

NEW YORK STATE INTEGRATED PEST MANAGEMENT

Biopesticide Profile

Regalia

Active ingredient

Extract of *Reynoutria sachalinensis*

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: Regalia and Regalia CG (following information applies to both)

Pests: Plant diseases

FRAC Code (Fungicide Resistance Action Committee): P 05

Mode of Action (see next page): Turn on resistance; Grow strong plants

APPLICATION

Where to apply: Agricultural (ornamental, turf, row, greenhouse, and edible and field crops); Foliage, soil, pre-plant dip; apply to actively growing plants

When to start applying: >48 hrs before disease onset; first application requires 48 hrs for full plant defense activation; subsequent applications take 3-4 hrs to fully re-activate plant defenses; activation lasts ~10 days

How to apply: Works best with a pH neutral spreader or spreader-sticker; spray mixture should be pH 5.5-8; apply immediately after mixing; agitate continuously during application; use nozzle screens > 50-mesh

Tank mix & application compatibility: Compatible with many commonly used pesticides, fertilizers, adjuvants, and surfactants; can be applied with peroxide and peroxyacetic acid products; avoid tank mixing with high pH materials (e.g., potassium bicarbonate)

ENVIRONMENT

Temperature tolerance in field: Any temperatures typical of NY growing season

Rainfastness: Needs 3-4 hrs to dry

UV tolerance: Not a concern

STORAGE

How to store: 35-100 °F; avoid freezing

Shelf life: At least 3 years when stored at 35-100 °F

RISK

Signal word: Caution

REI (Restricted-entry interval): 4 hrs

PHI (Pre-harvest interval): 0 days

Impacts on beneficial insects: No known toxicity concerns for honey bees or other tested beneficial insects (predatory wasp and mite)

**Cornell
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IPM New York State
Integrated Pest Management
Program

About biopesticides

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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)



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

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LEARN MORE

Efficacy of biopesticides

go.nysipm.org/biopesticide-efficacy

Biocontrol Bytes blog

blogs.cornell.edu/biocontrolbytes/

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