Unwanted Winter Wheat Record In Ark: Stripe Rust Found In December

DEVALLS BLUFF, ARK.

If Arkansas' winter wheat growers develop an itchy fungicide trigger finger, it might be due to the earliest ever finding of stripe rust disease – in December.

Gene Milus, professor-plant pathology for the University of Arkansas System Division of Agriculture, confirmed the finding on Jan. 9 from samples collected by Jason Kelley, extension agronomist who works with corn, wheat and sorghum for the U of A's Division of Agriculture.

"Brent Griffin, extension staff chair in Prairie County, found at least four hot spots of stripe rust on his family's farm in northern Lonoke County on Dec. 19," Milus said. "This beats the record set last January by about one month."

The stripe rust appeared in the unknown wheat variety planted Oct. 8 – early in the winter wheat planting window for central Arkansas. Despite sporadic light rains, Arkansas farmers managed to get half of the winter wheat planted in October and planted 98 percent of planned acres by the last USDA Crop Progress report in November.

"We spotted the first small hotspot, then found several more," Griffin said. "We're making at least one fungicide application and maybe second."

Milus said that all contemporary varieties are more or less susceptible to stripe rust during early growth stages, and it's likely "there are more hot spots developing throughout Arkansas and surrounding states."

The good news is that the most common type of stripe rust resistance, "race specific, adult-plant resistance," occurs as the plant matures.

Still, the fungus that causes stripe rust can adapt quickly, Milus said.

"The number of different resistance genes in contemporary varieties is unknown, but the stripe rust fungus has been evolving to overcome several of them," he said. "Even if a particular variety was resistant last year, there is no guarantee that it will be resistant this year."

Milus said a timely application of fungicide can be cost-effective and help reduce the potential for spores to spread.

"Tank-mixing a fungicide with the herbicide used to control broadleaf weeds will save the cost of a separate application," he said. "Applying this tank mix during February or early March would be an optimal time to control both weeds and stripe rust."

Milus said research in 2012 showed that Tilt, Folicur, or Headline fungicides quickly inhibited the ability of spores to infect plants even though new spores were produced for several days after the fungicide application. Other fungicides registered on wheat likely would have similar effects.

"This early application should control stripe rust long enough to determine if adult-plant resistance will be effective for the rest of the season or if another application at boot stage will be needed," he said. Δ