

IMPACT



Power County, 500 Pocatello Ave., American Falls, ID 83211; 208-226-7621; Fax: 208-226-7623

Stripe Rust Losses Minimized

The Situation

Starting in late May, Power County was the epicenter of a serious stripe rust outbreak in winter and spring wheat. This was the first major outbreak of this cereal disease since the early 1980's. Yield losses from stripe rust have been reported to exceed 80% when infections are severe, and the early-season infection for spring wheat had the potential for serious losses. Planting stripe rust resistant varieties of wheat and timely application of fungicides are the only control measures available.

Both dryland and irrigated wheat growers needed to be informed about the presence of the disease, its scope, field symptoms, potential losses and control measures available. Because of the rapid spread of the disease, the excellent environmental conditions that favored the fungus, and a limited treatment window, time was of the essence.

Our Response

When the disease was discovered, the Power County Extension Educator immediately enlisted the help of University of Idaho Cereal Research Faculty and the District IV Crop Management Specialist. This team, in turn, contacted their counterparts in North Idaho, Washington and Oregon, technical representatives from fungicide product companies, the Idaho Department of Agriculture and local chemical company fieldmen. This joint effort produced a "Stripe Rust Alert" circular letter that was sent to all Power County farmers and all Extension offices in Southeast Idaho.

The Crop Management Specialist and the Extension Educator toured fields and visited with growers throughout the affected area. Following the tour, a second "Stripe Rust Alert" letter was composed for growers recommending field scouting techniques and treatment thresholds. Pictures of the disease symptoms were posted on the Cereals Agronomy website and growers were asked to report new infections via e-mail. Verified reports of spread into new areas and varieties showing susceptibility were updated regularly on the website.

A Stripe Rust Field Day was organized to educate growers in a group setting. Growers from Magic Valley to the West, Northern Utah to the South and Madison County to the North attended. Topics of discussion included discovery of the disease, its spread, potential losses, varieties involved, scouting and control options and recommendations.

To this point, the scope of the disease included about 5000 acres of dryland wheat in the lower Rockland Valley of Power County. The spore load present could easily infect wheat throughout SE Idaho. Three weeks into the outbreak, reports of Stripe Rust were coming from irrigated fields throughout SE Idaho. In addition to the disease spreading, it was also attacking many varieties previously thought to have stripe rust resistance. As information was compiled, a Stripe Rust Update was mailed notifying farmers about disease spread, treatment options and thresholds, and previously resistant varieties whose resistance had been overwhelmed by the spore load.

Program Outcomes

- The Idaho Department of Agriculture extended the application range of Tilt, Quilt and Stratego fungicide through flag leaf emergence up to flowering.
- Training of fieldmen and company representatives resulted in increased scouting and early identification of the disease as it spread west and north. Spray programs limited losses.
- Approximately 8000 acres of dryland and irrigated wheat in Power County were treated with a fungicide following University of Idaho recommendations.
- Yield losses were reduced from a potential 80% loss to an average of 15-20% loss.

For More Information

Stan Gortsema, Extension Educator
University of Idaho Extension—Power County
500 Pocatello Avenue
American Falls, Idaho 83211
208-226-7621
Fax: 208-226-7623
Email: sgortsema@uidaho.edu

Juliet Windes, Crop Management Specialist
Aberdeen R & E Center
PO Box 870
Aberdeen, Idaho 83210
208-397-4181
Fax: 208-397-4311
Email: jwindes@uidaho.edu