

# NEW YORK STATE INTEGRATED PEST MANAGEMENT Biopesticide Profile

## Actinovate

### Active ingredient

*Streptomyces lydicus* WYEC 108 (live)

This information is not meant to be a substitute for reading the label. Always read and follow all pesticide labels. Ensure the pesticide is currently registered in your state.

## PRODUCT

**Formulations:** AG, Lawn & Garden, SP

**Pests:** Soil and foliar plant diseases

**FRAC Code (Fungicide Resistance Action Committee):** BM 02

**Mode of Action (see next page):** Keep out (primary); Grow strong plants (primary); Eat, Poison

## APPLICATION

**Where to apply:** Agricultural crops (AG, SP) or residential areas (Lawn & Garden); foliage, soil (drench, irrigation, in-furrow applications) for all formulations; seed treatment, dusting/soak (ornamentals), transplant dip (AG and SP only)

**When to start applying:** Before disease appears or in very early stages

**How to apply:** With spreader-sticker (AG, SP, Lawn & Garden); within 4 hr of mixing (AG, SP)

**Tank mix & application compatibility:**

Compatible with most chemical fungicides, insecticides, and fertilizers; if using after soil sterilization or fumigation, ensure sterilizer/fumigant has dissipated first; do not tank mix with chlorinated water, quaternary ammonia, or hydrogen peroxide

## ENVIRONMENT

**Temperature tolerance in field:** Preferred temperature is >45°F, less active at cooler temperatures

**Rainfastness:** 4 hr

**UV tolerance:** Re-apply every 7 -14 days.

## STORAGE

**How to store:** 40-77°F, out of direct sunlight; keep from overheating or freezing

**Shelf life:** Maximum of 2 years before package is opened. Check label for expiration date. Once package is opened, use within 4 months.

## RISK

**Signal Word:** Caution

**REI (Restricted-entry interval):** 4 hr (AG and SP formulations)

**PHI (Pre-harvest interval):** 0 days

**Impacts on beneficial insects:** No known toxicity concerns for bees or other insects

**Cornell  
Cooperative  
Extension**

 New York State  
Integrated Pest Management  
Program

About biopesticides

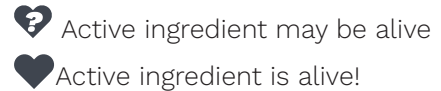
# About biopesticides





















## USING BIOPESTICIDES

- Apply preventatively.
- Use as part of an IPM strategy, including cultural management practices, other pesticides, etc.
- Mix only what you need; don't leave in spray tank overnight.
- Don't expose to excessive heat in storage.
- When tank mixing, follow label instructions for all products. Check with company rep or distributor if you have questions. Do a "jar test" to determine physical compatibility if you want to mix two products for which you cannot find information on their compatibility.
- Proper cleaning of spray tanks after any pesticide application is always important. Pay special attention to tank cleaning when a biopesticide is applied after another incompatible product.

## HOW BIOPESTICIDES WORK

### Modes of action (MOAs)



<b>Eat</b>	Live microbe grows on/in pest	 	
<b>Poison</b>	Biopesticide (or its products) kills the pest directly	 	
<b>Keep out</b>	Live microbe grows on plant, leaving no room for pests		
<b>Turn on resistance</b>	Turns on the plant's defenses before pest attacks		
<b>Grow strong plants</b>	Makes plant stronger, healthier, more resilient		
<b>Repel</b>	Pest avoids plants treated with biopesticide		
<b>Stop feeding</b>	Stops pest from feeding; pest eventually starves		
<b>Stop growth</b>	Stops pest from growing or molting; pest eventually dies		
<b>Stop reproduction</b>	Hampers pests' ability to find a mate, lay eggs		

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## LEARN MORE

### Efficacy of biopesticides

[go.nysipm.org/biopesticide-efficacy](http://go.nysipm.org/biopesticide-efficacy)

### Biocontrol Bytes blog

[blogs.cornell.edu/biocontrolbytes/](http://blogs.cornell.edu/biocontrolbytes/)

### Biocontrol

[go.nysipm.org/biocontrol](http://go.nysipm.org/biocontrol)