




We deliver a full line of 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 lettuce.



BioWorks®
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CROP GUIDE HYDROPONIC LETTUCE

		PEST/DEFICIENCY	CROP STAGE				
			SEED	SEEDLING (3-5 LEAVES)	EARLY ROSETTE	HEAD FORMATION	HEAD DEVELOPMENT
DISEASES		Soilborne Diseases	RootShield PLUS®+ WP				
		Powdery Mildew, Downy Mildew		MilStop® SP + CEASE®, PERpose Plus®			
		Botrytis		BotryStop® WP, MilStop SP + CEASE, PERpose Plus			
		Sclerotinia Rot		BotryStop WP, CEASE, PERpose Plus			
INSECTS / MITES		Aphids, Whiteflies, Thrips		PRINCIPLE™ WP, Molt-X, SuffOil-X, EpiShield®			
		Caterpillars		Molt-X, PRINCIPLE WP			
		Fungus Gnats, Shore Flies	NemaShield®, Molt-X				
NUTRITION		Efficient nutrient use and stress reduction	ON-Gard®				



ABOVE AND BEYOND IS WHERE WE BEGIN

CROP GUIDE HYDROPONIC LETTUCE

	PRODUCT	REI, PHI	OMRI	PEST/DEFICIENCY	RECOMMENDED RATE	TYPE OF APPLICATION
DISEASES 	RootShield PLUS ⁺ WP ²	4-hour 0-day	Yes	Root Diseases	Drench: 4-8 oz/100 gal	Drench at seeding and transplant.
	MilStop SP	1-hour 0-day	Yes	Powdery Mildew, Downy Mildew, <i>Botrytis</i>	1.25–5.0 lb/100 gal	Foliar application every 7–14 days. Tank mix rates: CEASE 4-6 qt/100 gal + MilStop SP 1.25–3.0 lb/100 gal.
	CEASE	4-hour 0-day	Yes		4-6 qt/100 gal	Foliar application every 3–7 days.
	PERpose Plus	0-1-hour 0-day	Yes		1/3–1 fl oz/gal	1/3 fl oz/gal preventative foliar application weekly; 1 fl oz/gal curative application.
	BotryStop WP ⁴	4-hour 0-day	Yes	<i>Botrytis</i> , <i>Sclerotinia</i> Rot	2–4 lb/100 gal	Foliar application every 7–10 days.
INSECTS / MITES 	PRINCIPLE WP ¹	4-hour 0-day	Yes	Whiteflies, Aphids, Thrips, Caterpillars	0.5-2 lb/100 gal	Foliar application every 5-10 days. For thrips use 1-2 lb/100 gal.
	Molt-X ²	4-hour 0-day	Yes		8–10 fl oz/100 gal	For foliar application every 5-10 days.
	SuffOil-X	4-hour 0-day	Yes	Whiteflies, Aphids, Thrips	1-2 gal/100 gal	Foliar application every 7 days. Suppresses powdery mildew.
	EpiShield	N/A	No	Aphids, Thrips, Whiteflies, Mealybugs	9-12 fl oz/100 gal	Foliar spray to glisten on 5-7-day interval or as needed.
	NemaShield	N/A	N/A	Fungus Gnats, Shore Flies	100 million/1100-3400 ft ²	Drench on plug trays.
	Molt-X ²	4-hour 0-day	Yes		8 fl oz/100 gal	Apply as a drench.
NUTRITION 	ON-Gard (5-0-0) ³	N/A	Yes	Nutrition supplement and stress reduction	1 qt-2 gal/100 gal	Weekly foliar spray: 1 qt in seedling stage, increase through head formation stage, up to 2 gal. Fog rates: 6.4–11.2 fl oz/3 L water.

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

¹Not available for use in CA; ²Not available for use in AK; ³Not labeled for use in MT, ND, SD, WY. ⁴BotryStop WP not labeled for use on lettuce in CA

Please refer to product labels [bioworksinc.com](https://www.bioworksinc.com) for fogging application details and rates.



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