



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

May 10, 2019

Gregory C. Mattern  
Regulatory Manager  
Nufarm Americas Inc.  
4020 Aerial Center Parkway, Suite 101  
Morrisville, NC 27560

Subject: Registration Review Label Mitigation for Metsulfuron  
Product Name: Manor Selective Herbicide  
EPA Registration Number: 228-373  
Application Date: November 27, 2017  
Decision Number: 550327

Dear Mr. Mattern:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the Metsulfuron Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions about this letter, please contact Miguel Zavala by phone at 703-347-0504, or via email at [zavala.miguel@epa.gov](mailto:zavala.miguel@epa.gov)

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EPA Reg. No. 228-373  
Decision No. 550327

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington", with a long horizontal flourish extending to the right.

Linda Arrington, Branch Chief  
Risk Management and Implementation Branch 4  
Pesticide Re-Evaluation Division  
Office of Pesticide Programs

Enclosure

# Manor<sup>®</sup>

## Selective Herbicide

[alternate brand names]  
[Mansion<sup>™</sup> Turf Herbicide]

A Water Dispersible Granule

SELECTIVELY CONTROLS ANNUAL AND PERENNIAL WEEDY GRASSES AND BROADLEAF WEEDS, INCLUDING ROSETTE AND VINING TYPE DICOTS. ALSO CONTROLS BAHIA GRASS IN BERMUDAGRASS AREAS.

Recommended for use by Turfgrass Managers

**ACTIVE INGREDIENT:**

Metsulfuron Methyl: Methyl 2-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl) amino]carbonyl]amino]sulfonyl]benzoate. . . . . 60.0%

**OTHER INGREDIENTS:** . . . . . 40.0%

**TOTAL:** . . . . . 100.0%

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**  
SEE [BELOW] [INSIDE BOOKLET] [BACK PANEL] FOR FIRST AID AND ADDITIONAL  
PRECAUTIONARY STATEMENTS [AND] [DIRECTIONS FOR USE]

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

EPA REG. NO. 228-373  
EPA EST. NO.

Manufactured for  
NUFARM AMERICAS INC.  
11901 S. Austin Ave  
Alsip, IL 60803



[Product of China]

NET WEIGHT:           Ounces ( g)

000228-00373.20171127.AMEND

**ACCEPTED**  
05/10/2019  
Under the Federal Insecticide, Fungicide  
and Rodenticide Act as amended, for the  
pesticide registered under  
EPA Reg. No. 228-373

<b>FIRST AID</b>	
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>HOT LINE NUMBER</b>	
<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>	

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**  
**CAUTION**

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):**

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.

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

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "Applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment break-down.

<b>USER SAFETY RECOMMENDATIONS</b>
<p><b>Users Should:</b></p> <ul style="list-style-type: none"> <li>• Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.</li> <li>• Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.</li> </ul>

**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 where runoff water may flow, during periods of intense rainfall or to water saturated soils as off-target movement and injury may occur. Do not contaminate water when cleaning of equipment or disposing of equipment washwaters. Do not apply this product through any type of irrigation system.

**Groundwater Label Advisory Statement:** Metsulfuron-methyl is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

**Surface Water Advisory Statement:** This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several months or more after application. 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 loading of metsulfuron-methyl from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. **READ ENTIRE LABEL BEFORE USING THIS PRODUCT. USE STRICTLY IN ACCORDANCE WITH LABEL PRECAUTIONARY STATEMENTS AND DIRECTIONS.**

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 intervals. 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 4 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, shoes, socks and chemical-resistant (Category A) gloves.

### 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. Do not enter treated areas without protective clothing until sprays have dried.

This product is for use on Ornamental Turf, such as Lawns, Parks, Cemeteries, Golf Courses (Fairways, Aprons, Tees and Roughs) and similar turf areas. This product may also be used on Sod Farms.

Controls the following perennial and annual weedy grasses:

Bahiagrass

Foxtail

Ryegrass

Controls the following broadleaf (dicot) weeds:

Annual sowthistle

Crown vetch

Redroot pigweed

Aster

Curly dock

Redstem filaree

Bittercress

Dandelion

Shepherdspurse

Blue mustard

Dog fennel

Smallseed flaxweed

Buckhorn

False chamomile

Smooth pigweed

Bur buttercup

Fiddleneck tarweed

Spurge (prostrate)

Canada thistle

Field pennycress

Sweet clover

Carolina Geranium

Flixweed

Tansy mustard

Chicory

Goldenrod

Treacle mustard

Clover (white)

Henbit

Tumble mustard

Common chickweed

Hoary cress (whiteweed)

Virginia buttonweed

Common groundsel

Kochia

Wild carrot

Common mullein

Lambsquarters

Wild celery

Common purslane

Miners lettuce

Wild garlic

Common sunflower

Pennsylvania smartweed

Wild lettuce

Common yarrow

Plantain

Wild mustard

Conical catchfly

Prickly lettuce

Wild onion

Cow cockle

Prostrate knotweed

Wood sorrel (oxalis)

For use only on Kentucky Bluegrass, fine Fescue, Bermudagrass, and St. Augustine grasses.

### USE RESTRICTIONS

Do not apply greater than 1 ounce of product per acre per application.

### USE PRECAUTIONS

Use lower rates for minimum chlorosis of the turf.

Do not apply this product to turf under stress from drought, insects, disease, cold temperatures, high temperatures of above 85°F on cool season grasses, or poor fertility as injury may result.

Do not apply to turf less than 1 year old.

Do not use on Bahiagrass where it is the desired turf, as severe injury may result.

Do not plant ornamentals such as shrubs, and trees in treated areas for at least 1 year after the last application, or bedding plants for at least 2 years.

### IMPORTANT

Addition of a nonionic surfactant of at least 80% active ingredient at 0.25 percent by volume (1 quart per 100 gallons) provides maximum performance, but may temporarily increase chlorosis of the turf.

Allow one week between the application of this product and other control (pesticide containing) products. (This guideline can be relaxed where severe insect or disease attack requires immediate treatment).

DO NOT USE ON FOOD OR FEED CROPS. Injury to or loss of desirable trees or other plants may result from failure to observe the following: Do not apply this product (except as instructed) or drain or flush 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.

When overseeding, wait 2 months (8 weeks) after application. Do not apply to any body of water, including streams, irrigation water or wells. Do not apply where runoff water may flow onto agricultural land, as injury to crops may result.

Do not allow spray drift onto adjacent crops or other desirable plants or trees as injury may occur.

Follow these practices to minimize drift:

- Stop spraying if wind speed becomes excessive. Spray drift can occur at wind speeds less than 10 MPH. If sensitive plants are downwind, extreme caution must be used. Do not spray if winds are gusty.
- High temperatures, drought and low relative humidity increase the possibility of harmful spray drift. Caution must be used when these conditions are present and sensitive plants are nearby.
- Use large droplet size sprays to minimize drift.
- Use spray pressure of 35 psi or less when applying this product.

### **NON-TARGET ORGANISM ADVISORY STATEMENT**

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the SPRAY DRIFT ADVISORIES section of this label.

### **WINDBLOWN SOIL PARTICLES**

This product has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affect the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying this product if prevailing local conditions may be expected to result in off-site movement.

### **WEED RESISTANCE MANAGEMENT**

For resistance management, this product contains the Group 2 herbicide – metsulfuron-methyl. Any weed population may contain or develop plants naturally resistant to this herbicide and other Group 2 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. 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 site of action.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of this product or other Group 2 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- [For further information or to report suspected resistance, contact [Nufarm contact] at [one of][any of] the following] [[[X]-XXX-XXX-XXXX] [.,][or]] 1-800-345-3330 [.,][or]] [Nufarm e-mail address] [.,][or]] [Nufarm website] [.,][or]][XXXX].]

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. Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to this MOA have been found in your region. Do not assume that each listed weed is being controlled by this

mechanism of action. Co-formulated active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredient in this product.

Suspected herbicide-resistant weeds may be identified by these indicators:

- \* Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- \* A spreading patch of non-controlled plants of a particular weed species; and
- \* Surviving plants mixed with controlled individuals of the same species.

## HOW TO USE

Use spray volumes of 10 to 80 gal/acre and pressures of 25 to 35 psi at the following rates of this product for the weeds listed below:

### 0.25 to 0.33 ounce PRODUCT/ACRE

Bittercress	Clover (white)	Parsley-piert
Blue mustard	Creeping beggarweed	Prostrate spurge
Bur buttercup	Dandelion	Redstem filaree
Chickweed	Field pennycress	Spurweed
Chicory	Ground ivy (Fall)	Wild carrot

### 0.33 to 0.5 ounce PRODUCT/ACRE

Annual sowthistle	Miners lettuce	Sweet clover
Aster	Plantain	Tansy mustard
Carolina geranium	Prickly lettuce	Treacle mustard
Common yarrow	Ragweed	Tumble mustard
Crown vetch	Redroot pigweed	Wild celery
Florida betony	Ryegrass (fairways)	Wild garlic
Ground ivy (Spring*)	Seedling dogfennel	Wild lettuce
Henbit	Shepherdspurse	Wild onion
Lambsquarters	Smooth pigweed	Woodsorrel (oxalis)
Lespedeza	Smallseed falseflax	

### 0.25 to 0.75 ounce PRODUCT/ACRE

Bahiagrass\*

### 0.5 to 1 ounce PRODUCT/ACRE

Brazil pusley	Crabgrass	Pennsylvania smartweed
Buckhorn plantain	Dogfennel	Plantain
Canada thistle**	Dollarweed*	Prostrate knotweed
Curly dock	Florida pusley	Sida (southern)
Common groundsel	Foxtail	Virginia buttonweed***
Common purslane	Hoarycress (whitetop)	Wild mustard
Common sunflower	Kochia	

\*A repeat application may be required in 4 to 6 weeks.

\*\*Suppression only involving a visual reduction in competition compared to an untreated area.

\*\*\*Controls seedling Virginia buttonweed. Suppression only of more mature plants. Repeat application may be required in 4 to 6 weeks.

The required amount of this product should be added when the spray tank is half full of water and, with agitator running, add the proper amount of product. Finish adding the required amount of water. Continuous agitation is required to keep the product in suspension.

Spray preparations of this product may degrade in acid solutions if not used in 24 hours; it is stable in alkaline solutions. Thoroughly reagituate before using.

## TANK MIXES

Unless otherwise prohibited on this label or the label of an intended tank mix product, this product may be applied in combination with any pesticide registered for the same crop, timing, and method of application. Observe the most restrictive label statements of various tank mix products used.

IMPORTANT: PESTICIDE TANK MIXES MAY INCREASE THE RISK OF MIXING INCOMPATIBILITIES, REDUCED EFFECTIVENESS AND/OR CAUSE CROP INJURY OR LOSS. ANY LIABILITY FOR LOSS, INJURY OR DAMAGE RESULTING FROM A TANK MIXTURE NOT SPECIFIED ON THIS LABEL OR IN MANUFACTURER'S SUPPLEMENTAL LABELING



DISTRIBUTED FOR THIS PRODUCT IS SPECIFICALLY DISCLAIMED BY MANUFACTURER.

#### **COMPATIBILITY**

Before full-scale mixing of this product with other pesticides, fertilizers, secondary plant nutrients, adjuvants, surfactants or oils, you must determine the compatibility of the proposed mixture. Use proportionate quantities of each ingredient and mix in a small container. Always mix one product thoroughly with the diluent before adding another product. If no incompatibility is evident after 30 minutes, the mixture is generally compatible for spraying. To evaluate potential short term effects of applying the mixture, test the tank mix combination on a few plants or a small area before larger-scale treatments. Wait at least 2 to 3 days for problems to become apparent.

**IMPORTANT: MIXING WITH OTHER SUBSTANCES MAY INCREASE THE RISK OF MIXING INCOMPATIBILITIES, REDUCED EFFECTIVENESS AND/OR CAUSE CROP INJURY OR LOSS. ANY LIABILITY FOR LOSS, INJURY OR DAMAGE RESULTING FROM A MIXTURE NOT SPECIFIED ON THIS LABEL OR IN MANUFACTURER'S SUPPLEMENTAL LABELING DISTRIBUTED FOR THIS PRODUCT IS SPECIFICALLY DISCLAIMED BY MANUFACTURER.**

#### **USE ON KENTUCKY BLUEGRASS AND FINE FESCUE**

Apply 0.25 to 0.5 ounce of this product per acre for control of the listed weeds. Do not exceed 0.5 ounce per acre within a 9-month period.

#### **USE ON ST. AUGUSTINEGRASS, BERMUDAGRASS, BUFFALOGRASS AND ZOYSIAGRASS (MEYERS AND EMERALD)**

Apply 0.25 to 1.0 ounce of this product per acre for weed control. Some chlorosis or stunting of the turfgrass may occur following application.

#### **BAHIAGRASS CONTROL**

For the selective control of Bahiagrass in Bermudagrass turf, use 0.25 to 0.75 ounce of this product per acre. Use the higher rates of the range on Argentine, Common and Paraguayan Bahiagrass. Apply a repeat treatment in 4 to 6 weeks if necessary. Some chlorosis or stunting of the Bermudagrass may occur following the application.

#### **USE ON CENTIPEDEGRASS**

Apply 0.25 to 0.5 ounce of this product per acre for weed control. Some chlorosis or stunting of the turfgrass may occur following the application.

**IMPORTANT:** Addition of a nonionic surfactant of at least 80% active ingredient at 0.25 percent by volume (1 quart per 100 gallons) provides maximum performance, but may temporarily increase chlorosis of the turf.

Allow one week between the application of this product and other control (pesticide containing) products. (This guideline can be relaxed where severe insect or disease attack requires immediate treatment).

#### **RECOMMENDED SPRAYER CLEANUP**

Immediately after spraying thoroughly remove all traces of this product from mixing and spray equipment as follows:

- 1) Drain tank, rinse interior surface of tank, then flush tank, boom and hoses with clean water for a minimum of 5 minutes.
- 2) Fill the tank with clean water, then add an ammonia cleaning solution. Use one gallon of ammonia (containing 3% active) per 100 gallons of water. Turn on sprayer long enough to flush through boom, hoses and nozzles. Stop spraying, but keep agitator working in the tank for 15 minutes, then drain.
- 3) Repeat Step 2.
- 4) Repeat Step 1.
- 5) Nozzles and screens should then be removed and cleaned separately. To remove traces of cleaning solution, rinse the tank thoroughly with clean water and flush through hoses and boom.
- 6) Flush boom and hoses with clean water for 5 minutes just prior to using the sprayer for the first time after the application of this product.

#### **SPRAY DRIFT**

##### **Aerial Applications:**

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

##### **Ground Boom Applications:**

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above



the ground.

- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

**Boom-less Ground Applications:**

- Applicators are required to use a Medium or coarser droplet size (ASABE S572.1) for all applications.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

## SPRAY DRIFT ADVISORIES

**Boom-less Ground Applications:**

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

**Handheld Technology Applications:**

- Take precautions to minimize spray drift.

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

### IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### Controlling Droplet Size – Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### Controlling Droplet Size – Aircraft

- Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

**BOOM HEIGHT – Ground Boom** Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift. When applying aurally to crops, do not release spray at a height greater than 10 feet above the crop canopy, unless a greater application height is necessary for pilot safety.

### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

### TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

### TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft 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. Avoid applications during temperature inversions.

### WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

**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:** Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Fill the container half 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.

## WARRANTY DISCLAIMER

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