

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460

100-1626

Date of Issuance:

8/17/18

Term of Issuance:

EPA Reg. Number:

Conditional

Name of Pesticide Product:

Manuscript

NOTICE OF PESTICIDE:

X Registration
Reregistration
(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Ronald E. Hampton, Ph.D.
Senior Regulatory Product Manager,
Turf, Ornamentals and Pest Control
Syngenta Crop Protection, LLC
P.O. Box 18300, Greensboro, NC 27419-8300

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(B). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/registration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:	Date:
Shaja B. Joyner, Product Manager 20 Fungicide-Herbicide Branch Registration Division 7505P	8/17/18
Registration Division 7505P	

Page 2 of 2 EPA Reg. No. 100-1626 Decision No. 528928

2. You are required to comply with the data requirements described in the DCI identified below:

Pinoxaden GDCI-147500-1589

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: <a href="http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1">http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1</a>

- 3. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 100-1626."
- 4. Submit one copy of the final printed label for the record before you release the product for shipment.

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.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 03/06/2017
- Alternate CSF 1 dated 03/06/2017

If you have any questions, please contact Aswathy Balan by phone at 703-347-0510, or via email at balan.aswathy@epa.gov.

# **ACCEPTED** 08/17/2018

[Master]

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 100-1626

# PINOXADEN GROUP 1 HERBICIDE

# Manuscript

\_ gallons

**Net Contents** 

Herbicide

Post-emergence herbicide for control of listed grass weeds in bermudagrass, zoysiagrass and St. Augustinegrass turf.

Intended for use by professional applicators only.

interface for ase 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.
EPA Reg. No. 100-XXXX
EPA Est. No.

	FIRST AID			
If on skin or	Take off contaminated clothing.			
clothing	<ul> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> </ul>			
-	Call a poison control center or doctor for treatment advice.			
<ul> <li>If in eyes</li> <li>Hold eye open and rinse slowly and gently with water for minutes.</li> </ul>				
	• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.			
	Call a poison control center or doctor for treatment advice.			
If swallowed	Immediately call a poison control center or doctor.			
Do not induce vomiting unless told to do so by a poison				
	center or doctor.			
	Do not give any liquid to the person.			
	Do not give anything by mouth to an unconscious person.			
If inhaled	Move person to fresh air.			
<ul> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> </ul>				
	<ul> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>			
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.				
HOT LINE NUMBER				
For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical				
Emergency Assistance (Spill, Leak, Fire, or Accident)				
Call				

# PRECAUTIONARY STATEMENTS

#### **Hazards to Humans and Domestic Animals**

#### WARNING/AVISO

1-800-888-8372

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.

#### **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 (≥14 mils), such as barrier laminate, butyl rubber, nitrile rubber, or Viton®

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

#### **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.

#### **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.

#### **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.

-4-

#### **Environmental Hazards**

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.

## **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.

#### 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.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

-6-

#### **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.

#### PRODUCT INFORMATION

Manuscript is a systemic, post-emergence herbicide for the control of listed grass weeds in bermudagrass, 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. Avoid applications when turfgrasses are under stress or injury may occur. 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 and zoysiagrass on golf courses, sod farms, sport fields, residential properties (including home lawns) and other non-residential turf areas (such as airports, cemeteries, commercial buildings, and similar sites). Manuscript may be applied to St. Augustinegrass grown on sod farms only.

#### MIXING PROCEDURES

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

#### **Mixing Instructions**

- 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.

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.

#### APPLICATION PROCEDURES

#### **Ground Application Equipment**

Use spray nozzles that are uniformly spaced and of the same size to provide accurate and uniform application. Use spray nozzles that provide medium droplets. 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.

Use a pump with capacity to: (1) maintain 35-40 psi pressure at nozzles and (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. A centrifugal pump that provides shear action for dispersing and mixing the product is recommended. 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.

Place screens or strainers that are 16-mesh or coarser on the suction side of the pump. Do not place a screen in the recirculation line unless a roller or piston pump is used for spraying the solution. Use 50-mesh or coarser screens between the pump and boom, and when required, at the nozzles. Check nozzle manufacturer's recommendations.

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. Also, avoid application under conditions when uniform coverage cannot be obtained or when spray drift may occur (see section titled **SPRAY DRIFT MANAGEMENT**). For broadcast application, use a boom height that does not exceed 24 inches above the leaf blades of the turfgrass stand.

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.

-9-

Rainfastness: Manuscript is rainfast within 1 hour after application.

#### **Instructions for Cleaning Spray Equipment after Application**

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.

#### SPRAY DRIFT MANAGEMENT

**DO NOT** apply under circumstances where possible drift to unprotected persons, or to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption, can occur. Even small amounts may injure sensitive plants. When drift may be a problem, take steps to reduce spray drift, including:

- Make applications when the wind velocity favors on-target product deposition. DO
  NOT spray if wind speed is 10 mph or greater or if winds are gusty. Wind speed
  must be measured adjacent to the application site on the upwind side immediately
  prior to application.
- Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased drift. Avoid spraying during conditions of low humidity and/or high temperatures.

Use extreme caution when conditions are favorable for drift, such as high temperatures and low relative humidity, especially when sensitive plants are located nearby. Consider all plants not listed as turf species on this label as sensitive plants.

Allow adequate distance between target area and non-target areas (e.g. ornamental plants or surface water) to prevent drift onto non-target areas.

**DO NOT** apply when a temperature inversion exists. If an inversion condition is suspected, consult with local weather services before making an application.

Further reductions in drift can be obtained by:

 Use nozzles that provide a uniform droplet size and produce medium or coarse droplets (250-400 microns VMD) that are less prone to result in spray drift. -10-

- Use flat fan nozzles. For example, Turbo Teejet, XR® Teejet, RF Raindrop®, or similar "low pressure" nozzles are preferred.
- Recalibrate sprayer by reducing spray pressures and by increasing spray volumes to produce larger droplets when conditions favor drift.
- Applying as close to target turf as practical to obtain a good spray pattern for adequate coverage according to the manufacturer's recommendations.

Ground applications are limited to a nozzle height of 2 ft from the ground.

#### PRODUCT USE RATES

#### **Broadcast Application Rates**

fl oz product per acre	mL product per 1000 sq ft	fl oz product per 1000 sq ft	Application Instructions
9.6	6.5	0.22	Make 2 applications, 14 to 21 days apart.
19.2	13.0	0.44	Apply once

Apply in a minimum water volume of 20 gallons per acre.

#### **Use Restriction**

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

#### **Spot Treatment Rate**

Apply as a spot treatment to control individual weeds and/or small areas of weeds when weed pressure is high. To make a spot treatment, mix 9.6 fl oz of Manuscript in 20 gallons of water and add the appropriate spray adjuvant(s). Spray weeds until wet, but avoid run-off of spray solution and over-application. Spot treatments are likely to cause vellowing and growth regulatory effects to the turfgrass.

#### **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.

#### WEEDS CONTROLLED

#### **Weeds Controlled In Bermudagrass And Zoysiagrass**

For control of tropical signalgrass (*Urochloa subquadripara*), tropical carpetgrass (*Axonopus compressus*), large crabgrass (*Digitaria sanguinalis*), smooth crabgrass

(*Digitaria ischaemum*), bahiagrass (*Paspalum notatum*), dallisgrass (*Paspalum dilatatum*), canoe grass (*Paspalum acuminatum*) and suppression of torpedograss (*Panicum repens*) and suppression of seashore paspalum (*Paspalum vaginatum*), apply Manuscript in a program approach with Monument® 75WG. Initiate treatments early to mid-summer when weeds are actively growing and not under stress. **Spot treatments are recommended to control individual weeds or small areas when weed pressure is high.** 

[Apply the following herbicide program:

- Manuscript applied at a rate of 19.2 fl oz per acre followed 14 days later by
- Monument 75WG at a rate of 0.53 oz per acre followed by a second application 4 to 6 weeks later of
- Monument 75WG at a rate of 0.53 oz per acre.]

Manuscript must be applied in combination with Adigor® spray surfactant [or methylated seed oil].

[For control of dallisgrass (*Paspalum dilatatum*), use the following herbicide program:

- Manuscript applied at a rate of 19.2 fl oz per acre in the late summer/early fall followed by
- Monument 75WG at a rate of 0.53 oz per acre 4 to 6 weeks later when dallisgrass begins to recover followed by
- Monument 75WG at a rate of 0.53 oz per acre the following spring when untreated dallisgrass begins to green up.

For dallisgrass control, Manuscript must be applied in combination with Adigor spray surfactant [or methylated seed oil].]

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.

For control of bull paspalum (*Paspalum boscianum*) and thin leaf paspalum (*Paspalum setaceum*) apply:

Manuscript applied at a rate of 19.2 fl oz per acre once

#### OR

- Manuscript applied at a rate of 9.6 fl oz per acre followed 14 days later by
- Manuscript applied at a rate of 9.6 fl oz per acre.

For bull and thin leaf paspalum control, Manuscript must be applied in combination with Adigor spray surfactant [or methylated seed oil].

#### Weeds Controlled in St. Augustinegrass (Sod Production Only)

For control of tropical signalgrass (*Urochloa subquadripara*), tropical carpetgrass (*Axonopus compressus*), large crabgrass (*Digitaria sanguinalis*), smooth crabgrass (*Digitaria ischaemum*), bahiagrass (*Paspalum notatum*), canoe grass (*Paspalum acuminatum*), dallisgrass (*Paspalum dilatatum*), bull paspalum (*Paspalum boscianum*) and thin leaf paspalum (*Paspalum setaceum*) and suppression of torpedograss (*Panicum repens*) and suppression of seashore paspalum (*Paspalum vaginatum*), apply spot treatments of Manuscript to small areas of heavy weed infestation. To make a spot treatment, mix 9.6 fl oz of Manuscript in 20 gallons of water and add the appropriate spray adjuvant(s). Spray weeds until wet, but avoid run-off of spray solution and overapplication. Spot treatments are likely to cause yellowing and growth regulatory effects to the turfgrass.

For weed control in St. Augustinegrass sod, Manuscript must be applied in combination with Adigor spray surfactant [or methylated seed oil, COC or NIS].

#### **SPRAY ADJUVANTS**

Manuscript requires a spray adjuvant. For optimum weed control, use the spray adjuvant(s) as specified in the 'WEEDS CONTROLLED' section 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.

#### **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 use on turfgrasses other than those listed above or severe injury may occur.
- **DO NOT** apply Monument 75WG to newly seeded, sodded or sprigged turfgrass. Delay applications for at least 4 weeks after sprigging, seed emergence, or sodding.

-13-

- DO NOT use fresh clippings from treated areas as mulch around trees, shrubs, or in vegetable/flower gardens as some ornamental plants are very sensitive to Manuscript.
- **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** apply to golf course greens.
- **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.

#### WEED RESISTANCE MANAGEMENT PRACTICES

### PINOXADEN GROUP 1 HERBICIDE

Manuscript is a Group 1 herbicide (ACCase mode of action). Some naturally occurring populations of grassy weeds have been identified as being resistant to herbicides with the ACCase mode of action. Selection of resistant biotypes through repeated use of these herbicides in the same field may result in control failures. A resistant biotype may be present if poor performance cannot be attributed to adverse weather conditions or improper application methods. If resistance is suspected, contact your local Syngenta representative for assistance.

#### **Principles of Herbicide Resistant Weed Management**

#### Scout and know your field

- Know weed species present in the field to be treated through scouting and field 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 fields 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 field.

#### Utilize non-herbicidal practices to add diversity

 Use diversified management tactics such as cover crops, mechanical weed control, harvest weed seed control, and crop rotation as appropriate.

#### Use good agronomic practices, start clean and stay clean

- Use good agronomic practices that enhance crop competitiveness.
- Plant into weed-free fields utilizing tillage or an effective burndown herbicide for control of emerged weeds.
- Sanitize farm equipment to avoid spreading seed or vegetative propagules prior to leaving fields.

#### Difficult to control weeds

- Plant fields with difficult to control weeds in rotation with crops that allow the use of herbicides with an alternative mode of action or different management practices.
- Difficult to control weeds may require sequential applications, such as a broad spectrum preemergence herbicide followed by one or more postemergence herbicide applications. Utilize herbicides containing different modes of action effective on the target weeds in sequential applications.

#### 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 and inspect fields following application

- Prevent an influx of weeds into the field by controlling weeds in field borders.
- Scout fields 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 before, during, and after harvest

 Do not allow weed escapes to produce seed or vegetative structures such as tubers or stolons which contribute to spread and survival. Consider harvest weed seed management and control weeds post-harvest to prevent seed production.

#### Resistant weeds

Contact your local Syngenta representative, retailer, crop advisor 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.

#### 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 ¼ 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

-16-

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

Manuscript, Adigor®, Monument® the ALLIANCE FRAME the Syngenta logo and the PURPOSE ICON are trademarks of a Syngenta Group Company.

Viton® is a trademark of E.I. DuPont de Nemours and Company.

©20\_\_ Syngenta

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

Manuscript XXXX NEW-D 0317 - sb - 8/14/2018 000100-XXXXX.20170405D.MANUSCRIPT.NEW.APR2017.pdf