

## Wheat Disease New to Kansas

Kansas is hosting an unwanted traveler this year – wheat flag smut has made its way into the state's wheat fields for the first time since the 1930s. The fungal disease poses no threat to humans or animals and has no effect on grain quality, but can reduce yields.

The finding is significant because some countries that buy U.S. wheat have import restrictions on grain produced in areas where flag smut is known to occur. Kansas is typically the No. 1 U.S. wheat-producing state and typically grows about 20 percent of the total U.S. crop. Annual average wheat production for the past five years has been about 328 million bushels, according to Kansas Wheat.

The fungus *Urocystis tritici* causes flag smut, which was initially found in a Rooks County field in May during routine crop monitoring by K-State Research and Extension and the Kansas Department of Agriculture. Since then, it has been confirmed in 39 other Kansas locations, mostly in north central and south central parts of the state, according to the KDA. The percentage of infected tillers found in those fields, however, has been low.

To help growers identify and determine the best ways to prevent the disease, Kansas State University has a new [fact sheet](#) (Publication MF3235) available online. It includes photos of infected wheat, as well as background information.

The fungus can survive in the soil for at least four years, and can be moved to adjacent fields by wind, plant debris, or equipment, said Erick De Wolf, K-State Research and Extension plant pathologist.

Most of this year's winter wheat crop has been harvested, but it won't be long before growers start planting a new crop this fall.

"In general, the risk of infection is greatest when winter wheat is planted into warm, moist soils," said DeWolf, who authored the K-State fact sheet.

"Fungicide seed treatments are the most effective way to manage flag smut," he said. "Crop rotations with non-host crops such as soybeans, sorghum, or corn provide time for the fungal population to decline between wheat crops and lower the risk of infection in subsequent years."

More information about wheat flag smut in Kansas, including steps that the KDA is asking farmers to take, is available on the [KDA website](#).

The disease is relatively easy to manage, but because of the potential trade implications, the KDA is taking the detection of the disease very seriously, said Jeff Vogel, manager of the KDA's Plant Protection and Weed Control Program. In an interview on K-State Research and Extension's Agriculture Today radio program, Vogel said that because infected wheat has tillers that are stunted and below the canopy, it can't be observed from the road or above the plant.

"You have to look under the canopy," Vogel said.

A working group is being formed which will include representatives of the KDA and K-State Research and Extension, to look at long-term solutions to address flag smut and other diseases, Vogel said.

The full July 9 interview with Vogel is available on the K-State Research and Extension [Agriculture Today](#) web page.