



APPLICATION/PRODUCTION: BOTRYSTOP® WP GRAPES

BotryStop WP (*Ulocladium oudemansii* U3 Strain), a living micro-organism, provides protection against *Botrytis* bunch rot infection from flowering to pre-bunch closure by colonizing senescing floral tissue and preventing *Botrytis* establishment.

BEST PRACTICES FOR GRAPES

For successful use of BotryStop WP, the following practices should be carried out:

- + Ensure that your sprayer is correctly calibrated
- + Ensure that good canopy management is complete prior to the first application to achieve effective bunch/cluster coverage in vigorous sites (e.g. shoot thinning and/or light leaf removal)
- + Time BotryStop WP applications to ensure that *Botrytis* is out-competed early
- + Use the correct surfactant for the volume of water per acre
- + Use at least 50 gallons of water or more per acre. Higher water volumes improve coverage
- + Mix with ONLY ONE tank mix partner*

*Refer to BioWorks Product Compatibility Tool at bioworksinc.com.

APPLICATION NOTES

Timing of BotryStop WP applications:

Regions with higher humidity (three applications are the minimum required)

- + Early flowering: Apply at no later than 2-5% cap fall. Note, this is earlier than a chemical fungicide would normally be applied because it is a biological with a preventative mode of action
- + Late flowering: 80% cap fall
- + Two weeks post-flowering or earlier if there is an infection period

Regions with lower humidity (two applications are the minimum required)

- + Early flowering: Apply at no later than 2-5% cap fall. Note, this is earlier than a chemical fungicide would normally be applied because it is a biological with a preventative mode of action
- + Late flowering: 80% cap fall
- + A third application is required two weeks post-flowering when:
 - + *Botrytis* pressure is likely in cool wet springs or earlier if there is an infection period
 - + The block is at high risk of infection (e.g., a Botrytised wine was made from the block in the previous season)

In either region, a fourth application at pre-bunch closure may be made if continuing the season with biological or natural products. Otherwise, use alternative *Botrytis* fungicides from pre-bunch closure, as required, to maintain protection of ripening berries.



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APPLICATION NOTES (CONTINUED)

- + Apply BotryStop WP at 3-4 lb/acre in at least 50 gallons of water. Most commonly recommended rate is 3 lb/acre
- + Store BotryStop WP in a cool, dry place at or below 68° F, away from direct sunlight. Store in original packaging with excess air removed and bag tightly closed, preferably away from non-compatible fungicides*
- + Add the wettable powder directly to a clean, well-rinsed spray tank with agitation running: no pre-mixing is necessary
- + For optimal performance, add a suitable surfactant to the spray tank to assist product wetting/spreading* (Note: For certified organic grapes, use an approved organic adjuvant)
- + BotryStop WP is most effective when applied at high water volumes (50 gal/acre or greater)
- + BotryStop WP can be tank mixed, but only with ONE other compatible tank mix partner.* Do not tank mix with two or more fungicides (e.g. Do not mix BotryStop WP with copper and sulfur)
- + When tank mixing BotryStop WP with another compatible fungicide, use the manufacturer's recommended rate. Mixtures are best applied at high volume
- + Once mixed, the product should be used immediately
- + For improved results, make applications in the early morning or late evening when temperatures are cooler and dew may be on leaves. Avoid application under hot, dry conditions such as midday
- + Use a well calibrated/set up sprayer and ensure good coverage of the bunch/cluster zone
- + To ensure that thorough coverage is achieved, check spray deposition with spray sensitive papers (for at least the first application)
 - + Place papers in the internal bunch/cluster zone on a spray pole, otherwise paperclip or use a toothpick to hold papers adjacent to at least 5 internal and 5 external bunches to assess the volume of product reaching the target
 - + A cheaper option would be to spray the sunscreen Surround® WP onto a few bays, dramatically showing where the spray has and has not reached. The key advantage of the spray papers is that a permanent record can be made
- + Maintain tank agitation until spraying is complete
- + Rinse out the tank spray lines and nozzles after application
- + Use alternative fungicides from pre-bunch closure up to harvest as required to maintain protection of ripening berries

*Refer to compatibility table at bioworksinc.com

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