Wheat Leaf Rust in 2017

Wheat leaf rust (caused by *Puccinia triticina*) was at low to moderate levels throughout much of the hard red winter, soft red winter wheat, and hard red spring wheat growing regions of the U.S. in 2017. Moisture and temperature conditions throughout much of the southern Great Plains region allowed stripe rust (caused by *P. striiformis*) to spread and increase rapidly, which reduced the available leaf tissue for *P. triticina* to infect. The early and widespread stripe rust infections caused many wheat fields to be sprayed with fungicide, which also reduced the spread and increase of *P. triticina*. The reduced levels of leaf rust in the southern plains resulted in lower amounts of *P. triticina* being carried in the southerly winds to the northern hard red spring wheat region, which resulted in lower severity levels in this region.

Leaf rust caused an estimated 5% loss in wheat in Oklahoma. Estimated losses in other states were less than 1% or are not known.

A total of 65 races were found in the U.S. in 2017. Race MBTNB with virulence to *Lr1, Lr3a, Lr3ka, Lr11, Lr17, Lr30, LrB,* and *Lr14a* was the most common race overall in the U.S. at 11.3% of isolates. This race was also predominant in the soft red winter wheat regions of the southeast and Ohio Valley states. In the soft red winter wheat area, races with virulence to *Lr11* were predominant. In Kansas and Nebraska, race MBDSD with virulence to *Lr1, Lr3a, Lr17, LrB, Lr10*, *Lr14a,* and *Lr39*, was the most common race. Race TFTSB, with virulence to *Lr2a, Lr24, Lr26*, and *Lr11* was the most common race in Texas and Oklahoma. In the southern-mid Great Plains region races with virulence to *Lr39* were common. In the northern spring wheat area of Minnesota, North Dakota, and South Dakota, race TNBJJ, with virulence to *Lr2a, Lr9, Lr24*, and *Lr39* was the most common race. Race TBBGS with virulence to *Lr2a, Lr21* and *Lr39* was also common in this region.