



## 549 - Rhizoctonia: Sugarbeet Yield Enemy #1

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Rhizoctonia has always been present in the RRV but was seldom the root disease of greatest concern to growers until this decade. Aphanomyces was of greatest concern in most of the 1980's and 1990's. Late in the 1990's Rhizomania arrived and became serious early this decade. Planting resistant varieties has generally minimized losses from both Aphanomyces and Rhizomania. Fusarium is severe in the southern RRV. Rhizoctonia can be found in virtually every RRV sugarbeet field today.

### Why the Increased Severity from Rhizoctonia in Recent Years?

- Lack of good varietal resistance
- Favorable weather - prolonged wet periods
- Greatly increased acres of susceptible rotation crops
- Limited use of fungicide control measures



### Strategies for Control

- Resistant variety selection
- Seed treatments
- In-furrow fungicides

- Post emergence fungicide applications
- Crop rotation planning

### **Key Management Considerations**

#### **Quadris Use**

- Best post emergence treatment for Rhizoctonia
- Crop injury risk is high if mixed with liquid fertilizer
- Compatibility issues exist with liquid fertilizer - constant agitation required
- T-band applications are the most effective in-furrow treatment
- Pre-emerge application are not effective
- Applications on cotyledon and early 2- leaf beets are less effective
- Will not control infections started before application
- Don't tank mix with surfactants or organosilicates, COC, MSO, or EC based pesticides
- Can be successfully mixed with glyphosate
- Will give excellent in-furrow results until mid to late July
- Apply it exactly between successive microrate applications
- 4-6 leaf beet stage is ideal application timing
- Better to apply to early than too late
- Quadris gave good to excellent results in 75-80% of treated fields in 2010
- About 50,000 acres were treated with Quadris in 2010

#### **Headline Use**

- Tank mixes with Redline, Soygreen or 10-34-0 require constant agitation
- Spray out all tank mixes within 4 hours
- If the tank mix sits overnight agitate very thoroughly before use
- Adding at least 1 gpa of water to 10-34-0 greatly improves compatibility
- Headline will give only fair to good post emergence Rhizoctonia control

- In-furrow treatments give about 4-6 weeks of protection
- Occasional stand loss can occur with in-furrow applications
- Consider using injection system equipment to apply it with starter fertilizer

### **Proline Use**

- Proline with surfactant has provided very good control when applied post emergence in a timely manner

### **Key Components to Successful Use of Headline and Quadris in-furrow**

- The better the agitation the less frequently problems will occur
- Premixing the fungicides with water and then adding to starter fertilizer will reduce compatibility issues
- The longer fungicide and starter remains tank mixed the greater are the chances of product separation and nozzle plugging
- Quality of the starter fertilizer product may cause greatly varying mixing results
- Water and starter fertilizer temperature, air temperature, nozzle or orifice size, and sprayer screen size may all effect compatibility or nozzle plugging
- Using injection systems to put fungicide into the starter fertilizer just ahead of application will significantly reduce or eliminate compatibility issues

The single most critical Rhizoctonia management strategy after variety selection is applying a post emergence application of Quadris at the correct timing.

### **Ag Staff Has the Info**

Contact your agriculturist for a much more comprehensive list of best management practices for in-furrow and POST application of Headline & Quadris for Rhizoctonia control.

### **Disease Maps**

Agriculturists have maps showing disease severity by township for the RRV.