

Crop Production

Virus enlarges wheat disease picture

A NEWLY discovered virus in wheat is something producers should be wary of in 2008.

The discovery of triticum mosaic virus in 2006 was made by plant pathologist Dallas Siefers and wheat breeder Joe Martin at the Kansas State University Agricultural Research Center in Hays.

The disease is now considered one of three viruses affecting wheat in approximately the same manner; the other two are wheat streak mosaic virus and High

Key Points

- Triticum mosaic virus was discovered in 2006 at K-State research center.
- The disease, like others, is vectored by the wheat curl mite.
- RonL, which has been resistant to wheat streak mosaic, appears to be susceptible.

Plains virus, says Erick DeWolf, K-State Research and Extension plant pathologist. All of these diseases are vectored,

with varying degrees of efficiency, by the wheat curl mite. In addition, the symptoms of all three diseases are virtually identical, DeWolf says.

Much to learn

Although some initial observations have been made, many aspects of triticum mosaic virus remain largely unknown at this point, including varietal reaction, distribution within Kansas and yield loss potential.

"Although there has been no con-

clusive varietal screening for triticum mosaic virus alone yet, it is known that RonL is susceptible," DeWolf says. That's important because RonL is the first variety to have true genetic resistance to wheat streak mosaic, at least under cool temperature conditions. If RonL shows wheat streak mosaic symptoms, and temperatures have been cool, then triticum mosaic should be suspected. Otherwise, the effect of triticum mosaic alone on varieties is not known.

To date, triticum mosaic virus has been confirmed in Cheyenne, Ellis, Ford, Ness, Osborne, Pawnee and Thomas counties in Kansas. These are the only locations where samples have been taken for testing, and all have been positive so far.

Be wary

At this point, there is no reason for producers to be unduly alarmed by the detection of this new virus disease on wheat, DeWolf says.

"Triticum mosaic virus may have been present at low levels for many years in the High Plains and was only now detected when disease symptoms appeared on RonL, which is known to be resistant to wheat streak mosaic under most conditions," he says. "It is also possible that triticum mosaic virus is new to the High Plains, but there is no way to know for sure."

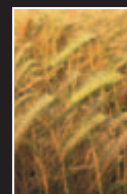
Because triticum mosaic is vectored in the same manner as the wheat streak mosaic and High Plains viruses, producers should take the same preventive measures against the disease: Control volunteer wheat and plant after the Hessian fly-free date, DeWolf says. There is no practical way for producers to distinguish triticum mosaic virus symptoms from the symptoms of wheat streak mosaic — unless the symptoms occur on RonL.

Source: K-State Research and Extension News



K-State will post wheat quality info on new Web site

THE Geographic Information Systems Spatial Analysis Laboratory at K-State is working to launch an Internet-based service for wheat buyers.



The interactive map will show buyers, in near real-time, crop information about wheat quality and where they may want to buy wheat based on a number of criteria, including physical and chemical characteristics, sprout damage, milling properties, and dough and baking characteristics. As the grain is harvested, samples will be collected from grain elevators and sent to the Wheat Quality Lab at Kansas State University.

The goal is to have a prototype of the interactive Web site up this month, with the site fully ready by wheat harvest.

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