



## Cannabis Production in Canada: Disease, Insect & Nutrition Management

Disease Control				
Product and Target	Seeding/Rooting	Vegetative	Flowering	Pre-Harvest
RootShield® PLUS <sup>+</sup> WP <b>Major damping off, root rot and wilt diseases</b>	Drench seed/rooting trays: • 30-60 g/100 L	Drench at stepping up: • 30-60 g/100 L	Drench/drip 6-8 weeks after last application: • 30-60 g/100 L	
		Hydroponics Systems: Drench/drip every 4 weeks		
RootShield® Granules <b>Major damping off, root rot and wilt diseases</b>	Incorporate into growing media: • 600-750 g/m <sup>3</sup> soil		Reapply RootShield PLUS <sup>+</sup> WP 6-8 weeks after seeding or sticking cuttings.	
RootShield® HC <b>Botrytis</b>		Foliar Spray every 1-2 weeks: • 3.75-10 g/L		
MilStop® <b>Powdery mildew</b>		Weekly Foliar Spray: Spray to glisten, not to wet or runoff. Do not add surfactant. • 0.28 kg/1000 m <sup>2</sup> (2.8 g/L)		

**Table 1.**

### Powdery Mildew and Botrytis Protocol

Beginning early in vegetative growth (week 2-3), begin preventative applications of MilStop for powdery mildew control. Week 1 into flowering, begin rotating Milstop and RootShield HC for prevention of *Botrytis*. Apply products with fine nozzle and high pressure to contact all surfaces of the plant. Spray to glisten, avoid runoff.

MilStop may be used in ultra-low volume application. For Fogging rates, see [MilStop label](#).

Suspend applications 3-4 weeks prior to harvest and conduct weekly clean up sprays with a disinfectant type product such as hydrogen peroxide.

Insect Control				
Product and Target	Seeding/Rooting	Vegetative	Flowering	Pre-Harvest
BotaniGard® 22WP <b>Aphids, thrips, whiteflies</b>	Foliar spray to glisten every 5-10 days: • Whiteflies and aphids 250-500 g/400 L (0.625-1.25 g/L) • Thrips 500 g/400 L (1.25 g/L) Apply every 7- 14-days for soil dwelling insects: • 500 g/400 L See <b>Table 2</b> for root aphid protocol			Suspend foliar applications 3 weeks prior to harvest.

Insect Control (continued)				
Product and Target	Seeding/Rooting	Vegetative	Flowering	Pre-Harvest
BotaniGard® ES <b>Aphids, thrips, whiteflies</b>	Foliar spray to glisten every 5-10 days: <ul style="list-style-type: none"> <li>• Whiteflies and aphids 0.5-1 L/400 L (1.25-2.5 ml/L)</li> <li>• Thrips 2 L/400 L (5 ml/L)</li> </ul>			Suspend foliar applications 3 weeks prior to harvest.
SuffOil-X® <b>Mites, aphids, thrips, whiteflies</b>	Foliar spray to glisten on a 14-day interval: <ul style="list-style-type: none"> <li>• 10 L/1000 L or 1% by volume</li> </ul> Use caution when spraying during flowering. Turn lights off during spray, have fans running for 1-2 hours dry time and avoid high humidity. Use fine droplet size and avoid runoff.			Suspend applications 1 week prior to harvest.

**Table 2.**
**Root Aphid Protocol**

At first signs of root aphids apply BotaniGard 22WP at 500 g/400 L (5 g/4 L) 2-3 times, 3-5 days apart. Continue applications at 500 g/400 L (5g/4L) every 7-10 days once population level is under control. Use at least 500 ml of spray solution per 3 liters of media.

Conduct foliar applications every 7-14 days with BotaniGard 22WP rotated with SuffOil-X to target winged adults.

Suspend applications 3-4 weeks prior to harvest and conduct weekly clean up sprays with a disinfectant type product such as hydrogen peroxide.

Plant Nutrition				
Product	Seeding/Rooting	Vegetative	Flowering	Pre-Harvest
ON-Gard® 5-0-0	Apply to stock plants prior to taking cuttings. Foliar spray or drench on a 2-3-week interval: <ul style="list-style-type: none"> <li>• 250 ml/100 L</li> </ul>			Suspend applications at nutrient flushing.
ON-Gard® Calcium 5-0-0 +5% Ca		Foliar spray weekly up to flowering: <ul style="list-style-type: none"> <li>• 250-500 ml/400 L (0.625- 1.25 ml/L)</li> </ul>		
Verdanta® K-Vita® 2-0-20		Soil Blend: <ul style="list-style-type: none"> <li>• 4 kg/m<sup>3</sup></li> </ul>	Top dress 4-6 weeks after transplant: <ul style="list-style-type: none"> <li>• 2 g/L media</li> </ul>	
Verdanta® PL-2 2-0-6		Through the drip line weekly (NOT for recirculating systems): <ul style="list-style-type: none"> <li>• 700 ml/400 L (1.75 ml/L)</li> </ul>	Through the drip line weekly (NOT for recirculating systems): <ul style="list-style-type: none"> <li>• Transition to 1.4 L/400 L (3.5 ml/L)</li> </ul>	Suspend applications at nutrient flushing.



Biofungicides approved for use in certified organic production	
RootShield® WP	RootShield® Granules
MilStop® - OMRI Listed	RootShield® HC
Bioinsecticides approved for use in certified organic production	
SuffOil-X®	
Plant Nutrition approved for use in certified organic production	
ON-Gard® (5-0-0) – OMRI Listed	Verdanta® K-Vita® (2-0-20) - OMRI Listed
ON-Gard® Calcium	Verdanta® PL-2 (2-0-6) - OMRI Listed

Pest control products are to be used only in accordance with the directions on the label. It is an offence under the Pest Control Products Act to use this product in a way that is inconsistent with the directions on the label.

Refer to product labels for complete application details. Additional technical information is available on our website ([bioworksinc.com](http://bioworksinc.com)) or from your BioWorks Solutions Advisor. Always read and follow label directions.