Kansas Corn Management Publication

A pretty good annual summary of K-State research on corn production is published each year in MF3208 – Kansas Corn Management. In advance of the 2021 edition here’s another excerpt – this week on corn diseases.

The estimated average annual loss in production in Kansas due to disease is just under twenty percent. Approximately five percent of that comes from soilborne pathogens. Less than a half a percent is attributed to ear rot diseases and even foliar disease pressure only accounts for around two percent of the losses. The remainder – over 10 percent – comes from stalk rots.

The reasons for the differences are numerous. Most seed is pretreated with a fungicide that effectively reduces seed rot or seedling blights. In fact, most soilborne issues come from nematodes. Seed treatments are available, but damage reduction results have been inconsistent.

Foliar fungicide use has increased, meaning many diseases are held at bay either by genetics or a fungicide application. As average temperatures have risen, Southern rust challenges continue, causing yield losses from five to 30 percent as it establishes almost a full month earlier than in the past.

The four stalk rots of concern in Kansas are Fusarium, charcoal rot, anthracnose, and Diplodia. Weather factors heavily influence damage levels, resulting in small ears and lodging. Good best management practices are key: appropriate hybrid selection plus good weed management plus adequate fertility and disease control all tie together to reduce stalk rot issues.

For information, see MF3208 online: https://bookstore.ksre.ksu.edu/pubs/MF3208.pdf or request it or other corn disease management publications from any District Office.

Pine Wilt

Any time you see a dying pine tree, it’s easy to pin it on pine wilt and assume the worst. As we’ve shared the last couple of weeks, that isn’t always the case – some things are natural and others can be treated. Even so, pine wilt continues to be a major detriment to pine stands, particularly Scots pines. Left unchecked, other diseases can end up leading to pine wilt as well.

Pine wilt typically shows up in the fall as trees wilt and die in a short time. Needles turn gray-green then yellow to brown, sometimes branch by branch, and sometimes affecting the entire tree all at once. It’s quick devastation.

Since pine wilt is caused by a nematode vectored by a beetle, treatment requires a multifaceted approach. When pine wilt is confirmed, remove affected trees at ground level and chip/burn by April first before beetles emerge. Wood should not be used for firewood.

Provide stress alleviation measures. The beetles are attracted to drought stressed trees, so watering during dry periods can help. Remember: evergreens use a lot of water in winter, too.

Consider preventative injections. They aren’t completely effective, but research on several products showed decreased infection. They are not curative and can’t reverse effects.

For information on tip blight and other pine diseases, request L722 - Pine Diseases in Kansas from a District Office or online: https://bookstore.ksre.ksu.edu/pubs/L722.pdf. For a video, see our three-part pine disease series on the Meadowlark Extension District Facebook page or our website, https://www.meadowlark.k-state.edu/lawn-garden/ under “Informational Videos”.