



Rhizoctonia Alert

Control *Rhizoctonia* season long to maximize sugar yield and quality

The most common root disease of sugarbeets in the United States, *Rhizoctonia* root and crown rot can cause up to 50 percent yield loss.

Rhizoctonia is a fungus that favors hot temperatures and often overwinters in soil and plant tissue before beginning a new season of infection in the spring. The disease infects through leaf petioles, crowns or roots and has the ability to affect all parts of the plant.



Rhizoctonia symptom detection

- Sudden wilting of leaves
- Black lesions on the root
- Dark brown to black discoloration of the youngest leaves and petioles near the center of the crown
- Sickly sweet odor

Fight *Rhizoctonia* from the start

The battle against *Rhizoctonia* can be fought with proactive and timely management practices. Consider the following:

- Avoid planting sugarbeets following other host crops (e.g., soybean)
- Plant cultivars with *Rhizoctonia* tolerance
- Use tillage and fertilization to promote crop growth
- Ensure adequate soil drainage
- Avoid cultivation that dumps soil into the crown of young plants
- Make timely fungicide applications (early rather than late)

Hilleshög® brand varieties are leaders in disease tolerance packages. Many varieties offer enhanced *Rhizoctonia* protection and play a critical role in season-long *Rhizoctonia* management. *Rhizoctonia* tolerance kicks in during the critical time when the plant is focused on maximizing sugar content and yield.

Syngenta is committed to quality seed products, like Hilleshög brand varieties, that deliver disease protection and maximum germination, emergence, stand establishment and crop vigor—all critical components of a successful sugarbeet crop.

Season-long protection

Choosing the right seed treatment is key to preventing early-season *Rhizoctonia*. CruiserMaxx® Sugarbeets insecticide/fungicide seed treatment combines Cruiser® 5FS insecticide with Maxim® 4FS, Apron XL® and Dynasty® fungicides to deliver improved crop vigor, stand establishment and yield while providing protection against *Rhizoctonia*.

Two key components of CruiserMaxx Sugarbeets, Maxim and Dynasty protect against *Rhizoctonia* using distinct modes of action. Dynasty works systemically to stop diseases from spreading during the early stages of development by inhibiting mitochondrial respiration in the fungal cell while Maxim adheres to particles in the root zone, allowing it to move with the root system as it grows for optimum early-season protection.

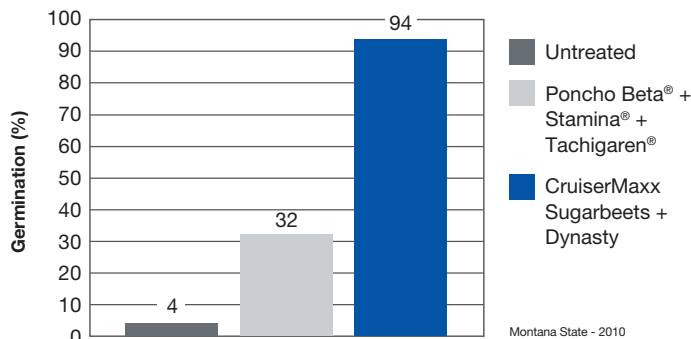
Early fungicide application can also protect against the threat of *Rhizoctonia*. Quadris® fungicide offers optimal disease control to help maximize return on investment. This broad-spectrum fungicide provides complete plant protection with its xylem-mobile systemic activity and allows crops to efficiently utilize resources like air, water and nutrients.



Benefits of CruiserMaxx Sugarbeets

- Provides protection against early-season diseases including *Rhizoctonia* and *Pythium*
- Complements high performing genetics and ensures good plant stand
- Convenient treatment against insects like sugarbeet leafhopper, sugarbeet root maggot, springtails and wireworms

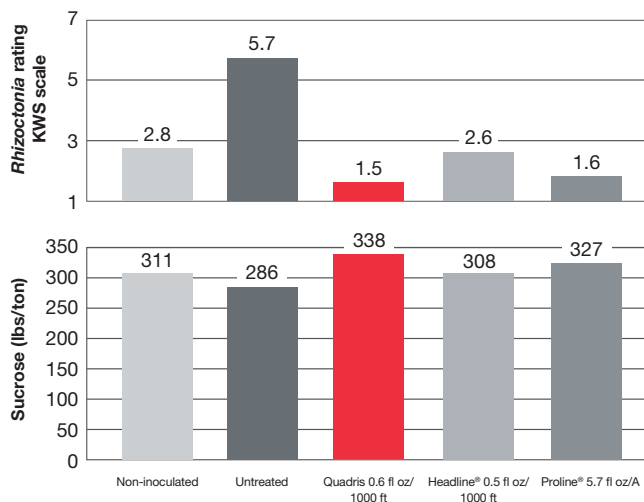
Sugarbeet Germination - *Rhizoctonia* Inoculated Soil



Benefits of Quadris

- Application flexibility and long-lasting residual disease control
- Slow but steady systemic mobility, ensuring sufficient coverage and distribution within the plant
- No accumulation at leaf tips or margins, reducing phytotoxicity

Rhizoctonia Control and Benefits



Source: University of Minnesota. Northwest Research and Outreach Center. Crookston, MN. Efficacy of in-furrow and postemergence fungicides in controlling *Rhizoctonia* on sugarbeet. *Rhizoctonia* susceptible sugarbeets planted 05/17/2010. Band applied fungicides applied on 07/24/2010 using a tractor mounted sprayer in a 7-inch band at 100 psi and 20 gpa through 8002 flat fan nozzles. LSD 0.05: *Rhizoctonia* Crown and Root Rot rating = 1.1. *Rhizoctonia* rating: 0-9 KJleinwanzlebener Saatziucht scale (KWS scale).

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