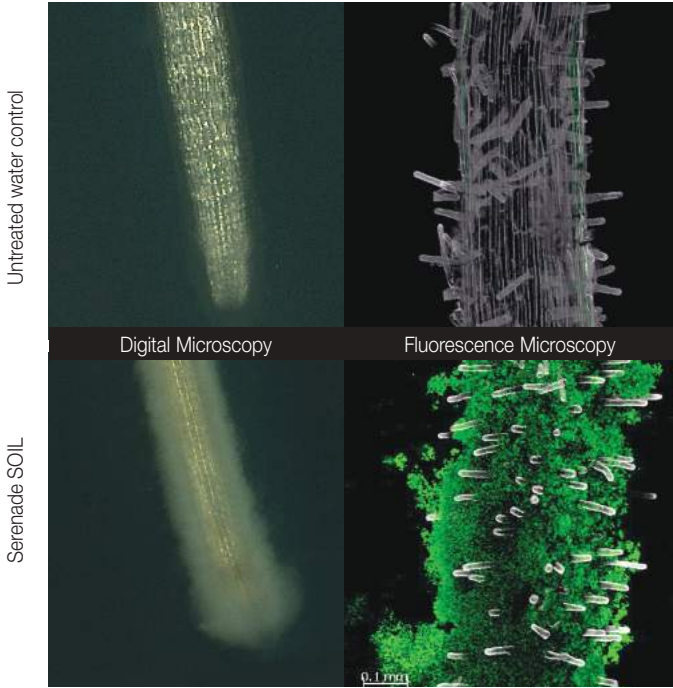


Root colonization of Serenade SOIL occurs quickly and thoroughly, developing armor around the roots that protects them from soil diseases – even at the tip. As the root grows, Serenade SOIL grows with it.



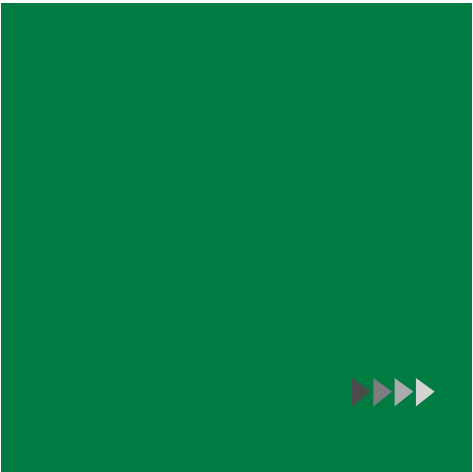
Untreated roots stand "naked" to potential attacks by soil diseases

Serenade SOIL builds a dense barrier around the root, including the tip, and grows with the plant as the plant grows

fact sheet



A BIOLOGICAL FUNGICIDE FOR ROOT AND SOIL-BORNE DISEASES



cropscience.bayer.ca or 1 888-283-6847
or contact your Bayer Representative.
@Bayer4CropsCA

Always read and follow label directions. Serenade® is a registered trademark of the Bayer Group. All other products are trademarks of their respective companies. Bayer CropScience Inc. is a member of CropLife Canada.

did you know?

SERENADE SOIL IS A BIOLOGICAL FUNGICIDE THAT PROTECTS AGAINST SOIL DISEASES LIKE RHIZOCTONIA AND PHYTIUM AND IS EXEMPT FROM TOLERANCES (NO MRL OR RESIDUE CONCERNS) SO YOU CAN SELL YOUR CROPS INTO EVEN THE MOST RESTRICTIVE MARKETS.

FEATURES AND BENEFITS

- Serenade® SOIL quickly builds a disease protection zone around the seed that continues to grow with the plant, acting like armor to protect the roots
- Helps activate a plant's natural defense mechanism, improving root colonization and increasing plant growth
- Unique mode of action (FRAC Group 44) makes for the best defense against the development of resistance
- Easily tank-mixed with other products and applied through existing equipment
- Application flexibility – can be applied both in-furrow and soil drench
- Convenient liquid formulation
- May be applied up to and including the day of harvest

APPLICATION

Surface applications

- Broadcast or band: Apply as a 15 cm band over the top of the seed row or as a broadcast spray after planting. Use higher rates for broadcast applications. Ensure incorporation into the seed zone within 24 hours of applications with rain or overhead irrigation.

- Overhead irrigation: Apply with irrigation water, ensuring uniform coverage of the soil and incorporation of product into the seed zone
- Surface drip irrigation: Apply product with the first irrigation after planting

Transplant drench

- Apply the finished spray mixture at the optimum rate to thoroughly soak the growing media through the root zone, or as a drench or directed spray using sufficient water to soak the root zone

In-furrow applications

- Apply as an in-furrow spray in the appropriate amount of water per acre for the crop at planting. Mount the spray nozzle so the spray is directed in the furrow just before the seeds are covered.

Shanked-in and injected applications

- Product may be shanked-in or injected into the soil prior to, at, or post-planting /transplanting of crops

Post-planting applications

- May be applied at any crop stage
- Apply the finished spray mixture to the soil as a drench, spray, or drip irrigation, directing it towards the base of the plant to optimize efficacy. When applying as a spray (e.g., via hydraulic nozzles at low volumes), it is important to irrigate in order to move the material into the seed, root or transplant zone. Applications may be repeated at 21-28 day intervals to enhance preventative treatments. Shorter intervals are recommended under moderate to high disease pressure.

MODE OF ACTION

- Group 44 fungicide – QST 713 strain of dried *Bacillus subtilis*
- The beneficial bacteria in Serenade SOIL act as small factories, releasing important secondary metabolites that:
 - o Suppress soil diseases with lipopeptides that tear holes in fungal cell membranes, yet are extremely safe for plants
 - o Release anti-bacterial compounds that target bacterial cell walls

PACKAGING

- Available in 9.46 L jugs

CROPS	DISEASES SUPPRESSED	RECOMMENDED RATE
Root and tuber vegetables (Crop Group 1) Garden beet, sugar beet, carrot, celeriac, chervil, chicory, ginseng, horseradish, parsley, parsnip, potato, radish, oriental radish, rutabaga, salsify, sweet potato, turnip	<ul style="list-style-type: none"> • Fusarium root rot • Phytophthora root rot and pink rot • Pythium root rot and cavity spot • Soil-borne rhizoctonia, black scurf and stem canker 	<ul style="list-style-type: none"> • Rate for soil-borne rhizoctonia is 4.7-9.35 L/ha (1.9-3.8 L/ac.) • Rate for pink root & fusarium is 9.35 L/ha (3.8 L/ac.)
Bulb vegetables (Crop Group 3) Garlic, leek, onion, shallot	<ul style="list-style-type: none"> • Pink root • Pythium root rot • Rhizoctonia damping off and root rot 	
Leafy vegetables (Crop Group 4) Celery, lettuce, parsley, radicchio, rhubarb, spinach, Swiss chard	<ul style="list-style-type: none"> • Phytophthora root rot • Pythium root rot • Rhizoctonia damping off and root rot 	<ul style="list-style-type: none"> • Rate for all other diseases is 4.7-9.35 L/ha (1.9-3.8 L/ac.)
Brassica leafy vegetables (Crop Group 5) Broccoli, brussels sprouts, cabbage, cauliflower, collards, kale, kohlrab, mustard greens	<ul style="list-style-type: none"> • Phytophthora root rot • Pythium root rot • Rhizoctonia damping off and root rot 	
Legume vegetables (Crop Group 6) Bean (<i>Lupinus spp.</i> , <i>Phaseolus spp.</i> , and <i>Vigna spp.</i>), chickpea, lentil, and pea (all types)	<ul style="list-style-type: none"> • Fusarium root rot • Pythium root rot • Rhizoctonia root rot 	
Fruiting vegetables (Crop Group 8) Eggplant, ground cherry, okra, pepino, peppers (all varieties), tomatillo, tomatoes	<ul style="list-style-type: none"> • Fusarium wilt, crown and root rot • Phytophthora blight • Pythium root rot • Rhizoctonia damping off and root rot 	
Cucurbit vegetables (Crop Group 9) Cantaloupe, Chinese waxgourd, cucumber, gherkin, edible gourd, melon, muskmelon, squash, pumpkin, and watermelon	<ul style="list-style-type: none"> • Fusarium root rot • Phytophthora blight • Pythium root rot • Rhizoctonia damping off and root rot 	
Asparagus	<ul style="list-style-type: none"> • Phytophthora root rot 	
Strawberry	<ul style="list-style-type: none"> • Rhizoctonia damping off and root rot 	
Tobacco	<ul style="list-style-type: none"> • Pythium root rot • Rhizoctonia damping off and root rot 	