



**BioWorks®**  
How You Grow Matters™



# Protocol for Low Volume Sprayers (Canada)

MilStop® applications should begin prior to expected disease incidence. Use a spray volume adequate to assure wetting the surfaces of the leaves and stems of the plants. Spray applications should be continued every 1-2 weeks during periods of disease pressure. Generally, 2.8 kg of MilStop per 1000-2000 liters water per hectare is a preventative concentration for a hydraulic spray application. To cure powdery mildew or for additional preventative control, increase the initial rate of 2.8 kg by 0.5 kg per week (or equivalent for sprayers below) until desired level of control is obtained. **DO NOT** apply more than 5.6 kg of MilStop per hectare per week. MilStop works on contact. Good spray coverage is essential for best results. Insure that MilStop is delivered to the tops and undersides of leaves, as well as stems. Apply during the cool part of the day.

## When using low volume mist sprayers, use the following guidelines:

- When using these alternative methods of application, **DO NOT** exceed a concentration of 90 grams liter of water. The maximum solubility of MilStop is 90 grams per liter of water – exceeding this amount may result in plugged nozzles.
- Low volume sprayers have a high degree of efficiency in coverage of leaf and stem surfaces. Therefore, **DO NOT** apply to the point of runoff or even to the point of observing complete leaf wetness. Excess material may result in phytotoxicity.
- When using a low volume sprayer, first determine the proper application volume by spraying the material in a small area. Test the application on a few plants to assure proper coverage and to assess if phytotoxicity occurs. If plant injury is going to occur, it will be visible within 24-48 hours.

## When using ultra low volume applicators, use the following guidelines:

- Properly calibrate fogger regularly.
- Ensure that nozzles are clean and not worn so that correct droplet size is applied. Smaller droplets are more desirable in a fogging situation.
- Ensure that all the material is dissolved so application will be uniform throughout.
- Use the maximum amount of water that a given machine allows to help ensure material is completely dissolved.
- Consider using a carrier solution appropriate to the type of fogger equipment. This will improve atomization and cause less large droplets to fall out in front of the fogger providing more uniform coverage.
- Keep nozzle output from directly contacting the plants. Nozzles should not be aimed directly at crop.

As always with MilStop, **DO NOT** add a buffer agent to spray tank mixture – doing so will reduce efficacy. **DO NOT** add additional surfactants to spray solution – MilStop contains proprietary surfactants – adding additional surfactants will result in phytotoxicity.

*(See rates on next page.)*

To find out more about the BioWorks family of products, please contact us at **800-877-9443** or visit [www.bioworksinc.com](http://www.bioworksinc.com). © 2010 BioWorks, Inc.

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## **LOW VOLUME SPRAYERS:**

### **Cold-Fogger**

*(Use at least 8 liters of spray per 1,000 sq meters)*

**1. Preventative Rate = 0.25 kg per 8 liters on 1,000 sq. m.**

NOTE: Use this low rate if blooms are present and on young plants.

**2. Curative\*\* Rate = .50 kg per 8 liters on 1,000 sq. m.**

NOTE: BioWorks recommends 2 gallons of water to ensure solubility.

## **ULTRA LOW VOLUME SPRAYERS:**

### **Auto-Fogger, Pulse-Fogger & ESS**

*(Use 2 - 8 liters of spray per 1,000 sq meters)*

**1. Preventative Rate = 0.25 kg per 4 liters on 1,000 sq. m.**

NOTE: Use this low rate if blooms are present and on young plants. Mix the solution well to ensure solubility of the active ingredient. Fill water tank and use a carrier solution.

**2. Curative\*\* Rate = 0.33 kg per 4 liters on 1,000 sq. m.**

NOTE: Mix the solution well to ensure solubility of the active ingredient. Fill water tank and use a carrier solution.

## **RECOMMENDATIONS:**

The Dramm owner's manual states that you should never use less than 0.5 gallons (~2 liters) of water in their foggers no matter how small an area is being fogged to ensure optimum performance of their machines.

\*\*CURATIVE rate of 3 kg per 1000 liters per hectare should be tested on a selected number of plants to determine phytotoxicity.

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*NOTE: Use caution when making MilStop applications to open blooms, especially on varieties known to be sensitive. It is recommended that a small group of plants be tested for effects on open blooms before making applications to the whole crop.*