



We deliver reliable biological solutions to control pests, prevent disease and improve plant health. For organic and conventional production, our products help you improve yield and grow the highest quality cacti and succulents.



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# CROP GUIDE CACTI AND SUCCULENTS

	PEST/DEFICIENCY	CROP STAGE			
		PREPLANT	TRANSPLANTING	VEGETATIVE	FLOWERING
<div>DISEASES</div> <div></div>	Soilborne Diseases	RootShield® PLUS <sup>+</sup> Granules	RootShield® PLUS <sup>+</sup> WP		
	Powdery Mildew			MilStop® SP, PERpose Plus*, SuffOil-X®	
	<i>Botrytis</i> Gray Mold			BotryStop® WP, MilStop SP, PERpose Plus	
	Bacterial & Fungal Leaf Spots	PERpose Plus			
<div>INSECTS/ MITES</div> <div></div>	Aphids & Whiteflies	EpiShield® (dip)		Molt-X®, SuffOil-X, EpiShield	
	Spider/Eriophyid Mites	EpiShield (dip)		SuffOil-X , EpiShield	
	Fungus gnats & Shore Flies			NemaShield®, Molt-X	
	Mealybugs & Scales	EpiShield (dip)	Molt-X, SuffOil-X, EpiShield		
	Thrips	EpiShield (dip)			Molt-X, SuffOil-X, NemaShield, EpiShield
	Weevils		Molt-X, NemaShield HB		
	Caterpillars (Lepidopterans)			Molt-X	
<div>NUTRITION</div> <div></div>	Root and foliar development, efficient nutrient use, stress reduction and improved shelf-life	ON-Gard®			
	Calcium (Ca) deficiency	ON-Gard Calcium			

\*PERpose Plus is registered for use in the USA in all states except CA as of May 2021.



ABOVE AND BEYOND IS WHERE WE BEGIN

	PRODUCT	REI, PHI	OMRI	PEST/DEFICIENCY	RECOMMENDED RATE	TYPE OF APPLICATION
DISEASES	RootShield <i>PLUS</i> <sup>+</sup> Granules *	4-hour 0-day	Yes	<i>Phytophthora</i> , <i>Fusarium</i> , <i>Pythium</i> , <i>Rhizoctonia</i> and other soilborne pathogens	1.5 – 3.0 lbs/ cubic yard	Mix with soil prior to transplanting. Ensure inoculated substrate is used within two weeks for best results.
	RootShield <i>PLUS</i> <sup>+</sup> WP	4-hour 0-day	Yes		Dip: 6 oz/20 gal; Drip irrigation: 8 oz/100 gal or 1-2 lbs per acre	Preplant bare-root transplant dip: maintain agitation in dip suspension, submerge plants for 30 seconds. Drip irrigation application: 4 weeks after transplant, and at 8-12 weeks, depending on disease pressure.
	MilStop SP	1-hour 0-day	Yes	Powdery Mildew, Botrytis Gray Mold, Anthracnose	1.25-2 lbs/100 gal	Spray at 1-2 week intervals until conditions are no longer favorable for disease. Do not lower pH (8.0 is needed).
	BotryStop WP	4-hour 0-day	Yes	<i>Botrytis</i> Gray Mold	2-4 lbs/100 gal	Begin application at or before flowering. Repeat on 7-10 day intervals or as needed up until harvest.
	PERpose Plus*	0-1-hour 0-day	Yes	Sanitation, Fungal and Bacterial Pathogens	Preplant soil drench: 2 fl oz/gal; Foliar application: 1/3-1 fl oz/gal	Preplant soil drench: apply 1 day prior to planting. Foliar preventative application: 1/3 fl oz/gal weekly; Foliar curative rate: 1 fl oz/gal for 1-3 consecutive days.
INSECTS / MITES	NemaShield	N/A	N/A	Fungus gnats, Shore flies, Thrips	100 million/1100-3400 ft <sup>2</sup>	Apply as a drench with irrigation water.
	NemaShield HB	N/A	N/A	Weevils	100 million/1100-3400 ft <sup>2</sup>	Apply as a drench around the stem of the plant with irrigation water.
	Molt-X	4-hour 0-day	Yes	Aphids, Whiteflies, Mealybugs, Caterpillars, Fungus gnats, Shore flies, Thrips, Weevils	8-10 fl oz/acre	For foliar application. Tank mix contact insecticides for added efficacy. In tank mix, use ½ rate.
	SuffOil-X	4-hour 0-day	No	Spider/Eriophyid Mites, Aphids, Whiteflies, Thrips	1-2 gal/100 gal	Foliar application as needed. DO NOT use in combination with or immediately before or after spraying with any product containing sulfur. Suppresses powdery mildew.
	EpiShield	N/A	No	Mites, Aphids, Thrips, Whiteflies, Mealybugs	9-12 fl oz/100 gal	Foliar spray to glisten on 5-7-day interval or as needed. Dip unrooted cuttings for 10-30 seconds and let dry.
NUTRITION	ON-Gard 5-0-0	N/A	Yes	Nutrition supplement and stress tolerance	Dip: 1% v/v; 16-64 fl oz/acre	Use with RootShield <i>PLUS</i> <sup>+</sup> WP in pre-plant dip. Foliar application or fertigation. Apply every 7-14 days on succulents and every 14-21 days along with irrigation cycles.
	ON-Gard CALCIUM 1-0-0 +5% Ca	N/A	Yes	Tip burn	16 fl oz/100 gal	Weekly foliar spray to prevent calcium deficiency on susceptible species

Please refer to product labels for complete application instructions. Always read and follow label directions.

\*PERpose Plus is registered for use in the USA in all states except CA as of May 2021.

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