

### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

November 4, 2021

Jordan Moseley Regulatory Specialist Syngenta Crop Protection, LLC P. O. Box 18300 Greensboro, NC 27419

Subject: Label Amendment – Clarify DFUs, Update Label Formatting, and Incorporate Language Required by the Pinoxaden Final Interim Decision (EPA-HQ-OPP-2015-0603) Product Name: Manuscript EPA Registration Number: 100-1626 Application Date: December 16, 2020 Decision Number: 570759

Dear Mr. Moseley:

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

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

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

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Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Ernest Kraka by phone at (703) 347-8455, or via email at kraka.ernest@epa.gov.

Sincerely,

Inguer Shagai By

Shaja B. Joyner, Product Manager 20 Fungicide-Herbicide Branch Registration Division 7505P

Enclosure

### PINOXADEN GROUP 1 HERBICIDE

### Manuscript

Herbicide

Post-emergence herbicide for control of listed grass weeds in Bermudagrass, Centipedegrass, Fine fescue, Poa annua, and Zoysiagrass and St. Augustinegrass sod production.

Intended for use by professional applicators only.

Active Ingredient:	
Pinoxaden*	5.05%
Other Ingredients:	94.95%
Total:	100.00%

\*CAS No. 243973-20-8

Contains petroleum distillates.

Manuscript is an emulsifiable concentrate that contains 0.42 lb of pinoxaden active ingredient per gallon.

### KEEP OUT OF REACH OF CHILDREN

## WARNING/AVISO

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.)

See additional precautionary statements and directions for use inside booklet.

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## 1.0 FIRST AID

	FIRST AID					
If on skin or	Take off contaminated clothing.					
clothing	• Rinse skin immediately with plenty of water for 15-20 minutes.					
	Call a poison control center or doctor for treatment advice.					
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> </ul>					
	<ul> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>					
If swallowed	Call a poison control center or doctor for treatment advice.					
II Swalloweu	Immediately call a poison control center or doctor.					
	• Do not induce vomiting unless told to do so by a poison control center or doctor.					
	• Do not give <b>any</b> liquid to the person.					
	• Do not give anything by mouth to an unconscious person.					
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.					
	<ul> <li>Call a poison control center or doctor for further treatment</li> </ul>					
	advice.					
Have the product	container or label with you when calling a poison control center or					
doctor or going for treatment.						
Note to Physician						
Contains petroleum distillates – vomiting may cause aspiration pneumonia.						
	HOTLINE NUMBER					
For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical						
Emergency Assistance (Spill, Leak, Fire, or Accident)						
1-800-888-8372						

## **PRECAUTIONARY STATEMENTS**

## **2.0** PRECAUTIONARY STATEMENTS

## 2.1 Hazards to Humans and Domestic Animals

### WARNING/AVISO

Causes skin irritation. Do not get on skin or clothing. Causes moderate eye irritation. Avoid contact with eyes or clothing. Harmful if swallowed or inhaled. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

## 2.2 Personal Protective Equipment (PPE)

### Applicators and other handlers must wear:

- Coveralls worn over short-sleeved shirt and long pants
- Socks and chemical-resistant footwear
- Chemical-resistant gloves made of barrier laminate, polyvinyl chloride (PVC) ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, butyl rubber ≥ 14 mils, or Viton® ≥ 14 mils

When mixing and loading wear a chemical-resistant apron. For overhead exposure wear chemical-resistant headgear. When cleaning equipment wear a chemical-resistant apron.

## 2.3 User Safety Requirements

Follow the 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.

## 2.4 Engineering Controls

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.

## 2.5 User Safety Recommendations

### **User Safety Recommendations**

### Users should:

Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## 2.6 Environmental Hazards

Pinoxaden is toxic to oysters. For terrestrial uses: Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate.

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 site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

## 2.7 Physical or Chemical Hazards

**DO NOT** use or store near heat or open flame.

**DO NOT** mix or allow contact with oxidizing agents. Hazardous chemical reaction may occur.

## **DIRECTIONS FOR USE**

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

**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 labelling 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), restricted-entry interval, and notification to workers. 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 worn over short-sleeved shirt and long pants
- Socks and chemical-resistant footwear
- Chemical-resistant gloves (≥14 mils), such as barrier laminate, butyl rubber, nitrile rubber, or Viton

### 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.

Professional applications to golf courses, residential, industrial and commercial lawns and sports fields are not within the scope of the Worker Protection Standard.

DO NOT enter or allow others to enter the treated area until sprays have dried.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN TURF INJURY AND/OR POOR WEED CONTROL.

## **3.0** PRODUCT INFORMATION

Manuscript is a systemic, post-emergence herbicide for the control of listed grass weeds in bermudagrass, centipedegrass, fine fescue, Poa annua, zoysiagrass, and St. Augustinegrass. Manuscript is rapidly absorbed by weed foliage and translocated to the growing points of leaves and stems where it inhibits the acetyl CoA carboxylase (ACCase) enzyme. Susceptible weed species typically stop growing within 48 hours of treatment, turn yellow within one to three weeks, and are completely controlled within three to five weeks.

Level and rate of control depend on weed species, growing conditions, turf competition, and coverage. Make applications to actively growing weeds. **DO NOT** make applications when turfgrasses are under stress unless injury can be tolerated. Thorough spray coverage of target weeds is essential for consistent control. Manuscript does not control broadleaf weeds.

### **USE SITES**

Manuscript may be applied to bermudagrass, centipedegrass, fine fescue, Poa annua, and zoysiagrass on golf courses, sod farms, sport fields, residential properties (including home lawns) and other non-residential turf areas (airports, cemeteries, commercial buildings, and similar sites). **Manuscript may be applied to St. Augustinegrass grown on sod farms only.** [Creeping bentgrass, colonial bentgrass, and Kentucky bluegrass may be injured by Manuscript applications. See Section 5.2 Use Precautions for additional information.]

### Rainfastness

Manuscript is rainfast within 1 hour after application.

## 3.1 Resistance Management Recommendations

For resistance management, Manuscript is a Group 1 herbicide (ACCase mode of action). Any weed population may contain or develop plants naturally resistant to Manuscript and other Group 1 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same areas. Appropriate resistance-management strategies should be followed.

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

- Rotate the use of Manuscript or other Group 1 herbicides with different herbicide groups that control the same weeds.
- 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 Syngenta representative 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 that considers mechanical control methods, cultural, biological, 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 noncontrolled 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.
- 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 Syngenta representative for additional pesticide resistance-management and/or integrated weed-management recommendations for specific turf types and weed biotypes.
- For further information or to report suspected resistance contact Syngenta at 1-866-Syngent(a) (866-796-4368).

### Principles of Herbicide Resistant Weed Management

### Scout and know your application site

- Know weed species present in the turf area to be treated through scouting and use site history. An understanding of weed biology is useful in designing a resistance management strategy. Ensure the weed management program will control all weeds present.
- Scout use site prior to application to determine species present and growth stage. Always apply this herbicide at the full labeled rate and correct timing for the weeds present in the area.

### Utilize non-herbicidal practices to add diversity

• Use diversified management tactics such as mechanical weed control as appropriate.

### Do not overuse the technology

• Do not use more than two applications of this or any other herbicide with the same mode of action in a single growing season unless mixed with an herbicide with a different mode of action which provides overlapping spectrum for the difficult to control weeds.

### Scout use site following application

- Prevent an influx of weeds into the treatment area by controlling weeds in surrounding areas.
- Scout use site after application to verify that the treatment was effective.
- 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.
- Report non-performance of this product to your Syngenta retailer, Syngenta representative, or call 1-866-Syngent(a) (866-796-4368). If resistance is suspected ensure weed escapes are controlled using an herbicide with an effective mode of action and/or use non-chemical means to prevent further seed production.

### Prevent weed escapes

• Do not allow weed escapes to produce seed or vegetative structures such as tubers or stolons which contribute to spread and survival.

### **Resistant weeds**

• Contact your local Syngenta representative, distributor, or extension agent to determine if weeds resistant to this mode of action are present in your area. If resistant biotypes have been reported, use the full labeled rate of this product, apply at the labeled timing, and tank-mix with a different mode of action product so there are multiple effective modes of application for each suspected resistant weed.

## 4.0 APPLICATION DIRECTIONS

## 4.1 Methods of Application

### **Ground Application Equipment**

Manuscript may be applied with all types of spray equipment commonly used for making ground applications. To help ensure accuracy, calibrate sprayer at the beginning of the season before use and recalibrate frequently. Use a minimum of 20 gallons of water per acre.

## 4.2 Application Equipment

### 4.2.1 Nozzles

- Equip sprayers with nozzles that provide accurate and uniform application.
- Nozzles should be the same size and uniformly spaced across the boom.
- Use spray nozzles that provide medium droplets.
- It is suggested that screens be used to protect the pump and to prevent nozzles from clogging.
- Screens placed on suction side of pump should be 16-mesh or coarser.
- Do not place a screen in the recirculation line unless a roller or piston pump is used for spraying the solution

• Check nozzle manufacturer's recommendations.

### 4.2.2 Pumps

- Use a pump with capacity to:
  - 1. Maintain 35-40 psi pressure at nozzles
  - 2. Provide sufficient agitation within the tank to keep product in suspension.
- Lower pressures may be used with extended range or drift reduction flat fan nozzles.
- Use 50-mesh or coarser screens between the pump and boom, and when required, at the nozzles.
- A centrifugal pump that provides shear action for dispersing and mixing the product is advised.
- Use a pump that provides a minimum of 20 gallons per minute per 100 gallon tank size circulated through a correctly positioned sparger tube or jet agitators.
- If jet agitators are used, align at least 2 agitators on the bottom of the tank pointing toward each end.
- Agitation during both mixing and application is essential.

## 4.3 Application Volume and Spray Coverage

- Good coverage with the spray mixture is essential for optimum weed control results.
- Observe sprayer nozzles frequently during the spraying operation to ensure that the spray pattern is uniform.
- Avoid large spray overlaps that result in excessive rates in the overlap areas.
- Avoid application under conditions when uniform coverage cannot be obtained or when spray drift may occur (see **Section 5.3 SPRAY DRIFT MANAGEMENT**).
- For broadcast application, use a boom height that does not exceed 24 inches above the leaf blades of the turfgrass stand.

## 4.4 Mixing Directions

• Prior to using Manuscript, ensure that the spray tank, lines and screens and filters have been thoroughly cleaned

### 4.4.1 Manuscript Alone

- Clean spray tank and half fill with clean water.
- Start agitation or bypass system.
- Add correct amount of Manuscript.
- Agitate for 2-3 minutes before adding remainder of water and then maintain constant agitation.
- After any break in spraying operations, agitate thoroughly before spraying again.
- Use the spray solution as soon as it is prepared.
  - 4.4.2 Tank-Mix Precautions

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most

restrictive directions for use and precautionary statements of each product in the tank mixture.

### 4.4.3 Tank-Mix Compatibility

Perform a jar compatibility test prior to tank mixing with other pesticides and/or adjuvants/additives, in order to ensure the compatibility of Manuscript with other products, adjuvants or fertilizers. The procedure for conducting jar tank-mix compatibility tests is as follows:

**Compatibility Test:** Always perform a tank-mix compatibility test when mixing with new or unknown tank-mix partners before use. Perform tank-mix compatibility test as follows:

- 1. Add 1 pt of carrier (the water to be used in the spray operation) to each of two clear 1qt jars with tight lids.
- 2. To **one** of the jars, add ¼ tsp or 1.2 ml of a commercially available tank-mix compatibility agent approved for this use (¼ tsp is equivalent to 2 pt/100 gallons of spray solution). Close the lid, invert the jar, shake or stir gently to ensure thorough mixing of the compatibility agent.
- 3. To **both** jars, add the appropriate amount of each tank-mix partner. If more than one tank-mix partner is to be used, follow the mixing order listed in Section 4.4.4, by adding dry formulations (wettable powders or water dispersible granules) first, followed by liquid flowables, capsule suspensions, emulsifiable concentrates, and finally add adjuvants. After each addition, invert the jar, shake or stir gently to thoroughly mix. The appropriate amount of each tank-mix partner for this test, is as follows: **Dry formulations:** For each pound to be applied per acre, add 1.5 level teaspoons to each jar.

**Liquid formulations:** For each pint to be applied per acre, add 0.5 teaspoon or 2.5 milliliters to each jar.

4. After adding all ingredients, close the jars and tighten, then invert each jar 10 times to fully mix. Let the mixtures stand for 15-30 minutes and then assess by looking for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if a compatibility agent is needed in the application mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (A) Pre-slurry dry formulations in water before addition to the jar, or (B) add the compatibility agent directly into liquid formulations, before addition to the jar. If these procedures are followed but incompatibility is still observed, do not prepare the tank mix in the spray tank.

### 4.4.4 Manuscript in Tank Mixtures

- Clean spray tank and half fill with clean water.
- Start agitation or bypass system.
- When using a tank-mix, add different formulation types in the sequence indicated below.
- 1. products packaged in water-soluble packaging
- 2. wettable powders,
- 3. wettable granules (dry flowables)
- 4. liquid flowables
- 5. capsule suspensions
- 6. soluble liquids
- 7. emulsifiable concentrates (such as Manuscript)
- 8. surfactants / adjuvants / suspension agents
- Allow each product to completely dissolve and disperse into the mix water before adding the next product. Continue agitation while the next product is added.
- Continue agitation while adding the remainder of the water.
- Begin application of the spray solution after all products have completely dispersed into the mix water.

### 4.4.5 Spray Additives

Manuscript requires a spray adjuvant. For optimum weed control, use the spray adjuvant(s) as specified in the use directions in **Section 6.1 and 6.2** of this label.

- 0.5% to 1% v/v Adigor® [**OR**
- 0.25 to 0.5% v/v of a Nonionic Surfactant (NIS) OR
- 0.5 to 1% v/v of a methylated seed oil (MSO)]

Always read and follow the spray adjuvant label directions prior to use and observe all precautions, mixing and application instructions.

## 4.5 Application through Irrigation Systems (Chemigation)

Thoroughly clean application equipment immediately after spraying Manuscript. Ensure that all traces of the product are removed. The following directions are provided:

- Drain and flush tank walls, boom, and all hoses for 10 minutes with clean water.
- **Do not** clean the sprayer near desirable vegetation, wells, or other water sources.
- Remove the nozzles and screens and wash separately.
- Dispose of all rinsates in accordance with state and local regulations.

If a broadleaf herbicide, insecticide, or fungicide tank mix partner is used, always check tank mix partner label for any additional cleanup procedures.

## **5.0** RESTRICTIONS AND PRECAUTIONS

## 5.1 Use Restrictions

• **DO NOT** apply more than 19.2 fl oz of Manuscript per acre per calendar year (0.063 lb ai/A/year).

- **DO NOT** treat more than 10,000 square feet per acre for spot treatments.
- **DO NOT** use Manuscript on St. Augustinegrass sod production unless injury can be tolerated. Manuscript may cause temporary discoloration of St. Augustinegrass and reduced growth rate.
- **DO NOT** apply Manuscript to newly seeded, sodded or sprigged turfgrass Delay applications for at least 4 weeks after sprigging, seed emergence, or sodding.
- **DO NOT** make applications to areas where product may accumulate under the drip line of trees and where product may come in contact with roots of desirable plants.
- **DO NOT** apply by air or through any type of irrigation system.
- **DO NOT** over-seed with perennial ryegrass within 4 weeks after the last Manuscript application.
- **DO NOT** spray if winds are above 10 mph to minimize drift to non-target plants. Use large droplet size and pressure appropriate for type of nozzles used to produce medium to large droplet sizes.

## 5.2 Use Precautions

- Avoid all direct or indirect contact (such as spray drift) of this product with ornamental plants since injury may occur. Always follow the **Spray Drift Management** and the **Instructions for Cleaning Spray Equipment after Application** sections of this label.
- All turf cultivars (or biotypes) on putting greens have not been evaluated for safety. Avoid use unless injury can be tolerated such as spot treatments of weeds.
- [Creeping bentgrass, colonial bentgrass, and Kentucky bluegrass may be injured by Manuscript applications. **DO NOT apply to these grasses unless injury can be tolerated.**]

## 5.3 Spray Drift Management

#### Mandatory Spray Drift Management Ground Boom Applications:

- Users must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground.
- Applicators are required to use a medium or coarser droplet size (ASABE S572).
- **<u>DO NOT</u>** apply when wind speeds exceed 15 miles per hour at the application site.
- DO NOT apply during temperature inversions

## 5.4 Spray Drift Advisories

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

### 5.4.1 Importance of Droplet Size

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that will 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.

### 5.4.2 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.

## 5.4.3 Boom Height – Ground Boom

For ground equipment, the boom should remain level with the turf and have minimal bounce.

## 5.4.4 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.

### 5.4.5 Temperature and Humidity

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

### 5.4.6 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.

### 5.4.7 Wind

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

## 6.0 USE DIRECTIONS

## 6.1 Turfgrass Weed Control – Spot Treatments

#### Turfgrass

Bermudagrass, centipedegrass, fine fescue, Poa annua, zoysiagrass and St. Augustinegrass (sod)

Target Weeds	Use Rate (fl oz/1000 sq ft)	Application Timing	Use Directions		
Bahiagrass Coastal sandbur Dallisgrass* Large crabgrass Smooth crabgrass Tropical signalgrass, <b>T</b> ropical carpetgrass <b>suppression** of</b> Kikuyugrass Seashore paspalum Torpedograss	0.96	Apply to actively growing weeds. Repeat application 14 to 21 days later	Add Adigor or MSO adjuvant at 0.64 oz per gallon. Apply as a spot treatment to control individual weeds and/or small areas of weeds when weed pressure is high. Spray weeds until wet, but avoid run-off of spray solution and over- application. Spot treatments are likely to cause yellowing and growth regulatory effects to the turfgrass.		
<ul> <li>Resistance Management:</li> <li>Refer to Section 3.1.</li> </ul>					
USE RESTRICTIONS					
<ol> <li>Refer to Section 5.1 for additional product use restrictions.</li> <li>Maximum Single Application Rate: 19.2 fl oz/A</li> <li>DO NOT treat more than 10,000 square feet per acre for spot treatments</li> <li>Minimum Application Interval: 14 days</li> </ol>					

5) Maximum Annual Rate: 19.2 fl oz/A/year (equivalent to 0.063 lb ai pinoxaden/A/year).

\*Manuscript provides optimum control when applied in the late summer/early fall when dallisgrass is actively growing and not under drought stress. Applications outside the ideal timing will only provide dallisgrass suppression

\*\* Suppression is defined as weed control at a level that is not optimal but still provides some benefit. For control of these weeds, apply Manuscript in a program approach with Monument® 75WG (trifloxysulfuron-sodium; EPA Reg. No. 100-1134) in bermudagrass and zoysiagrass.

## 6.2 Turfgrass Weed Control – Broadcast

Turfgrass					
Bermudagrass, centipedegrass, fine fescue, Poa annua, zoysiagrass and St. Augustinegrass (sod)					
Target Weeds	Use Rate (oz/acre)	Application Timing	Use Directions		
Overseeded ryegrass at Transition	2.4 to 9.6	When removal can be tolerated	Lowest rates will provide partial control to aid transition		
Thin (Bull) paspalum	9.6 to 19.2	Actively growing	Low rate should be repeated at 14 to 21 days with 0.5%v/v Adigor		
Ryegrass Foxtail (green, yellow) Barnyardgrass Canarygrass Windgrass Wild Proso Millet	16.4	Actively growing Prior to emergence of 3 <sup>rd</sup> tiller	Add Adigor adjuvant at 0.5% v/v (or equivalent such as an MSO)		
Resistance Management:	•		•		

• Refer to Section 3.1

#### **USE RESTRICTIONS**

1) Refer to **Section 5.1** for additional product use restrictions.

2) Maximum Single Application Rate: 19.2 fl oz/A

3) Minimum Application Interval: 14 days

4) Maximum Annual Rate: 19.2 fl oz/A/year (equivalent to 0.063 lb ai pinoxaden/A/year).

5) Creeping bentgrass, colonial bentgrass, and Kentucky bluegrass may be injured by Manuscript applications. DO NOT apply to these grasses unless injury can be tolerated.

## 7.0 STORAGE AND DISPOSAL

### STORAGE AND DISPOSAL

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

### **Pesticide Storage**

Store in a cool, dry place. Do not store near seeds, fertilizers, or foodstuffs.

#### Pesticide Disposal

Pesticide wastes are toxic. Improper disposal of excess pesticides, 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 Handling (less than or equal to 5 gallons)

**Non-refillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this

procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

### Container Handling (greater than 5 gallons)

**Non-refillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

### Container Handling (greater 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 person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER

## 8.0 CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP

PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

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For non-emergency (e.g., current product information), call Syngenta Crop Protection at 1-800-334-9481.

Manufactured for: Syngenta Crop Protection, LLC P.O. Box 18300 Greensboro, North Carolina, 27419-8300

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