

LIFEGARD®

+ BIOLOGICAL PLANT ACTIVATOR



ACTIVATE CROP DEFENSES

BIOLOGICAL PLANT ACTIVATOR

Healthy plants all have some ability to protect themselves against invading pathogens. Plants, however, need time to react to the invasion and often the pathogen overwhelms the plant too quickly to make a difference. LifeGard® gives plants an early warning signal and the plant switches on immune defenses before pathogen invasion.

LifeGard® is a naturally occurring beneficial bacteria called *Bacillus mycoides* isolate J (BmJ). This beneficial bacterium triggers a plant's built in immune system which gives the plant time to build its defenses, while limiting infection and development of bacterial and fungal diseases. (See Figure 1)

LifeGard® plant activator has a unique mode of action that reduces the incidence and severity of crop diseases. When added to grower IPM crop health programs, LifeGard® adds a layer of protection by activating the plant's immune functions. Plants are primed within 3 hours of application and remain primed for up to 18 days.

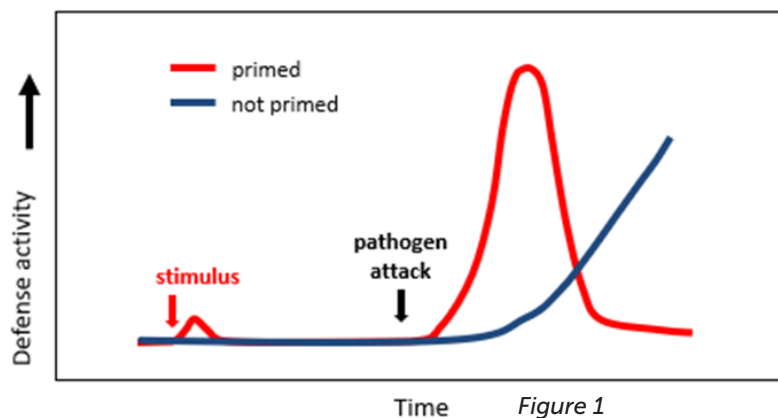


Figure 1

LifeGard® has been proven in trials and supporting data to be a product with high efficacy compared to similar competing products. It provides protection from Fireblight, reduces incidence and severity of botrytis, powdery mildew, downy mildew, early blight, late blight, fruit rots, and bacterial spot & speck.

LifeGard® is most effective when used in conjunction or alternation with fungicides having other modes of action such as triazoles, EBDGs, and Qol class fungicides that are registered for the control of labeled diseases.

RATE TABLE

Volume of water (L/ha):	≤ 210	250	300	350	400	500	750	1000
LifeGard® rate (G/ha):	70	83	100	117	133	167	250	333
Approx. Dry Measure (cc):	96	115	138	161	184	229	344	459

LifeGard® is residue exempt, with a short 4-hour re-entry interval, is organic certified and is safe on the environment. Pre-harvest interval is 0 days.

CROP	TARGET DISEASE	INTERVAL	ADDITIONAL INFORMATION
Grapes	Downy Mildew	7-21 days	Make first applications 2-3 weeks before bloom and prior to infection. Repeat applications at 7–21-day intervals as part of a rotational program with fungicides labelled for this use. Continue applications every 2 to 4 weeks after fruit set.
	Powdery Mildew		
	Black Rot	7-14 days	Begin as a preventative spray. Repeat every 7-14 days as part of a rotational program with fungicides labeled for this use.
	Phomopsis Fruit Rot		
Apples	Fire Blight	7-14 days	Begin applications when green tissue is present, prior to infection period. For suppression of shoot blight, start applications after petal fall and reapply 7-14 days during stem elongation. Do not apply during bloom period (pink stage to petal fall).
	Apple Scab		Apply starting at petal fall through cover sprays on a 7- to 14-day schedule. Apply in an alternating or tank-mix program with labeled fungicides as part of a disease management
	Powdery Mildew		
	Sooty Blotch	10-14 days	For summer disease control: Apply starting at petal fall through the cover sprays on a 10- to 14-day schedule Apply in an alternating or tankmix program with labeled fungicides as part of a disease management program.
	Flyspeck		
Peppers (all types) (field and greenhouse)	Bacterial leaf spot	7-14 days	For direct seeded crops: Apply any time following emergence of first true leaf. For transplants: Begin applications immediately before or after transplanting. Transplants may be treated in the greenhouse or nursery prior to transplanting in the field. For bacterial leaf spot, early blight, and late blight repeat application at 7-day intervals.
Tomato (field and greenhouse)	Early Blight		
	Late Blight		
	Bacterial Speck		
Potatoes (all types)	Early Blight	7-14 days	For early blight and late blight, repeat applications at 7-day intervals. For white mold apply at 7–14-day intervals. Use the shorter interval when high disease pressure is anticipated.
	Late Blight		
	White Mold		
Spinach (field and greenhouse)	Downy Mildew	7-14 days	Begin applications at first true leaf or after thinning. Make preventative applications every 7 days.
Sugar Beet	Cercospora Leaf Spot	14 days	Apply at 14-day intervals in rotation with fungicides labeled for this use.
Cannabis & Hemp (commercial use) (grown indoors or in field)	Sclerotinia White Mold	7-12 days	Begin as a preventative spray. Apply 7-to-14-day intervals when only LifeGard®WG will be applied. Use shorter interval when high disease pressure is anticipated. When used in biorational program with fungicides labeled for this use repeat 7-21 days.
	Grey Mold		
Always read and follow label instructions.			LifeGard® is a registered trademark of Certis Biologicals™