



RHIZOCTONIA CONTROL WITH ORO-RZ® + PRIAXOR® AND QUADRIS® (2014)

TARGET	<i>Rhizoctonia (Rhizoctonia solani)</i>	CROP	Potatoes	LOCATION	Rupert ID, USA
TRIAL DATE	Fall 2014	RESEARCHER	Jeff Miller, Ph.D. - Miller Research		

APPLICATION

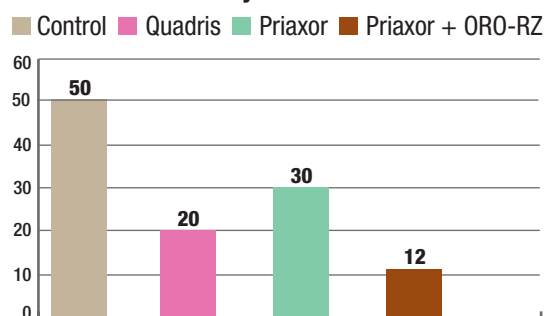
In 2014, a study was conducted in southeastern Idaho that demonstrated the effect of ORO-RZ on the control of *Rhizoctonia* in potatoes. Two widely-used soil-applied fungicides, Quadris (9 oz./a) and Priaxor (6.75 oz./a) were applied in-furrow. In addition, an application of Priaxor (6.75 oz./a) + ORO-RZ (1 qt./a) was also made in-furrow at planting.

RESULTS

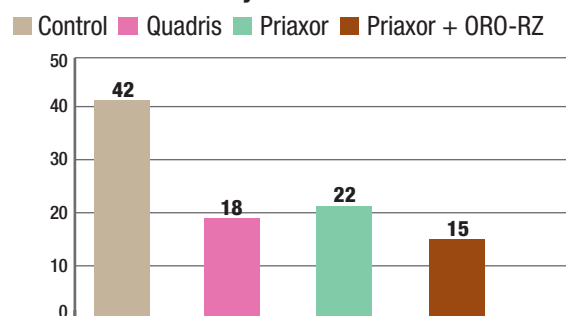
All three applications returned statistically significant improvements in *Rhizoctonia* control compared to the untreated check. The difference in disease control between the stand-alone applications of Quadris and Priaxor, was not statistically significant. However, the difference in disease control between the Priaxor and the Priaxor + ORO-RZ treatments was statistically significant. The Priaxor + ORO-RZ treatment controlled *Rhizoctonia* significantly better than Priaxor alone.

In addition to disease control, the trial also measured marketable yield for each of the treatments. As with disease control, the Priaxor + ORO-RZ application returned the best results. It produced more marketable yield than either fungicide standalone application. Assuming a marginal revenue increase of \$189 compared to the Priaxor stand-alone treatment and an investment cost of \$12.50/a, the 1 qt./a application of ORO-RZ had a Return on Investment (ROI) of 15 to 1.

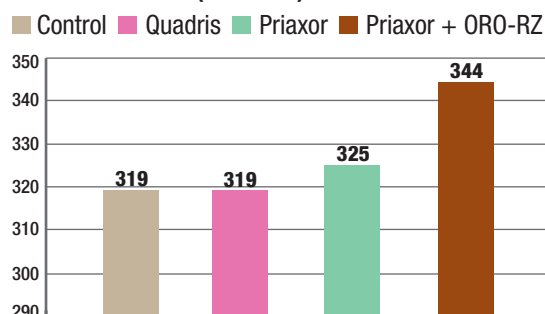
% *Rhizoctonia* Severity - 55 DAP



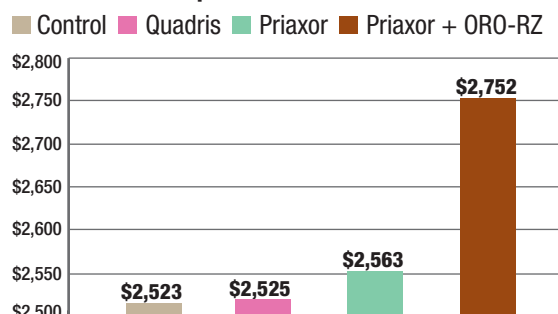
% *Rhizoctonia* Severity - 76 DAP

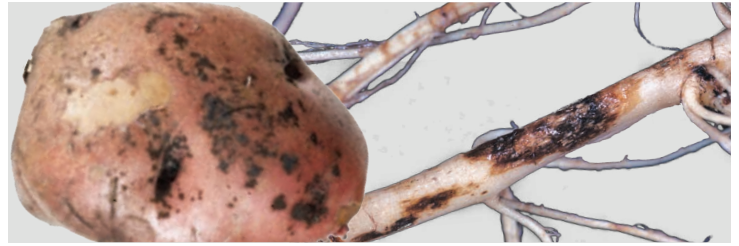


Marketable Yield (cwt/acre)



Economic Return per Acre @ \$7.94/cwt





RHIZOCTONIA CONTROL WITH ORO-RZ® + PRIAXOR® AND QUADRIS® (2012, 2013)

TARGET	<i>Rhizoctonia (Rhizoctonia solani)</i>	CROP	Potatoes	LOCATION	Inkster, ND, USA
TRIAL DATE	Fall 2012 & 2013	RESEARCHER	Gary Secor, Ph.D. NDSU		

APPLICATION

Rhizoctonia solani is a fungus that attacks potatoes and other crops in rotation with them. It attacks the tubers, underground stems and stolons of potato plants. *R.solani* can occur anywhere potatoes are grown, but is most severe in cool, wet soils.

Symptoms of *R.solani* appear in the form of lesions (also referred to as stem canker) which can become sunken and necrotic. These lesions can cause the new growth to be girdled and/or stunted. This can result in poor stands, poor growth and lower yields. The yield reduction is related to starch movement from the leaves to the tubers as affected stolons and underground stems cannot translocate starch to the developing tubers.

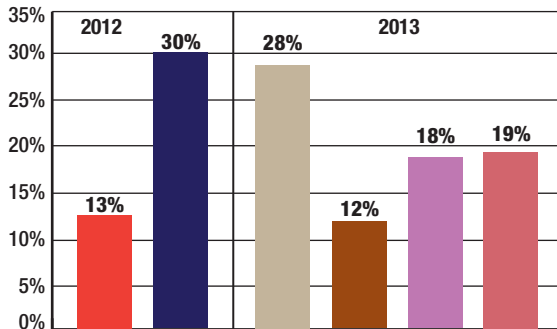
It is important to protect the tender emerging shoots when they are most susceptible to the disease by concentrating a fungicide in the germination zone around the seed piece.

RESULTS: The addition of ORO-RZ, over two years of trials, has shown to provide superior *R.solani* control and yields compared to Quadris and Priaxor applications alone.

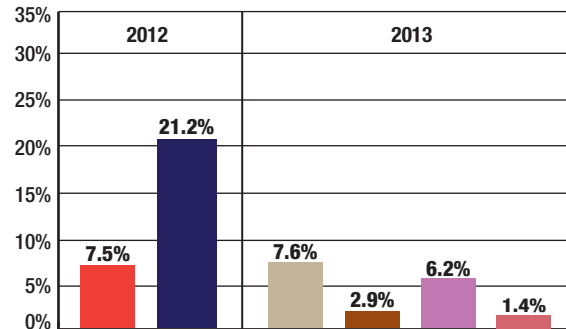
2012 ■ Quadris (9 oz./a) + ORO-RZ (32 oz./a) ■ Quadris (9 oz./a)

2013 ■ UNTREATED ■ Priaxor (8 oz./a) + ORO-RZ (32 oz./a) ■ Priaxor (8 oz./a) ■ Quadris® (9 oz./a)

% of Stolons Infected with *Rhizoctonia*



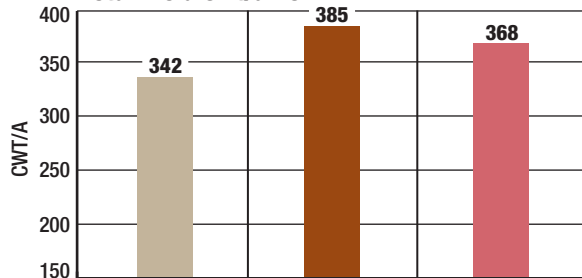
% Stems Girdled



2012 ■ UNTREATED ■ Quadris (9 oz./a) + ORO-RZ (32 oz./a) ■ Quadris (9 oz./a)

2013 ■ Priaxor (8 oz./a) ■ Priaxor (8 oz./a) + ORO-RZ (32 oz./a) ■ Quadris (9 oz./a)

Total Yield cwt/a 2012



Total Yield cwt/a 2013

