

## **GRAPES (WINE AND RAISIN) - POWDERY MILDEW**

### 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-dehydrogenase (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 by the U.S. EPA and Canada PMRA 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. Adhere to the label instructions regarding the sequential use of Merivon or other target site of action Group 7 and Group 11 fungicides that have a similar site of action on the same pathogens.

### Resistance Management Advisory

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/permited 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. 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 the 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 the label.

Example: A directed spray application will be made to 45-inch plant beds that are separated by 15 inches of unsprayed row middles.

### 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 the 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. 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 under circumstances where possible drift to unprotected persons, to food, forage, or other plantings that might be damaged, or crops thereof rendered unfit for sale, use or consumption can occur.

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.

The following drift management requirements must be followed to avoid off-target 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.

## Restrictions and Limitations

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

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.

- Merivon is not for sale, distribution, or use in Nassau and Suffolk counties in New York State.

## Limitations, Restrictions, and Exceptions

### Directions For Use

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

- The supplemental labeling and the entire Merivon Xemium brand fungicide container label, EPA Reg. No. 7969-310, must be in possession of the user at the time of application.

- Read the label affixed to the container for Merivon before applying.

- Use of Merivon according to this labeling is subject to the use precautions and limitations imposed by the label affixed to the container for Merivon.

## Application Instructions

Refer to the Merivon container label for specific use directions, recommendations and restrictions in registered crops.

### Restrictions and Limitations

- 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.

Application Directions. For powdery mildew control, begin applications of Merivon as of bud break or prior to onset of disease and continue on a 14 to 21 day interval. Longer spray intervals for powdery mildew control may be possible with higher rates of Merivon. The effectiveness of longer spray intervals will depend on the current powdery mildew infection level in the field, the amount of disease pressure after application and factors such as crop growth stage and rate of growth.

To avoid crop injury, DO NOT apply Merivon to grapes as a tank mix with any other pesticide products (including fungicides, insecticides, herbicides), adjuvants, liquid fertilizers, nutrients, any other additives, or anything other than water.

Mix Merivon with water only for applications to grapes.

Crop Safety Precaution. 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.

Resistance Management. To limit the potential for development of resistance, DO NOT apply more than 33 fl ozs of Merivon per acre per season. DO NOT apply more than six (6) applications of Merivon per season.

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

#### [Spray](#)

#### Pre-Harvest Interval

14 days

Rates

[field\\_rates 0](#)

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Restricted Entry Interval

12 hours

Timings

[As of bud break or prior to onset of disease.](#)