



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

Darke County Extension News Release

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Mild Winter Could Increase Chance for Wheat Disease, Rusts in Particular

Growers need to keep a vigilant eye on their wheat fields this year, thanks to a mild winter that has set the stage for the potential of early diseases in wheat crops, says a wheat expert from the College of Food, Agricultural, and Environmental Sciences at The Ohio State University.

“I scouted four fields in northwestern Darke County on Tuesday morning and found rust in 2 of the four fields. All four were heading out with 2 of the four near Feekes stage 10.4”, said Sam Custer, OSU Extension Educator, Darke County.

This year’s warm winter means that growers need to be on the lookout for several wheat diseases such as stripe rust, which could cause yield loss if untreated, said Pierce Paul, an Ohio State University Extension wheat researcher.

Mild winters favor disease in many ways, said Paul, who is also a plant pathologist with the Ohio Agricultural Research and Development Center.

OSU Extension and OARDC are the outreach and research arms, respectively, of the college.

“Not only did the warmer weather cause winter wheat to come out of winter with lush growth, it also did not kill many of the fungi-causing diseases that can impact the wheat crops,” he said. “Lush vegetative growth this early in the spring favors the development of powdery mildew and other diseases.”

Already, stripe rust has been reported and confirmed through pictures in Darke County, Custer said.

“This is very early by Ohio's standard and is a cause for concern, especially since this disease develops best under cool, rainy conditions, similar to what we have had over the last few weeks,” Paul said.

“Developing this early — before heading — on a susceptible variety under favorable weather, this disease has the potential to cause substantial yield loss. Growers with susceptible varieties need to be on the lookout and scout their fields for disease, which could take hold and continue to spread if favorable conditions continue and no preventive measures are taken. Growers need to know what to

look for when scouting wheat so they can make appropriate decisions as to whether they will need to apply a fungicide,” Paul said.

To help growers know what to look for, Paul has posted updated fact sheets on the following wheat diseases:

- Septoria tritici blotch: This is usually one of the earliest diseases to show up in Ohio. It develops best under cool, wet conditions, with symptoms commonly detected on lower leaves. Initial lesions appear as yellowish flecks that later enlarge into irregular, brown-to-reddish-brown lesions. Read more at go.osu.edu/leafblotch.
- Powdery mildew: Wheat plants are most susceptible during periods of rapid growth, especially between the stem elongation and heading growth stages. Mildew is most prevalent on the lower leaves of susceptible varieties in late April or early May, especially when the wheat stand is dense due to high nitrogen application and seeding rates. Read more at go.osu.edu/mildew.
- Wheat rusts: Under mild winter conditions, the rust fungi survive on volunteer plants and may infect the crop just as early as powdery mildew and Septoria. Both leaf and stripe rusts are already present in some fields, and can be identified by the presence of rusty-colored pustules erupting through the leaf surface. Read more at: go.osu.edu/rust.

“Septoria, powdery mildew and leaf rust are all capable of substantially reducing wheat yield,” Paul said, “especially if your cultivar is susceptible and the flag leaf is damaged between Feekes 8 and Feekes 10.5, before grain fill is complete.

“Growers should scout fields and apply a fungicide to protect the flag leaf if their cultivar is susceptible.”

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