



Use in Low Volume Applicators

BotaniGard® and Mycotrol®

General Considerations:

BotaniGard® ES, BotaniGard® 22WP, Mycotrol® ESO, and Mycotrol® WPO mycoinsecticides (collectively referred to as BotaniGard) can be applied effectively using low volume applicators. Increased efficacy can be obtained from these methods over that which is achieved by hydraulic spraying. Coverage is essential with BotaniGard, and when properly used through a fogger, increased contact with insect pests is possible.

Timing & Rates:

BotaniGard® applications should begin at the first appearance of the insect pest (presence of eggs or small larvae). Apply during the early morning or evening. Make initial applications at 2-5 day intervals. If insect pressure is severe, it may be necessary to make 2-3 applications of BotaniGard in combination with an insecticide with knockdown activity. After this, resume with BotaniGard applications at the longer interval (5-10 days). See rate chart on next page.

When using ultra low volume applicators (foggers), observe the following:

- Low volume sprayers have a high degree of efficiency in coverage of leaf and stem surfaces. Thoroughly cover the plant surfaces but note that spray deposition may not be visible after application.
- 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.
- Follow equipment manufacturer instructions carefully
- Properly calibrate equipment 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 well mixed so application will be uniform throughout.
- Use the maximum amount of water that a given machine allows to help ensure material is completely mixed with water.
- Consider using a carrier solution appropriate to the type of fogger equipment. This will improve atomization and cause fewer large droplets to fall out in front of the fogger providing more uniform coverage. For Dramm BIO PulsFOG® equipment it is suggested to use NutriFog™ as a carrier for BotaniGard.
- With most LVM equipment, keep nozzle output from directly contacting the plants. Nozzles should not be aimed directly at crop.
- Unlike hydraulic or low volume mist spraying, there should be no visible evidence (leaf wetness) of the application on the plant foliage.

Plant Safety:

Small-leaved Euphorbia varieties such as 'Diamond Frost'®, 'Silver Fog', and 'Breathless'™ may be defoliated with BotaniGard ES and possibly BotaniGard 22WP. Watch for these crops if foggers are used "wall to wall" in a greenhouse. When using a low volume applicator, first determine the proper application volume by applying BotaniGard in a small area. BotaniGard ES and Mycotrol ESO are an oil-based formulation that may cause injury to young plants or open blooms. Therefore, test the application on a few plants to assure proper coverage and assess within 24 - 48 hours.



BOTANIGARD AND MYCOTROL LOW VOLUME APPLICATOR RATES:

Auto-Fog™, BIO PulsFOG®, Coldfogger™, TracFOG®

| Programs ¹ | Hydraulic Rate/100 gal/acre | Rate/10,000 sq ft (Dramm Low 20%) ² | Rate/10,000 sq ft (Dramm High 35%) ² | Min. amt. of solution for Auto-Fog, TracFOG, BIO PulsFOG ³ | Min. amt of solution for Coldfogger |
|---------------------------|-----------------------------|--|---|---|-------------------------------------|
| Low Label Rate | | | | | |
| BotaniGard ES | 32 fl oz | 6.4 fl oz | 11.2 fl oz | 2 liters | 10 liters |
| Mycotrol ESO ⁴ | 32 fl oz | 6.4 fl oz | 11.2 fl oz | 2 liters | 10 liters |
| BotaniGard 22WP | 16 oz | 3.2 oz | 5.6 oz | 4 liters | 10 liters |
| Mycotrol WPO ⁴ | 16 oz | 3.2 oz | 5.6 oz | 4 liters | 10 liters |
| High Label Rate | | | | | |
| BotaniGard ES | 64 fl oz | 12.8 fl oz | 22.4 fl oz | 4 liters | 10 liters |
| Mycotrol ESO ⁴ | 64 fl oz | 12.8 fl oz | 22.4 fl oz | | 10 liters |
| BotaniGard 22WP | 32 oz | 6.4 oz | 11.2 oz | | 10 liters |
| Mycotrol WPO ⁴ | 32 oz | 6.4 oz | 11.2 oz | | 10 liters |

¹ Use either BotaniGard ES OR Mycotrol ESO OR BotaniGard 22WP OR Mycotrol WPO individually, not together.

² Dramm rate adjustments: Low (20%) is used for plugs and other propagation or small plants. High (35%) is used for normal finished or dense crops. These are used to bring the per acre rate down to a rate per 10,000 sq ft.

³ More solution may be used. Solution includes carrier + water. The Dramm owner's manual states that you should never use less than 2 liters of water in their foggers no matter how small an area is being fogged to ensure optimum performance of their machines. We do not recommend going below the amounts stated above. Please refer to Dramm User's Manuals for complete equipment operating instructions.

⁴ Mycotrol ESO and Mycotrol WPO are WSDA registered for organic production.

Some additional comments:

- For BotaniGard 22WP and Mycotrol WPO, it is recommended that the solution volume never be less than 4 liters (carrier + water) to provide better dilution and reduce the potential for nozzle clogging.
- Pre-mix BotaniGard 22WP well in a separate container to ensure full suspension of the active ingredient. Pour into partially filled tank with agitator running.
- Dramm recommends NutriFog as a carrier for both BotaniGard and Mycotrol products

Refer to product labels for complete application details. Additional technical information is available on our website (bioworksinc.com) or from your BioWorks technical sales representative. BotaniGard® and Mycotrol® are registered trademarks of LAM International. Coldfogger™, NutriFOG™, TracFOG™ and AutoFog™ are trademarks and Bio PulsFOG® is a registered trademark of the Dramm Corporation. Always read and follow label directions.