



SERENADE

# Serenade<sup>®</sup> ASO Biological Fungicide

### FRAC Group 44 Fungicide

Serenade<sup>®</sup> ASO biological fungicide is a versatile tool designed to provide effective disease protection. Serenade<sup>®</sup> ASO protects against the effects of fungal and bacterial diseases in the soil and foliage.

#### /// BENEFITS

Serenade<sup>®</sup> ASO fungicide is part of Bayer's biological portfolio that gives growers more options in their integrated disease management program.

#### Effective Protection

Fights fungal and bacterial diseases and can be an effective addition to an integrated disease management program.

#### Resistance Management

Uses multiple sites of action to target the disease, providing control and reducing the likelihood of resistance.

#### Flexible Application

Four-hour re-entry interval and a zero-day preharvest interval make Serenade ASO an excellent tool for late-season disease problems, right up to and including the day of harvest.

 Exempt from Maximum Residue Level (MRL) Exempt from the requirements of residue tolerance for export to global markets.

#### Integrated Management Tool

Compatible with registered products including copper, sulfur, micronutrients, insecticides and fungicides.

#### /// PROVEN PERFORMANCE

Serenade<sup>®</sup> ASO fungicide is composed of effective biological chemistry and spores of *Bacillus subtilis* QST 713, which is a beneficial bacterium colonizing the roots and producing biological chemistry. The colonization and biological chemistry provide different benefits important for healthy, high-yielding plants.

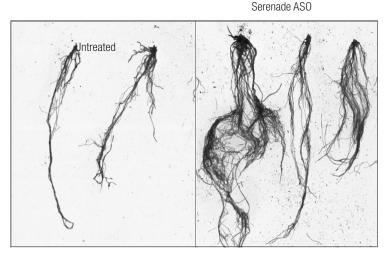
- Pathogen Protection
   Lipopeptides destroy fungi on contact, while other compounds attack bacteria.
- **Defense Activation** Plants respond to natural chemistry by preparing to repel pathogens.
- Stress Reduction Serenade<sup>®</sup> ASO stimulates the plant to help tolerate stressors like drought and heat.
- Stimulates Early-Season Root Development Allows for greater nutrient uptake and protection from adverse weather conditions.
- Nutrient Availability Serenade® ASO solubilizes key nutrients in the soil to enhance uptake, leading to healthy, high-quality produce with an increased shelf life.

#### /// SERENADE ASO<sup>®</sup> FUNGICIDE QUICK FACTS

- Active Ingredient: Bacillus subtilis QST 713
- Signal Word: Caution
- Use Rate: 0.5 to 4 qt./A, depending on crop, disease and whether tank-mixed
- **REI:** 4
- PHI: 0

Key Crops	Key Diseases
Citrus	<ul> <li>Alternaria Leaf Spot</li> </ul>
Cucurbits	<ul> <li>Bacterial Spot</li> </ul>
<ul> <li>Leafy Vegetables</li> </ul>	<ul> <li>Black Dot</li> </ul>
Onions	<ul> <li>Botrytis</li> </ul>
Pome Fruits	Brown Rot
<ul> <li>Potatoes</li> </ul>	Early Blight
Stone Fruits	Fire Blight
<ul> <li>Strawberries</li> </ul>	Fusarium
<ul> <li>Tomatoes</li> </ul>	Lettuce Drop
Tree Nuts	<ul> <li>Phytophthora</li> </ul>
	<ul> <li>Powdery Mildew</li> </ul>
	<ul> <li>Rhizoctonia Solani</li> </ul>
	<ul> <li>Sclerotinia</li> </ul>
	Sour Rot
	Target Spot

#### Better Tomato Root Development with Serenade® ASO Fungicide



Serenade® ASO vegetable application studies. Saman Mahmood, Debbie Marcus BLX – West Sacramento, June 16, 2017. Tomato growth analysis using WinRhizo at 25 days after planting.

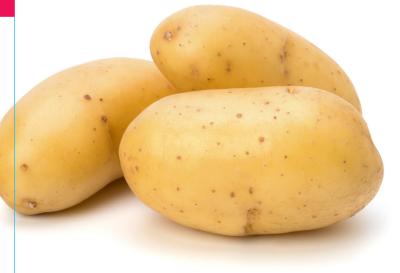


\*Farmers living in Alaska, California or Hawaii do not qualify for Bayer PLUS Rewards

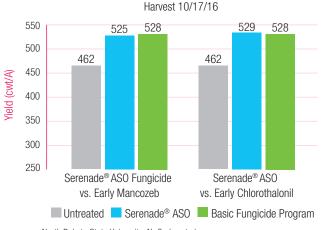
**IMPORTANT:** This bulletin is not intended to provide adequate information for use of these products. Read the label before using these products. Observe all label directions and precautions while using these products.

#### For more information, visit www.CropScience.Bayer.us.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. Performance may vary, from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields. Bayer, Bayer Cross and Serenade® are registered trademarks of Bayer Group. All other trademarks are the property of their respective owners. For additional product information call toll-free 1.866-99-BAYER (1-866-992-2937) or visit our website at www.BayerCropScience.us. Bayer CropScience LP, 800 North Lindbergh Boulevard, St. Louis, MO 63167. ©2023 Bayer Group. All rights reserved.



## Steady Disease Control and Yield Potential with Serenade<sup>®</sup> ASO Fungicide on Potatoes



North Dakota State University, N. Gudmestad High Early Blight Pressure =  $Alternaria \ solari$