



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

June 8, 2021

Bill Washburn  
Registration Manager  
Helena Agri-Enterprises, LLC  
225 Schilling Blvd., Suite 300  
Collierville, TN 38017

Subject: Notification per PRN 98-10 – Addition of Resistance Management language per PR Notice 2017-1  
Product Name: HMO-1601 Fungicide  
EPA Registration Number: 5905-602  
Application Date: 12-11-2018  
Decision Number: 547081

Dear Bill Washburn:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped “Notification” and will be placed in our records.

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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Decision No. 547081

If you have any questions, you may contact please contact Edward Cotton at 703-347-8273 or by email at [cotton.edward@epa.gov](mailto:cotton.edward@epa.gov).

Sincerely,

A handwritten signature in black ink that reads "Paul Di Salvo". The signature is written in a cursive style with a large, prominent "P" and "S".

Paul Di Salvo, MPS, AWB<sup>®</sup>  
Special Assistant / Wildlife Biologist  
Registration Division (7505P)  
Office of Pesticide Programs

Enclosure: Stamped Label

**NOTIFICATION**

5905-602

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

06/08/2021

<b>Chlorothalonil</b>	<b>GROUP</b>	<b>M05</b>	<b>FUNGICIDE</b>
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# HMO-1601 FUNGICIDE

**ACTIVE INGREDIENT:**

Chlorothalonil (tetrachloroisophthalonitrile) ..... 53.27%

**OTHER INGREDIENTS:** ..... 46.73%

**TOTAL** ..... 100.00%

Contains 6.0 pounds chlorothalonil per gallon (720 grams per liter)

## KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
If inhaled:	<ul style="list-style-type: none"> <li>• Move the person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
If swallowed:	<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 a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
If in Eyes	<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 the first 5 minutes, then continue rinsing.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.	
<b>NOTE TO PHYSICIAN:</b> Persons suffering with temporary allergic skin reactions may respond to treatment with oral antihistamines and topical or oral steroids.	
<b>FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-424-9300.</b>	

See Inside Booklet for Additional Precautionary Statements and Directions for Use

EPA REG. NO. 5905-602  
NET CONTENTS 2.5 GAL (9.46 L)

EPA EST. \_\_\_\_\_  
AD 041217



MANUFACTURED FOR  
HELENA **AGRI-ENTERPRISES, LLC**  
225 SCHILLING BOULEVARD, SUITE 300  
COLLIERVILLE, TN 38017

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

Harmful if inhaled. Harmful if swallowed. Causes moderate eye irritation. Avoid breathing spray mist. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Avoid contact with eyes or clothing. Wear: Long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves.

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

#### Personal Protective Equipment (PPE)

Some of the materials that are chemical-resistant to this product are listed below. If you want more options follow the instructions for Category A on an EPA chemical resistance category selection chart.

Mixers, Loaders, Applicators and all other handlers must wear:

- Face shield or safety glasses
- Long-sleeved shirt and long pants
- Chemical resistant gloves made of barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride (PVC) or viton,
- Shoes plus socks

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.

A dust/mist-filtering respirator must be worn if the mixer/loader/applicator uses a high-pressure, hand wand sprayer.

#### Engineering Control Statements

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for 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:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- 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.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

## PHYSICAL AND CHEMICAL HAZARDS

Do not mix or allow contact with oxidizing agents. Hazardous chemical reaction may occur.

## ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates and wildlife. Do not apply directly to water, 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 neighboring areas. Do not contaminate water when disposing of equipment wash water or rinsate.

This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow ground water, areas with infield canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips and areas over-laying tile drainage systems that drain to surface water.

**ATTENTION:** This product contains chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

## DIRECTIONS FOR USE

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

HMO-1601 should be used only in accordance with recommendations on this label or in separately published EPA approved supplemental labeling recommendations for this product.

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

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, nurseries, and greenhouses and handlers of agricultural pesticides.

It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**Do not enter or allow workers to enter treated areas during the restricted-entry interval (REI) of 12 hours.**

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated such as plants soil, or water is:

- Face shield or safety glasses
- Coveralls,
- Chemical resistant gloves made of any waterproof material,
- Shoes plus socks and
- Protective eyewear.

**Special Eye Irritation Provisions:** Chlorothalonil in this product is a severe eye irritant. Although the restricted entry interval expires after 12 hours for the next 6.5 days entry is permitted only when the following safety measures are provided:

1. At least one container designed specifically for flushing eyes must be available in operating condition at the WPS required decontamination site intended for workers entering the treated area.
2. Workers must be informed, in a manner they can understand:
  - that residues in the treated area may be highly irritating to their eyes
  - that they should take precautions such as refraining from rubbing their eyes to keep the residues out of their eyes
  - that if they do get residues in their eyes they should immediately flush their eyes using the eye flush container that is located at the decontamination site or using other readily available clean water
  - how to operate the eye flush container

### **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, nurseries or greenhouses.

**Do not enter or allow others to enter the treated area until sprays have dried.**

### **PRODUCT INFORMATION**

HMO-1601 is an excellent disease control agent when used according to label directions for control of a broad spectrum of plant diseases. HMO-1601 is recommended for use in programs which are compatible with the principles of Integrated Pest Management (IPM), which include the use of disease resistant crop varieties, cultural practices, pest scouting and disease forecasting systems which reduce unnecessary applications of pesticides.

HMO-1601 is effective for strategic use in programs that attempt to minimize disease resistance to fungicides. Some other fungicides which are at risk from disease resistance exhibit a single-site mode of fungicidal action HMO-1601 with a multi-site mode of action, may be used to delay or prevent the development of resistance to single-site fungicides. Consult with your Federal or State Cooperative Extension Service representatives for guidance on the proper use of HMO-1601 in programs which seek to minimize the occurrence of disease resistance to other fungicides.

HMO-1601 can be used effectively in dilute or concentrate sprays. Thorough uniform coverage is essential for disease control.

#### **Precautions and Restrictions**

DO NOT use on greenhouse-grown crops except as directed in the ORNAMENTAL PLANTS section of this label.

Do not apply when wind speed favors drift beyond the target area. Observe all spray drift precautions for ground, aerial, and chemigation applications.

Do not combine HMO-1601 in spray tank with pesticides, surfactants or fertilizers, unless your prior use has shown the combination physically compatible, effective and noninjurious under your conditions of use. Do not combine HMO-1601 with Dipel®, Latron B-1956® or Latron AG-98® as phytotoxicity may result from the combination when applied to the crops on this label.

This product must not be applied within 150 feet for aerial applications, or 25 feet for ground applications of marine/estuarine water bodies unless there is an untreated buffer area of that width between the area to be treated and the water body.

### **Spray Drift Precautions**

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off target drift movement from aerial applications to agricultural field crops. These requirements do not apply to conifer applications, public health uses or applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

### **Aerial Drift Reduction Advisory Information**

[This section is advisory in nature and does not supersede the mandatory label requirements]

#### **Information on Droplet Size**

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable conditions (See Wind, Temperature)

#### **Controlling Droplet Size**

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting the nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift potential.

#### **Boom Length**

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

### **Application Height**

Applications should not be made at a height greater than 10 ft above the top of the largest plants, unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

### **Swath Adjustment**

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

### **Wind**

Drift potential is lowest between wind speeds of 2-10 mph. However many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential.

**NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

### **Temperature and Humidity**

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

### **Temperature Inversions**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog, however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

### **Sensitive Areas**

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

## **RESISTANCE MANAGEMENT**

For resistance management, AmTide Propiconazole 41.8% EC Fungicide contains a Group 3 fungicide/bactericide. Any fungal/bacterial population may contain individuals naturally resistant to AmTide Propiconazole 41.8% EC Fungicide and other Group 3 fungicides/bactericides. A gradual or total loss of pest control may occur over time if these fungicides/bactericides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay fungicide/bactericide resistance, take one or more of the following steps:

- Rotate the use of (name of product) or other Group (mode of action group number) fungicides/bactericides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide/bactericides from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide/bactericide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance.



impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.

- Where possible, make use of predictive disease models to effectively time fungicide/bactericide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal/bacterial populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance contact Helena Agri-Enterprises, LLC at 901-761-0050 or at [Helenaagri.com](http://Helenaagri.com). You can also contact your pesticide distributor or university extension specialist to report resistance.

## **APPLICATION**

Dosage rates on this label indicate pints of HMO-1601 per acre unless otherwise stated. Under conditions favoring disease development the highest rate specified and shortest application interval should be used.

**NOTE:** Slowly invert container several times to assure uniform mixture.

The required amount of HMO-1601 should be added slowly into the spray tank during filling. With concentrate sprays, pre-mix the required amount of HMO-1601 in a clean container and add to the spray tank as it is being filled. Keep agitator running when filling spray tank and during spray operations.

Apply HMO-1601 in sufficient water to obtain adequate coverage of foliage. Gallonage to be used will vary with crop and amount of plant growth.

For turf, field and row crops spray volume usually will range from 20 to 150 gallons per acre for dilute sprays and 5 to 10 gallons per acre for concentrate ground sprays and aircraft applications.

For tree and orchard crops apply HMO-1601 in sufficient water and with proper calibration to obtain uniform coverage of tree canopy. For fruit and nut bearing crops the maximum volume is 300 gallons per acre unless indicated otherwise in the specific use directions. For conifers the maximum volume is 100 gallons per acre.

### **Application and Calibration Techniques for Chemigation**

Apply this product only through center pivot, motorized lateral move, traveling gun, solid set and portable (wheel move side roll, end tow, or hand move) irrigation system(s). Do not apply this product through any other type of irrigation system.

Crop injury lack of effectiveness or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not apply this product through irrigation systems connected to a public water system. "Public water system" means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days per year.

Controls for both irrigation water and pesticide injection systems must be functionally interlocked, so as to automatically terminate pesticide injection when the irrigation water pump motor stops. A person knowledgeable of the irrigation system and responsible for its operation shall be present so as to discontinue pesticide injection and make necessary adjustments, should the need arise.

The irrigation water pipeline must be fitted with a functional automatic, quick-closing check valve to prevent the flow of treated irrigation water back toward the water source. The pipeline must also be fitted

with a vacuum relief valve and low pressure drain located between the irrigation water pump and the check valve, to prevent back-siphoning of treated irrigation water into the water source

**Always inject HMO-1601 into irrigation water after it discharges from the irrigation pump and after it passes through the check valve. Never inject pesticides into the intake line on the suction side of the pump.**

Pesticide injection equipment must be fitted with a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump. Interlock this valve to the power system so as to prevent fluid from being withdrawn from the chemical supply tank when the irrigation system is either automatically or manually turned off.

The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Spray mixture in the chemical supply tank must be agitated at all times otherwise settling and uneven application may occur. Do not apply when wind speed favors drift beyond the area intended for treatment.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

HMO-1601 may be used through two basic types of sprinkler irrigation systems as outlined in Sections A and B below. Determine which type of system is in place then refer to the appropriate directions provided for each type.

#### **A. Center Pivot, Motorized Lateral Move and Traveling Gun Irrigation Equipment**

For injection of pesticides, these continuously moving systems must use a positive displacement injection pump, of either diaphragm or piston type, constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock and capable of injection at pressures approximately 2 to 3 times those encountered within the irrigation water line. Venturi applicator units cannot be used on these systems.

Fill chemical supply tank of injection equipment with water. Operate system for one complete revolution or run across the field, measuring time required, amount of water injected, and acreage covered. Thoroughly mix recommended amount of HMO-1601 for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run. Mixture in the chemical supply tank must be continuously agitated during the injection run.

Shut off injection equipment after one revolution or run, but continue to operate irrigation system until HMO-1601 has been cleared from last sprinkler head.

#### **B. Solid Set and Portable (Wheel Move, Side Roll, End Tow, or Hand Move) Irrigation Equipment**

With stationary systems, an effectively designed in-line venturi applicator unit is preferred which is constructed of materials that are compatible with pesticides however a positive-displacement pump can also be used.

Determine acreage covered by sprinkler Fill tank of injection equipment with water and adjust flow to use contents over a 30 to 45 minute period. Mix desired amount of HMO-1601 for acreage to be covered with water so that the total mixture of HMO-1601 plus water in the injection tank is equal to the quantity of water used during calibration and operate entire system at normal pressures recommended by the manufacturer of injection equipment used for amount of time established during calibration. Agitation is recommended HMO-1601 can be injected at the beginning or end of the irrigation cycle or as a separate

application. Stop injection equipment after treatment is completed and continue to operate irrigation system until HMO-1601 has been cleared from last sprinkler head.

## DIRECTIONS FOR APPLICATION

<b>ASPARAGUS</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Cercospora blight ( <i>C. asparagi</i> )  Purple spot ( <i>Pleospora herbarum</i> )  Rust ( <i>Puccima asparagi</i> )	2.0 to 4.0 (1.5 to 3.0)	Use water volumes of 25.0 to 50.0 gal/A. Begin applications following final harvest of spears. Repeat applications at 14- to 28-day intervals (the minimum re-treatment interval is 14 days), depending on disease pressure. Use the higher rate and shorter interval if disease severity begins to increase during the season or weather conditions are conducive for severe epidemics. Apply by ground.
<b>Specific Use Restrictions:</b>		
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 12.0 pints of HMO-1601 (9.0 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 190 days (120 days in California and Arizona) of the harvest of spears in the following season.</li> </ul>		

<b>BEAN (Snap)</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Rust ( <i>Uromyces appendiculatus</i> )	1.375 to 3.0 (1.0 to 2.25)	Use in sufficient water to obtain adequate coverage. Begin applications during early bloom stage or when disease first threatens and repeat as necessary (the minimum re-treatment interval is 7 days) to maintain control.  Apply by ground, air or chemigation.
Botrytis blight (Gray mold) ( <i>B. cinerea</i> )	3.0 (2.25)	
<b>Specific Use Restrictions:</b>		
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 12.0 pints of HMO-1601 (9.0 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 7 days of harvest.</li> </ul>		

**BEANS (Dry) (except soybeans)**

Such as: Bean, adzuki ; Bean, broad ; Bean, dry ; Bean, lablab ; Bean, navy ; Bean, kidney ; Bean, lima ; Bean, moth ; Bean, mung ; Bean, pink ; Bean, pinto ; Bean, tepary ; Bean, urd ; Bean, yardlong ; Catjang Chickpea (garbanzo) ; Cowpea ; Lupin, grain ; Bean, rice ; Bean, runner ; Bean, jackbean ; Pea, blackeyed ; Pea, southern

Diseases (Pathogen)	Pt Product/A (Lb AI/A)	Application Directions
Anthracnose ( <i>Colletotrichum lindemuthianum</i> )  Ascochyta blight ( <i>A. phaseolorum</i> )  Cercospora leaf blotch ( <i>C. cruenta</i> )  Downy mildew ( <i>Phytophthora nicotianae</i> )  Rust ( <i>Uromyces appendiculatus</i> )	1.375 to 2.0 (1.0 to 1.5)	Use in sufficient water to obtain adequate coverage. Begin applications at first onset of disease, which may occur as early as 2 to 4 weeks before flowering. Repeat applications at 7- to 10-day intervals (the minimum re-treatment interval is 7 days). For use only on beans to be harvested dry with pods removed. Apply by ground, air or chemigation.

Such as: Lupin and Lentil

Anthracnose ( <i>Colletotrichum gloeosporioides</i> )  Ascochyta ( <i>Ascochyta pisi</i> )	1.0 to 1.5 (0.75 to 1.125)	Use in sufficient water to obtain adequate coverage. Begin applications when disease first threatens and repeat at 7- to 10-day intervals as disease pressure warrants.
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**Specific Use Restrictions:**

- **DO NOT** apply more than 8.0 pints of HMO-1601 (6.0 pounds active ingredient) per acre during each growing season.
- **DO NOT** apply within 14 days before harvest.

**BLUEBERRIES**

Diseases (Pathogen)	Pt Product/A (Lb AI/A)	Application Directions
Suppression: Anthracnose (ripe rot) ( <i>C. gloeosporioides</i> ) Mummy berry ( <i>M. vaccimicorymbosi</i> )	3.0 to 4.0 (2.25 to 3.0)	HMO-1601 should be integrated into an overall disease management strategy which includes alternation with a fungicide with a different mode of action. Diseases may only be suppressed and russetting may occur under heavy disease pressure or unfavorable environmental conditions. Apply in sufficient water to obtain adequate coverage, normally 20.0 to 100 gal/A. Begin applications at budbreak (green tip) and repeat at 10-day intervals through early bloom (the minimum re-treatment interval is 10 days ). Under heavy disease pressure, use the higher rate. Apply by ground or air.

Rust ( <i>Pucciniastrum vaccinii</i> )	3.0 to 4.0 (2.25 to 3.0)	Foliar Use After Harvest (after all berries are harvested): To maintain healthy leaves for the following season, apply in sufficient water to obtain adequate coverage (normally 20.0 to 100 gal/A). Repeat at 10- to 14-day intervals (the minimum re-treatment interval is 10 days). Apply by ground or air.
Septoria leaf spot ( <i>Septoria albopunctata</i> )		
<b>Specific Use Restrictions:</b>		
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 12.0 pints of HMO-1601 (9.0 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply after full bloom (except for foliar use after harvest) or within 42 days of harvest.</li> </ul>		

<b>BRASSICA, HEAD AND STEM</b>		
Such as: Broccoli ; Broccoli, Chinese ; Brussels, sprouts ; Cabbage ; Cabbage, Chinese (tight-headed varieties, only) ; Cabbage, Chinese (napa) ; Cabbage, Chinese mustard ; Cauliflower ; Cavalo broccolo ; Kohlrabi		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Alternaria leaf spot ( <i>Alternaria spp.</i> ) Downy mildew ( <i>Peronospora parasitica</i> )	1.5 (1.125)	Use in sufficient water to obtain adequate coverage. Begin applications after transplants are set in field, or shortly after emergence of field seeded crop or when conditions favor disease development. Repeat at 7- to 10-day intervals (the minimum re-treatment interval is 7 days) to maintain control. Apply by ground, air or chemigation.
Ring spot (CA only)	2.0 (1.5)	For field-seeded Brussels sprouts, begin applications at time of early sprout development or when conditions favor disease development. Repeat at 7- to 10-day intervals (the minimum re-treatment interval is 7 days) to maintain control.
<b>Specific Use Restrictions:</b>		
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 11.7 pints of HMO-1601 (8.8 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 7 days of harvest.</li> </ul>		

<b>CARROT</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Alternaria ( <i>A. dauci</i> )  Cercospora leaf spot ( <i>C. carotae</i> )	1.5 to 2.0 (1.125 to 1.5)	Use in sufficient water to obtain adequate coverage. Start applications when disease threatens and repeat at 7- to 10-day intervals (the minimum re-treatment interval is 7 days) to maintain control. Apply by ground, air or chemigation.
<b>Specific Use Restrictions:</b>		
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 20.0 pints of HMO-1601 (15.0 pounds active ingredient) per acre during each growing season.</li> <li>• HMO-1601 may be applied the day of harvest.</li> </ul>		

<b>CELERY</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Basal stalk rot ( <i>Rhizoctonia solani</i> ) Early blight ( <i>Cercospora apii</i> ) Late blight ( <i>Septoria apicola</i> )	2.0 to 3.0 (1.5 to 2.25)	Use in sufficient water to obtain adequate coverage. Start applications when transplants are set in the field and repeat at a 7-day interval as needed to maintain control (the minimum re-treatment interval is 7 days).
<b>Suppression:</b> (7 day schedule): Pink rot ( <i>Sclerotinia sclerotiorum</i> )	3.0 (2.25)	Apply by ground, air or chemigation.
Early blight ( <i>Cercospora apii</i> ) Late blight ( <i>Septoria apicola</i> )	1.5 to 2.0 (1.125 to 1.5) / 100 gal	For celery seedbeds apply in a spray volume of 125 gal/A twice weekly or as needed to maintain control. Start applications shortly after crop emergence. Use the higher rate under severe disease conditions.
<b>Specific Use Restrictions:</b>		
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 24.0 pints of HMO-1601 (18.0 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 7 days of harvest.</li> </ul>		

<b>CORN</b> (Sweet) and (Grown for Seed)		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Helminthosporium leaf blights  Rust ( <i>Puccinia spp.</i> )	0.75 to 2.0 (0.6 to 1.5)	Use in sufficient water to obtain adequate coverage. Begin applications when conditions favor disease development and repeat at a 7-day interval as required to maintain control (the minimum re-treatment interval is 7 days). Under severe disease conditions use 1.5 to 2.0 pt of HMO-1601/A. Apply by ground, air or chemigation
<b>Specific Use Restrictions:</b>		
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 12.0 pints of HMO-1601 (9.0 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 14 days of harvest.</li> <li>• <b>DO NOT</b> apply to sweet corn to be processed.</li> <li>• <b>DO NOT</b> allow livestock to graze in treated fields.</li> <li>• <b>DO NOT</b> ensile treated corn or use as livestock forage.</li> </ul>		

<b>CRANBERRY</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Fruit Rots  Lophodermium leaf/ twig blight ( <i>L. hypophyllum</i> )	4.5 to 6.5 (3.0 to 4.9)	Apply at early bloom and repeat at 10- to 14-day intervals (the minimum re-treatment interval is 10). Under severe disease conditions use the 6.5 pt/A rate on a 10-day schedule. Apply by ground, air or chemigation. When applying by chemigation, use 300 gal of water/A through solid set systems only.
Upright Dieback ( <i>Phomopsis vaccinii</i> )	4.5 to 6.5 (3.0 to 4.9)	Apply in sufficient water to obtain coverage of uprights and runners. Make the first application before bloom at the time shoots begin growth in the spring. Make additional applications at 10- to 14-day intervals. Apply by ground, air or chemigation. When applying by chemigation, use 300 gal of water/A through solid set systems only.
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 20.0 pints of HMO-1601 (15.0 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 50 days of harvest.</li> <li>• <b>DO NOT</b> apply to beds when flooded or allow release of irrigation water from beds for at least 3 days following application.</li> </ul>		

<b>CUCURBITS</b>		
Such as: Cucumber ; Cantaloupe ; Chayote ; Chinese waxgourd ; Gourds <i>Momordica</i> spp (Bitter Melon and Balsam Apple) ; Honeydew melon ; Muskmelon ; Pumpkin ; Squash ; Watermelon ; Zucchini Including cultivars and/or hybrids of these.		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Anthracnose ( <i>Colletotrichum</i> spp.) Downy mildew ( <i>Pseudoperonospora cubensis</i> ) Target spot ( <i>Corynespora casiicola</i> )	1.5 to 2.0 (1.125 to 1.5)	Use in sufficient water to obtain adequate coverage. Begin applications when plants are in first true leaf stage or when conditions are favorable for disease development. Repeat applications at 7-day intervals (the minimum re-treatment interval is 7 days).
Alternaria leaf blight ( <i>A. cucumerina</i> ) Alternaria leaf ( <i>A. alternata</i> ) Cercospora leaf spot ( <i>C. citrullina</i> ) Powdery mildew ( <i>Sphaerotheca</i> only) Gummy stem blight/ vine decline ( <i>Didymella bryoniae</i> ) Scab ( <i>Cladosporium cucumerium</i> )	2.0 to 3.0 (1.5 to 2.25)	NOTE: Spraying mature watermelons may result in sunburn of the upper surface of the fruit. Do not apply HMO-1601 to watermelons when any of the following conditions are present. 1. Intense heat and sunlight 2. Drought conditions 3. Poor vine canopy 4. Other crop and environmental conditions which may be conducive to increased natural sunburn.  Do not combine HMO-1601 with anything except water for application to watermelons unless your prior use has shown the combination to be non-injurious to watermelons under your conditions of use. Apply by ground, air or chemigation.
<b>Specific Use Restrictions:</b>		
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 21.0 pints of HMO-1601 (15.75 pounds active ingredient) per acre during each growing season.</li> <li>• HMO-1601 may be applied the day of harvest.</li> </ul>		

<b>FRUITING VEGETABLES (except tomato)</b>		
Such as: Eggplant ; Groundcherry ; Okra ; Pepino ; Pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper) ; Tomatillo		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Anthracnose ( <i>Colletotrichum</i> spp.) Botrytis leaf mold ( <i>Botrytis cinerea</i> ) Cercospora leaf spot ( <i>Cercospora</i> spp.) Powdery mildew ( <i>Leveillula taurica</i> )	1.5 (1.125)	Use in sufficient water to obtain adequate coverage. Begin applications as a foliage, flower, and fruit spray when disease is expected. Repeat applications at 7- to 10-day intervals. Apply by ground, air or chemigation.
<b>Specific Use Restrictions:</b>		
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 12.0 pints of HMO-1601 (9.0 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 3 days of harvest (3 day PHI).</li> </ul>		



<b>GINSENG</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Alternaria blight ( <i>Alternaria panax</i> )	2.0 (1.5)	Use in sufficient water to obtain adequate coverage. Begin applications when disease first threatens and repeat at 7- to 10-day intervals as disease pressure warrants.
Gray mold ( <i>Botrytis cinerea</i> )		
<b>Specific Use Restrictions:</b>		
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16.0 pints of HMO-1601 (12.0 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 14 days of harvest (14 day PHI).</li> </ul>		

<b>GRASSES GROWN FOR SEED</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Bipolaris and Drechslera leaf spots Glume blotch Leaf rust Septoria leaf spot Stem rust Stripe rust	1.0 to 1.5 (0.75 to 1.125)	Use in sufficient water to obtain adequate coverage. Begin applications during stem elongation when conditions favor disease development. Re-apply at flag (top) leaf emergence and repeat applications at 14-day intervals (the minimum re-treatment interval is 14 days). Apply by ground, air or chemigation.
Selenophoma (eyespot)	1.0 to 2.0 (0.75 to 1.5)	
<b>Specific Use Restrictions:</b>		
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 6.0 pints of HMO-1601 (4.5 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 14 days of harvest.</li> <li>• <b>DO NOT</b> allow livestock to graze in treated areas or feed hay produced before harvest.</li> <li>• Feeding of treated plant parts after harvest of seed is allowed.</li> </ul>		

<b>HORSERADISH</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Ramularia stem and Leaf spot ( <i>Ramularia armoraciae</i> )	3.0 (2.25)	Use in sufficient water to obtain adequate coverage. Begin applications when disease first threatens and repeat at 7- to 10-day intervals as disease pressure warrants.
<b>Specific Use Restrictions:</b>		
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 24.0 pints of HMO-1601 (18.0 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 14 days of harvest (14 day PHI).</li> </ul>		

<b>MANGO</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Anthracnose ( <i>Colletotrichum spp.</i> )	2.0 to 3.5 (1.5 to 2.6)	Use a water volume of 20.0 to 300 gal/A. Begin applications at early bloom and repeat on a 7- to 14-day interval until early fruit development. Begin the season with the 2.0 pt rate on a 14-day interval (the minimum re-treatment interval is 7 days). If disease pressure is severe, use the higher rate and shorter interval. Apply by ground or air.
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 32.0 pints of HMO-1601 (24.0 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 21 days of harvest.</li> </ul>		

<b>MINT</b> (Indiana, Michigan and Wisconsin only)		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Rust ( <i>Puccinia menthae</i> ) Septoria leaf spot ( <i>S. menthae</i> )	1.375 (1.0)	Use in sufficient water to obtain adequate coverage, normally 20.0 to 150 gal/A for dilute sprays and 5.0 to 10.0 gal/A for concentrate ground and aircraft applications. Begin applications when emerging plants are 4 to 8 inches high. Repeat applications at 7- to 10-day intervals to maintain control (the minimum re-treatment interval is 7 days).
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 4.0 pints of HMO-1601 (3.0 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 80 days of harvest.</li> <li>• <b>DO NOT</b> feed fresh or extracted mint hay from treated fields to livestock.</li> </ul>		

<b>ONION (dry bulb) and GARLIC</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Botrytis leaf blight <i>(Botrytis spp.)</i> Purple <i>(Alternaria porri)</i>  <b>Suppression:</b> Botrytis neck rot Downy mildew <i>(Peronospora destructor)</i>	1.0 to 3.0 (0.75 to 2.25)	Apply in sufficient water to obtain thorough coverage of tops. HMO-1601 is recommended for use with disease monitoring systems which adjust fungicide rates and frequency of application according to disease hazard.  Apply as follows: <b>Low Disease Hazard and Prior to Infection:</b> Use 1.0 pt/A at 10 day intervals <b>Low Disease Hazard and Some Disease Present:</b> Use 1.375 pt/A at 7 to 10 day intervals <b>High Disease Hazard:</b> Use 3.0 pt/A at 7 day intervals  For suppression of Neck rot ( <i>Botrytis spp.</i> ) during storage a minimum of three weekly applications prior to lifting, using 1.375 to 3.0 pt of HMO-1601 per acre, is recommended. The minimum re-treatment interval is 7 days. Apply by ground, air or chemigation.
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 20.0 pints of HMO-1601 (15.0 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 7 days of harvest.</li> </ul>		

<b>ONION (including bunching) , LEEK , SHALLOTS ; ONION and GARLIC (grown for seed)</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Botrytis leaf blight <i>(Botrytis spp.)</i> Purple <i>(Alternaria porri)</i>  <b>Suppression:</b> Downy mildew <i>(Peronospora destructor)</i>	1.5 to 3.0 (1.125 to 2.25)	Use in sufficient water to obtain thorough coverage of tops. Begin applications prior to favorable infection periods and repeat at 7- to 10-day intervals for as long as conditions favor disease (the minimum re-treatment interval is 7 days). Use the high rate and a 7-day schedule of applications when heavy dew or rain persist. Apply by ground, air or chemigation.
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 9.0 pints of HMO-1601 (6.75 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 7 days of harvest on garlic.</li> <li>• <b>DO NOT</b> apply within 14 days of harvest on green bunching onions leeks or shallots.</li> </ul>		

<b>PAPAYA</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Alternaria fruit spot <i>(A. alternata)</i> Anthracnose <i>(Colletotrichum spp.)</i> Stem end rot <i>(A. alternate)</i> <i>Colletotrichum spp.)</i>	1.5 to 3.0 (1.125 to 2.25)	Apply with ground equipment only in sufficient water to obtain adequate coverage of fruit and leaves. Begin treatment when conditions favor development of disease and continue treatments at 14-day intervals until weather conditions no longer favor disease development (the minimum re-treatment interval is 14 days).
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 9.0 pints of HMO-1601 (6.75 pounds active ingredient) per acre during each growing season.</li> <li>• HMO-1601 may be applied the day of harvest.</li> </ul>		

<b>PARSNIP</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Alternaria leaf spot. <i>(Alternaria spp.)</i> Anthracnose <i>(Colletotrichum spp.)</i> Botrytis blight (Gray mold) <i>(B. cinerea)</i> Bottom rot <i>(Rhizoctonia)</i> Downy mildew <i>(Plasmopara crustosa)</i>	1.5 to 2.0 (1.125 to 1.5)	Apply in sufficient water to obtain adequate coverage. Make the first application at the first sign of disease or when conditions are favorable for infection. Continue applications on a 7- to 10-day schedule (the minimum re-treatment interval is 7 days). Apply by ground, air or chemigation.
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8.0 pints of HMO-1601 (6.0 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 10 days of harvest.</li> </ul>		

<b>PASSION FRUIT</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Alternaria fruit and leaf spot <i>(Alternaria spp.)</i> Anthracnose <i>(Colletotrichum spp.)</i> Cercospora fruit spot	2.0 (1.5)	Apply with ground equipment in sufficient water to obtain adequate coverage of fruit and leaves. Begin applications during late bloom and repeat at 14-day intervals until weather conditions no longer favor disease development (the minimum re-treatment interval is 14 days).
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 10.0 pints of HMO-1601 (7.5 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 7 days of harvest.</li> </ul>		

<b>PEANUT</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Early leaf spot ( <i>Cercospora arachidicola</i> ) Late leaf spot ( <i>Cercosporidium personatum</i> ) Pepper spot ( <i>Leptosphaerulina crassiasca</i> )	1.0 to 1.5 (0.75 to 1.125)	Apply in sufficient water for coverage when leaf wetness first occurs or 30 to 40 days after planting; repeat at 14-day intervals (the minimum re-treatment spot interval is 14 days). When conditions favor Late leaf spot or when Rust or Web blotch occur, apply 1.5 pt of HMO-1601/A at 14- day intervals for the remainder of the season. Apply by ground, air or chemigation. If applying by chemigation use 1.5 pt of HMO-1601/A. It is recommended to alternate chemigation applications with ground or aerial applications.
Rust ( <i>Puccinia arachidis</i> ) Web blotch applications. ( <i>Phoma arachidicola</i> )	1.5 (1.125)	
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 12.0 pints of HMO-1601 (9.0 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 14 days of harvest.</li> <li>• <b>DO NOT</b> allow livestock to graze in treated areas.</li> <li>• <b>DO NOT</b> feed hay or threshings from treated fields to livestock.</li> </ul>		

<b>PERSIMMON</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Cercospora leaf spot ( <i>Cercospora fuliginosa</i> )	1.25 (0.94)	Use in sufficient water to obtain adequate coverage. Begin applications when disease first threatens and repeat at 14-day intervals as disease pressure warrants.
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 6.25 pints of HMO-1601 (4.7 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 14 days of harvest (14 day PHI).</li> <li>• May be applied to persimmon only in the states of Florida and Hawaii.</li> <li>• Aerial applications require the use of a minimum of 10.0 gallons per acre.</li> </ul>		

<b>POTATO</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Black dot ( <i>Colletotrichum coccodes</i> ) Botrytis vine rot ( <i>B. cinerea</i> ) Early blight ( <i>Alternaria solani</i> ) Late blight ( <i>Phytophthora infestans</i> )	0.75 (0.6)  then  1.0 to 1.5 (0.75 to 1.125)	Begin applications at the low rate when vines are first exposed and leaf wetness occurs. Repeat applications at 5- to 10-day intervals (the minimum re-treatment then interval is 5 days). Begin applying the higher label rates at 5- to 10-day intervals when any 1 of the following events occur: <ul style="list-style-type: none"> <li>• Vines close within the rows</li> <li>• Late blight forecasting measures 18 disease severity values (DSV)</li> <li>• The crop reaches 300 P-days</li> </ul> Increase water spray volume as canopy density increases. Use the highest rate and shortest interval when plants are rapidly growing and disease conditions are severe. Apply by ground, air or chemigation. Do not exceed a 10-day interval between applications when using chemigation.
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 15.0 pints of HMO-1601 (11.25 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 7 days of harvest.</li> </ul>		

<b>RHUBARB</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Ramularia leaf spot ( <i>Ramularia rhei</i> ) Ascochyta ( <i>Ascochyta rhei</i> )	3.0 (2.25)	Use in sufficient water to obtain adequate coverage. Begin applications when disease first threatens and repeat at 7- to 10-day intervals as disease pressure warrants.
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 18.0 pints of HMO-1601 (13.5 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 30 days of harvest (30 day PHI).</li> </ul>		

<b>SOYBEAN</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Anthracnose ( <i>Colletotrichum truncatum</i> ) Cercospora leaf blight ( <i>C. kikuchii</i> ) Diaporthe pod and Stem rot ( <i>D. phaseolorum</i> ) Frogeye leaf spot ( <i>Cercospora sojina</i> ) Purple seed stain ( <i>C. kikuchii</i> ) Septoria brown spot ( <i>S. glycines</i> ) <b>Suppression:</b> Rust ( <i>Phakopsora pachyrhizi</i> )		Apply in sufficient water to obtain complete coverage, using at least 5.0 gal of water/A for aerial application. Use the 3 application program in areas having a history of moderate to severe disease intensity. The minimum re-treatment interval is 14 days. Apply by ground, air or chemigation.
	1.5 to 2.25 (1.125 to 1.7)	Two application program: For determinate varieties make the first application at R3 stage (early pod set) and the second application at R5 (seed formation). For indeterminate varieties make the first application when largest pods are 1.0 to 1.25 inches in length. Make the second application 14 days later.
	1.0 to 2.0 (0.75 to 1.5)	Three application program: For determinate varieties, make the first application at the beginning of flowering (R1), the second at early pod set (R3), and the third at beginning of seed formation (R5). For indeterminate varieties, make the first application 1 week after first flowering and continue applications at 14-day intervals.
Stem canker ( <i>Diaporthe phaseolorum</i> )	1.0 (0.75)	Apply in 10.0 to 20.0 gal of water/A as a band treatment directing spray to provide coverage of entire plant. Make the first application at time of emergence of the second trifoliolate leaves (V2). If conditions favor Stem canker disease make a second and third application. Make all applications at 14-day intervals.
<b>Specific Use Restrictions:</b>		
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 6.0 pints of HMO-1601 (4.5 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 6 weeks of harvest.</li> <li>• <b>DO NOT</b> feed hay or threshings from treated fields to livestock.</li> </ul>		

<b>TOMATO</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
<b>Foliage:</b> Early blight (Alternaria solani) Gray leaf mold ( <i>Fluvia fluva; Cladosporium</i> ) Gray leaf spot ( <i>Stemphyllium botryosum</i> ) Late blight ( <i>Phytophthora infestans</i> ) Septoria leaf spot ( <i>S. lycopersici</i> ) Target spot ( <i>Corynespora cassiicola</i> )	1.375 to 2.0 (1.0 to 1.5)	Apply in sufficient water to obtain adequate coverage. Begin applications when dew or rain occur and disease threatens. Apply on a 7- to 10-day interval for foliage diseases. For fruit diseases, begin at fruit set and apply on a 7- to 14-day interval. Use the highest rate and shortest interval specified when disease conditions are severe. The minimum re-treatment interval is 7 days. Apply by ground, air or chemigation.
<b>Fruit:</b> Alternaria fruit rot (black mold) ( <i>A. alternata</i> ) Anthracnose ( <i>Colletotrichum</i> spp.) Botrytis gray mold ( <i>B. cinerea</i> ) Late blight fruit rot ( <i>P. infestans</i> ) Rhizoctonia fruit rot ( <i>R. solani</i> )	2.0 to 2.75 (1.5 to 2.1)	
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 20.0 pints of HMO-1601 (15.0 pounds active ingredient) per acre during each growing season.</li> <li>• HMO-1601 may be applied the day of harvest.</li> </ul>		

<b>YAM</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Anthracnose ( <i>Colletotrichum gloeosporioides</i> )	1.0 to 1.25 (0.75 to 1.25)	Use in sufficient water to obtain adequate coverage. Begin applications when disease first threatens and repeat at 10- to 14-day intervals as disease pressure warrants.
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 15.0 pints of HMO-1601 (11.25 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 7 days of harvest (7 day PHI).</li> </ul>		



## TREE AND ORCHARD CROPS

Apply HMO-1601 in sufficient water and with proper calibration to obtain uniform coverage of tree canopy. For fruit and nut bearing crops, the maximum volume is 300 gallons per acre unless indicated otherwise in the specific use directions. For conifers, the maximum volume is 100 gallons per acre. Application with ground equipment is preferable to aerial application, because ground applications generally give better coverage of the tree canopy. If application with ground equipment is not feasible, HMO-1601 may be applied with aircraft using at least 20.0 gallons of spray per acre. The minimum volume for application by aircraft to conifer stands and Christmas trees is 10.0 gallons per acre. When concentrate sprays are used or when treating non-bearing or immature trees, the lower rate of HMO-1601 listed may be used. Do not allow livestock to graze in treated areas.

<b>ALMONDS</b>			
Diseases (Pathogen)	Pt Product Per (Lb AI Per)		Application Directions
	Acre	100 Gal	
Blossom blight/ Brown rot ( <i>Monilinia</i> spp.) Scab ( <i>Venturia carpophila</i> ) Shot hole ( <i>Wilsonomyces carpophilus</i> )	4.0 (3.0)	1.33 (1.0)	Use water volumes of 20.0 to 300 gal/A. For Blossom blight begin application at popcorn (pink bud) and follow with an application at full bloom. If weather is still conducive for disease development, another application may be made at petal fall. For control of Shot hole make an application in the autumn at leaf fall. In the spring, make the first application at budbreak, followed by an application at shuck split to control nut infections and to control Scab. Apply by ground or air.
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 25.0 pints of HMO-1601 (18.75 pounds active ingredient) per acre during each growing season (leaf fall through shuck split).</li> <li>• <b>DO NOT</b> apply within 150 days of harvest.</li> </ul>			

<b>FILBERTS</b>			
Diseases (Pathogen)	Pt Product Per (Lb AI Per)		Application Directions
	Acre	100 Gal	
Eastern filbert blight 4) ( <i>Anisogramma anomala</i> )	4.0 (3.0)	1.33 (1.0)	Use a water volume of 20.0 to 300 gal/A. Begin applications at the onset of disease or when weather conditions favor disease development. Make applications on a 14- to 28-day schedule, using the shorter interval under heavy disease pressure (the minimum re-treatment interval is 14 days).
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 12.0 pints of HMO-1601 (9.0 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 120 days of harvest.</li> <li>• <b>DO NOT</b> apply through irrigation.</li> <li>• <b>DO NOT</b> apply with oils, other pesticides, surfactants or fertilizers.</li> <li>• <b>DO NOT</b> apply within one week of an oil-based pesticide application.</li> </ul>			

APRICOT, CHERRY, NECTARINE, PEACH, PLUM, PRUNE			
Diseases (Pathogen)	Pt Product Per (Lb AI Per)		Application Directions
	Acre	100 Gal	
Leaf curl ( <i>Taphrina deformans</i> ) Shot hole ( <i>Wilsonomyces carpophilus</i> )	3.125 to 4.125 (2.3 to 3.1)	1.0 to 1.375 (0.75 to 1.0)	For best control of both diseases apply at leaf fall in late autumn, using sufficient water and proper sprayer calibration to obtain uniform coverage. When conditions favor high disease levels, use the high rate of application and apply once or twice more in mid to late winter before budswell. If the leaf fall application is not practical, application of HMO-1601 for control of Leaf curl may be made at any time prior to budswell the following spring. Where Shot hole occurs, also apply at budbreak to protect newly emerging leaves and at shuck split to prevent fruit infections. Apply by ground or air.
Brown rot blossom blight ( <i>Monilinia</i> spp.) Lacy (russet) scab (plum/prune)	3.125 to 4.125 (2.3 to 3.1)	1.0 to 1.375 (0.75 to 1.0)	Make 1 application at popcorn (pink, red or early white bud) and a second application at full bloom. If weather conditions favor disease development, make an additional application at petal fall.
Black knot (cherry, plum) ( <i>Apiosporina morbosa</i> ) Cherry leaf spot ( <i>Blumeriella jaapii</i> ) Scab ( <i>Cladosporium carpophilum</i> )	3.125 to 4.125 (2.3 to 3.1)	1.0 to 1.375 (0.75 to 1.0)	In addition to the bloom application listed above, make 1 application at shuck split. Do not apply HMO-1601 after shuck split and harvest. If additional disease control is needed before harvest, use another registered fungicide. For control of Cherry leaf spot after harvest, make 1 application to foliage within 7 days after fruit is removed. In orchards with a history of high Leaf spot incidence, make a second application 10 to 14 days later. Apply by ground or air.
<b>Specific Use Restrictions:</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 20.5 pints of HMO-1601 (15.4 pounds active ingredient) per acre during each growing season.</li> <li>• HMO-1601 may be applied the day of harvest.</li> <li>• The minimum re-treatment interval is 10 days.</li> </ul>			

<b>PISTACHIO</b>			
<b>Diseases (Pathogen)</b>	<b>Pt Product Per (Lb AI Per)</b>		<b>Application Directions</b>
	<b>Acre</b>	<b>100 Gal</b>	
Botryosphaeria blight ( <i>B. dothidea</i> ) <b>Suppression:</b> Alternaria late blight ( <i>A. alternata</i> )	6.0 (4.5)	3.0 (2.25)	Use a water volume of 20.0 to 200 gal/A. Make the first application at the beginning of the blossom period followed by an application at full bloom. Make additional applications as required on a 28-day schedule (The minimum re-treatment interval is 28 days). For Septoria and Botrytis use the higher rate if disease pressure is severe. <b>NOTE:</b> Use of this product may result in speckling or reddening of the fruit hull (epicarp). This effect is superficial and has not resulted in any change in nut quality. Apply by ground or air.
Botrytis blight ( <i>B. cinerea</i> ) Septoria leaf spot ( <i>S. pistacina</i> )	4.0 to 6.0 (3.0 to 4.5)	2.0 to 3.0 (1.5 to 2.25)	
<b>Specific Use Restrictions:</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 30.0 pints of HMO-1601 (22.5 pounds active ingredient) per acre during each growing season.</li> <li>• <b>DO NOT</b> apply within 14 days of harvest.</li> </ul>			

## CONIFERS

Apply HMO-1601 in sufficient water and with proper calibration to obtain uniform coverage of tree canopy. Applications may be made by ground or air. DO NOT allow livestock to graze in treated areas.

<b>CONIFERS (Including Christmas Trees)</b>		
<b>For use in: 1) Conifer nursery beds, 2) Christmas tree and bough production plantations and 3) tree seed orchards</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Lb AI/A)</b>	<b>Application Directions</b>
Interior needle blight ( <i>Mycosphaerella</i> spp. and <i>Phaeocryptopus nudus</i> ) Swiss needlecast ( <i>Phaeocryptopus gaeumannii</i> )	2.75 to 5.5 (2.1 to 4.125)	One to two applications; In Christmas tree plantations or conifer stands, make 1 application in the spring when new shoot growth is 0.5 to 2 inches in length. Under high disease pressure, a second application may be made 10 to 14 days after the first application. When using aerial applications, use the highest rate.  Multiple applications: Make the first application in spring when new shoot growth is 0.5 to 2 inches in length. Make additional applications at 3- to 4-week intervals until conditions no longer favor disease development. For use in nursery beds, apply the highest rate specified on a 3-week schedule. When using aerial applications, use the highest rate.
Scleroderris canker ( <i>Gremmeniella abietina</i> ) Swiss needlecast ( <i>P. gaeumannii</i> ) Interior needle blight ( <i>Mycosphaerella</i> spp. and <i>Phaeocryptopus nudus</i> )	1.5 to 2.75 (1.125 to 2.1)	
Sirococcus tip blight ( <i>S. conigenus</i> )	2.0 to 3.5 (1.5 to 2.6)	
Rhizosphaera needlecast ( <i>Rhizosphaera</i> spp.) Scirrhia brown spot ( <i>Mycosphaerella dearnessii</i> )	5.5 (4.125)	

Cyclaneusma and Lophodermium needlecasts	2.75 to 5.5 (2.1 to 4.125)	Apply in early spring prior to budbreak. Repeat applications at approximately 6- to 8-week intervals until spore release ceases in late fall. Apply monthly during periods of frequent rainfall, and where Lophodermium infections occur during dormancy (Pacific Northwest). During drought periods, applications may be suspended then resumed upon next occurrence of needle wetness.
Rhabdocline needlecast	1.5 to 2.75 (1.125 to 2.1)	Apply at budbreak and repeat at 3- to 4-week intervals until needles are fully elongated and conditions no longer favor disease development. In plantations of mixed provenance or when irregular budbreak occurs, apply weekly until all trees have broken bud, then every 3 to 4 weeks as specified above. In nursery beds use the high rate on a 3-week schedule.
Botrytis seedling blight Phoma twig blight	1.5 to 2.75 (1.125 to 2.1)	Begin applications in nursery beds when seedlings are 4 inches tall and when cool, moist conditions favor disease development. Make additional applications at 7- to 14-day intervals as long as disease favorable conditions persist.
Weir's cushion rust ( <i>Chrysomyxa weirii</i> )	5.5 (4.125)	Begin applications when 10% of buds have broken and twice thereafter at 7- to 10-day intervals.

**Specific Use Restrictions:**

- **DO NOT** apply more than 22.0 pints of HMO-1601 (16.5 pounds active ingredient) per acre during each growing season.
- **DO NOT** use on forests.

\*Volumetric rates to be used only with full dilute spray volume specified on this label for tree and orchard crops.

<b>MUSHROOMS</b>		
<b>Diseases (Pathogen)</b>	<b>Pt Product/A (Fl. Oz. / 1000 Sq. Ft.)</b>	<b>Application Directions</b>
Verticillium brown spot and Dry bubble	2.75 to 5.5	Apply HMO-1601 per 1000 square feet of mushroom bed. Apply as a drench to the mushroom bed surface in at least 12.5 gallons of water per 1000 square feet of mushroom bed. Make 2 applications. Apply the high rate (5.5 fluid ounces) of HMO-1601 in the first application and the low rate (2.75 fluid ounces) of HMO-1601 in the second application. The first application should be made within 2 days of top-dressing the spawn-colonized mushroom compost with a casing layer. The second application should be made at pinning.
<p><b>Specific Use Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply within 5 days of first harvest.</li> <li>• Make no more than 2 applications per cropping cycle.</li> <li>• <b>DO NOT</b> apply more than 8.25 fluid ounces of HMO-1601 per cropping cycle.</li> </ul>		

## TURF

**Do not use on home lawns and turf sites associated with apartment buildings, daycare centers, playgrounds, playfields, recreational park athletic fields, athletic fields located on or next to schools (ie., elementary, middle and high schools), campgrounds, churches, and theme parks.**

### **Group A. Golf Course Fairways and Roughs, Lawns around Commercial and Industrial Buildings, and Professional and Collegiate Athletic fields**

DO NOT mow or water after treatment until spray deposited on turfgrass is thoroughly dry; HMO-1601 should always be used in conjunction with good turf management practices.

#### **Spray Volume:**

Apply HMO-1601 in an adequate amount of water to provide complete coverage. This amount may vary from 20 to 150 gallons per acre. See table below for suggested rates and timing.

#### **Restrictions:**

- **Do not** apply more than 34.7 pints/acre (12.7 fl oz/1000 sq. ft) of HMO-1601 per growing season (26 lb a.i./acre/growing season).
- The minimum re-treatment interval for single application rates **up to** 9.75 pints/acre (3.6 fl oz/1000 sq. ft) of HMO-1601 (7.3 lb a.i./acre) is 7 days.
- **Do not** apply more than one application of a rate greater than 9.75 pints/acre (3.6 fl oz/1000 sq. ft) of HMO-1601 (7.3 lb a.i./acre) per growing season.
- The maximum single application rate is 15.1 pints/acre (5.5 fl oz/1000 sq. ft) of HMO-1601 (11.3 lb a.i./acre).

### **Group B. Golf Course Tees and Greens**

DO NOT mow or water after treatment until spray deposited on turfgrass is thoroughly dry; HMO-1601 should always be used in conjunction with good turf management practices.

**Spray Volume:** Apply HMO-1601 in an adequate amount of water to provide complete coverage. This amount may vary from 20 to 150 gallons per acre. See table below for suggested rates and timing. Under severe disease conditions, use the highest rate and shortest interval corresponding with the application schedule selected from the table below.

#### **Restrictions:**

##### **Golf Course Tees:**

- **Do not** apply more than 69.3 pints/acre (25.4 fl oz/1000 sq. ft) of HMO-1601 (52 lb a.i./acre) per growing season.
- The minimum re-treatment interval for single application rates **up to** 9.75 pints/acre (3.6 fl oz/1000 sq. ft) of HMO-1601 (7.3 lb a.i./acre) is 7 days.
- The minimum re-treatment interval after an application of a rate **greater than** 9.75 pints/acre (3.6 fl oz/1000 sq. ft) of HMO-1601 (7.3 lb a.i./acre) is 14 days.
- **Do not** apply more than two applications of a rate greater than 9.75 pints/acre (3.6 fl oz/1000 sq. ft) of HMO-1601 (7.3 lb a.i./acre) per growing season.
- The maximum single application rate is 15.1 pints/acre (5.5 fl oz/1000 sq. ft) of HMO-1601 (11.3 lb a.i./acre).

##### **Golf Course Greens:**

- Do not apply more than 97.3 pints/acre (35.7 fl oz/1000 sq. ft) of HMO-1601 (73 lb a.i./acre) per growing season.
- The minimum re-treatment interval for single application rates **up to** 9.75 pints/acre (3.6 fl oz/1000 sq. ft) of HMO-1601 (7.3 lb a.i./acre) is 7 days and the minimum re-treatment interval after an application of a rate **greater than** 9.75 pints/acre (3.6 fl oz/1000 sq. ft) of HMO-1601 (7.3 lb a.i./acre) is 14 days.
- Do not apply more than two applications of a rate greater than 9.75 pints/acre (3.6 fl oz/1000 sq. ft) of HMO-1601 (7.3 lb a.i./acre) per growing season.

• The maximum single application rate is 15.1 pints/acre (5.5 fl oz/1000 sq. ft) of HMO-1601 (11.3 lb a.i./acre).

**Sod Farms:**

DO NOT mow or water after treatment until spray deposited on turfgrass is thoroughly dry; HMO-1601 should always be used in conjunction with good turf management practices.

**Spray Volume:** Apply HMO-1601 in 20 to 150 gallons of water per acre.

**Restrictions:**

- **NOTE:** Sod farm turf treated with chlorothalonil prior to harvest **must** be mechanically cut, rolled, and harvested.
- **Do not** use for sod farms at application rates greater than 13 pounds of active ingredient per acre per year.
- **Do not** apply more than 17 pints/acre (6.4 fl oz/1,000 sq. ft.) of HMO-1601 (13 lb a.i./acre) per growing season.
- The minimum re-treatment interval for single application rates **up to** 9.7 pints/acre (3.5 fl oz/1,000 sq. ft.) of HMO-1601 (7.3 lb a.i./acre) is 7 days.
- **Do not** apply more than one application of a rate greater than 9.7 pints/acre (3.5 fl oz/1,000 sq. ft.) of HMO-1601 (7.3 lb a.i./acre) per growing season.
- The maximum single application rate is 15 pints/acre (5.5 fl oz/1,000 sq. ft.) of HMO-1601 (11.3 lb a.i./acre).

**Application Timing (All Turf):**

Begin applications when conditions favor disease development and repeat applications as long as these conditions persist. Under severe disease conditions, use the highest rate and shortest interval corresponding with the application schedule selected from the table below.

Diseases Controlled*	Application Interval (Days)	Pre-Disease Rates <sup>a</sup>			Post-Disease Rates <sup>a</sup>		
		fl oz product/ 1000 sq ft	pints product/ acre	lb a.i./acre	fl oz product/ 1000 sq ft	pints product/ acre	lb a.i./acre
Dollar Spot	7 to 10 7 to 21 14	1.0 <sup>b</sup> to 2.0 2.0 to 3.6 -	2.8 <sup>b</sup> to 5.0 5.5 to 9.75 -	2.1 <sup>b</sup> to 4.1 4.1 to 7.3 -	- - 4.0 to 5.5	- - 11 to 15.1	- - 8.25 to 11.3
Leaf Spot Melting-Out Brown Blight	7 to 10 7 to 21 14	2.0 2.0 to 3.6 -	5.5 5.5 to 9.75 -	4.1 4.1 to 7.3 -	- - 4.0 to 5.5	- - 11 to 15.1	- - 8.25 to 11.3
Brown Patch	7 to 14 14	2.0 to 3.6 -	5.5 to 9.75 -	4.1 to 7.3 -	- 4.0 to 5.5	- 11 to 15.1	- 8.25 to 11.3
Gray Leaf Spot	7 to 10 14	2.0 to 3.6 -	5.5 to 9.75 -	4.1 to 7.3 -	- 4.0 to 5.5	- 11 to 15.1	- 8.25 to 11.3
Red Thread	7 to 10 14	2.0 to 3.6 3.6 to 5.5	5.5 to 9.75 9.9 to 15.1	4.1 to 7.3 7.4 to 11.3	- 5.5	- 15.1	- 11.3
Anthracnose	7 to 14 14	2.0 to 3.6 3.6 to 5.5	8.3 to 9.75 9.9 to 15.1	6.2 to 7.3 7.4 to 11.3	- -	- -	- -
Copper Spot	14	4.0 to 5.5	11 to 15.1	8.25 to 11.3	5.5	15.1	11.3
Stem Rust (Bluegrass)	14	4.0 to 5.5	11 to 15.1	8.25 to 11.3	5.5	15.1	11.3
Dichondra Leaf Spot (CA only)	14	4.0 to 5.5	11 to 15.1	8.25 to 11.3	5.5	15.1	11.3
Gray Snow Mold <sup>c</sup>	30	5.5	15.1	11.3	- -	- -	- -

Pink Snow Mold, Microdochium Patch <sup>c</sup>	21 to 28	5.5	15.1	11.3	- -	- -	- -
Algae <sup>c</sup>	7 to 14 14	2.0 to 3.6 -	5.5 to 9.75 -	4.1 to 7.3	2.0 to 3.6 4.0 to 5.5	5.5 to 9.75 11 to 15.1	4.1 to 7.3 8.25 to 11.3

<sup>a</sup> **Group A Turf:** Limit of one application per season at rates greater than 7.3 lb a.i./acre (9.75 pints/acre or 3.6 fl oz/1000 sq ft of HMO-1601.

**Group B Turf:** Limit of two applications per season at rates greater than 7.3 lb ai/acre (9.75 pints/acre or 3.6 oz/1000 sq ft of HMO-1601.

<sup>b</sup> Low rate is not effective on intensively mowed turfgrasses such as golf course tees and greens.

<sup>c</sup> See specific use directions below.

\* Diseases listed are caused by fungi, some of which are named as follows:

- Dollar Spot: *Sclerotinia homeocarpa*; *Lanzia* or *Moellerodiscus* spp.
- Leaf Spots, Melting-Out, Brown Blight: *Drechslera* spp. (including *D. poae*, *D. siccans*), *Bipolaris* spp., *Curvularia* spp.
- Brown Patch: *Rhizoctonia solani*, *R. zeae*, *R. cerealis*
- Gray Leaf Spot: *Pyricularia grisea*, *P. oryzae*
- Red Thread: *Laetisaria fuciformis*
- Anthracnose: *Colletotrichum graminicola*
- Copper Spot: *Gloeocercospora sorghi*
- Stem Rust: *Puccinia graminis*
- Dichondra Leaf Spot: *Alternaria* spp.
- Gray Snow Mold: *Typhula* spp.
- Pink Snow Mold, Microdochium Patch: *Microdochium nivale*

#### **Gray Snow Mold caused by *Typhula* spp.:**

**Group A and B Turf:** Apply in sufficient water to obtain adequate coverage (2 to 4 gallons per 1,000 sq ft). Apply one application of 15.1 pints/acre (5.5 fl oz/1000 sq. ft) of HMO-1601 (11.3 lb a.i./acre). Application must be made before snow cover in autumn.

**Group B Turf:** If snow cover is intermittent or lacking during the winter, a second application of HMO-1601 at 15.1 pints/acre (5.5 fl oz/1000 sq. ft) may be applied one month after the first application.

#### **Pink Snow Mold, Microdochium Patch caused by *Microdochium nivale*:**

**Group A and B Turf:** In areas where pink snow mold is likely to occur, apply HMO-1601 at 15.1 pints/acre (5.5 fl oz/1000 sq. ft) (11.3 lb a.i./acre) in combination with products containing iprodione at 88 oz a.i./acre (2 oz a.i./1000 sq ft) of turf area. Read and observe all label directions for products containing these active ingredients. For control of Microdochium patch only in areas where snow cover is intermittent or lacking during the winter, apply 15.1 pints/acre (5.5 fl oz/1000 sq. ft) of HMO-1601 (11.3 lb a.i./acre). Make application in late autumn.

**Group B Turf:** Apply a second application of 15.1 pints/acre (5.5 fl oz/1000 sq. ft) of HMO-1601 21 to 28 days after the first application unless conditions favorable for disease development no longer prevail.

#### **Algae:**

**Group A and B Turf:** For prevention of algae on turfgrasses, apply HMO-1601 at the rate of 5.5 to 9.75 pints/acre (2.0 to 3.6 fl oz/1000 sq. ft) (4.1 to 7.3 lb a.i./acre) on a 7- to 14-day schedule. Under severe algae conditions use the 9.75 pints/acre (3.6 fl oz/1000 sq. ft) rate and apply on a 7-day schedule.

When algae is well established, every attempt should be made to dry out the afflicted area. Once dry, spiking or verticutting should be done to enhance turfgrass recovery in conjunction with a HMO-1601 application at the rate of 11 to 15.1 pints/acre (4.0 to 5.5 fl oz/1000 sq. ft).

**Group B Turf:** A second application of HMO-1601 at the 15.1 pints/acre (5.5 fl oz/1000 sq. ft) rate may be made 14 days after the first application.

**Group A and B Turf:** Following application of the 15.1 pints/acre (5.5 fl oz/1000 sq. ft) rate, several applications of HMO-1601 at a rate of 5.5 to 9.75 pints/acre (2.0 to 3.6 fl oz/1000 sq. ft) (4.1 to 7.3 lb a.i./acre) on a 7-to 14-day interval may be necessary for turfgrass recovery. Only a preventive spray program with HMO-1601 will prevent a recurrence of the algae when environmental conditions are favorable.

## **ORNAMENTAL PLANTS**

Apply HMO-1601 at a rate of 1 3/8 pints (1.0 lb a.i.) per 100 gallons of water unless other directions are given in the tables below.

DO NOT apply more than 48.5 pints HMO-1601 (36.4 lb a.i./acre) per growing season to field-grown ornamentals.

HMO-1601 should be applied to plants when both foliage and flowers are dry, or nearly dry.

Apply in a spray to run-off when conditions are favorable for disease development. Repeat applications at 7 to 14 day intervals until conditions are no longer favorable. During periods when conditions favor severe disease incidence, generally cloudy or wet weather, apply HMO-1601 at 7 day intervals.

The minimum re-treatment interval is 7 days.

DO NOT combine HMO-1601 in the spray tank with pesticides, surfactants or fertilizers, unless your prior use has shown the combination to be physically compatible, effective and non-injurious under your conditions of use.

HMO-1601 may be used in greenhouses. DO NOT use mist blowers or high pressure spray equipment when making applications of HMO-1601 in greenhouses.

Knock Out® and Double Delight roses can be sensitive to HMO-1601 applications, resulting in damage to foliage under certain growing conditions.

Use of HMO-1601 is recommended for control of fungal diseases referred to by numbers in parentheses following each ornamental. Ornamentals listed on this label have been tested and found to tolerate applications of HMO-1601 at the recommended rates. The user should test for possible phytotoxic responses, using recommended rates on ornamental plants on a small area prior to commercial use. Applications made during bloom may damage flowers and/or fruits.

Fruits and other structures which may be borne on treated plants **MUST NOT BE EATEN.**

## **ORNAMENTALS RECOMMENDED FOR TREATMENT WITH HMO-1601**

### **Broadleaf Shrubs And Trees**

Andromeda (Pieris) (4)

Ash (Fraxinus) (1)

Aspen (1)

Azalea (1,2,4)

Buckeye, Horsechestnut (1)

Cherry-Laurel (1)

Crabapple (1,6,8)

Dogwood (1)

Eucalyptus (3)

Euonymus (1)

Firethorn (Pyracantha) (1)

Flowering Almond (1,2)

Flowering Cherry (1,2)

Flowering Peach (1,2)

Flowering Plum (1,2)

Flowering Quince (1,2)

Hawthorn (1,6)

Holly (1)



Lilac (5)  
Magnolia (1)  
Maple (1)  
Mountain Laurel (1)  
Oak (red group only) (1,7)  
Oregon-Grape (Mahonia) (6)  
Photinia (1)  
Poplar (1)

Privet (Ligustrum) (1)  
Rhododendron (1,2,4)  
Sand Cherry (1,2)  
Sequoia (1)  
Spiraea (1)  
Sycamore, Planetree (1)  
Viburnum (5)  
Walnut (Juglans) (1)

### Flowering Plants<sup>a</sup> and Bulbs

Arabian Violet (2)  
Begonia (1)  
Camellia (2)  
Carnation (1,2)  
Chrysanthemum (1,2)  
Crocus (1)  
Daffodil (1)  
Daisy (1)  
Geranium (1,6)  
Gladiolus (1,2)  
Hollyhock (6)  
Hydrangea (foliage only) (1,6)  
Iris (1,2)

Iris, Bulbous (1)  
Lily (1)  
Lily, Asiatic (1)  
Marigold (1)  
Narcissus (1)  
Pansy (1)  
Petunia (1,4)  
Phlox (1)  
Poinsettia<sup>b</sup> (1)  
Rose<sup>c</sup> (1)  
Statice (1)  
Tulip (1)  
Zinnia (1,5)

<sup>a</sup> Avoid applications during bloom period on plants where flower injury is unacceptable.

<sup>b</sup> Discontinue applications prior to bract formation; phytotoxicity is possible on the bracts.

<sup>c</sup> Use 1 pint HMO-1601 (0.75 lb a.i.) per 100 gallons of water.

### Foliage Plants

Aglaonema (1)  
Areca Palm (1)  
Artemesia (1)  
Dumbcane (Dffenbachia) (1)  
Dracaena (1)  
Fatsia (Aralia) (1)  
Ficus (1)  
Lipstick Plant (1)

Ming Aralia (1)  
Oyster Plant (Rhoeo) (1)  
Parlor Palm (Chamaedorea) (1)  
Peperomia (1)  
Philodendron (1,4)  
Prayer Plant (Maranta) (1)  
Syngonium (1)  
Zebra Plant (Aphelandra) (1)

### Diseases Controlled with HMO-1601

#### 1. Leaf Spots/Foliar Blights:

Actinopelte leaf spot  
Alternaria leaf spot/leaf blight  
Anthracnose leaf blotch, spot  
Anthracnose (Discula) blight  
Ascochyta blight  
Bipolaris (Helminthosporium) leaf spot  
Black spot on roses  
Botrytis leaf spot, leaf blight  
Cephalosporium leaf spot  
Cercospora leaf spot  
Cercosporidium leaf spot  
Corynespora leaf spot  
Coryneum blight (shothole)  
Curvularia leaf spot

Cylindrosporium leaf spot  
Dactylaria leaf spot  
Didymellina leaf spot  
Drechslera leaf spot  
Fabraea (Entomosporium) leaf spot  
Fusarium leaf spot  
Gloeosporium black leaf spot  
Ink spot (Drechslera)  
Marssonina leaf spot  
Monilinia blossom blight, twig blight  
Mycosphaerella ray blight  
Myrothecium leaf spot, brown rot  
Nematostoma leaf blight  
Phyllosticta leaf spot

Ramularia leaf spot  
Rhizoctonia web blight  
Septoria leaf spot  
Sphaeropsis leaf spot

Stagonospora leaf scorch  
Tan leaf spot (Curvularia)  
Volutella leaf blight

## 2. Flower spots/blights:

Botrytis flower spot, flower blight  
Curvularia flower spot  
Monilinia blossom blight

Ovulinia flower blight  
Rhizopus blossom blight  
Sclerotinia flower blight

## 3. Cylindrocladium stem canker

## 4. Phytophthora leaf blight, dieback

## 5. Powdery mildews:

*Erysiphe cichoracearum*  
*Microsphaera* spp.

## 6. Rusts:

*Gymnosporangium* spp.  
*Pucciniastrum hydrangeae*  
*Puccinia* spp.

## 7. Taphrina blister

## 8. Scab (*Venturia inaequalis*)

The following ornamental plant species which have been tested with HMO-1601 at recommended rates did not exhibit phytotoxicity:

### Botanical Name

*Aechmea fasciata*  
*Araucaria heterophylla*  
*Bougainvillea* spp.  
*Caladium* spp.  
*Calathea makoyana*  
*Calistephus chinensis*  
*Carissa grandiflora*  
*Clerodendron thomsonae*  
*Codiaeum* spp.  
*Cordyline terminalis*  
*Crassula argentea*  
*Dionaea muscipula*  
*Dizygotheca elegantissima*  
*Epipremnum aureum*  
*Episcia cupreata*  
*Fittonia* spp.  
*Gerbera jamesonii*  
*Gynura sarmientosa*  
*Gypsophila paniculata*  
*Hoya* spp.  
*Ilex cornuta*  
*Ilex crenata*

### Common Name

Aechmea  
Norfolk Island Pine  
Bougainvillea  
Caladium  
Peacock Plant  
Aster  
Natal Plum  
Bleeding Heart  
Croton  
Ti Plant  
Jade Plant  
Venus Fly Trap  
False Aralia  
Golden Pothos, Scindapsus  
Flame Violet  
Silver-Nerve Plant  
Gerbera Daisy  
Purple Passion Vine  
Baby's Breath  
Wax Plant  
Chinese Holly  
Japanese Holly

<i>Impatiens</i> spp.	Impatiens
<i>Pilea cadierei</i>	Aluminum Plant
<i>Sansevieria trifasciata</i> "Hahnii"	Birdsnest Sansevieria
<i>Tolmeia menziesii</i>	Piggy-Back Plant
<i>Yucca elephantipes</i>	Spineless Yucca
<i>Zygocactus truncatus</i>	Christmas Cactus

**NOTE:** DO NOT apply HMO-1601 to either green or variegated Pittosporum or to Schefflera, as multiple applications have been demonstrated to cause phytotoxic responses.

### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original container only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with vermiculite, earth, or synthetic absorbent. Store in a cool place. Protect from excessive heat.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, 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: Nonrefillable container.** Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at [www.acrecycle.org](http://www.acrecycle.org). If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

**For packages up to 5 gallons: 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. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**For packages greater than 5 gallons and less than 56 gallons: 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. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**For packages greater than 56 gallons:** To clean the 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.

**For refillable containers:** Refill this container with this product 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 refiller. To clean the 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.

For final disposal, offer for recycling or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**For help with any spill, leak, fire or exposure involving this material, call day or night  
CHEMTREC – 1-800-424-9300.**

### **CONDITIONS OF SALE - LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES**

Read the Conditions of Sale - Warranty and Limitations of Liability and Remedies before using this product. If the terms are not acceptable, return the product, unopened, and the full purchase price will be refunded.

The directions on this label are believed to be reliable and must be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions or the failure to follow the label directions or good application practices, all of which are beyond the control of Helena [Agri-Enterprises, LLC](#) (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. To the extent consistent with applicable law, the Company makes no other warranties or representations of any kind; express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

To the extent consistent with applicable law, the exclusive remedy against the Company for any cause of action relating to the handling or use of this product shall be limited to, at Helena [Agri-Enterprises, LLC's](#) election, one of the following:

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

To the extent consistent with applicable law, the Company shall not be liable and any and all claims against the Company are waived for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income. The Company and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability and remedies.