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Stripe Rust Still Threatens Sacramento Valley Wheat

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Stripe Rust Still Threatens Sacramento Valley Wheat

Doug Munier, Jerry Schmierer, & Kent Brittan

Application of a fungicide in late March or early April, once wheat stripe rust is present in a field, has increased yields on average 1500 lbs./A. This has been learned by seven years of extensive testing in the Sacramento Valley. Bushel weights have also been increased by several pounds per bushel.

The weather conditions this winter have been ideal for wheat stripe rust, but there has been no development of wheat stripe rust so far in 2010, unlike the previous seven years. However, stripe rust may still occur in any field and cause damage.

Since plant breeders disease resistance widely broke down across the state in 2003, many new wheat varieties with plant resistance to new strains of wheat stripe rust have been developed. Some of the newer varieties still have good plant resistance to wheat stripe rust; however this resistance can fail at any time.

Certainly if anyone is growing a wheat variety with known susceptibility to wheat stripe it is important to closely check fields for the presence of wheat stripe rust spores, or its damage on the leaf if it has been recently raining and washing off the spores. It is also important to check fields currently resistant to wheat stripe rust since new strains have been rapidly developing and overcoming plant resistance.

When to Treat

In the seventeen replicated research trials over the last seven years a single application of any of the eight tested fungicides in the last 10 days of March or the first 10 days of April increased yields on average 1500 lbs./A.

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Which Fungicide

There was no significant difference between any of the eight fungicides tested.

What Rate

Most of the fungicides were tested at several labeled rates with no significant differences between rates. The most cost effective rate has been the lowest labeled rate for each fungicide.

When is too Late to Treat

Last year was the only year we did a trial with the fungicides applied late, on April 16th, when the disease was first starting in the field. All of the fungicides effectively controlled wheat stripe rust and the untreated plots had 50 percent of the leaf area with stripe rust spores, but there was no significant increase in yield.

What to Do

Closely check fields during the last 10 days of March and the first 10 days of April. If stripe rust is present, treat with the lowest labeled rate of any of the labeled fungicides. If the disease is just starting in mid April, a fungicide is probably not cost effective.

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