td><td>C</td><td>C</td><td>С</td></tr<>	Pigweed, smooth	C	C	С
Purslane, common         PC         PC         PC           Pusley, FL         PC         C         C           Quackgrass         C         C         C           Radish, wild         C         C         C           Ragweed, common         C         C         C           Ragweed, giant         C         C         C           Ryegrass, Italian         C         C         C           Sesbania, field         PC         C         C           Sesbania, hemp         PC         C         C           Shattercane         C         C         C           Shepherdspurse         C         C         C           Signalgrass, broadleaf         C         C         C           Signalgrass, broadleaf         C         C         C           Smartweed, annual         C         C         C           Sunflower         C         C         C           Thistle, Canada         C         C         C           C         C         C         C           C         C         C         C           Welvetleaf         C         C         C <tr< td=""><td>Pigweed, tumble</td><td>C</td><td>C</td><td>С</td></tr<>	Pigweed, tumble	C	C	С
Purslane, common         PC         PC         PC           Pusley, FL         PC         C         C           Quackgrass         C         C         C           Radish, wild         C         C         C           Ragweed, common         C         C         C           Ragweed, giant         C         C         C           Ryegrass, Italian         C         C         C           Sandbur, field         PC         C         C           Sesbania, hemp         PC         C         C           Sesbania, hemp         PC         C         C           Shattercane         C         C         C           C         C         C         C           Shepherdspurse         C         C         C           Signalgrass, broadleaf         C         C         C           Signalgrass, broadleaf         C         C         C           Smartweed, annual         C         C         C           C         C         C         C           Sunflower         C         C         C           Thistle, Canada         C         C         C	Pokeweed, common	C	C	С
Quackgrass         C         C         C           Radish, wild         C         C         C           Ragweed, common         C         C         C           Ragweed, giant         C         C         C           Ryegrass, Italian         C         C         C           Sandbur, field         PC         C         C           Sesbania, hemp         PC         C         C           Sesbania, hemp         PC         C         C           Shattercane         C         C         C           Sida, prickly         C         C         C           Signalgrass, broadleaf         C         C         C           Smartweed, annual         C         C         C           Stinkgrass         PC         C         C           Sunflower         C         C         C           Thistle, Canada         C         C         C           Thistle, Russian, seedling         C         C         C           Velvetleaf         C         C         C           Waterhemp         C         C         C		PC	PC	PC
Radish, wild         C         C         C           Ragweed, common         C         C         C           Ragweed, giant         C         C         C           Ryegrass, Italian         C         C         C           Sandbur, field         PC         C         C           Sesbania, hemp         PC         C         C           Shattercane         C         C         C           Shepherdspurse         C         C         C           Sida, prickly         C         C         C           Signalgrass, broadleaf         C         C         C           Smartweed, annual         C         C         C           Stinkgrass         PC         C         C           Sunflower         C         C         C           Thistle, Canada         C         C         C           Thistle, Russian, seedling         C         C         C           Velvetleaf         C         C         C           Waterhemp         C         C         C		PC	C	C
Radish, wild         C         C         C           Ragweed, common         C         C         C           Ragweed, giant         C         C         C           Ryegrass, Italian         C         C         C           Sandbur, field         PC         C         C           Sesbania, hemp         PC         C         C           Shattercane         C         C         C           Shepherdspurse         C         C         C           Sida, prickly         C         C         C           Signalgrass, broadleaf         C         C         C           Smartweed, annual         C         C         C           Stinkgrass         PC         C         C           Sunflower         C         C         C           Thistle, Canada         C         C         C           Thistle, Russian, seedling         C         C         C           Velvetleaf         C         C         C           Waterhemp         C         C         C	Quackgrass			С
Sandbur, field         PC         C           Sesbania, hemp         PC         C           Shattercane         C         C           Shepherdspurse         C         C           Sida, prickly         C         C           Sida, prickly         C         C           C         C         C           Signalgrass, broadleaf         C         C           Smartweed, annual         C         C           C         C         C           Stinkgrass         PC         C           Sunflower         C         C           Thistle, Canada         C         C           C         C         C           Thistle, Russian, seedling         C         C           Velvetleaf         C         C           Waterhemp         C         C	Radish, wild	C	C	C
Sandbur, field         PC         C           Sesbania, hemp         PC         C           Shattercane         C         C           Shepherdspurse         C         C           Sida, prickly         C         C           Sida, prickly         C         C           C         C         C           Signalgrass, broadleaf         C         C           Smartweed, annual         C         C           C         C         C           Stinkgrass         PC         C           Sunflower         C         C           Thistle, Canada         C         C           C         C         C           Thistle, Russian, seedling         C         C           Velvetleaf         C         C           Waterhemp         C         C	Ragweed, common	C	C	C
Sandbur, field         PC         C           Sesbania, hemp         PC         C           Shattercane         C         C           Shepherdspurse         C         C           Sida, prickly         C         C           Sida, prickly         C         C           C         C         C           Signalgrass, broadleaf         C         C           Smartweed, annual         C         C           C         C         C           Stinkgrass         PC         C           Sunflower         C         C           Thistle, Canada         C         C           C         C         C           Thistle, Russian, seedling         C         C           Velvetleaf         C         C           Waterhemp         C         C	Ragweed, giant	C	C	C
	Ryegrass, Italian		<u>C</u>	C
	Sandbur, field	PC	C	
			<u>C</u>	C
		C	C [	C
	Shepherdspurse	C	C	C
	Sida, prickly	C	C	C
	Signalgrass, broadleaf	C	C	C
		C	C	C
		PC	C	C
		C	C	C
		C	C	C
		C	C	C
		C	C	C
w neat, volunteer C C C	Waterhemp		C	
	wheat, volunteer	С	С	С

<sup>\*</sup> For control of emerged weeds the Instigate application must include the appropriate spray adjuvant. Refer to the SPRAY ADJUVANTS and TANK MIXTURES sections of the label.

TABLE 2: RESIDUAL WEED CONTROL WITH PREEMERGENCE APPLICATIONS OF DUPONT INSTIGATE  $^{\text{\tiny{TM}}}$ 

Common name	INSTIGATE™	INSTIGATE™ + ATRAZINE	INSTIGATE™ + DUPONT™ CINCH® OR DUPONT™ BREAKFREE® ATRAZINE PRODUCT
Amaranth, Palmer	PC		
	PC PC	C C	C C
Amaranth, Powell			
Amaranth, spiny	C	C C	C C
Barnyardgrass	C		
Bluegrass, annual	PC	C C	C
Buffalobur	C	l C	C
Burcucumber	PC	PC	PC
Carpetweed	PC	C	
Chamomile, false	C	C C C	
Chickweed, common	C		C
Cocklebur	C	C	C
Crabgrass, large	PC	C	C
Crowfootgrass			C
Cupgrass, praire			C
Cupgrass, southwestern	_	_	C
Filaree, redstem	C	C	C
Fotail, bristly	C C C C C	C C C C	C
Foxtail, giant	C	C	C
Foxtail, green	C	C	C
Foxtail, yellow	C	C	C
Galinsoga	C	С	С
Goosegrass			С
Henbit	C	С	С
Jimsonweed	C	C	С
Kochia	PC	C	С
Kochia (ALS-sensitive)	C	C	С
Lambsquarters, common	C C	C C C C C C C C C C C C C C C C C C C	С
Marestail	C	C	С
Morningglory, ivyleaf	PC	C	С
Morningglory, pitted	PC	C	С
Mustard, birdsrape	C	C	С
Mustard, black	C C C	C	С
Mustard, wild	C	C	С
Nightshade, eastern black	C	C	C
Nightshade, hariy	C	C	C
Oat, wild	PC	C	Č
Panicum, browntop			Č
Panicum, fall	C	C	Ċ
Pigweed, prostrate	PC	C	C
Pigweed, redroot		C	C
Pigweed, smooth	Č.	Č	Č
Pokeweed, common	Č.	Č	Č
Purslane, common	C C C	C C C C	
Pusley, FL			l č
Ragweed, common	С	С	Č
Ragweed, giant	PC	l č	Ĭ
Ryegrass, Italian	C	C C PC	C C PC
Sicklepod		l PC	PC
Signalgrass, broadleaf	PC		l
Smartweed, annual	C	l č	ĺ
Sunflower	C		ĺ
Thistle, Russian	PC		ĺ
Velvetleaf	C		l
Waterhemp	PC		
Wheat, volunteer	C	C C C C C	C C C C C C
			C
Witchgrass			

C = CONTROL, PC = PARTIAL CONTROL

# **TANK MIXTURES**

DuPont<sup>TM</sup> INSTIGATE<sup>TM</sup> may be tank mixed with full or reduced rates of preemergence corn herbicides such as atrazine, glyphosate such as DuPont<sup>TM</sup> ABUNDIT<sup>TM</sup> Extra, dicamba, 2,4-D, DuPont<sup>TM</sup> CINCH® and DuPont<sup>TM</sup> BREAKFREE® brands to provide added residual activity or burndown activity on emerged weeds. Consult tank mix partner labeling for rate and soil-type restrictions.

Ensure the tank mix product is labeled for the same timing, method of application, adjuvants, and use restrictions as INSTIGATE<sup>TM</sup> and other products used in the tank mixture.

Ensure the tank mixture is not specifically prohibited on the label of the tank mix product.

For postemergence applications to corn if mixing with an EC formulation such as CINCH<sup>TM</sup> or BREAKFREE® the user should leave the crop oil concentrate (COC) out of the adjuvant mix. These herbicides can act like an adjuvant in certain combinations and thus increase the risk of crop injury.

INSTIGATE™ may be tank mixed with CINCH® ATZ, CINCH® ATZ LITE, BREAKFREE® ATZ, or BREAKFREE® ATZ LITE postemergence to the corn, but special attention must be paid to adjuvant selection and/or application method. If any of these tank mixtures are used the user should leave the nitrogen based adjuvant (UAN or AMS) out of the mix.

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 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 these mixtures. Read and follow all applicable use directions, precautions, and limitations specified on the respective product labels, technical bulletins, fact sheets, and supplemental labels. Always follow the tank mix instructions of the product label that is most restrictive.

# **MIXING INSTRUCTIONS**

#### FERTILIZER CARRIER INSTRUCTIONS

INSTIGATE<sup>TM</sup> may be mixed with water or pre-slurried in water and added to liquid fertilizer (excluding suspension fertilizers) for preemergnce application. When using liquid fertilizer as the carrier, always pre-slurry INSTIGATE<sup>TM</sup> in water before adding fertilizer solutions. Add the INSTIGATE<sup>TM</sup> slurry to the final liquid fertilizer mixture - do not add INSTIGATE<sup>TM</sup> during the fertilizer mixing process. Always use good agitation while adding the INSTIGATE<sup>TM</sup> slurry to the liquid fertilizer. Maintain good agitation until sprayed.

When using liquid fertilizer as the carrier, conduct a compatability test with all the components prior to mixing.

Do not use with spray additives or liquid fertilizer carriers that alter the pH of the spray solution below pH 5.0 or above pH 9.0 as rapid degradation may occur. Spray solutions of pH 6.0-8.0 allow for optimum stability of INSTIGATE<sup>TM</sup>.

#### WATER CARRIER INSTRUCTIONS

- 1. Fill the tank 1/4 to 1/3 full of water.
- 2. While agitating, add the required amount of INSTIGATE<sup>TM</sup>.
- 3. Continue agitation until the INSTIGATE™ is fully dispersed, at least 5 minutes.
- 4. Once the INSTIGATE™ is fully dispersed, maintain agitation and continue filling tank with water. INSTIGATE™ should be thoroughly mixed with water before adding any other material.
- 5. As the tank is filling, add tank mix partners (if desired).
- 6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
- 7. Apply INSTIGATE™ spray mixture within 48 hours of mixing to avoid product degradation.

# TANK MIX COMPATIBILITY TESTING

Perform a jar test prior to tank mixing to ensure compatibility of INSTIGATE $^{\text{TM}}$  and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, gels, oily films or layers or other precipitates, it is not compatible and the tank mix combination must not be used.

#### **BROADCAST APPLICATION**

Avoid spray overlaps as excessive rates may result in adverse crop response.

Spray nozzle 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 pressure may be used with extended range or drift reduction nozzles.

Always ensue 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, re-suspend the spray solution by running on full agitation prior to spraying.

To minimize spray drift to non-target areas, apply this product using nozzles which deliver a coarse or larger spray droplet as defined by ASAE standard S-572 and as shown in nozzle manufacturer's catalogues. Keep the spray boom at the lowest possible spray height above the target surface. Refer to nozzle manufacturer's recommendations for proper nozzle, pressure setting and sprayer speed for optimum product performance and minimal spray drift. Use sprayers that provide accurate and uniform application.

Maintain adequate agitation at all times, including momentary stops.

#### **BAND APPLICATION**

For band applications, use proportionately less spray mixture. To avoid crop injury, carefully calibrate the band applicator to not exceed the labeled rate. Carefully follow the manufacturer's instructions for nozzle type (flat fans), orientation, and distance of nozzles from the crop and weeds, spray volumes, calibration and spray pressure.

#### RESTRICTIONS

Do not make more than 1 application of DuPont™ INSTIGATE™, per season.

Do not apply to corn grown for seed, popcorn, ornamental (Indian) corn, or sweet corn.

Do not apply another solo HPPD inhibitor postemergence herbicide ("Callisto", "Impact", "Laudis") to ground that has been treated with INSTIGATE $^{\text{TM}}$  in the same season.

Do not apply preemergence to coarse-textured soils (sand, loamy sand or sandy loam) with less than 1% organic matter.

Do not apply more than 3.85 ounces active ingredient of mesotrione in a growing season. This includes combinations of preemergence applications of INSTIGATE<sup>TM</sup>, as well as mesotrione from application(s) of products such as DuPont<sup>TM</sup> REALM® Q.

Do not apply more than a total of 1.0 ounce active ingredient rimsulfuron during the crop year. This includes combinations of preemergence applications of INSTIGATE<sup>TM</sup>, as well as rimsulfuron from application(s) of products such as DuPont<sup>TM</sup> BASIS® Blend, DuPont<sup>TM</sup> LEADOFF<sup>TM</sup>, DuPont<sup>TM</sup> PREQUEL®, DuPont<sup>TM</sup> RESOLVE® Q, REALM® Q or DuPont<sup>TM</sup> STEADFAST® O.

Always follow the tank mix instructions of the product label that is most restrictive.

Do not tank mix INSTIGATE™ with "Basagran" or severe crop injury may occur.

Do not tank mix INSTIGATE<sup>TM</sup> with foliar-applied organophosphate insecticides such as "Lorsban", malathion, parathion, etc, as severe crop injury may occur. To avoid crop injury or antagonism, apply these products at least seven days before or 3 days after the application of INSTIGATE<sup>TM</sup>.

Do not apply the organophosphate insecticide "Counter" within 60 days of a preemergence or preplant application of INSTIGATE<sup>TM</sup> since crop injury may result.

Do not apply INSTIGATE™ within 45 days of crop emergence where the organophosphate insecticide, "Counter" was applied as a treatment since crop injury may occur.

Do not irrigate INSTIGATE™ herbicide into coarse soils at planting time when soils are saturated.

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

Do not apply this product using aerial application equipment.

Do not apply with suspension fertilizers as the carrier, unless specifically addressed under one of the tank mix sections of this label or other product labels containing mesotrione, or injury may occur.

Do not graze, feed forage, grain or fodder (stover) from treated areas to livestock within 45 days of INSTIGATE™ application.

Injury or loss of desirable trees or vegetation may result from failure to observe the following:

- Do not apply INSTIGATE™ or drain or flush application equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Do not use on lawns, walks, driveways, tennis courts, or similar areas.
- Do not contaminate any body of water.

# **PRECAUTIONS**

Allow at least 4 weeks between preemergence application of INSTIGATE™ and postemergence applications of unsafened rimsulfuron-containing herbicides.

INSTIGATE<sup>TM</sup> herbicide may interact with certain insecticides previously applied to the crop. Crop response varies with field corn type, insecticide used, insecticide application method, and soil type.

Preplant/Preemergence applications of INSTIGATE<sup>TM</sup> to corn where an application of "Counter", "Lorsban", or "Thimet" is planned may cause unacceptable crop injury, especially on soils of less than 4% organic matter.

When weeds are stressed due to drought, hear, 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  $DuPont^{TM}$  INSTIGATE<sup>TM</sup> is made following label direction when weeds are actively growing. Prevent drift or spray onto desirable plants.

Thoroughly clean application equipment immediately after use. (See Sprayer Cleanup section of this label for instructions.).

#### **ROTATIONAL CROP GUIDELINES**

Rotational crops vary in their crop response to low concentrations of INSTIGATE<sup>TM</sup> remaining in the soil. The amount of INSTIGATE<sup>TM</sup> that may be present in the soil depends on soil moisture, soil temperature, application rate, elapsed time since application and other environmental factors. When INSTIGATE<sup>TM</sup> is used in combination with other products, always follow the most restrictive rotational crop requirements.

The following rotational intervals must be observed when using  $INSTIGATE^{TM}$ :

#### 5.25 - 7.0 OZ USE RATE

Rotation Crop	Interval (months)
Corn, field	Anytime
Cereals, Winter	4
Cereals, Spring	9
Alfalfa†	10
Canola†	10
Corn, pop, sweet, or seed	10
Cotton†	10
Flax	10
Potatoes	10
Sorghum†	10
Soybeans	10
Sunflower	10
Crops Not Listed	18

<sup>† 18</sup> months in the Red River Valley region of ND and MN. In all other areas, the rotation intervals should be extended to 18 months if drought conditions prevail after application and before the rotational crop is planted, unless sprinkler irrigation has been applied and totals greater than 15" during the growing season.

# SPRAYER PREPARATION/CLEANUP

It is important that spray equipment is clean and free of previous pesticide deposits before using INSTIGATE<sup>TM</sup> and then properly cleaned out following application. Clean all application equipment before applying INSTIGATE<sup>TM</sup>. Follow the cleanup procedures specified on the label of the product previously sprayed. If no cleanup procedure is provided, use the procedure that follows. Immediately following applications of INSTIGATE<sup>TM</sup>, thoroughly clean all mixing and spray equipment to avoid subsequent crop injury.

#### Note:

When cleaning spray equipment before applying INSTIGATE $^{\text{TM}}$ , read and follow label directions for proper rinsate disposal of the product previously sprayed.

When spraying or mixing equipment will be used over an extended period to apply multiple loads of INSTIGATE $^{\text{TM}}$ , partially fill the tank with fresh water at the end of each day of spraying, flush the boom and hoses, and allow to sit overnight.

#### **Cleanup Procedure**

- 1. Drain the tank and thoroughly hose down the interior surfaces. Flush the tank, hoses, and boom with clean water for a minimum of 5 min.
- 2. Partially fill the tank with clean water and add one gal of household ammonia (containing 3% active) for every 100 gal of water. Finish filling the tank with water, then flush the cleaning solution through the hoses, boom, and nozzles. Add more water to completely fill the tank and allow to agitate/recirculate for at least 15 min. Again, flush the hoses, boom, and nozzles with the cleaning solution, then drain the tank.
- 3. Repeat Step 2.
- 4. Remove the nozzles and screens and clean separately in a bucket containing the cleaning agent and water.
- 5. Thoroughly rinse the tank with clean water for a minimum of 5 min, flushing the water through the hoses and boom. Equivalent amounts of an alternate strength ammonia solution or a tank cleaner recommended in the DuPont bulletin "Sulfonylurea Herbicides, A Guide to Equipment Cleanout," may be used.

# **SPRAY DRIFT MANAGEMENT**

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator.

#### IMPORTANCE OF DROPLET SIZE

The most effective drift management strategy is to apply the largest droplets which are consistent with pest control objectives. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly or under unfavorable environmental conditions.

A droplet size classification system describes the range of droplet sizes produced by spray nozzles. The American Society of Agricultural and Biological Engineers (ASABE) provide a Standard that describes droplet size spectrum categories defined by a number of reference nozzles (fine, coarse, etc.). Droplet spectra resulting from the use of a specific nozzle may also be described in terms of volume mean diameter (VMD). Coarser droplet size spectra have larger VMD's and lower drift potential.

#### CONTROLLING DROPLET SIZE - GROUND APPLICATION

- Nozzle Type Select a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. The use of low-drift nozzles will reduce drift potential.
- Pressure The lowest spray pressures recommended for the nozzle produce the largest droplets. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, using a higher-capacity nozzle instead of increasing pressure results in the coarsest droplet spectrum.
- Flow Rate/Orifice Size Using the highest flow rate nozzles (largest orifice) that are consistent with pest control objectives reduces the potential for spray drift. Nozzles with higher rated flows produce coarser droplet spectra.
- •Boom Application Height Applications made at the lowest boom height consistent with pest control objectives, and that allow the applicator to keep the boom level with the application site and minimize bounce, will reduce the exposure of spray droplets to evaporation and wind, and reduce spray drift potential.

#### **WIND**

Drift potential is lowest when applications are made in light to gentle sustained winds (2-10 mph), which are blowing in a constant direction. Many factors, including droplet size and equipment type also determine drift potential at any given wind speed. AVOID GUSTY OR WINDLESS CONDITIONS.

Local terrain can also influence wind patterns. Every applicator is expected to be familiar with local wind patterns and how they affect spray drift.

#### TEMPERATURE AND HUMIDITY

Setting up equipment to produce larger droplets to compensate for droplet evaporation can reduce spray drift potential. Droplet evaporation is most severe when conditions are both hot and dry.

#### SURFACE TEMPERATURE INVERSIONS

Drift potential is high during a surface temperature inversion. Surface inversions restrict vertical air mixing, which may cause small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Surface inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Mist or fog may indicate the presence of an inversion. If neither is present, inversions can also be identified by the movement of smoke from a ground source or a smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are minimizing drift potential, and not interfering with uniform deposition of the product.

# AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, that it is configured properly, and that drift potential has been minimized.

Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Read the specific crop use and application equipment instructions to determine if an air assisted field crop sprayer can be used.

#### SENSITIVE AREAS

Making applications when there is a sustained wind moving away from adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is an effective way to minimize the effect of spray drift.

#### DRIFT CONTROL ADDITIVES

Using product compatible drift control additives can reduce drift potential. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the additive's label. If using an additive that increases viscosity, ensure that the nozzles and other application equipment will function properly with a viscous spray solution. Preferred drift control additives have been certified by the Chemical Producers and Distributors Association (CPDA).

#### INTEGRATED PEST MANAGEMENT

DuPont™ INSTIGATE™ 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.

This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

#### **RESISTANCE**

INSTIGATE™, which contains the active ingredients rimsulfuron and mesotrione, is both a Group 2 and a Group 27 herbicide based on the mode of action classification system of the Weed Science Society of America.

When herbicides with mode of action classifications that affect the same biological sites of action are used repeatedly over several years to control the same weed species in the same treatment area, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that area. Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different biological site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes, it may be necessary to change cultural practices (within and between crop seasons) such as (using a combination of tillage,) retreatment, tank-mix partners and/or sequential herbicide applications that affect a different site of action. Weed escapes that are allowed to go to seed, and movement of plant material between treatment areas on equipment will promote the spread of resistant biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative to determine appropriate actions for treating specific resistant weed biotypes in your area.

# STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store product in original container only. Store in a cool, dry place.

**Product Disposal:** Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Disposal: Refer to the Net Contents section of this product's labeling for the applicable "Refillable Container" or "Nonrefillable Container" designation.

Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds): Nonrefillable 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 or a mix tank. Fill the container 1/4 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, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds): Nonrefillable 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 or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners: Nonrefillable container. Do not reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer for recycling if available or dispose of empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Refillable Fiber Drums With Liners: Refillable container (fiber drum only). Refilling Fiber Drum: Refill this fiber drum with DuPont™ INSTIGATE™ herbicide containing rimsulfuron and mesotrione only. Do not reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Disposing of Fiber Drum and/or Liner: Do not reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

All Other Refillable Containers: Refillable container. Refilling Container: Refill this container with DuPont™ INSTIGATE™ containing rimsulfuron and mesotrione only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, do not use the container, contact DuPont at the number below for instructions. Check for leaks after refilling and before transporting. If leaks are found, do not reuse or transport container, contact DuPont at the number below for instructions. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Outer Foil Pouches of Water Soluble Packets (WSP): Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or, dispose of the empty outer foil pouch in the trash as long as WSP is unbroken. If the outer pouch contacts the formulated product in any way, the pouch must be triple rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer pouch as described previously.

Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact DuPont at 1-800-441-3637, day or night.

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