

NEW YORK STATE INTEGRATED PEST MANAGEMENT *Biopesticide Profile*

Double Nickel

Active ingredient

Bacillus amyloliquefaciens strain D747

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: 55 or LC

Pests: Plant diseases

FRAC Code (Fungicide Resistance Action Committee): BM 02

Mode of Action (see next page): Poison (primary); Keep Out; Turn on resistance; Grow strong plants.

APPLICATION

Where to apply: Foliage, soil, pre-plant dip

When to start applying: When disease pressure is low

How to apply: Avoid silicon spreaders

Tank mix & application compatibility: Do not tank mix with antibiotics, peracetic acids, or hydrogen peroxides; generally biologically compatible with fertilizers, insecticides, herbicides, and fungicides. Avoid silicon spreaders.

ENVIRONMENT

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

Rainfastness: Once dry, similar rainfastness to other pesticides

UV tolerance: 7 days on foliage

STORAGE

How to store: Store at room temperature, away from extreme heat

Shelf life: Dry formulations can be stored for 2 years, 3 years if away from extreme heat

RISK

REI (Restricted-entry interval): 4 hrs

PHI (Pre-harvest interval): 0 days

Impacts on beneficial insects: No known toxicity concerns for bees or other tested beneficial insects (minute pirate bug, lacewing, predatory mite)

Always follow label instructions, including steps to take to protect people, pets, and the environment.

**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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