



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

EPA Reg. Number:

100-1687

Date of Issuance:

12/8/21

NOTICE OF PESTICIDE:

Registration
 Reregistration
 (under FIFRA, as amended)

Term of Issuance:
Unconditional

Name of Pesticide Product:
Hyetal

Name and Address of Registrant (include ZIP Code):

Nestor Algarin
 Regulatory Product Manager
 Syngenta Crop Protection, LLC
 P.O. Box 18300
 Greensboro, NC 27419-8300

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

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

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

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
2. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, "EPA Reg. No. 100-1687."

Signature of Approving Official:

Carmen J. Rodia, Jr., Acting Product Manager 22
 Fungicide Branch, Registration Division (7505P)

Date:

12/8/21

3. Submit one copy of the final printed label for the record before you release the product for shipment.

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

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSF:

- Basic CSF dated 12/4/20
- Alt 1 CSF dated 12/4/20

If you have any questions, please contact Elisha Graham by phone at via email at Graham.Elisha@epa.gov.

Enclosure: Master Label Stamped "Accepted," dated 12/8/21

IMPORTANT NOTICE

U.S. LABEL – It is a violation of the United States law to use this product in the United States in a manner inconsistent with its United States labeling.

MANDIPROPAMID GROUP 40 FUNGICIDE

Hyetal [alternate brand name: MT A13947]

Fungicide

For control of certain diseases in listed crops

<i>Active Ingredient:</i>	
Mandipropamid*	23.3%
<i>Other Ingredients:</i>	76.7%
Total:	100.0%

*CAS No. 374726-62-2

Hyetal is formulated as a suspension concentrate.

Contains 1,2-benzisothiazolin-3-one at 0.017% as a preservative.

Contains 23.3% Mandipropamid equivalent to 2.08 pounds per gallon or 250 grams per liter of active ingredient.

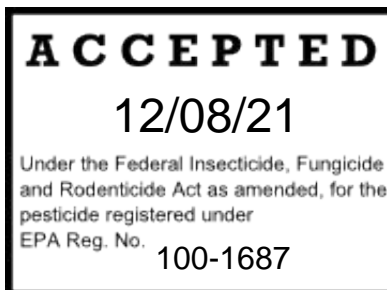
KEEP OUT OF REACH OF CHILDREN.

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-

EPA Est.

Net Contents



FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

HOTLINE NUMBER

For 24-Hour Medical Emergency Assistance (Human or Animal) or
Chemical Emergency Assistance (Spill, Leak, Fire, or Accident),
Call
1-800-888-8372

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

User Safety Requirements

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

Engineering Controls

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 clothing.
- Remove clothing/PPE immediately if pesticide gets inside. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change clothing.

Environmental Hazards

For terrestrial use. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

This product may contaminate water through drift of spray in wind. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or regional office of the EPA.

Physical and Chemical Hazards

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

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

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

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

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

DIRECTIONS FOR USE

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

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

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval (REI). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the REI of 4 hours.

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

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

PRODUCT USE PRECAUTIONS

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, AND/OR ILLEGAL RESIDUES.

PRODUCT USE RESTRICTIONS

Greenhouse use is prohibited in all crops except for greenhouse tomato production. Do not use this product in vegetable transplant production.

PRODUCT INFORMATION

Hyetal provides control of diseases caused by downy mildews. It has preventative and limited curative properties. Hyetal is applied as a foliar spray and can be used in block, alternating spray, or tank mix programs with other crop protection products. All applications must be made according to the use directions that follow.

PRODUCT USE INSTRUCTIONS

Application: Thorough coverage is necessary to provide good disease control. Mix only the amount of spray solution needed for immediate application. Avoid spray overlap, as crop injury may occur.

Adjuvants: For some uses on this label, a spreading/penetrating type adjuvant such as a non-ionic surfactant, crop oil concentrate, silicone based, or blend must be added at the manufacturer's recommended rates. For other crop uses, an adjuvant is recommended. When an adjuvant is to be used with this product, SYNGENTA recommends the use of a Chemical Producers and Distributors Association certified adjuvant.

Efficacy: Under certain conditions conducive to extended infection periods, use another registered fungicide for additional applications if maximum amount of Hyetal has been used. If isolates that are resistant to Group 40 fungicides are present, efficacy may be reduced for certain diseases. The higher rates in the rate range and/or shorter spray intervals may be required under conditions of heavy infection pressure, highly susceptible varieties, or when environmental conditions conducive to disease exist.

Disease Suppression: If a use indicates suppression it refers to erratic control from fair to good, or consistent control at a level below that obtained with products registered for control.

Integrated Pest Management (IPM): Hyetal should be integrated into an overall disease and pest management strategy whenever the use of a fungicide is required. Cultural practices known to reduce disease development should be followed. Consult your local agricultural authorities for additional IPM strategies established for your area. Hyetal may be used in State Agricultural Extension advisory (disease forecasting) programs which recommend application timing based on environmental factors favorable for disease development.

Resistance Management Recommendations

For resistance management, please note that Hyetal contains a Group 40 (mandipropamid) fungicide. Any fungal population may contain individuals naturally resistant to the active ingredients in Hyetal and other Group 40 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

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

- Rotate the use of mandipropamid or other Group 40 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide 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 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 applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal 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 crop and pathogens.
- For further information or to report suspected resistance contact **Syngenta Crop Protection** at 1-866-796-4368. You can also contact your pesticide distributor or university extension specialist to report resistance.

As part of a resistance management strategy:

- Apply a maximum of 4 sprays during one crop cycle.
- Apply no more than 2 sequential applications unless otherwise stated in the crop section.
- When tank mixing or alternating, use an effective partner – one that provides satisfactory disease control when used alone at the mixture rate.
- Do not use Hyetal in vegetable transplant production.

Crop Tolerance: Plant tolerance has been found acceptable for all crops on the label; however, not all possible tank mix combinations have been tested under all conditions. When possible, it is recommended to test the combinations on a small portion of the crop to ensure a phytotoxic response will not occur as a result of application.

Rotational Crops: To avoid possible illegal residues, do not plant any other crop within 30 days of a Hyetal application to the preceding crop unless the crop appears in the table below.

Rotational Crop	Days from Last Application
Basil Bean, edible podded, including asparagus bean, catjang bean, Chinese longbean, cowpea, French bean, garden bean, goa bean, guar bean, green bean, jackbean, kidney bean, lablab bean, moth bean, mung bean, navy bean, rice bean, scarlet runner bean, snap bean, sword bean, urd bean, vegetable soybean, velvet bean, wax bean, winged bean, and yardlong bean Brassica, head and stem vegetable, Crop group 5-16 Celtuce Citrus Fruit, Crop Group 10-10 Cucurbit Vegetables, Crop group 9 Fennel, Florence Fruiting Vegetables, including tomatoes, Crop group 8 Ginseng Grapes Hops Kohlrabi	0

Leaf petiole vegetables, Crop subgroup 22B Leafy vegetable, Crop Group 4-16 Okra Onion, dry bulb Onion, green Tobacco Tuberous and corm vegetables, including potatoes, Crop subgroup 1C	
All other crops intended for food or feed	30

Spray Drift Management

Mandatory Spray Drift Requirements

Aerial Applications:

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

Ground Applications:

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy unless making a pasture or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Boomless Ground Applications:

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Spray Drift Advisories:

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

CONDITIONS.

- DO NOT apply when conditions favor drift beyond the target area.
- The interaction of many equipment- and weather-related factors determines the potential for spray drift.
- DO NOT apply when the wind speed is greater than 10 mph or during periods of temperature inversions.
- DO NOT apply when weather conditions favor drift from treated areas to non-target aquatic habitat.

Importance of Droplet Size:

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

Controlling Droplet Size – Ground Boom:

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

Controlling Droplet Size – Aircraft:

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

Boom Height – Ground Boom:

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

Release Height – Aircraft:

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

Shielded Sprayers:

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

Temperature and Humidity:

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

Temperature Inversions:

- Drift potential is high during a temperature inversion.
- Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind.
- The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator.
- Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.
- Avoid applications during temperature inversions.

Wind:

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

Handheld Technology Applications:

- Take precautions to minimize spray drift.

Non-Target Areas:

Do not apply this pesticide when the product may drift to non-target areas (i.e. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops).

MIXING AND APPLICATION METHODS

Spray Equipment

Nozzles

- Equip sprayers with nozzles that provide accurate and uniform application.
- Nozzles should be the same size and uniformly spaced across the boom.
- Calibrate sprayer before use.
- It is suggested that screens be used to protect the pump and to prevent nozzles from clogging.
- Screens placed on suction side of pump should be 16-mesh or coarser.
- Do not place a screen in the recirculation line.
- Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles.
- Check nozzle manufacturer's recommendations.

Pump

- Use a pump with capacity to:
 - (1) maintain 35-40 psi at nozzles
 - (2) provide sufficient agitation in tank to keep mixture in suspension - this requires recirculation of 10% of tank volume per minute.

- Use a jet agitator or liquid sparge tube for agitation.
- Do not air sparge.

For more information on spray equipment and calibration, consult sprayer manufacturer's and state recommendations. For specific local directions and spray schedules, consult the current state agricultural recommendations.

Mixing Instructions

- Prepare no more spray mixture than is required for the immediate operation.
- Thoroughly clean spray equipment before using this product.
- Agitate the spray solution before and during application.
- Rinse spray tank thoroughly with clean water after each day's use and dispose of pesticide rinsate by application to an already treated area.
- Do not allow spray mixture to stand overnight or for prolonged periods of time (more than 3 hours) without agitation.
- It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions, limitations and directions for use on all specified product labels involved in tank mixing. User must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Hyetal Alone (no tank mix):

- Add $\frac{1}{2}$ - $\frac{2}{3}$ of the required amount of water to the spray or mixing tank.
- With the agitator running, add Hyetal to the tank.
- Continue agitation while adding the remainder of the water.
- Begin application of the spray solution after Hyetal has completely dispersed into the mix water.
- Maintain agitation until all of the mixture has been sprayed.

Tank Mix Precautions:

- All tank mixes should be pre-tested to determine physical compatibility between formulations.
- Follow the most restrictive precautions and limitations on the labeling of all products used in mixtures.
- It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Hyetal + Tank Mixtures: Hyetal is usually compatible with all tank-mix partners listed on this label. To determine the physical compatibility of Hyetal with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to 1 quart of water. Add wettable powders and water dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

It is important to mix only the amount of product that can be sprayed immediately.

Continuous agitation is recommended. If circumstances cause a delay of more than 3 hours, the product(s) may settle and be difficult to re-suspend. If this occurs, good agitation is required for a minimum of 15 minutes before and during spray operation.

Mixing in the Spray Tank

- Add ½-¾ of the required amount of water to the spray or mixing tank.
- With the agitator running, add the tank mix partner(s) into the tank in the same order as described above.
- Allow the material to completely dissolve and disperse into the mix water. Continue agitation while adding the remainder of the water and Hyetal to the spray tank.
- Allow Hyetal to completely disperse.
- Spray the mixture with the agitator running.

Application Instructions

Hyetal may be applied with all types of spray equipment commonly used for making ground and aerial applications. Proper adjustments and calibration of spraying equipment to give good canopy penetration and coverage is essential for good disease control.

Hyetal Conversion Table

Oz product/acre	Lb ai/acre
5.5	0.09
7	0.11
8	0.13

Ground Application:

- Apply in a minimum of 10 gallons of water per acre, unless specified otherwise on this label.
- Do not apply through any ultra-low volume (ULV) spray system.
- Thorough coverage is necessary to provide good disease control.

Aerial Application:

- Use only on crops where aerial applications are indicated.
- Thorough coverage is necessary to provide good disease control.
- Apply in a minimum of 5 gallons of water per acre unless specified otherwise on this label.
- Avoid application under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur.
- Do not apply directly to humans or animals.
- Do not apply through any ultra-low volume (ULV) spray system.

Application Through Irrigation Systems (Chemigation):

- Use only on crops where chemigation is specified on this label.
- Apply this product only through center pivot, solid set, hand move, or moving wheel irrigation systems. 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.

- Apply Hyetal use rates in 0.1 – 0.25 inches per acre. Excessive water may reduce efficacy.
- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Operating Instructions

1. The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
6. 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.
7. Do not apply when wind speed favors drift beyond the area intended.

Center Pivot Irrigation Equipment

Notes: (1) Use only with drive systems which provide uniform water distribution. (2) Do not use end guns when chemigating Hyetal through center pivot systems, because of non-uniform application.

- Determine the size of the area to be treated.
- Determine the time required to apply 1/8–1/2 inch of water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer. When applying Hyetal through

irrigation equipment, use the lowest obtainable water volume while maintaining uniform distribution. Run the system at 80-95% of the manufacturer's rated capacity.

- Using water, determine the injection pump output when operated at normal line pressure.
- Determine the amount of Hyetal required to treat the area covered by the irrigation system.
- Add the required amount of Hyetal and sufficient water to meet the injection time requirements to the solution tank.
- Make sure the system is fully charged with water before starting injection of the Hyetal solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
- Maintain constant solution tank agitation during the injection period.
- Continue to operate the system until the Hyetal solution has cleared the sprinkler head.

Solid Set, Hand Move, and Moving Wheel Irrigation Equipment

- Determine the acreage covered by the sprinklers.
- Fill injector solution tank with water and adjust flow rate to use the contents over a 20 to 30-minute interval. When applying Hyetal through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution.
- Determine the amount of Hyetal required to treat the area covered by the irrigation system.
- Add the required amount of Hyetal into the same quantity of water used to calibrate the injection period.
- Operate the system at the same pressure and time interval established during the calibration.
- Stop injection equipment after treatment is completed. Continue to operate the system until the Hyetal solution has cleared the last sprinkler head.

SPECIFIC INSTRUCTIONS FOR PUBLIC WATER SYSTEMS

1. 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 out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone (RPZ), back-flow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank, when the irrigation system is either automatically or manually shut down.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. 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.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

SPECIFIC DIRECTIONS FOR USE

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
<i>Basil (fresh and dried)</i>	Downy mildew (<i>Peronospora belbahrii</i>)	5.5 - 8.0 (0.09 - 0.13)	<p>Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease. Hyetal may be tank mixed with another fungicide labeled for downy mildew that has a different mode of action.</p> <p>The addition of a spreading/penetrating type adjuvant such as a non-ionic based surfactant or crop oil concentrate or blend is recommended.</p>
<p>Application: For best results, use sufficient water volume to provide thorough coverage. Hyetal may be applied by ground, chemigation, or aerial application.</p>			

Use Restrictions for Basil (fresh and dried):

- 1) Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/season).
- 2) If multiple croppings, apply no more than 2.08 lb ai/A/year.
- 3) Do not apply within 1 day of harvest (1-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
<p>Bean, edible podded</p> <p><i>Phaseolus</i> spp.</p> <p>French bean garden bean green bean kidney bean navy bean scarlet runner bean snap bean wax bean</p> <p><i>Vigna</i> spp.</p> <p>asparagus bean catjang bean Chinese longbean cowpea goa bean guar bean jackbean lablab bean moth bean mung bean rice bean sword bean urd bean vegetable soybean velvet bean winged pea yardlong bean</p>	<p>Downy mildew (<i>Phytophthora nicotianae</i>)</p>	<p>5.5 - 8.0 (0.09 - 0.13)</p>	<p>Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease. Hyetal may be tank mixed with another fungicide labeled for downy mildew that has a different mode of action.</p> <p>The addition of a spreading/penetrating type adjuvant such as a non-ionic based surfactant or crop oil concentrate or blend is recommended.</p> <p>Application: For best results, use sufficient water volume to provide thorough coverage. Hyetal may be applied by ground, chemigation, or aerial application.</p>

Use Restrictions for Beans, edible podded:

- 1) Do not apply more than 32 fl oz of product/A/year (0.52 lb ai/A/year).
- 2) Do not apply within 1 day of harvest (1-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
<p><i>Brassica, head and stem, Crop Group 5-16</i></p> <p>Broccoli Brussels sprouts Cabbage</p> <p><i>Including all cultivars and/or hybrids of these.</i></p> <p><i>See additional crops below.</i></p>	<p>Downy mildew <i>(Peronospora parasitica)</i></p>	<p>5.5 - 8.0 (0.09 - 0.13)</p>	<p>Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease. Hyetal may be tank mixed with another fungicide labeled for downy mildew that has a different mode of action.</p> <p>A spreading/penetrating type adjuvant such as a silicone based adjuvant, non-ionic surfactant, crop oil concentrate, or blend must be added at recommended rates when applied by ground or air.</p>
<p>Application: For best results, use sufficient water volume to provide thorough coverage. Hyetal may be applied by ground, chemigation, or aerial application.</p>			

Brassica, head and stem Crop group 5-16 includes: Broccoli; Brussels sprouts; cabbage; cabbage, Chinese, Napa; cauliflower; cultivars, varieties, and hybrids of these commodities

Use Restrictions for Brassica, head and stem, Crop group 5-16:

- 1) Do not apply more than 32 fl oz of product/A/year (0.52 lb ai/A/year).
- 2) Do not apply within 1 day of harvest (1-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
<p>Leafy Vegetable Group 4-16:</p> <p>Brassica leafy greens, Crop Subgroup 4-16B, and Kohlrabi</p> <p>Arugula Broccoli, raab Cabbage, Chinese, bok choy Turnip greens</p> <p><i>Including all cultivars and/or hybrids of these.</i></p> <p><i>See additional crops below.</i></p>	<p>Downy mildew (<i>Peronospora parasitica</i>)</p>	<p>5.5 - 8.0 (0.09 - 0.13)</p>	<p>Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease. Hyetal may be tank mixed with another fungicide labeled for downy mildew that has a different mode of action.</p> <p>For Arugula; Cress, garden; Cress, upland; and Kale, a spreading /penetrating type adjuvant, used as recommended rates, such as a silicone based adjuvant, non-ionic surfactant, crop oil concentrate, or blend is recommended when applied by ground or air.</p> <p>For all other crops, a spreading/penetrating type adjuvant must be added at recommended rates when applied by ground or air.</p>
<p>Application: For best results, use sufficient water volume to provide thorough coverage. Hyetal may be applied by ground, chemigation, or aerial application.</p>			

Brassica, leafy greens Crop subgroup 4-16B includes: Arugula; broccoli, Chinese; broccoli raab; cabbage, abyssinian; cabbage, Chinese, bok choy; cabbage, seakale; collards; cress, garden; cress, upland; hanover salad; kale; maca, leaves; mizuna; mustard greens; radish, leaves; rape greens; rocket, wild; shepherd's purse; turnip greens; watercress[*]; cultivars, varieties, and hybrids of these commodities

Use Restrictions for Brassica, leafy greens Crop Group 4-16B:

- 1) Do not apply more than 32 fl oz of product/A/year (0.52 lb ai/A/year).
- 2) Do not apply within 1 day of harvest (1-day PHI).
- 3) For applications made to watercress, production fields must be drained of water 24 hours prior to application, and water must not be reapplied to the field for a minimum of 24 hours following the application.

[*Do not apply to watercress in California.]

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
<p>Bulb Vegetables</p> <p>Dry bulb Onion, bulb Garlic Shallot</p> <p>Green Onion Onions, green Leek Welch onion</p> <p><i>Including cultivars, varieties, and/or hybrids of these and others in this group (see below).</i></p>	<p>Downy mildew (<i>Peronospora destructor</i>)</p>	<p>5.5 - 8.0 (0.09 - 0.13)</p>	<p>Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease. Hyetal may be tank mixed with another fungicide labeled for downy mildew that has a different mode of action.</p> <p>A silicone-based adjuvant must be added at recommended rates.</p> <p>Application: For best results, use sufficient water volume to provide thorough coverage. Hyetal may be applied by ground, chemigation, or aerial application.</p>

Onion, bulb Crop subgroup 3-07A includes: Daylily, bulb; fritillaria, bulb; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; lily, bulb; onion, bulb; onion, Chinese, bulb; onion, pearl; onion, potato, bulb; shallot, bulb; cultivars, varieties, and/or hybrids of these

Onion, green Crop subgroup 3-07B includes: chive, fresh leaves; chive, Chinese, fresh leaves; elegans hosta; fritillaria, leaves; kurrat; lady's leek; leek; leek, wild; onion, Beltsville bunching; onion, fresh; onion, green; onion, macrostem; onion, tree, tops; onion, Welsh, tops; shallot, fresh leaves; cultivars, varieties, and/or hybrids of these

Use Restrictions for Bulb Vegetables, Crop Subgroups 3-07A & 3-07B:

- 1) For dry bulb vegetables do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/year).
- 2) For green onions do not apply more than 24 fl oz of product/A/season (0.39 lb ai/A/year).
- 3) Do not apply within 7 days of harvest (7-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
Citrus, Crop Group 10-10	<i>Phytophthora</i> brown rot (<i>Phytophthora</i> spp.)	5.5 - 8.0 (0.09 -0.13)	<p>Make first foliar application prior to the onset of disease, and a second application after a minimum interval of 30 days. Do not make more than 2 applications per year.</p> <p>Apply by ground application in a spray volume sufficient to ensure good coverage of the foliage and fruit.</p> <p>Apply by aerial application in a spray volume sufficient to ensure good coverage of foliage and fruit (>10 GPA). When using aerial application, the resulting level and duration of control of these pests could be reduced compared to ground application. Use the higher rate range when applying this product by air.</p> <p>Make no more than 2 consecutive applications of Hyetal before switching to another effective non-Group 40 fungicide.</p> <p>Hyetal may be tank mixed with a non-Group 40 fungicide labeled for <i>Phytophthora</i> brown rot.</p>

Citrus Crop Group 10-10: Australian desert lime; Australian finger-lime; Australian round lime; Brown River finger lime; calamondin; citron; citrus hybrids; grapefruit; Japanese summer grapefruit; kumquat; lemon; lime; Mediterranean mandarin; mount white lime; New Guinea wild lime; orange, sour; orange, sweet; pummelo; Russell River lime; satsuma mandarin; sweet lime; tachibana orange; Tahiti lime; tangelo; tangerine (mandarin); tangor; trifoliate orange; unqi fruit; cultivars, varieties, and/or hybrids of these

Use Restrictions for Citrus, Crop Group 10-10:

- 1) Do not apply more than 8 fl oz product/A per application.
- 2) Do not apply more than 16 fl oz product/A/year (0.26 lb ai/A/year).
- 3) Hyetal may be applied the day of harvest (0-day PHI).

Crop	Disease	Rate fl oz/100 gal	Remarks
Citrus – NON-BEARING only For use in container production in nurseries and prior to transplanting.	Phytophthora root rot (<i>Phytophthora</i> spp.)	8.0 – 16.0	Hyetal controls the germinating spores of <i>Phytophthora</i> so it is important that Hyetal be used preventively. Apply as a drench (see Table below for volume) to the container 2-4 times a year, with a minimum interval of 3 months, during root flushes to protect the new root growth and the crown of the plant. In order to maintain protection in the field, drench pot prior to transplanting.
	Application: Use a sufficient volume of water to wet the soil in the container.		

Citrus Crop Group 10-10: Australian desert lime; Australian finger-lime; Australian round lime; Brown River finger lime; calamondin; citron; citrus hybrids; grapefruit; Japanese summer grapefruit; kumquat; lemon; lime; Mediterranean mandarin; mount white lime; New Guinea wild lime; orange, sour; orange, sweet; pummelo; Russell River lime; satsuma mandarin; sweet lime; tachibana orange; Tahiti lime; tangelo; tangerine (mandarin); tangor; trifoliolate orange; uniu fruit; cultivars, varieties, and/or hybrids of these

Use Restrictions for Citrus – NON BEARING only:

- 1) Do not apply more than 16 oz/100 gallons per application.
- 2) Do not apply within 365 days of harvest (365-day PHI).
- 3) Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/year).

Volume of Hyetal Drench by Container Size

Pot Diameter	Drench Solution (oz) per Container
4	4
5	5
6	6
8	10
10	20
12	30

Amount of Hyetal to Achieve Desired Volume of Drench Solution

Rate/100 gal	5 gal	10 gal	25 gal	50 gal	75 gal	100 gal
8 oz	0.4 oz	0.8 oz	2 oz	4 oz	6 oz	8 oz
16 oz	0.8 oz	1.6 oz	4 oz	8 oz	12 oz	16 oz

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
<p>Cucurbits, Crop Group 9</p> <p>Cantaloupe Cucumber Honeydew Muskmelon Watermelon Pumpkin Squash Zucchini</p> <p><i>Including cultivars and/or hybrids of these.</i></p> <p><i>See additional cucurbit crops below.</i></p>	<p>For suppression of:</p> <p>Downy mildew (<i>Pseudoperonospora cubensis</i>)</p>	<p>5.5 - 8.0 (0.09 - 0.13)</p>	<p>Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 1 application before switching to another effective non-Group 40 fungicide. Hyetal must be tank mixed with another fungicide labeled for downy mildew that has a different mode of action. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease.</p> <p>A spreading/penetrating type adjuvant such as a non-ionic surfactant, crop oil concentrate, or blend must be added at recommended rates.</p>
	<p>For suppression of:</p> <p>Phytophthora blight (<i>P. capsici</i>)</p>	<p>8.0 (0.13)</p>	<p>For best results, begin the disease management program with an initial treatment at planting or transplanting with a fungicide registered for this use. Apply Hyetal as a foliar spray in a mixture with a copper based fungicide (at the recommended rate) beginning at first sign of disease or based on local recommendations. Hyetal should be alternated with another registered fungicide such as Ridomil Gold® Copper on a 7-14 day interval. Use adjuvants as recommended above.</p>
<p>Application: For best results, use sufficient water volume to provide thorough coverage. Hyetal may be applied by ground, chemigation, or aerial application. For <i>P. capsici</i> applications use a minimum of 20 gal/A by ground.</p>			

Cucurbit vegetable Crop Group 9 includes: Chayote (fruit); Chinese waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); *Momordica* spp (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); muskmelon (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon); pumpkin; squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon

Use Restrictions for Cucurbit Vegetable Crop Group 9:

- 1) Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/year).
- 2) May be applied the day of harvest (0-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
<p>Fruiting Vegetables (except tomatoes, see TOMATO section), Crop Group 8</p> <p>Peppers Bell pepper Non-bell pepper Sweet non-bell</p> <p>Eggplant Okra</p> <p><i>Including cultivars, varieties, and/or hybrids of these and others in this group (see below).</i></p>	<p>Downy mildew (<i>Peronospora tabacina</i>)</p>	<p>5.5 - 8.0 (0.09 - 0.13)</p>	<p>Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease.</p> <p>The addition of a spreading/penetrating type adjuvant such as a non-ionic surfactant or crop oil concentrate or blend is recommended.</p>
	<p><i>For suppression of:</i></p> <p><i>Phytophthora blight</i> (<i>P. capsici</i>)</p>	<p>8.0 (0.13)</p>	<p>For best results, begin the disease management program with an initial treatment at planting or transplanting with a fungicide registered for this use. Apply Hyetal as a foliar spray in a mixture with a copper based fungicide (at the recommended rate) beginning at first sign of disease or based on local recommendations. Alternate Hyetal with another registered fungicide such as Ridomil Gold Copper on a 7-14 day interval or use in a blocking program of 2 applications of Hyetal, followed by another fungicide for additional applications. Use adjuvants as recommended above.</p>
<p>Application: For best results, use sufficient water volume to provide thorough coverage. Hyetal may be applied by ground, chemigation, or aerial application. For <i>P. capsici</i> applications use a minimum of 20 gal/A by ground.</p>			

Fruiting vegetables (except cucurbits) Crop Group 8 includes (except for types of tomatoes): Eggplant; groundcherry (*Physalis* spp); pepino; pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper)

Use Restrictions for Fruiting Vegetables (except cucurbits) Crop Group 8:

- 1) Do not apply more than 32 fl oz of product/A/year (0.52 lb ai/A/year).
- 2) Do not apply within 1 day of harvest (1-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
Ginseng	Phytophthora root rot (<i>P. cactorum</i>)	5.5 - 8.0 (0.09 - 0.13)	<p>Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease. Hyetal may be tank mixed with another fungicide labeled for downy mildew that has a different mode of action.</p> <p>The addition of a spreading/penetrating type adjuvant such as a non-ionic based surfactant or crop oil concentrate or blend is recommended.</p>
<p>Application: For best results, use sufficient water volume to provide thorough coverage. Hyetal may be applied by ground, chemigation, or aerial application.</p>			

Use Restrictions for Ginseng:

- 1) Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/year).
- 2) Do not apply within 2 days of harvest (2-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
<p>Grapes</p> <p><i>Including cultivars, varieties, and/or hybrids of these and others in this group (see below).</i></p>	<p>Downy mildew (<i>Plasmopora viticola</i>)</p>	<p>5.5 - 8.0 (0.09 - 0.13)</p>	<p>Begin applications prior to disease development and continue throughout the season on a 7-day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease.</p> <p>The addition of a spreading/penetrating type adjuvant such as a non-ionic based surfactant or crop oil concentrate or blend is recommended.</p> <p>Application: For best results, use sufficient water volume to provide thorough coverage. Hyetal may be applied by either ground (15 gal minimum) or aerial application (10 gal minimum).</p>

Complete list of Small Fruit vine climbing subgroup, except fuzzy kiwifruit: Amur river grape, gooseberry, grape; kiwifruit (hardy); maypop; schisandra berry

Use Restrictions for Grapes:

- 1) Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/year).
- 2) Do not apply within 14 days of harvest (14-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
Hops	Downy mildew (<i>Pseudoperonospora humuli</i>)	5.5 - 8.0 (0.09 - 0.13)	<p>Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to an effective non-Group 40 fungicide. For resistance management, no more than 50% of the sprays should be Hyetal. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease. Hyetal may be tank mixed with another fungicide labeled for downy mildew that has a different mode of action.</p> <p>The addition of a spreading/penetrating type adjuvant such as a non-ionic based surfactant or blend is recommended.</p>
<p>Application: For best results, use sufficient water volume to provide thorough coverage. Hyetal may be applied by ground, chemigation, or aerial application.</p>			

Use Restrictions for Hops:

- 1) Do not apply more than 24 fl oz of product/A/season (0.39 lb ai/A/year).
- 2) Do not apply within 7 days of harvest (7-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
<p>Leafy Vegetable Group 4-16:</p> <p>Leafy Greens, Crop Subgroup 4-16A, Leaf petiole vegetables Crop Subgroup 22B, Celtuce, Florence fennel</p> <p>Lettuce, leaf and head Spinach Celery</p> <p><i>Including cultivars and/or hybrids of these.</i></p> <p><i>See additional crops below.</i></p>	<p>Downy mildew (<i>Peronospora effusa</i>)</p> <p>Downy mildew (<i>Bremia lactucaae</i>)</p> <p>Downy mildew (<i>Plasmopora umbelliferarum</i>)</p> <p>Downy mildew (<i>Peronospora</i> spp.)</p>	<p>5.5 - 8.0 (0.09 - 0.13)</p>	<p>Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease.</p> <p>The addition of a spreading/ penetrating type adjuvant such as a non-ionic surfactant or crop oil concentrate or blend is recommended.</p>
<p>Application: For best results, use sufficient water volume to provide thorough coverage. Hyetal may be applied by ground, chemigation, or aerial application.</p>			

Leafy greens (except brassica vegetables) Crop subgroup 4-16A includes: Amaranth, Chinese; amaranth, leafy; aster, Indian; blackjack; cat's whiskers; cham-chwi; cham-na-mul; chervil, fresh leaves; chipilin; chrysanthemum, garland; cilantro, fresh leaves; corn salad; cosmos; dandelion, leaves; dang-gwi, leaves; dillweed; dock; dol-nam-mul; ebolo; endive; escarole; fameflower; feather cockscomb; good king henry; huauzontle; jute, leaves; lettuce, bitter; lettuce, head; lettuce, leaf; orach; parsley, fresh leaves; plantain, buckhorn; primrose, English; purslane, garden; purslane, winter; radicchio; spinach; spinach, Malabar; spinach, New Zealand; spinach, tanier; Swiss chard; violet, Chinese, leaves; cultivars, varieties, and hybrids of these commodities

Leaf petiole vegetables Crop subgroup 22B includes: Cardoon; celery; celery, Chinese; fuki; rhubarb; udo; zuiki; cultivars, varieties, and hybrids of these commodities

Use Restrictions for Leafy Greens (except brassica vegetables) Crop Group 4-16A & Leaf Petiole Vegetables Crop Subgroup 22B:

- 1) Do not apply more than 32 fl oz of product/A/year (0.52 lb ai/A/year).
- 2) Do not apply within 1 day of harvest (1-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
<p>Potatoes and other Vegetables, tuberous and corm, Crop Subgroup 1C</p> <p>See additional crops below.</p>	<p>Late blight (<i>Phytophthora infestans</i>)</p>	<p>5.5 - 8.0 (0.09 - 0.13)</p>	<p>Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease.</p> <p>The addition of a spreading/ penetrating type adjuvant such as a non-ionic surfactant or crop oil concentrate or blend is recommended when applying by ground or air.</p> <p>Application: For best results, use sufficient water volume to provide thorough coverage. Hyetal may be applied by ground, chemigation, or aerial application.</p>

Tuberous and corm vegetables Crop subgroup 1C includes: Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna (edible); cassava (bitter and sweet); chayote (root); chufa; dasheen (taro); ginger; leren; potato; sweet potato; tanier; turmeric; yam bean; yam, true

Use Restrictions for Tuberous and Corm Vegetables Crop Subgroup 1C:

- 1) Regardless of the type of application (seed treatment or foliar), do not apply more than 32 fl oz of product/A/year (0.52 lb ai/A/year, or 235.9 g ai/A/year).
- 2) Seed treatment use of Hyetal may be followed by up to three (3) foliar applications of a mandipropamid-containing product provided the total lb ai/A applied per year does not exceed 0.52 lb (235.9 g ai/A) of mandipropamid.
- 3) Do not apply within 14 days of harvest (14-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
Tobacco	Blue mold (<i>Peronospora tabacina</i>)	5.5 - 8.0 (0.09 - 0.13)	<p>Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to an effective non-Group 40 fungicide. Hyetal may be tank mixed with another fungicide labeled for blue mold that has a different mode of action.</p> <p>The addition of a spreading/penetrating type adjuvant such as a non-ionic based surfactant may improve activity.</p>

Application: For best results, use sufficient water volume to provide thorough coverage. Hyetal may be applied by ground, chemigation, or aerial application. Aerial applications must be made using a minimum of 2 gallons water per acre.

Use Restrictions for Tobacco:

- 1) Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/year).
- 2) Do not apply within 7 days of harvest (7-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
<p>Tomato</p> <p>Includes: Tomato, bush Tomato, currant Tomatillo Tomato, tree</p> <p><i>And cultivars, varieties, and/or hybrids of these.</i></p> <p><i>See FRUITING VEGETABLE, Crop Group 8 section for other crops in this group.</i></p>	<p>Late blight (<i>Phytophthora infestans</i>)</p>	<p>5.5 - 8.0 (0.09 - 0.13)</p>	<p>Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease.</p> <p>May be used in field and greenhouse production. Do not use in greenhouse for transplant production.</p> <p>The addition of a spreading/ penetrating type adjuvant such as a non-ionic surfactant or crop oil concentrate or blend is recommended when applying by ground or air.</p>
<p>Application: For best results, use sufficient water volume to provide thorough coverage. Hyetal may be applied by ground, chemigation, or aerial application.</p>			

Use Restrictions for Tomato:

- 1) Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/season).
- 2) If multiple croppings, apply no more than 2.08 lb ai/A/year.
- 3) Do not apply within 1 day of harvest (1-day PHI).

PRODUCT USE INSTRUCTIONS – SEED TREATMENT APPLICATIONS

Hyetal is to be used as an integral part of a potato disease management strategy. This strategy includes the use of high quality seed and the incorporation of cultural techniques such as: crop rotation and optimal harvest time for tubers to minimize disease development, proper handling of tubers to avoid unnecessary bruising, management and sanitation of equipment and storage areas to reduce inoculum, including avoidance of storage conditions that lead to free moisture or condensation and application of the seed piece treatment to clean seed pieces with a properly calibrated application system.

Apply using standard seed treatment equipment that provides uniform seed coverage. Uneven or incomplete seed coverage may not give the desired level of disease control. Add sufficient water to allow for a slurry volume that will allow for sufficient coverage. Follow the application instructions provided by the equipment manufacturer for the seed

treatment equipment being used.

Treatment of highly mechanically scarred, excessively sprouted, bruised, or damaged seed or seed pieces, or seed known to be of low vigor, "physiologically old" (that has multiple sprouts) and poor quality, except for the purpose of curative control of existing disease pests, may result in reduced germination and/or reduction of seed and seedling vigor. Treat a small quantity of seed using equipment similar to that planned for treating the total seed lot. Conduct germination tests on a small portion of seed before committing the total seed lot to a selected seed treatment. Due to seed quality and seed storage conditions beyond the control of Syngenta, no claims are made to guarantee the germination of carry-over seed or propagating material for all crop seed.

SEED CONTAINER LABEL REQUIREMENTS

The Federal Seed Act requires that containers containing treated seeds shall be labeled with the following statements:

- This seed has been treated with mandipropamid fungicide.
- Do not use for feed, food, or oil purposes.

In addition, the following statements are required on containers containing potato tuber seed treated with Hyetal.

- Store away from feeds and foodstuffs.
- Do not store Hyetal treated seed in burlap bags or impervious bags/containers or in areas that are poorly ventilated.
- Wear long-sleeved shirt, long pants and chemical-resistant gloves when handling treated seed.
- Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading.
- Do not contaminate water bodies when disposing of planting equipment washwaters.
- Do not allow children, pets, or livestock to have access to treated seed.
- Dispose of all excess treated seed. Leftover treated seed may be doublesown around the headland or buried away from water sources in accordance with local requirements. Do not contaminate water bodies when disposing of planting equipment washwaters.
- Treated seed must be planted into the soil at a depth greater than 2 inches.

Crop	Disease	Rate fl oz product/100 lb seed (g ai/100 kg seed)	Remarks
Potato Seed Treatment	<p>For protection against the infection or spread of seed borne late blight (<i>Phytophthora infestans</i>) during seed piece cutting or handling. Note: Will not cure pre-existing infection in potato seed pieces</p> <p>Suppression of Pink Rot (<i>Phytophthora erythroseptica</i>)</p> <p>Hyetal applied as a seed treatment will suppress Pink Rot carried to the daughter tubers.</p>	<p>0.20 – 0.61 (3.25 – 10.0)</p>	<p>Apply a fungicide belonging to a group other than Group 40 as the first foliar application of the season when Hyetal is used as a seed piece treatment. Hyetal used as a seed piece treatment will not prevent late blight infection of plants or tubers after germination, and a foliar spray program may be necessary.</p>
<p>Application of Hyetal to Potato Seed Pieces Shake or mix well before using. Apply Hyetal utilizing Syngenta-approved seed treating systems designed to apply liquid seed treatments of potatoes. Uneven or incomplete seed coverage may not give the desired level of disease protection. For slurry treatment, <i>thoroughly</i> mix the labeled rate of Hyetal into the required amount of water for the slurry treater and dilution rate to be used. A volume of 2 - 4 fl oz of slurry mixture/100 lb of potatoes is recommended. Maintain constant agitation of the slurry during the seed treatment process. If necessary, apply dust(s) following the liquid seed treatments.</p> <p>Follow the manufacturer’s application instructions for the seed treatment equipment being used with appropriate set-up and calibration. To achieve best results, the equipment must be calibrated so that every potato seed tuber is uniformly coated with a fine layer of the slurry mix, without any excess dripping out of the treated seed.</p> <p>If potato seed pieces must be stored before planting, consult your local Syngenta representative for information on best management practices for handling and storing treated seed potatoes. Some general guidelines are given below under Treated Seed Storage.</p> <p>Treated Seed Storage If the treated seed needs to be stored or held for a few days (greater than 2 days), then make sure that the seed is stored in well-ventilated areas that would allow air to move through and out of the treated seed. An ideal air temperature is 60 °F at a relative humidity of 85 to 90 percent. Avoid free moisture to form within or around the treated seed during the storage time.</p> <p>DO NOT BAG TREATED POTATO SEED.</p>			

Note: Best results are obtained if treated potatoes are allowed to dry during transit and planted the same day of treatment.

Use Restrictions for Potato Seed Treatment:

- 1) Regardless of the type of application (seed treatment or foliar), do not apply more than 32 fl oz of product/A/year (0.52 lb ai/A/year, or 235.9 g ai/A/year).
- 2) Seed treatment use of Hyetal may be followed by up to three (3) foliar applications of a mandipropamid- containing product, provided the total lb ai/A applied per year does not exceed 0.52 lb (235.9 g ai/A) of mandipropamid.
- 3) For use on potatoes intended for seed use only.
- 4) Do not use on potatoes intended for consumption.
- 5) Make only 1 seed treatment application of Hyetal to seed potatoes.
- 6) Do not exceed 0.61 fl oz Hyetal per 100 lb of seed potatoes.
- 7) Do not use in commercial seed treatment facilities. Use of Hyetal is only permitted on potato seed, or seed pieces, that is treated and planted within the same agricultural establishment. Do not use treated seed for food or feed purposes, or process for oil.

STORAGE AND DISPOSAL

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

Pesticide Storage

Store in original containers only. Store in a cool, dry place. Keep container closed when not in use. Do not store near food or feed. In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to the label.

Pesticide Disposal

Pesticide wastes may be acutely hazardous. 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 in proper disposal methods.

Container Handling [less than or equal to 5 gallons]

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Container Handling [greater than 5 gallons]

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining

contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Container Handling [greater than 5 gallons]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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

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

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