



# Serenade® ASO Fungicide

## *FRAC Group 44 Fungicide*

### /// INTRODUCTION TO SERENADE® ASO

Serenade® ASO fungicide is a powerful tool designed to protect against the effects of soil and foliar bacterial and fungal diseases.

### /// BENEFITS

Serenade ASO is part of a collection of biologicals from Bayer that gives growers more options in their integrated disease management programs.

- Effective protection against soil and foliar bacterial and fungal diseases.
- Exempt from the Maximum Residue Level (MRL) requirements for export to global markets.
- Unique mode of action with FRAC Code 44 for resistance management.
- Minimal re-entry interval and zero-day pre-harvest interval provide maximum flexibility to control late-season disease problems.
- Compatible with registered products such as copper, sulfur, micronutrients, insecticides and fungicides.

### /// PROVEN PERFORMANCE

Serenade ASO is composed of potent 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 ASO stimulates the plant to better 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 healthier, higher-quality produce with an increased shelf life.

### /// IMPROVED SOIL HEALTH

When applied at planting, Serenade® ASO quickly builds a disease-protection zone around the seed or transplant. As the plant roots grow, the beneficial bacteria in Serenade ASO grow with them, expanding the disease protection zone and attaching themselves, like armor, to the roots of the plant.

The enhanced microbial activity and disease protection near the plant roots can lead to greater nutrient availability and uptake by the growing plant. This results in healthier plants and a higher yield potential.

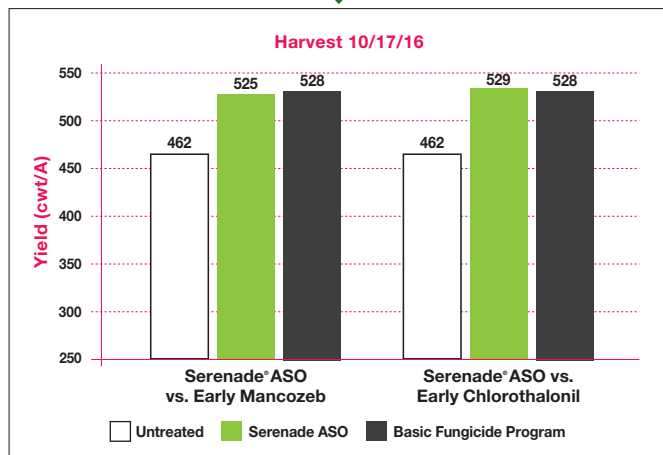
/// KEY CROPS	/// KEY DISEASES
<ul style="list-style-type: none"> <li>• Citrus</li> <li>• Cucurbits</li> <li>• Onions</li> <li>• Peanuts</li> <li>• Potatoes</li> <li>• Strawberries</li> <li>• Tomatoes</li> </ul>	<ul style="list-style-type: none"> <li>• Fusarium</li> <li>• <i>Rhizoctonia solani</i></li> <li>• Phytophthora</li> <li>• Sclerotinia</li> </ul>

See product label for a complete list of crops and diseases.

### /// SERENADE ASO QUICK FACTS

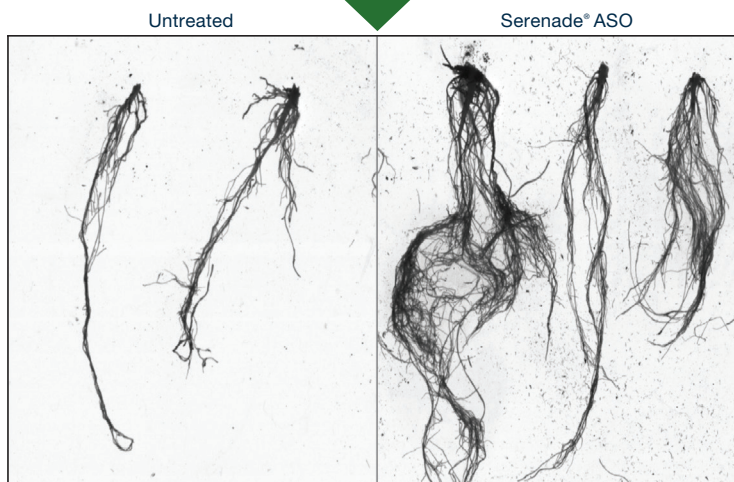
- **Active Ingredient:** *Bacillus subtilis* QST 713
- **Signal Word:** Caution
- **REI:** 4
- **PHI:** 0
- **Use Rate:** 0.5 to 4 qt./A, depending on crop and disease

## Steady Disease and Yield Control with Serenade® ASO on Potatoes



North Dakota State University, N. Gudmestad  
High Early Blight Pressure = *Alternaria solani*

## Better Tomato Root Development with Serenade® ASO



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.

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

For more information, visit [www.CropScience.Bayer.us](http://www.CropScience.Bayer.us).

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**SERENADE**  
ASO

