



## *Foliar Applications of Quadris for Rhizoctonia Control in Sugarbeets*

*Best timing for foliar applications of Quadris for Rhizoctonia control in sugarbeets depends on growth stage, soil moisture/temperature and weather.*

Research over the last ten years by Michigan State University Extension and Michigan Sugar Company has shown that Rhizoctonia can be effectively controlled with proper placement and timing of Quadris fungicide. Growers who are planting Rhizoctonia susceptible varieties, including many of the nematode tolerant varieties, should consider at least one and/or possibly two applications of fungicide. In-furrow applications have proven very effective and should give good control. To increase disease control, a second (foliar) application can be applied. This is very important in heavy disease areas.

Growers who are relying on a single foliar spray can increase efficacy by considering several factors. Quadris applications are most effective when applied before plant infections occur. Ideal infection periods occur when average daily soil temperature, at the four inch depth, is 65 degrees or warmer. Soil moisture is also important, wet soils will increase infections while dry soil will have less. Timing of applications just before rainfall has been very effective.

Plant leaf stage can also be a predictor of application timing. Research conducted by Sugarbeet Advancement indicates applications of Quadris at the 6-8 leaf stage has often provided best Rhizoctonia control. Earlier (2-4 leaf) and later applications (8-10 leaf) may result in reduced control, depending on soil conditions and infection periods. Be sure to count leaf stage on sugarbeets correctly; do not include the cotyledon leaves (first leaves when beets emerge) when staging beets. Growers are often applying fungicides at the 4-6 leaf stage rather than 6-8, due to counting the cotyledon leaves. Sugarbeet leaves always grow in pairs; remove two leaf pairs at a time. Current research suggest the best timed application would be 6-8 leaf beets, increasing 4" soil temperatures above 65 degrees, moist soil and/or rain predicted.

All foliar applications of Quadris should be applied in a 7 inch band or less, since the fungicide applied to the crown of the beet is most important. Apply at least the full rate recommended for your row width (10.5 oz/ac for 30" rows, and 14.25 oz/ac for 22" rows). Reduced rates have been shown to reduce control. Broadcast applications at the same rate are not as effective as banded application. Be careful not to mix Quadris with oil based products and adjuvants as leaf injury can occur. Manganese, Boron and some insecticides that are non-oil based can be mixed and safely applied to sugarbeets.

### **REACH Research Contacts**

*Steve Poindexter, MSU Senior Extension Education, (989) 798-5848*

*Jim Stewart, MSC Director of Research, (989) 225-6720*

*Greg Clark, MSC Agronomist, (989) 891-6785*

*Lee Hubbell, MSC Research Agronomist, (989) 225-6708*

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|  | <p><b>Research &amp; Education Advisory Council (REACH)</b><br/>c/o MICHIGAN SUGAR COMPANY<br/>2600 South Euclid Avenue<br/>Bay City, Michigan 48706<br/>(989) 686-0161</p> |
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