



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

November 23, 2022

Victoria Smith  
Agent to Aquatrols Corporation of America  
Wagner Regulatory Associates, Inc.  
7217 Lancaster Pike, Suite A  
Hockessin, DE 18707

Subject: Amendments to Ethofumesate labels to satisfy waiver of the Dislodgeable Foliar Residue and Turf Transferable Residue studies as required by the EPA letter dated November 15, 2017  
Product Name: Phoenix Thrasher  
EPA Registration Number: 94396-23  
Application Date: October 9, 2019  
Decision Number: 556114

Dear Victoria Smith:

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 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.

Your release for shipment of the product constitutes acceptance of these conditions. If these

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Decision No. 556114

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 Lauren Weissenborn by email at [Weissenborn.lauren@epa.gov](mailto:Weissenborn.lauren@epa.gov).

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

**ETHOFUMESATE GROUP 16 HERBICIDE**

# PHOENIX THRASHER

## HERBICIDE

**NOT FOR USE ON COMMERCIAL SOD FARMS IN ARIZONA**  
**For sale and use by professional applicators only. Not for sale or use by homeowners/consumers.**

### ACTIVE INGREDIENTS:

Ethofumesate: (2-ethoxy-2,3-dihydro-3,3-dimethyl-5-benzofuranyl methanesulfonate)\* .....42%

**OTHER INGREDIENTS**.....58%

**TOTAL**..... 100%

\*This product contains 4 lbs. active ingredient per gallon.

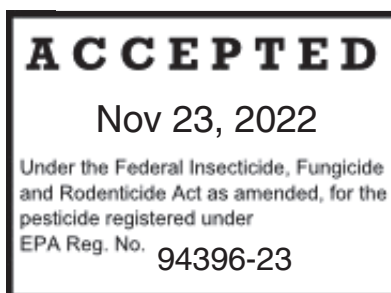
**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

FIRST AID	
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.</li><li>• Call a poison control center or doctor for further 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 15-20 minutes.</li><li>• Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<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 15-20 minutes.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
<b>HOT LINE NUMBER</b> Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the Rocky Mountain Poison Control Center at 1-866- 673-6671 for emergency medical treatment information.	

Aquatrols Corporation of America  
1273 Imperial Way  
Paulsboro, NJ 08066

**EPA Reg. No. 94396-23**  
**EPA Est. No. -XXXXX-XX-X**  
**Net Contents: Gallons**



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

Caution. Harmful if swallowed or inhaled. Avoid breathing vapor or spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

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

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, natural rubber ≥14 mils, polyethylene, polyvinyl chloride ≥14 mils or Viton ≥14 mils
- Shoes plus socks

See engineering controls for additional requirements.

**On-Site Closed Mixing and Loading System Engineering Controls for Liquid Formulations for Commercial Dry Bulk Fertilizer Impregnation:**

Mixers and loaders must use a closed system designed by the manufacturer to provide dermal and inhalation protection to enclose the pesticide to prevent it from contacting handlers or other people AND the system is functioning properly and is used and maintained in accordance with the manufacturer's written operating instructions.

The handlers:

- Must wear the PPE listed on this label and
- Must wear protective eyewear if the system operates under pressure
- Must have immediately available for use in an emergency, such as a spill, or equipment breakdown, chemical resistant footwear and chemical resistant apron.

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

**ENGINEERING CONTROLS STATEMENT**

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. Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (6)].

**USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately, if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read entire Use Precautions, Directions for Use, and Disclaimer of Warranties before using this product.

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 in your State responsible for pesticide regulation.

## SHAKE CONTAINER WELL BEFORE USING

### 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 and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours, except for commercial sod. The REI for commercial sod is 2 days (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
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material.

### 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 or allow others to enter until sprays have dried.

## PRODUCT INFORMATION

PHOENIX THRASHER is a herbicide intended for use on ornamental turf such as golf courses and sod farms, and after overseeding specific grasses. It may be used on established perennial ryegrass, Kentucky bluegrass, creeping bentgrass, turf-type tall fescue, St. Augustinegrass, and dormant bermudagrass for the control and/or suppression of specific annual grasses and broadleaf

weeds. PHOENIX THRASHER is intended for sale and use by professional applicators.

PHOENIX THRASHER has both preemergent and early (two leaf stage) postemergent activity; works best in programs emphasizing both approaches. PHOENIX THRASHER is most effective on healthy, vigorously growing turf.

#### **SPRAY DRIFT MANAGEMENT**

This chemical can contaminate surface water through spray drift. A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of applications (e.g., ground, aerial) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

**Wind Speed:** Do not apply at winds speeds greater than 15 mph.

**Temperature Inversions:** Do not make applications into areas of temperature inversion or stable atmospheric conditions.

#### **RESISTANCE-MANAGEMENT**

For resistance management, PHOENIX THRASHER is a Group 8 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain or develop plants naturally resistant to PHOENIX THRASHER and other Group 8 herbicides. Weeds resistant to Group 8 herbicides may be effectively managed utilizing another herbicide alone or in mixtures from a different Group and/or by using cultural or mechanical practices. However, a herbicide mode of action classification by itself may not adequately address specific weeds that are resistant to specific herbicides. Consult your local company representative, state cooperative extension service, professional consultants or other qualified authorities to determine appropriate actions for treating specific resistant weeds.

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

- Rotate the use of PHOENIX THRASHER or other Group 8 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.
- 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 a Aquatrols Corporation of America representative.

## **WEED SPECIES CONTROLLED**

### **PREEMERGENCE**

#### **Annual Grasses**

Barnyardgrass	<i>Echinochloa crus-galli</i>
Bluegrass, annual	<i>Poa annua</i>
Canarygrass	<i>Phalaris canariensis</i>
Crabgrass, large	<i>Digitaria sanguinalis</i>
Crabgrass, smooth	<i>Digitaria ischaemum</i>
Green foxtail	<i>Setaria viridis</i>
Yellow foxtail	<i>Setaria glauca</i>

#### **Annual Broadleaves**

Burclover	<i>Medicago</i> sp.
Chickweed, common	<i>Stellaria media</i>
Purslane, common	<i>Portulaca oleracea</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>

PHOENIX THRASHER will also reduce competition from:

Nutsedge, yellow	<i>Cyperus esculentus</i>
Nutsedge, purple	<i>Cyperus rotundus</i>

### **POSTEMERGENCE**

#### **Annual Grasses**

Bluegrass, annual	<i>Poa annua</i>
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#### **Annual Broadleaves**

Chickweed, common	<i>Stellaria media</i>
Clover, white	<i>Trifolium repens</i>

### **PREEMERGENCE/EARLY POSTEMERGENCE**

#### **Annual Grasses**

Crabgrass, smooth	<i>Digitaria ischaemum</i>
Crabgrass, large	<i>Digitaria sanguinalis</i>



## USE PRECAUTIONS AND RESTRICTIONS

### Use Restrictions:

- Do not apply to residential turf, residential lawns, outdoor recreational areas such as school grounds, athletic fields, parks and property associated with buildings occupied by humans for residential purposes.
- Do not apply more than 2.3 lb a.i./A (74 oz. product/A) in a single application to golf course turf.
- Do not make more than 2 applications per year.
- DO NOT OVER APPLY PHOENIX THRASHER. Follow the instructions in this label or damage to non-target turf may result.
- Do not apply with hand-held or flood jet nozzles because treatments may not be uniform.
- Do not apply this product through any type of irrigation system.
- Delay application of PHOENIX THRASHER at least 8 weeks after application of a Plant Growth Regulator, although a PHOENIX THRASHER program may be initiated on creeping bentgrass 3 weeks after a single application of trinexapac ethyl has been applied.
- Do not apply PHOENIX THRASHER to putting greens.
- Do not apply PHOENIX THRASHER to zoysiagrass and hard or fine fescue to avoid serious injury.
- **For Sod Farm Turf:** Do not harvest treated sod for 3 days following application.
- Do not graze livestock on treated turf.
- Do not feed treated grass clippings to livestock.
- Do not move handset irrigation equipment within 7 days of application except as permitted by the worker protection standard 170.603(d).

### Use Precautions:

- Spray overlap can cause turf injury due to over application. Use of a spray colorant or indicator is recommended so that spray overlap can be avoided.
- When using PHOENIX THRASHER, overseed to prevent stand thinning as a result of loss of annual bluegrass loss. Use the rate of PHOENIX THRASHER specified for the overseeded species when overseeding. In mixed stands of established turfgrasses, use the rate specified for the least tolerant species.

### Spray Equipment Application, and Precautions

Use standard, low pressure (20 to 50 psi) spray equipment to apply PHOENIX THRASHER. Calibrate spray equipment prior to use and frequently check the equipment during application. Use a spray indicator to aid in even application. Prior to and after applying PHOENIX THRASHER, thoroughly clean and rinse the spray tank and line.

### Varietal Tolerance

Ethofumesate (the active ingredient in PHOENIX THRASHER) has been used safely on the following turfgrass cultivars. However, PHOENIX THRASHER can be used on other cultivars. Prior to large-scale use of PHOENIX THRASHER on cultivars other than listed below, test a small area for tolerance.

- **CREEPING BENTGRASS** – The following cultivars have shown good to excellent tolerance to PHOENIX THRASHER: Carmen, Cobra, Highland, Lopez, Mariner, National, Penncross, Providence, Putter, Southshore, SR1020, and Viper.  
Injury has been occasionally noted Emerald, Penneagle, and Pennlinks. PHOENIX



THRASHER may cause serious injury to Cohansey, Colonial, south German varieties, Egmont, Bardot, Tracenta, Allure, Astoria, and SR7100.

- **DORMANT BERMUDAGRASS** – Tifgreen, Tifdwarf, Common bermudagrass is more susceptible to PHOENIX THRASHER than hybrid bermudagrass.
- **KENTUCKY BLUEGRASS** – Adelphi, American, Aspen, Asset, Challenger, Classic, Emundi, Huntsville, Georgetown, Glade, Haga, Julic, Liberty, Merit, Midnight, Monopoly, Mystic, Parade, Rugby, Sydsport, Touchdown.

DO NOT APPLY to the following cultivars: Explorer, Limousine, Northstar, RAN I and Total Eclipse.

- **PERENNIAL RYEGRASS** – Acclaim, Blazer, Dasker, Derby, Elka, Fiesta, Goalie, Hunter, Linn, Loretta, Manhattan II, Palmer, Pennfine, Regal, Yorktown
- **ST. AUGUSTINEGRASS** – Raleigh
- **TURF-TYPE FALL FESCUE** – America, Arid, Mustang

### Use Instructions

- For fall control of annual bluegrass, begin applications of PHOENIX THRASHER during the period of maximum weed germination and end as close to the first killing freeze as possible.
- Make spring during the period of maximum weed germination. Consult your weed science specialist or university extension service for the recommended application timing in your area. Spring applications are most effective following fall applications.

**SEE CHART FOR USE RATES AND TIMINGS. READ TEXT BELOW FOR SPECIFIC RECOMMENDATIONS FOR EACH TYPE OF GRASS.**

### APPLICATION RATES AND TIMINGS<sup>1</sup>

Turf Type	Primary Targets	Application Timing	fl. oz./Acre	fl. oz./1,000 sq. ft	# of Applications	Application Interval (Days)	Overseeding Safety Interval 3 (Weeks After Treatment)	Application Safety Interval 5 (Weeks After Emergence)
Creeping Bentgrass	Annual bluegrass	Fall	24	9/16	2-3	21-28	4	4
		Spring <sup>2</sup>	24	9/16	1-2	21-28		
Kentucky bluegrass	Annual bluegrass	Fall	24	9/16	2-3	21-28	6	8
Ryegrass	Annual bluegrass	Fall	32-64	3/4 – 1 1/2	2-3	21-28	1-2	1-2
		Spring <sup>2</sup>			1-2	21-28		
St. Augustinegrass (Est. Turf)	Bermudagrass suppression	Spring	48-64	1 1/8 - 2 1/4	2-3	21-28	NA	NA
Turf-type tall fescue	Annual bluegrass	Fall	24-48	3/4 – 1 1/2	2-3	21-28	0	2-3
Overseeded (ryegrass) Bermuda grass:								
Dormant bermudagrass	Annual bluegrass	Fall	24-64	9/16 – 1 1/2	2-3	21-28	NA	NA

Nondormant bermudagrass	Annual bluegrass	Fall	32-36	3/4 - 7/8	2	21-28	NA	NA
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1 Apply PHOENIX THRASHER in 20 to 60 gallons of water per acre or 1 to 3 gallons of water per 1,000 sq. feet.

2 Only make spring applications after previous fall treatments.

3 After the last treatment of PHOENIX THRASHER, the interval provided applies to overseeding of the specific grass on same type of grass to which PHOENIX THRASHER was applied.

4 PHOENIX THRASHER may be applied to specific grass following seed emergence after the specified time interval.

NA = Not applicable

## DIRECTIONS FOR SPECIFIC GRASS TYPES

### COOL SEASON TURFGRASSES

#### Creeping Bentgrass

PHOENIX THRASHER may be applied to bentgrass as long as the turf is at a length typically found on fairways (or longer). When applying to bentgrass, use the following guidelines:

- Avoid using PHOENIX THRASHER in areas that are heavily shaded and/or poorly drained.
- Creeping bentgrass tolerance to PHOENIX THRASHER may be improved by tank mixing PHOENIX THRASHER with nitrogen fertilizer (controlled release or soluble) at a rate of 0.1 to 0.25 lbs. N per 10,000 ft<sup>2</sup>. This may also improve creeping bentgrass conversion in the areas treated.
- Control of annual bluegrass is best achieved by making two applications of PHOENIX THRASHER; one in the fall followed by one in the spring.
- PHOENIX THRASHER works best in the spring if applied after creeping bentgrass has resumed active growth and is fully green.

#### When overseeding with creeping bentgrass, use the following guidelines:

- After applying PHOENIX THRASHER wait a minimum of 3-4 weeks before overseeding with bentgrass.
- When an area has been renovated or overseeded with bentgrass, do not apply PHOENIX THRASHER until 3-4 weeks after seedling emergence.

#### Kentucky Bluegrass

- Delay applying PHOENIX THRASHER to bluegrass until at least 8 weeks after emergence.
- Bluegrass overseeded with ryegrass may be treated 1-2 weeks after ryegrass emergence.

#### When overseeding with Kentucky bluegrass use the following guidelines:

- Wait at least 6 weeks after the last PHOENIX THRASHER application before reseeding with Kentucky bluegrass.
- Note that sod quality during the spring may be diminished following fall applications of PHOENIX THRASHER. Alternatives to fall application of PHOENIX THRASHER include seeding with dormant bluegrass in the late fall or to delay reseeding until the spring.

#### Perennial Ryegrass

Control of annual bluegrass in perennial ryegrass is easiest when it is newly emerged, and application of PHOENIX THRASHER is made during the primary period of annual bluegrass germination (and up to 30 days after annual bluegrass emergence) in the fall and/or spring.

Consult your local Extension Service or University weed specialists for date(s) annual bluegrass germinates in your area.

**Use Restrictions:**

- Do not apply more than 1.15 lbs. a .i./A (37 oz. product/A) once in both the fall and spring (except for application to golf courses).
- DO NOT apply more than 2 applications per year.
- Do not apply more than 2.3 lb a.i./A (74 oz. product/A) in a single application to golf course turf.
- Application in the fall or spring will also reduce competition from selected broadleaf weeds and crabgrass.

**When overseeding with perennial ryegrass, use the following guidelines:**

- Wait 1 to 2 weeks (or until the seedlings are approximately 1" tall) before applying PHOENIX THRASHER to the seeded area.
- To the extent possible, remove thatch from the area being seeded as it can diminish the effectiveness of the PHOENIX THRASHER treatment.
- Do not apply mulch or straw to the seeded areas until after PHOENIX THRASHER has been applied.

**Turf-Type Tall Fescue**

Make PHOENIX THRASHER applications to turf-type tall fescue in the fall. If overseeding with turf-type tall fescue, application of PHOENIX THRASHER may be done at the same time as seeding.

**Use Restrictions:**

- Do not apply more than 1.15 lbs. a .i./A (37 oz. product/A) once in both the fall and spring.
- DO NOT apply more than 2 applications per year.
- Do not apply more than 2.3 lb a.i./A (74 oz. product/A) in a single application to golf course turf.
- Minimum Retreatment Interval: 21 days

**WARM SEASON TURFGRASSES**

**St. Augustinegrass (Established Turf)**

PHOENIX THRASHER suppresses the development of actively growing bermudagrass in established St. Augustinegrass sod. Apply PHOENIX THRASHER to St. Augustine in the spring and early summer to suppress bermudagrass and Bermudagrass seedhead formation and/or control annual bluegrass.

**Use Restrictions:**

- Do not treat St. Augustinegrass in the first 6 months after germination.
- Do not treat St. Augustinegrass that is under stress or injury to the turf may result.
- Temporary stunting and minor discoloration of St. Augustinegrass may occur after application. If the St. Augustinegrass shows signs of severe yellowing or stunting, discontinue applications.

**Use the following guidelines when applying PHOENIX THRASHER to St. Augustinegrass:**

- Begin PHOENIX THRASHER applications when Bermudagrass first breaks dormancy in the spring. Application timing is critical to achieve optimum results and will vary depending on location and temperature.
- For best results, make two applications at at 0.75 lbs. a.i./A (24 oz. product/A (0.5 oz./1,000 sq. ft.) with the second application being made 21-28 days after the first application.
- To improve suppression, each application of PHOENIX THRASHER may be tank-mixed with Atrazine. Follow specified rates on tank mix partner label.

**Overseeded Dormant Bermudagrass**

**Use Restrictions:**

- Do not make more than one application at 1.5 lbs. a.i./A (74 oz. product/A) when treating nondormant bermudagrass. Treatment to turf that is not fully dormant may cause early injury and/or delayed spring green up.
- Application of PHOENIX THRASHER to bermudagrass that is stressed due to shade, poorly drained soils and high traffic may result in increased turf injury. Avoid use of PHOENIX THRASHER or use lower rates under these conditions.

**Use the following guidelines when applying PHOENIX THRASHER to Bermudagrass:**

- To control annual bluegrass, make applications of PHOENIX THRASHER in late fall (ideally 1-2 weeks after emergence of overseeded perennial ryegrass) on overseeded Bermudagrass.
- When PHOENIX THRASHER is applied in late November or early December, applications of 32-36 fl. oz per acre have shown acceptable control of annual bluegrass with minimum injury to nondormant (or predormant) bermudagrass. If lower rates are used, reduced annual bluegrass control should be expected. If higher rates are used, increased injury to bermudagrass may occur.
- Do not apply PHOENIX THRASHER to Bermudagrass in the 4 weeks prior to breaking winter dormancy. Applications made to Bermudagrass in the 4 weeks prior to breaking dormancy may temporarily delay the normal start of active growth.

**When overseeding bermudagrass, use the following guidelines:**

- Common bermudagrass in fairways or roughs may be more susceptible to herbicide injury than hybrid bermudagrass.
- When making applications to nondormant bermudagrass, apply PHOENIX THRASHER within areas that are overseeded so that the ryegrass will mask any early injury or late transition in the spring that may occur.
- Using a higher than normal seeding rate may be desirable in order to minimize the appearance of thin turf.

**PHOENIX THRASHER USED IN FERTILIZER APPLICATIONS**

**Dry fertilizer coated with PHOENIX THRASHER**

Certain dry fertilizers can be coated with PHOENIX THRASHER and used in applications to manage listed grasses and broadleaf weeds. All directions for use, restrictions and advisory precautions are required for the use of PHOENIX THRASHER and any additional labeled products used. State regulations regarding fertilizers must be followed by the company and/or

persons responsible for such applications. No more than 700 lbs./A of any labeled fertilizers coated with PHOENIX THRASHER may be applied (with a minimum of 200 lbs./A).

Since each fertilizer can absorb liquids differently proper care should be taken to ensure the appropriate amount of PHOENIX THRASHER is used in the coating process. In the coating process, ensure a consistent coverage of PHOENIX THRASHER is applied to the dry fertilizer. If after the application PHOENIX THRASHER is not properly absorbed, then a powder like Microcel E (Johns-Manville Products Corporation) may be required. Only an adequate amount to obtain the appropriate product mixture should be used in the combination product of fertilizer and PHOENIX THRASHER. Follow the manufacturer's labeled directions for use and application rates. Further make sure equipment is properly calibrated before use. Make sure the amount of PHOENIX THRASHER coated fertilizer when applied to the soil is correct for the intended labeled use rate.

**Use Restrictions:** Dry fertilizers coated with PHOENIX THRASHER must not be placed in storage for later use but used directly.

**Dry fertilizers which have been tested for use with PHOENIX THRASHER are listed in the table below.**

	<b>N</b>	<b>P</b>	<b>K</b>
Ammonium nitrate	34	0	0
Ammonium sulfate	21	0	0
Ammonium phosphate- sulfate	16	20	0
Diammonium phosphate	18	46	0
Monoammonium phosphate	11	56	0
Potassium chloride	0	0	60
Potassium sulfate	0	0	52
Single Super Phosphate	0	20	0
Triple Super Phosphate	0	46	0
Urea	45	0	0

#### **Liquid fertilizer mixed with PHOENIX THRASHER**

Physical compatibility of all product ingredients should be tested before use. To the test jar, add one pint of liquid fertilizer, an adjuvant approved for use with fertilizers, and PHOENIX THRASHER using the rates listed below. Shake the components in the jar to affect the solution. The mixture is deemed compatible if after a period of thirty minutes the components do not form layers, sludges, solids, or oils. If the components form layers but readily mix, constant agitation of the tank mix may be required. If any layers or solids form which do not readily redisperse, then the mixture is considered incompatible.

## PHOENIX THRASHER + Liquid fertilizer use rates

Amount of fertilizer per acre	Amount of PHOENIX THRASHER added to fertilizer (1 pint)	
	gal.	mL
20	17.6	3.6
30	12.0	2.4
40	9.0	1.9
50	7.1	1.5
60	6.0	1.2

\*Based on field rate of 3.0 lbs. ai/acre (3/4 gal/acre) in the fertilizer volumes indicated. The amount of PHOENIX THRASHER added must be amended to match up with the rates listed for the intended purpose on the label. Add the appropriate amount of each ingredient in the tank mixture.

### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Protect PHOENIX THRASHER from freezing temperatures.

**Pesticide Disposal:** Do not contaminate water, food, or feed by storage or disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**Container Disposal:** Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available or puncture and dispose of in a sanitary landfill or by incineration. Do not burn unless allowed by state and local ordinances.

### IMPORTANT INFORMATION READ BEFORE USING PRODUCT

**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 reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks 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 Aquatrols Corporation of America or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of Aquatrols Corporation of America and Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Aquatrols Corporation of America and Seller harmless for any claims relating to such factors.

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