Stripe rust, also called yellow rust, is caused by the fungus *Puccinia striiformis*. This disease is a common problem in Louisiana during cooler conditions.

Primary infections develop from windborne urediospores that can travel long distances. The pustules of stripe rust form narrow strips on the leaves (Figure 1) and more rarely on leaf sheath, necks and glumes. These pustules contain large numbers of light colored yellow-orange urediospores (Figure 2).

Favorable circumstances for the disease are cool (50-70 F) and moist conditions. With temperatures above 78 Fahrenheit, production of urediospores stops and black teliospores occasionally are produced. Under favorable conditions, large numbers of pustules are produced on leaves in Louisiana (Figure 3). Severe infections (Figure 4) can reduce the number of kernels, shrivel seeds and lower test weights.

There are several types of control measures. The use of resistant varieties usually is the best and least expensive method.

Stripe rust resistant varieties adapted to your locality are recommended. The fungus can overcome resistance in current wheat varieties, and new sources must be used regularly. Producers should use the most recent information on wheat varietal resistance.
Cultural methods also may be used to reduce disease severity. Follow recommended planting dates and maintain fertility based on a soil test, since excess nitrogen fertilizer increases wheat susceptibility to rust. Following the recommendations given in the soil test may make it possible to increase yield without increasing the susceptibility of the crop to stripe rust.

Foliar fungicides also can be used to manage this disease. Fungicide applications may be warranted if: (a) the yield potential and value of the crop is high, (b) the wheat variety is susceptible to stripe rust, (c) stripe rust has an early start and (d) the long-range weather forecast is for continued cool, moist weather.

It is important to protect the flag leaf from infection until after the kernels have filled. For specific fungicide recommendations, contact your local LSU AgCenter Extension Service agent.

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