



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

MAY 26 2009

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Diego Fonseca
Dow AgroSciences LLC
9330 Zionsville Road
Indianapolis, IN 46268

Subject: Organic Arsenicals Label Amendment
Product Names; EPA Reg. Nos.
MSMA 6.6; 62719-339
MSMA Plus "S"; 62719-340
MSMA 51%; 62719-343
Applications Dated: March 5, 2009

Dear Mr. Fonseca:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable, provided you make the following changes before you release the product for shipment.

1. Fill in the bracketed sections of the PPE statement with specific material information appropriate for these products.
2. The First Aid heading, "If on Skin" must be revised to "If on Skin or Clothing."
3. Remove the following statement from the 'Weeds Controlled' section as it no longer applies to these labels with the deleted uses: "See Golf Course and Turf Uses for weeds controlled in those sites."
4. Remove all pre-emergence applications to cotton (e.g. Postplant preemergence up to cracking of soil just before cotton emergence) as only post-emergence applications are permitted.
5. Revise the Container Disposal directions in accordance with PR Notice 2007-4.

Continued on Page 2

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Organic Arsenicals Label Amendment

MSMA 6.6; 62719-339

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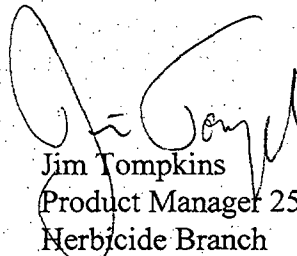
MSMA 51%; 62719-343

Submit the following confirmatory data to support the use of MSMA on cotton no later than August 30, 2010:

- a. Magnitude of the residue in meat and milk (Guideline 860.1480)
 - i. Registrants must develop confirmatory data that demonstrate no detectable residues of inorganic arsenic will be found in the edible tissues and milk of cows consuming cotton feed items treated with MSMA. Data may be developed in a tiered fashion.
- b. Field rotational crop study (Guideline 860.1900)
 - i. Registrants must provide data demonstrating no residues of inorganic arsenic in food crops (peanuts) that are rotated with cotton. This requirement may be satisfied with data from the open literature or a new study conducted in accordance with Guideline 860.1900.

A stamped copy of your labeling is enclosed for your records. You must submit one (1) copy of the final printed label before you release the product for shipment. Products shipped after the next printing must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions. Amended labeling will supercede all previously accepted ones.

Sincerely,



Jim Tompkins
Product Manager 25
Herbicide Branch
Registration Division (7505P)

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ACCEPTED
with COMMENT
in EPA Letter Dated
MAY 26 2009

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

62719-340

(Base Label):

MSMA Plus "S"

MSMA plus surfactant for selective post-emergence weed control

Active Ingredient:

Monosodium Acid Methanearsonate.....	47.8%
Inert Ingredients	52.2%
Total	100.0%

Total arsenic (as elemental) all in water-soluble form 22.1%.
Product contains 6 pounds of MSMA per gallon

Keep Out of Reach of Children

CAUTION PRECAUCION

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

Precautionary Statements

Hazards to Humans and Domestic Animals

Causes Moderate Eye Irritation • Harmful If Swallowed, Inhaled, Or Absorbed Through Skin

Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are [registrant inserts correct chemical-resistant material]. If you want more options, follow the instructions for category [registrant inserts A, B, C, D, E, F, G, or H] on an EPA chemical-resistance category selection chart.

All mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks, and
- Chemical-resistant gloves

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls

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

User Safety Recommendations

Users should:

- 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.

E-SUBMISSION

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First Aid

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

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

If on skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. *Add Contact # for Emergency treatment advise*

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 apply when weather conditions favor drift from target area. Do not contaminate water when disposing of equipment washwaters. Do not contaminate waters used for domestic consumption or by animals, wildlife, and aquatic life, or water for irrigation purposes. Do not feed treated foliage to livestock or graze treated areas.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for Directions for Use including Storage and Disposal.

Notice: Read the entire label. Use only according to label directions. **Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies".**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-340

EPA Est. _____

Dow AgroSciences LLC • Indianapolis, IN 46268

Herbicide

Net Contents _____

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(cover)

MSMA Plus "S"

MSMA plus surfactant for selective post-emergence weed control

Active Ingredient:	
Monosodium Acid Methanearsonate.....	47.8%
Inert Ingredients	<u>52.2%</u>
Total	100.0%

Total arsenic (as elemental) all in water-soluble form 22.1%
Product contains 6 pounds of MSMA per gallon

Keep Out of Reach of Children

CAUTION PRECAUCION

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

Refer to label booklet for additional precautionary information including Personal Protective Equipment (PPE), User Safety Recommendations and Directions for Use including Storage and Disposal.

Notice: Read the entire label. Use only according to label directions. **Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" inside label booklet.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

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Herbicide

Net Contents _____

(Page 1 through end):

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION

Causes Moderate Eye Irritation • Harmful If Swallowed, Inhaled, Or Absorbed Through Skin

Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are [registrant inserts correct chemical-resistant material]. If you want more options, follow the instructions for category [registrant inserts A, B, C, D, E, F, G, or H] on an EPA chemical-resistance category selection chart.

All mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks, and
- Chemical-resistant gloves

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls

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

User Safety Recommendations

Users should:

- 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.

First Aid

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

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

If on skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

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Environmental Hazards - sprays ok

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 apply when weather conditions favor drift from target area.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

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

Agricultural Use Requirements

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

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep unprotected persons and domestic animals out of treated areas until sprays have dried.

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PR Notice
update w/ 2007-4

Storage and Disposal

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

Storage: Store in a dry location away from children, animals, foods, feeds, seeds, or other agricultural chemicals. Handle in accordance with information given under Precautionary Statements. In the event of spillage or leakage, soak up material with absorbent clay, sand, sawdust, or other absorbent material. Scrape up and dispose of in accordance with information given under Disposal. Repackage and re-label usable product in a sound container.

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

Container Disposal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

GENERAL INFORMATION

MSMA Plus "S" herbicide is a selective post-emergent product for weed control in cotton. This product is a combination of herbicide and surfactant. It is not necessary to add a surfactant to the spray solution when applying this product. Local conditions and recommendations vary. Consult local agricultural experiment station or extension service weed specialists for recommendations in your area.

Best results are obtained on young, actively growing weeds at air temperatures above 70°F.

Do not contaminate water when disposing of equipment washwaters. Do not contaminate waters used for domestic consumption or by animals, wildlife, and aquatic life, or water for irrigation purposes. Do not feed treated foliage to livestock or graze treated areas.

Chemigation: Do not use this product through any type of irrigation system.

Do not apply this product in Florida except on cotton in the counties listed in the cotton use section of the label.

Aerial application is prohibited, except when applying to cotton

Mixing Instructions

MSMA Plus "S" must be thoroughly mixed. Fill the spray equipment reservoir with about half the required amount of water and, with the pump or agitator operating add the required amount of herbicide and continue filling the reservoir with the balance of the water and apply. After use, clean equipment thoroughly by flushing with water. Do not store spray solution in tanks for a prolonged period.

Aerial 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 movement 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 outer most nozzles on the boom must not exceed $\frac{3}{4}$ 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 following **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 penetration. 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 $\frac{3}{4}$ 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 2-10 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

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begin to form as the sun sets and often continue into the 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 laterally 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).

Weeds Controlled

A partial list of weeds controlled includes:

bahiagrass	goosegrass
barnyardgrass	johnsongrass
brachiaria spp.	morningglory
bullnettle	nutsedge
chickweed	pigweed
cocklebur [†]	puncturevine
crabgrass (smooth and large)	ragweed
dallisgrass	sandbur
foxtail (green and yellow)	watergrass
	wood sorrel

[†] Arsenical resistant varieties may not be controlled.

See Golf Course and Turf Uses for weeds controlled in those sites.

Application Instructions

- Only 1 application at 2 lbs ai/A is allowed per season, except when a salvage operation is needed.
- If a salvage operation is needed (i.e., if pigweed escapes the first application), then a second or repeat application at 2 lbs ai/A is allowed.
- A second or repeat application, if needed, should be timed 1 to 3 weeks after the first application. Apply only as a salvage operation. Apply only to healthy rapidly growing cotton 3 inches high, but no later than 6 inches high or early square, whichever occur first. Preference should be given to directed spray. In order to minimize injury, the second application should be made as a directed spray when possible.

Broadcast Application: MSMA Plus "S" should be applied with a low volume, low pressure, properly calibrated sprayer having satisfactory pumping and bypass action. Nozzles should be placed so as to give good coverage of the weeds and grasses. Proper coverage is very important. Apply the recommended rate of MSMA Plus "S" in a broadcast spray volume of 40 gallons per acre using ground equipment or 5 to 10 gallons per acre by air. For band application, apply proportionally less.

COTTON

MSMA Plus "S" is effective for post-emergent control of weeds listed above in "Weeds Controlled" and many similar weeds. Applications can be made: (1) Postplant preemergence up to cracking of soil just before cotton emergence using ground or aircraft equipment; (2) Postemergence, over the top, when cotton is 3 to 6 inches tall or up to early first square stage, whichever occurs first using ground or aircraft equipment; or (3) Postemergence as a directed spray with ground equipment when cotton is 3 inches tall up to first bloom.

Application: Apply the recommended rate in a spray volume of 40 gallons per acre of water for ground equipment or 5 to 10 gallons per acre of water for aircraft using properly calibrated sprayer equipment.

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Restriction: Do not feed treated foliage to livestock or graze treated fields.

1. **Postplant Preemergence Application up to Cracking:** A single ground or aircraft application can be made as a postplant preemergence treatment, but not later than initial cracking of soil just before cotton emergence.

Application Rate: Use MSMA Plus "S" at 2 2/3 pt per acre.

2. **Postemergence Application to Cotton Using Ground or Aircraft Equipment as an Over-The-Top Broadcast Spray:** Apply only as a salvage operation to healthy, rapidly growing cotton when 3 inches tall, but no later than 6 inches tall or early square, whichever occurs first. A second or repeat application, if needed, should be timed 1 to 3 weeks after the initial application. Preference should be given to directed sprays to minimize injury to cotton. The second application should be made as a directed spray if possible.

Application Rate: MSMA Plus "S" at 1 to 1 1/4 pt per acre.

Restriction: Do not make more than two (2) applications of MSMA or DSMA, either alone or in combination, per season.

3. **Postemergence Directed Application when Weeds are Small Using Ground Equipment:** Apply only when cotton is 3 inches high to first bloom. A second application, if necessary, may be timed about 1 to 3 weeks after the first application. Direct the spray to the base of the cotton plant so as to avoid spraying the cotton foliage, but to give good coverage of the weeds and grasses. For band application to cotton grown in 40-inch rows, apply at a rate of 1 gallon of the spray solution per 1 inch of band width to be treated.

Slight burning and a reddish discoloration of the cotton leaves may occasionally occur following the recommended treatment, but the cotton plant will develop normally.

Application Rate: MSMA Plus "S" at 2 2/3 pt per acre.

Restrictions:

- Do not apply after first bloom.
- Do not make more than (2) applications per season.
- Do not apply more than a total of 4 lbs ai/A per season
- Do not apply pre-plant to cotton.
- Do not apply within 50 feet of permanent water bodies or aquatic habitat, including, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, and estuaries.
- Do not apply this product in Florida except on cotton grown in the following counties: Calhoun, Columbia, Escambia, Gadsden, Hamilton, Holmes, Jackson Jefferson, Okaloosa, Santa Rosa, Suwannee, Walton, and Washington.

Warranty Disclaimer

Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

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It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperature, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. All such risks shall be assumed by buyer.

Limitation of Remedies

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. In no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

The terms of the "Warranty Disclaimer" above and this "Limitation of Remedies" cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Dow AgroSciences or the seller is authorized to vary or exceed the terms of the "Warranty Disclaimer" or this "Limitation of Remedies" in any manner.

EPA-accepted ___/___/___