POME FRUITS GROUP 11 - CEDAR APPLE RUST, QUINCE RUST (SUPPRESSION ONLY)

General Information

Product Information
This package contains Merivon Xemium brand fungicide, a suspension concentrate (SC) containing fluxapyroxad and pyraclostrobin. The active ingredients in Merivon belong to two classes of fungicides, the strobilurins or Quinone Outside Inhibitors (QoI) and succinate-dehydro genase (SDH) inhibitor classes. To maximize disease control, apply Merivon in a regularly scheduled protective spray program and use in a rotation program with other fungicides.
Preventive applications optimize disease control, resulting in improved plant health. Overall increased plant health may result in an improvement in crop growth and crop quality as well as increased crop yields.
Because of its high specific activity, Merivon has good residual activity against target fungi.
Information regarding the contents and levels of metals in this product is available on the Internet at http://www.aapfco.org/metals.htm.
Merivon is not for use in greenhouse or transplant production.

Modes of Action
Fluxapyroxad and pyraclostrobin, the active ingredients of Merivon, belong to the groups of respiration inhibitors classified as target-site-of-action Group 7 and Group 11 fungicides, respectively.

Resistance Management
Merivon contains fluxapyroxad and pyraclostrobin, a premix of a Group 7 and a Group 11 fungicide, and is effective against pathogens resistant to fungicides with modes of action different from those of target-site Group 7 and Group 11, such as dicarboximides, sterol inhibitors, benzimidazoles, or phenylamides. Fungal isolates resistant to Group 7 or Group 11 fungicides may eventually dominate the fungal population if Group 7 or Group 11 fungicides are used predominantly and repeatedly in the same field in successive years as the primary method of control for the targeted pathogen species, especially if resistance to either Group 7 or Group 11 fungicides is already present in the pathogen population. This may result

in reduction of disease control by Merivon or other Group 7 or Group 11 fungicides. To maintain the performance of Merivon in the field, DO NOT exceed the specified number of sequential applications of Merivon or the total number of applications of Merivon per season stated in Table 1. Merivon Xemium brand fungicide Restrictions and Limitations Overview and Table 2. Merivon Xemium brand fungicide Crop-specific Directions. Follow label instructions for sequential use of Merivon or other target-site-of-action Group 7 and Group 11 fungicides with a similar site of action on the same pathogens.

The following recommendations may be considered to delay the development of fungicide resistance:

1. Tank mixtures - Merivon provides more effective resistance management of most of its target pathogens because it is a premix of two fungicides with different modes of action. If Merivon is used in tank mixtures with fungicides from different target site of action groups that are registered/permitted for the same use and that are effective against the pathogens of concern, use at least the minimum labeled rates of each fungicide in the tank mix. For tank mix exceptions, see Additives and Tank Mixing Information section and Table 2. Merivon Xemium brand fungicide Crop-specific Directions.

2. Integrated Pest Management (IPM) - Integrate Merivon into an overall disease and pest management program. Follow cultural practices known to reduce disease development. Consult your local extension specialist, crop advisor and/or BASF representative for additional IPM strategies established for your area. Merivon may be used in agricultural extension advisory (disease forecasting) programs, which recommend application timing based on environmental factors favorable for disease development.

3. Monitoring - Monitor efficacy of all fungicides used in the disease management program against the targeted pathogen and record other factors that may influence fungicide performance and/or disease development. If a Group 7 or Group 11 target site fungicide such as Merivon appears to be less or no longer effective against a pathogen that it previously controlled or suppressed, contact a BASF representative, local extension specialist, or crop advisor for further investigation.

Application Instructions
Apply specified rates of Merivon Xemium brand fungicide as instructed in Table 2.

Merivon Xemium brand fungicide Crop-specific Directions. Merivon can be applied by ground and aerial application. For best results, thorough coverage of plant materials is required. Merivon can also be applied through sprinkler irrigation equipment. Check equipment frequently for calibration. Under low-level disease conditions, the minimum application rates can be used while maximum application rates and shortened spray schedules are recommended for severe or threatening disease conditions.

Ground Application
Apply Merivon in sufficient water to ensure thorough coverage of foliage, bloom, and fruit. Thorough coverage is required for optimum disease control. Complete coverage of the stem, all the way down to the soil, is required for suppression of soilborne diseases of the stem. Instructions for Directed or Banded Crop Sprays The application rates shown in Table 1. Merivon Xemium brand fungicide Restrictions and Limitations Overview and Table 2. Merivon Xemium brand fungicide Crop-specific Directions on this label reflect the amount of product to be applied uniformly over an acre of ground on a broadcast basis. In some crops, Merivon may be used as a directed or banded spray over the rows or plant beds with the alleys or row middles left unsprayed. For such uses, reduce the rate of Merivon in proportion to the area actually sprayed. Make this adjustment to avoid applying the product at use rates higher than permitted on this label.

Example: A directed spray application will be made to 45-inch plant beds that are separated by 15 inches of unsprayed row middles.
45 inches sprayed bed width + 15 inches unsprayed row middles = 60 inches total row width

Aerial Application
For aerial application in New York State, DO NOT apply within 100 feet of aquatic habitats (such as, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fishponds).

For all crops listed in this label, aerial application can be made and thorough coverage is required to obtain optimum disease control. Avoid applications under conditions when uniform coverage cannot be obtained or when spray drift may occur. DO NOT use less than 2 gallons of spray solution per acre. For aerial applications to tree crops, DO NOT use less than 10 gallons of spray solution per acre. For all other crops, thorough coverage is required for optimum disease

control. The reduced spray volumes used in aerial applications may result in physical incompatibility, reduced disease control, or crop injury from Merivon applications, particularly when tank mixed with other products.
Therefore, before making aerial applications test the spray on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of application.

Aerial Application Methods and Equipment
The interaction of many equipment-related and weather related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.
DO NOT apply when possible drift can occur to: unprotected persons; to food, forage, or other plantings that might be damaged; or crops that would then be rendered unfit for sale, use or consumption.
DO NOT release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety or special weather conditions.

Applicators must follow these requirements to avoid offtarget drift movement from aerial applications to agricultural field crops.
1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the fixed wingspan or 90% of rotor blade diameter.
2. Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees. Where states have more stringent regulations, they must be observed.

Directions for Use Through Irrigation Systems

Sprayer Preparation
Clean chemical tank and injector system thoroughly. Flush system with clean water.

Application Instructions
Apply Merivon Xemium brand fungicide at rates and timings as required in this label.

Use Precautions for Sprinkler Irrigation
- This product can be applied through sprinkler irrigation systems including center pivot, lateral move, end tow, side [wheel] roll, traveler, big gun, solid set, or hand move irrigation systems equipment. DO NOT apply this product through any other type of irrigation system.
- Add Merivon to the pesticide supply tank containing sufficient water to maintain a

continuous flow by the injection equipment. In continuous moving systems, inject this product-water mixture continuously, applying the labeled rate per acre for that crop. DO NOT exceed 1/2 inch (13,577 gallons) of water per acre. In stationary or noncontinuous moving systems, inject the product water mixture in the last 15 to 30 minutes of each set allowing sufficient time for all of the required pesticide to be applied by all the sprinkler heads and applying the labeled rate per acre for that crop. DO NOT apply when wind speed favors drift beyond the area intended for treatment. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. Thorough coverage of foliage is required for good control. Maintain good agitation during the entire application period.

- Contact a state extension service specialist, equipment manufacturers or other experts for calibration questions.
- 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.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow f fluid back toward the injection pump.
- 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.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 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.
- 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.
- Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. 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.

- DO NOT connect an irrigation system used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- DO NOT apply when wind speed favors drift beyond the area intended for treatment.

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, backflow preventer (RPZ) 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 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.

Restrictions and Limitations
- DO NOT exceed the maximum product rate (fl ozs/A) per year, the maximum rate per application, or the total number of applications of Merivon per season as stated

in Table 1. Merivon Xemium brand fungicide
Restrictions and Limitations Overview and Table 2. Merivon Xemium brand fungicide Crop-specific Directions. Preharvest interval (PHI) restrictions are also included in these tables.
- DO NOT use Merivon in greenhouse or transplant production.
- For aerial application in New York State, DO NOT apply within 100 feet of aquatic habitats (such as, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fishponds).
- Merivon is not for sale, distribution, or use in Nassau and Suffolk counties in New York State.
- DO NOT use Merivon on Concord, Noiret and NY73.0136.17 due to possible foliar injury. Possible foliar injury could occur to Worden, Fredonia, Niagara, Steuben, Rougeon or related varieties. Not all varieties have been thoroughly tested.
- Crop Rotation Restriction - The following crops may be planted immediately following the last application: alfalfa, barley, berries and small fruits, Brassica leafy vegetables, bulb vegetables, corn (all types), cotton, cucurbit vegetables, dried shelled peas and beans, edible-podded legume vegetables, fruiting vegetables (including tomato), grapes, leafy vegetables, millet, mint (spearmint and peppermint), oat, oilseed crops (including flax seed, rapeseed and sunflower), peanut, pome fruits, root vegetables, rye, sorghum, soybean, stone fruits, strawberries, succulent shelled peas and beans, sugar beet, sugarcane, tree nuts, tuberous and corm vegetables (including potato), wheat and triticale, and any other crop labeled for direct application of this product.
For rice, DO NOT plant sooner than 14 days after the last application.
For all other crops, DO NOT plant sooner than 365 days after the last application.

Limitations, Restrictions, and Exceptions

POME FRUITS

Maximum Number of Sequential Applications: 2

Application Directions. For scab, powdery mildew, frogeye leafspot and rust, begin applications of Merivon prior to disease development and continue on a 7 to 10 day interval.

For sooty blotch, flyspeck, white rot, black rot, bitter rot and Alternaria blotch, begin applications of Merivon prior to disease development and continue on a 7 to 14 day

interval.

Use of Adjuvants and Other Products as Mixes with Merivon.

The use of adjuvants or additives may improve the performance of Merivon on pome fruits. However, under certain conditions, mixtures of Merivon with adjuvants, additives and/or other products may cause crop injury. Caution should be exercised if Merivon is tank mixed with products formulated as emulsifiable concentrates (EC) or containing high amounts of solvents since injury may occur. Consult your local BASF representative for more information specific to your area.

DO NOT use Merivon with:
- Crop oil concentrate (COC), methylated seed oil (MSO) adjuvants

For pears, DO NOT use Merivon with horticultural mineral oil as crop response to foliage and/or fruit can occur under certain conditions.

BASF has not tested all varieties and cultivars with all possible tank mix combinations and rates of additives or adjuvants.

Local environmental conditions also influence crop tolerance and may not match those under which BASF has conducted testing. Physical incompatibility, reduced disease control, crop injury, or incompatibility due to additives, adjuvants or other products used in combination with Merivon may result from mixing Merivon with other products.

Refer also to the Conditions of Sale and Warranty section of this label.

To minimize the likelihood of crop injury, BASF recommends testing Merivon in combination with other products for crop safety on a small portion of the crop. However, environmental variability precludes direct and consistent projection of small area test results to future use.

Consult a BASF representative for more information concerning additives or adjuvants.

No restriction on livestock grazing or feeding.

For aerial application to pome fruit trees, use no less than 10 gallons of spray solution per acre.

Resistance Management. To limit the potential for development of resistance.

DO NOT make more than two (2) sequential applications of Merivon before alternating to a labeled non-Group 7 or non-Group 11 fungicide.

Method
Broadcast/Foliar Air
Broadcast/Foliar Ground
Rates
field_rates 0

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Restricted Entry Interval

12 hours

Timings
Prior to disease development.