

71368-62 4-3-2009

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Mathew Granahan
Registration Manager
Nufarm Americas Inc.
150 Harvester Drive, Suite 200
Burr Ridge, IL 60527

APR 3 2009

Subject: Label Notification(s) for Pesticide Registration Notice 2007-4 and 98-10
- Updated warranty statement

Dear Mr. Granahan:

The Agency is in receipt of your Application(s) for Pesticide Notification under Pesticide Registration Notices (PRN) 2007-4 and 98-10 dated March 4, 2009 for:

EPA Registration 71368-62 Assert Herbicide

The Registration Division (RD) has conducted a review of the request(s) for applicability under 2007-4 and 98-10 and finds that the label changes requested fall within the scope of 2007-4 and 98-10. The label has been date-stamped "Notification" and will be placed in our records.

Please be reminded that 40 CFR Part 156.140(a)(4) requires that a batch code, lot number, or other code identify the batch of the pesticide distributed and sold be placed on nonrefillable containers. The code may appear either on the label (and can be added by non-notification/PR Notice 98-10) or durably marked on the container itself.

If you have any questions, please contact me directly at 703-305-6249 or Nicole Williams of my staff at 703-308-5551.

Sincerely,

Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs

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Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060

	United States Environmental Protection Agency Washington, DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number
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Application for Pesticide - Section I

1. Company/Product Number 71368-62	2. EPA Product Manager Jim Tompkins	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Assert Herbicide	PM# 25	
5. Name and Address of Applicant (Include ZIP Code) Nufarm, Inc. 150 Harvester Drive, Suite 200 Burr Ridge, IL 60527 <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: <div style="text-align: center; font-weight: bold; font-size: 1.2em;">NOTIFICATION</div> EPA Reg. No. _____ <div style="text-align: center; font-size: 1.2em;">APR 03 2009</div> Product Name _____

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification of label change per PR Notice 2007-4 and PR Notice 1998-10. This notification is consistent with the guidance in PR Notice 2007-4 and PR Notice 1998-10 and the requirements of EPA's regulations at 40 CFR §§ 156.10, 156.140, 156.144, 156.146, and 156.156. No other changes have been made to the labeling or the Confidential Statement of Formula for this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if the amended label is not consistent with the requirements of PR Notice 1998-10 and 40 CFR §§ 156.10, 156.140, 156.144, 156.146, and 156.156, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt	No. per container
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input checked="" type="checkbox"/> Container		4. Size(s) Retail Container 2 1/2, 5, 30, 55, 110, 220 gal, Bulk		5. Location of Label Directions <input checked="" type="checkbox"/>	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input checked="" type="checkbox"/> Stenciled			<input checked="" type="checkbox"/> Other Self-Adhesive Integrated Label/Booklet		

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name matthew.granahan@us.nufarm.com	Title Registration Manager	Telephone No. (include Area Code) (630) 455-2048
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature 		
3. Title Registration Manager		
4. Typed Name Matthew Granahan		5. Date 03/19/09



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Nufarm Americas Inc.

150 Harvester Drive, Suite 200

Burr Ridge, IL 60527

Telephone: (630) 455.2000 Facsimile: (630) 455.2001

www.us.nufarm.com

March 4, 2009

U. S. Environmental Protection Agency (7504P)
Document Processing Desk (NOTIF)
Room S4900, One Potomac Yard
2777 S. Crystal Drive
Arlington, VA 22202

**Subject: Assert Herbicide
EPA REG. No. 71368-62
Label Notification per PR 98-10 & PR 07-04**

Dear Ms. Hobgood:

Nufarm Americas Inc. would like to add language to subject product's label. The proposed language is consistent with PR Notice 98-10, Section II (labeling notifications) and PR Notice 2007-04. We have updated the warranty and the Storage and Disposal Section of referenced label.

To process this request please find enclosed the following:

- Application for Pesticide Registration EPA form 8570-1
- Revised labeling with areas of change clearly identified (1 copy)
- Revised labeling – clean (1 copy)

If you should have any questions regarding this matter, please feel free to contact at matthew.granahan@us.nufarm.com or at (630) 455-2048.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Granahan', is written over a horizontal line.

Matthew Granahan
Registration Manager
Nufarm, Inc.

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ASSERT®

HERBICIDE

FOR USE IN WHEAT (INCLUDING DURUM) AND BARLEY

ACTIVE INGREDIENT:

Imazamethabenz-methyl m-Toluic acid, 6-(4-isopropyl-4-methyl-5-oxo-2-imidazolin-2-yl)-, methyl ester and
p-Toluic acid, 2-(4-isopropyl-4-methyl-5-oxo-2-imidazolin-2-yl)-, methyl ester

27.0%

OTHER INGREDIENTS:

73.0%

TOTAL: 100.0%

One gallon contains 2.5 lbs of active ingredient.

**KEEP OUT OF REACH OF CHILDREN
DANGER / PELIGRO**

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.)

SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300
For Medical Emergencies Only, Call (877) 325-1840

NOTIFICATION

APR 03 2009

EPA REG. NO. 71368-62
EPA EST. NO. 228-IL-1

Manufactured For
NUFARM INC.
150 Harvester Drive
Burr Ridge, IL 60527



NET CONTENTS: GAL: (L)

071368-00062.20090106.EPA.Notification

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FIRST AID	
IF IN EYES	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 to 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 SWALLOWED	<ul style="list-style-type: none"> • 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.
IF ON SKIN	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.</p>	
NOTE TO PHYSICIAN	
<p>Probable mucosal damage may contraindicate the use of gastric lavage.</p>	

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER / PELIGRO**

Corrosive. Causes irreversible eye damage. **DO NOT get in eyes or on clothing.** Wear protective eyewear such as goggles, face shield, or safety glasses. Harmful if swallowed. Avoid contact with skin and clothing. Avoid breathing vapor or spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

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

Applicators and other handlers must wear:

- long-sleeved shirt and long pants
- chemical-resistant gloves, such as barrier laminate or butyl rubber ≥ 14 mils
- shoes plus socks
- protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

USER SAFETY RECOMMENDATIONS
<p>Users Should:</p> <ul style="list-style-type: none"> • Wash hands before eating, drinking chewing gum, using tobacco, or using the toilet. • Remove clothing 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, or 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.

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 responsible for pesticide regulation.

This product should be used only in accordance with recommendations on this label.

DO NOT apply this product through any type of irrigation system.

Observe all cautions and limitations on this label and on the labels of products used in combination with this product. User assumes all risks associated with such non-recommended use. Keep container closed to avoid spills and contamination.

AGRICULTURAL USE REQUIREMENTS

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

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 hours.

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

- coveralls
- chemical-resistant gloves, such as barrier laminate or butyl rubber ≥ 14 mils
- shoes plus socks
- protective eyewear

GENERAL INFORMATION

Use of this product in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible.

Following the use of this product and chemically related products with the same mode of action, naturally occurring biotypes* of some of the weeds listed on this label cannot be effectively controlled by this and related products. This product should be tank mixed or applied sequentially with an appropriate registered herbicide having a different mode of action to ensure control of resistant biotypes.

* A weed biotype is a naturally occurring individual within a given species that has a slightly different, but distinct genetic makeup from other individuals.

See your local Nufarm representative for more information.

CALIFORNIA ROTATIONAL CROP GUIDELINE

The following rotational crops may be planted the season after applying this product at the recommended rate: (Applying earlier than the recommended interval may result in crop injury.)

1. Season after application:

Barley, Corn, Edible Beans, Safflower, Soybean, Sunflowers, Wheat

2. 18 months after application:

Alfalfa, Potatoes

3. 40 months after application:

All crops not listed elsewhere in this CALIFORNIA ROTATIONAL CROP GUIDELINE**

**Following forty months after an application, and before planting any crop not listed elsewhere in the CA Rotational Crop Guideline, a successful field bioassay must be completed. The field bioassay consists of a test strip of the intended rotational crop planted across the previously treated field and grown to maturity. The test strip should include low areas and knolls, and include variations in soil such as type and pH. If no crop injury is evident in the test strip, the intended rotational crop may be planted the following year.

If this product is used on a field treated during the same year with another herbicide with an ALS-inhibiting mode of action (such as Glean[®]), follow the most restrictive precautions, directions and recropping/rotation limitations that appear on the respective product labels.

Use of this product in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible.

DO NOT plant rotational crops in spray overlap areas, as follow crop injury may occur. The end user assumes all risks and consequences resulting from sprayer overlaps from applications.

MIXING INSTRUCTIONS

MIX ONLY WITH SURFACTANTS, ADJUVANTS, AND CROP OILS THAT ARE CLEARED FOR APPLICATION TO GROWING CROPS.

A NON-IONIC SURFACTANT CONTAINING AT LEAST 80% ACTIVE INGREDIENT MUST BE USED WITH THIS PRODUCT.

When using this product alone:

1. Fill spray tank to one-half to two-thirds full with clean water.
2. Start vigorous agitation that thoroughly mixes the entire tank, including the tank bottom.
3. Add this product to the partially filled tank while continuing agitation.

4. When this product is thoroughly mixed, add the non-ionic surfactant (NIS) to the tank at a rate of 2 pints surfactant per 100 gallons of final spray solution, and fill remainder of tank with clean water.

When tank mixing this product with **AVENGE®** wild oat herbicide or **other labeled tank mix partner(s)**:

1. Fill the spray tank two-thirds full with clean water.
2. Add the tank mix partner herbicide(s) to the spray tank first while agitating the solution. Add the broadleaf herbicide partner(s) before adding AVENGE wild oat herbicide when using this product/AVENGE tank mix.

NOTE: TO PREVENT MIXING PROBLEMS, TANK MIX PARTNERS MUST BE THOROUGHLY MIXED BEFORE ADDING THIS PRODUCT.

3. After the herbicide solution is thoroughly mixed, add this product to the partially filled tank while continuing agitation.
4. After this product is thoroughly mixed with the tank mix partners, add the NIS at a rate of 2 pints per 100 gallons final spray solution.

When using this product alone or tank mixing with **labeled tank mix partner(s)**:

5. A crop oil concentrate, such as SUN-IT II™, at a rate of 2 pints per acre may be added in conditions warrant (see **HOW TO USE THIS PRODUCT PLUS SUN-IT II SPRAY ADJUVANT or other crop oil in wheat and barley** below).
6. An anti-foaming agent and drift retardant may be added last if necessary.
7. Completely fill the tank with water while continuing agitation.
8. Maintain continuous agitation until spraying is completed.

DO NOT use a surfactant that also acts as a buffering agent, or this product may precipitate. If a precipitate forms due to incompatible tank mix partners, contact your Nufarm representative. If test of clean water supply indicates that a precipitate forms due to highly-buffered alkaline or hard water, precondition your water with sodium bisulfate. Contact your Nufarm representative for instructions.

HOW TO USE THIS PRODUCT PLUS SUN-IT II™ spray adjuvant or other crop oil in wheat and barley:

SUN-IT II spray adjuvant* may be used instead of a non-ionic surfactant or instead of a non-ionic surfactant plus crop oil in tank mix with an application of this product. When using a crop oil, or petroleum or vegetable-based crop oil (e.g. methylated seed oil, ethylated seed oil) as an adjuvant, it is required to also add an approved non-ionic surfactant (NIS) to the tank **unless** the adjuvant contains a NIS at a concentration which will give a final spray concentration of at least 0.25% NIS.

Use SUN-IT II at the rate of 1.5 to 2.0 pints per acre. Use the higher rate when weeds are at the maximum label size or under stress. SUN-IT II is recommended when weeds are under moisture or temperature stress. When using this product with a non-phosphorous liquid fertilizer, follow instructions on this product's label for the compatibility test of SUN-IT II. When tank mixing this product with a labeled herbicide tank mix partner, determine whether SUN-IT II spray adjuvant (crop oil) is approved on that tank mix partner label.

***DO NOT** tank mix this product with any product not registered in specific states of intended use.

THIS PRODUCT/AVENGE® TANK MIX FOR WILD OAT CONTROL

This product may be tank mixed with AVENGE wild oat herbicide for the control of **wild oats** only. Follow all varietal restrictions present on the AVENGE label. This product should be mixed at a rate of 3/4 pints per acre with AVENGE at 2 pints per acre.

This mixture can be applied from the 2 to 5 true leaf (7 total leaves including tillers) stage of wild oats. **DO NOT** apply this tank mix when the wheat/barley flagleaf is exposed. The tank mix should be applied in a minimum of 10 gallons of water per acre (gpa) by ground equipment and in 5 or more gpa by aircraft. **FOR WILD OAT POPULATIONS IN EXCESS OF 25 PLANTS PER SQUARE FOOT, USE A MINIMUM SPRAY VOLUME OF 15 GALLONS PER ACRE BY GROUND OR 5 GALLONS PER ACRE BY AERIAL APPLICATION.** Use a non-ionic surfactant containing at least 80% active ingredient at a rate of 2 pints per 100 gallons spray solution up to an application rate of 15 gpa. For application rates greater than 15 gpa consult the SURFACTANT ADDITION TABLE below for surfactant requirements.

SURFACTANT ADDITION TABLE

Gallons Per Acre	Surfactant Required Per 100 Gallons (pints)
≤ 10	0
15	2
20	4

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HERBICIDE COMBINATIONS

Mixtures of this product and one or more of the following broadleaf herbicides may be tank mixed to obtain maximum wild oat and broadleaf control:

Weedone LV4 EC	Express [®]	Rhonox
Purestand	Finesse [®]	Peak [®]
Amber [®]	Glean [®]	Starane [®]
Maestro MA	Harmony Extra [®]	Starane [®] + Salvo [®]
Canvas [®]	Harmony [®]	Starane [®] + Sword [®]
Curtail M [®]		

NOTE: DO NOT tank mix this product with any product not registered in specific states of intended use. Follow the most restrictive precautions, directions and recropping/rotation limitations that appear on the respective product labels. Tank mixtures must be applied prior to the development of the first internode (jointing) of the crop.

DO NOT tank mix this product with 2,4-D ester unless the crop is fully tillered.

DO NOT tank mix this product with Banvel[®], any product containing dicamba[®], MCPA amine, or 2,4-D amine formulations. A waiting period of 4 days should be observed before applying any herbicide not listed as a tank mix partner.

APPLICATIONS WITH LIQUID FERTILIZERS

GENERAL

This product can be applied with a non-phosphorus liquid fertilizer such as 28-0-0. Non-phosphorus liquid fertilizers can be applied with this product alone or in combination with Rhonox[®], 2,4-D ester[®], or Maestro MA[®] (Bronate[®]) to wheat and barley. Follow all of this product's label recommendations regarding timing of application, special instructions and precautions. Apply this product/non-phosphorus liquid fertilizer combination with a minimum of 10 gallons per acre with ground equipment or a minimum of 5 gallons of spray solution per acre with aircraft.

NOTE: Herbicides can increase contact burn of fertilizers on plant foliage. Reduced gallons of fertilizer per acre may decrease leaf burn. **DO NOT** allow this product to remain overnight in a liquid fertilizer solution.

All individual state regulations relating to fluid fertilizer mixing, registration, labeling and application are the responsibility of the individual and/or company selling this product/liquid fertilizer mixture.

LIQUID FERTILIZER COMPATIBILITY DETERMINATIONS

If a liquid fertilizer and herbicide(s) mixture separates in the spray tank, clogged equipment and uneven application can result, which can cause poor weed control and crop injury. Always predetermine the compatibility of this product alone or with other herbicides in the specific liquid fertilizer to be used according to the following directions:

1. Add 1 pint of liquid fertilizer to each of 2 one-quart jars.
2. Add 1/2 teaspoon of adjuvant to one jar.
3. (a) When using this product alone, add to each jar the correct amount of this product as specified in the table below.
(b) When using this product in a tank mixture, first add the specified quantity of MCPA ester, 2,4-D ester, or Bromoxynil + MCPA ester and then add the correct amount of this product.
4. Close both jars and shake thoroughly for 10 seconds. Let them stand for 30 minutes and then observe the results. Look for signs of separation, an oily layer or globules, sludge, flakes or other precipitates.
5. Determine compatibility:
 - (a) If the mixture without adjuvant does not separate, use this mixture in your spray tank.
 - (b) If the mixture with adjuvant does not separate, but the one without adjuvant separates, use the adjuvant mixture in your spray tank. Add the adjuvant to the liquid fertilizer as directed on the manufacturer's label.
 - (c) If either mixture separates, but mixes readily with shaking, the mixture can be used provided good agitation is maintained in the spray tank.
 - (d) If separation of the mixture occurs, and agitation and/or adjuvant does not correct this problem, **DO NOT** use the herbicide(s) in that specific liquid fertilizer.

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TEASPOONS OF SPECIFIC HERBICIDE TO BE ADDED TO 1 PINT OF LIQUID FERTILIZER SOLUTION

Gallons of Liquid Fertilizer Plus Water to be Applied per Acre	Assert	MCPA ester	2,4-D ester	Bronate
5	3	2	2	2
10	1-1/2	1	1	1
15	3/4	1/2	1/2	1/2

APPLICATION INSTRUCTIONS

The spray equipment must be clean and properly calibrated before treatments are applied. For best results, use flat fan nozzles, and a pressure of 20 to 40 psi to achieve uniform spray distribution and minimize drift. A drift retardant agent may be added to the tank if needed. **DO NOT** use flood jet nozzles. Keep the by-pass line on or near the bottom of the tank to minimize foaming.

GROUND APPLICATION

Uniformly apply the recommended amount of this product or this product's tank mixture in a minimum of 10 gallons of water per acre with ground equipment. **FOR HIGH POPULATIONS OF WILD OATS (IN EXCESS OF 25 PLANTS PER SQUARE FOOT), USE A MINIMUM SPRAY VOLUME OF 15 GALLONS PER ACRE BY GROUND.**

AERIAL APPLICATION

DO NOT make aerial applications of this product in states where aerial applications of this product are not specifically registered.

Uniformly apply with a minimum of 5 gallons of spray solution per acre by aircraft for all levels of wild oat populations.

During aerial applications, a flagman should be located at each end of the field, or attach an automatic mechanical flagging unit to the aircraft to ensure uniform application. **DO NOT** overlap spray by aerial or ground application.

THOROUGH UNIFORM SPRAY COVERAGE IS REQUIRED TO MAXIMIZE WEED CONTROL.

Avoid overlapping, and shut off spray booms while starting, turning, slowing or stopping, or injury to the crop or a rotational crop could result. **DO NOT** allow spray to drift onto adjacent crops as injury may occur. For optimum weed control, this product must absorb into plant leaves for 3 hours prior to overhead irrigation or rainfall.

DO NOT apply this product when freezing temperatures have occurred or are forecast. Allow at least 2 days of non-freezing temperatures before and after application of this product or reduced weed control may occur.

For optimum weed control under cool conditions, it is recommended to apply this product using the following additional instructions:

- 1) Use a minimum spray volume of 15 gallons per acre by ground or 5 gallons per acre by aerial application.
- 2) Use the maximum rate of this product within a rate range.
- 3) Use SUN-IT II or non-ionic surfactant plus crop oil concentrate.

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift management from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversion section of this label).

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 – Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy protection. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

- **Number of Nozzles** – Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** – Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.
- **Boom Length** – For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application** – Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

SWATH ADJUSTMENT

When applications are made with a cross-wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

WIND

Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

TEMPERATURE INVERSIONS

Applications should not occur during a temperature inversion, because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves literally in a connected cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

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, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

IMPORTANT

DO NOT make more than one application of this product per growing season. **DO NOT** graze treated fields or cut treated forage for silage or hay. Wheat and barley straw may be fed or used for bedding.

FOLLOW CROP RESTRICTIONS

The following rotational crops may be planted the season after applying this product at recommended rates in wheat and barley:

- Soybean
- Corn
- Edible beans
- Sunflowers
- Safflower
- Wheat
- Barley

If this product and Glean®, this product and Ally®, this product and Canvas®, this product and Peak® or this product and Finesse® are applied together in any type of tank mix during the same year, follow the most restrictive precautions, directions and recropping/rotation limitations that appear on the respective product labels.

DO NOT plant sugar beets for at least 20 months following an application of this product. **DO NOT** plant other rotational crops than those listed above for 15 months following an application of this product.

Use of this product in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible.

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**WHEAT AND BARLEY
GENERAL INFORMATION**

This product is a selective herbicide for the postemergence control of wild oats, roughstalk bluegrass, interrupted windgrass, and certain broadleaved weeds in wheat and barley. Apply this product postemergence to wheat (including durum) and barley from the 2 leaf stage of the crop, but before development of the first internode (jointing). **DO NOT** apply this product when freezing temperatures have occurred or are forecast. Allow at least 2 days of non-freezing temperatures before and after application of this product or reduced weed control may occur.

Wild oats will be controlled with this product if applied when wild oats are in the 1 to 4 true leaf (6 total leaves including tillers) stage.

If unfavorable growing conditions exist, this product may cause slight discoloration and delayed growth of durum wheat. The crop will recover under normal growing conditions and yields will not be affected.

This product alone or in combination can be applied by ground equipment or aircraft.

Maximum weed control with this product alone or in combination is obtained when temperature, moisture, fertility and cultural practices provide favorable conditions for active plant growth. **THOROUGH UNIFORM SPRAY COVERAGE IS REQUIRED TO MAXIMIZE WEED CONTROL. FOR HIGH POPULATIONS OF WILD OATS (IN EXCESS OF 25 PLANTS PER SQUARE FOOT), USE A MINIMUM SPRAY VOLUME OF 15 GALLONS PER ACRE BY GROUND OR 5 GALLONS PER ACRE BY AERIAL APPLICATION.**

This product rapidly inhibits growth of susceptible weeds; however, typical symptoms (discoloration) of dying weeds may not be noticeable until 2 to 4 weeks after application. Weeds hardened by cold weather or drought stress may not be fully controlled and regrowth may occur; increase spray solution (gallons per acre) and surfactant under these conditions.

RATES AND TIMING FOR WEED CONTROL IN WHEAT AND BARLEY

WEEDS	Application Leaf Stage	STATES			
		MN, ND & SD	MT & WY	So. ID, CO & UT	CA, WA, OR, & No. ID
		pints/acre			
GRASSES:					
WILD OATS	1 - 4	1.0 - 1.5 ^a	1.2 - 1.5	1.3 - 1.5	1.5 ^{bf}
Roughstalk bluegrass	1 - 4	1.2	1.5	1.5	1.5
Interrupted windgrass	2 - 4	—	—	—	1.5
BROADLEAVES:					
Wild mustard	1 - 6	1.0	1.2	1.3	1.5
London rocket	1 - 6	1.0	1.2	1.3	1.5
Field pennycress	1 - 4	1.2	1.5	1.5	1.5
Flixweed	1 - 4	1.2	1.5	1.5	1.5
Tansymustard	1 - 6	1.2	1.5	1.5	1.5
Catchweed bedstraw ^c	1 - 3	1.5	1.5	1.5	1.5
Tartary buckwheat ^c	1 - 3	1.5	1.5	1.5	1.5
Wild buckwheat ^d	1 - 3	1.2	1.2	1.2	1.2

^a When two or more weed species are present, use the recommended rate to control the more difficult to control weed. When a rate range is possible, use the higher rate when weed density is high and/or weeds are large.

^b In eastern Washington and Northern Idaho a rate of 1.3 to 1.5 pints/acre of this product may be applied to spring wheat or barley growing under favorable conditions.

^c When this product is applied up to the 3 leaf stage, plants stop growing, resulting in a non-competitive plant.

^d When this product is applied at a rate of 1.2 pints/acre, it will provide suppression of wild buckwheat.

^e In MN, ND, and SD when wild oats are 3 leaves (4 total leaves including tillers) or greater and populations are in excess of 25 plants per square foot, use the highest label rate of 1.5 pints/acre.

^f In CA when wild oats are in the 1-4 true leaf stage.

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NOTE: Proper timing of Assert application is critical for effective weed control. Grazing wheat or barley prior to treatment can result in improper staging of wild oat populations, which, in turn, can result in poor or erratic weed control. Grazing wheat or barley prior to Assert application is not recommended.

FOR USE IN WHEAT, BARLEY

WEED SPECIES NAMES	
Common Name	Scientific Name
Wild oats	<i>Avena fatua</i>
Roughstalk bluegrass	<i>Poa trivialis</i>
Interrupted windgrass	<i>Apera interrupta</i>
Wild mustard	<i>Brassica kaber</i>
London rocket	<i>Sisymbrium irio</i>
Field pennycress, Fanweed	<i>Thlaspi arvense</i>
Flixweed	<i>Descurainia sophia</i>
Tansymustard	<i>Descurainia pinnata</i>
Catchweed bedstraw	<i>Galium aparine</i>
Tartary buckwheat	<i>Fagopyrum tataricum</i>
Wild buckwheat	<i>Polygonum convolvulus</i>

SUNFLOWER

(For Distribution and Use In Minnesota, North Dakota, and South Dakota)

GENERAL INFORMATION

This product is a selective herbicide for the post-emergence control of wild mustard in sunflowers. APPLY THIS PRODUCT POST-EMERGENCE TO SUNFLOWERS NOT UNDER DROUGHT/HEAT STRESS, FROM THE 2- TO 8-LEAF STAGE OF GROWTH (SUNFLOWERS MUST BE LESS THAN 15 INCHES HIGH). Maximum weed control with this product is obtained when temperature, moisture, fertility and cultural practices provide favorable conditions for active plant growth. UNIFORM SPRAY COVERAGE IS REQUIRED FOR MAXIMUM WEED CONTROL AND REDUCED INJURY POTENTIAL.

Before applying this product to sunflowers, thoroughly rinse and empty the spray tank of any herbicide containing solution. Then, wash all lines prior to adding this product to the tank. Herbicide residues remaining in the spray tank can injure sunflowers at extremely low concentrations.

Nufarm does not recommend tank mixing this product with herbicides or insecticides when used on sunflowers.

WEED CONTROL:

Wild mustard (*Brassica kaber*)

TIMING AND RATES OF APPLICATION:

For optimum wild mustard control apply this product at 0.6 to 0.8 pints per acre (9.6 to 12.8 fl. oz/acre) when the majority of wild mustard plants are in the rosette stage and prior to bloom.

CANOLA FOLLOW CROP

(Not for use in California)

CLEARFIELD® (imidazolinone tolerant) varieties of canola, such as Pioneer 45A71 and Pioneer 46A72, may be planted as a rotational crop the season after an application of this product at label rates on wheat, barley and sunflowers.

Non-CLEARFIELD (non-imidazolinone tolerant) canola may be planted as a rotational crop the season after an application of this product at the 1 pint rate on wheat, barley, and sunflowers in the counties of Pembina, Cavalier, Ramsey, Walsh, Towner and Rolette in North Dakota and the counties of Kittson, Marshall, Roseau, Pennington, and Red Lake in Minnesota.

The following rotational crops may be planted the season after applying this product at recommended rates in wheat, barley, and sunflowers:

- | | | |
|--------------|-----------|-----------|
| Barley | Safflower | Sunflower |
| Corn | Soybeans | Wheat |
| Edible Beans | | |

If this product is used on a field treated during the same year with Ally¹, Amber², Canvas¹, Express¹, Finesse¹, Glean¹, Harmony¹, Extra or Peak², follow the most restrictive precautions, directions and recropping/rotation limitations that appear on the respective product labels.

Excessive moisture, drought and/or cold temperatures may affect the performance of this product as well as the residual effect on rotational crops. **DO NOT** plant rotational crops in spray overlap areas, as follow crop injury may occur. The end user assumes all risks and consequences resulting from sprayer overlaps from ground and aerial applications.

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Keep from freezing. **DO NOT STORE BELOW 40°F (5°C).** Ice will form in the container at 5°F (-15°C). If ice occurs from prolonged storage at temperatures of 5°F (-15°C) or below, place container at room temperature until ice melts. Stability of this product is not affected by freezing and thawing.

Store this product only in original container.

DO NOT mix or store in unlined containers.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL:

[Nonrefillable Containers 5 Gallons or Less:] 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 and drain for 10 seconds after the flow begins to drip. 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 offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

[Nonrefillable Containers Larger than 5 Gallons:] Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse or pressure 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. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

[Refillable Container Larger than 5 Gallons:] Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.



WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.



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If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

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USES WITH OTHER PRODUCTS (TANK MIXES)

If this product is used in combination with any other product except as specifically recommended in writing by Nufarm, then Nufarm shall have no liability for any loss, damage, or injury arising out of its use in any such combination not so specifically recommended. If used in a combination recommended by Nufarm, the liability of Nufarm shall in no manner extend to any damage, loss or injury not directly caused by the inclusion of the Nufarm product in such combination use, and in any event shall be limited to return of the amount of the purchase price of the product.

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