



Plant Disease in Kansas

Special points of interest:

- *Wheat disease levels low in much of the production*
- *Anthracnose of elm is defoliating trees along with other anthracnose diseases*
- *1000 cankers of walnut survey is underway*

Wheat disease still behind average levels

Wheat rust diseases are gradually increasing but with fields in southern counties filling grain, pressure is still low. Leaf rust has occasionally been found in fields in south central Kansas and recently in the Salina area. Stripe rust has also been observed. High levels were reported only on an experimental line near Wichita otherwise the rust is reported at low levels.

Barley yellow dwarf is likely the most important disease to the Kansas crop at this time followed by the wheat streak mosaic complex. Fields in east central and southeast Kansas have moderate levels of barley yellow dwarf with reports of 40-50 per cent in about 20 per cent of the fields. In central Kansas wheat production, a mix of viruses are present with barley yellow dwarf and wheat streak mosaic/high plains virus. Distinguishing between viruses in

the same field is difficult but generally combined levels are around 1% in many fields. Occasional fields have been reported with wheat streak in Ellsworth, Harvey, Rice, and McPherson with moderate levels of wheat streak mosaic and a couple with levels exceeding 40% incidence.

As far as foliar diseases, powdery mildew, speckled leaf blotch, and tan spot have been reported in May in fields of central and eastern Kansas but not of concerning amount.

In western Kansas production, observations were taken in mid May and found little in the way of disease pressure except for an occasional wheat streak mosaic infection. This production area still is under moisture stress and recent periods of precipitation that have aided the crop in central and eastern Kansas has not

been enough to erase the moisture deficit.

So why the low levels of disease so far?

There are a number of reasons but the most important factor is the effect of the very cold temperatures experienced by the crop in March and April. These freezes have limited rust disease progress in Kansas but more importantly in Oklahoma and Texas. Rust disease is low in OK and TX thus reducing blown in spore clouds here in Kansas.

The dry conditions in the fall played a role with few foliar disease infections that carried over through the winter. Last but not least is the continuing progress that has been made by breeders in developing highly tolerant to resistant lines to a wide array of wheat diseases.

Ornamental and landscape diseases

Some anthracnose foliar disease can be observed in eastern Kansas with elm, sycamore, and some on the oaks. Elms may be the most affected with defoliation leaves common in landscape plantings.

The cedar rust complex that attacks apple, crabapple, hawthorn, and quince is still devel-

oping but at least in Manhattan those orange jelly spore masses on cedar where at much lower levels than normal and should reflect less rust pressure on the mentioned horticultural hosts.

During KDA inspections, virus and foliar disease reports have again been low.

One disease that has and contin-

ues to be on the rise is Rose Rosette. This disease is caused by a virus like pathogen and transmitted primarily by an eriophyid mite. The disease is common this year to multiflora rose in SE Kansas and likely will be seen in cultivated roses this summer particularly Knock Out roses. Knock out roses are very susceptible and widely planted.

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INVASIVE SPECIES

Plant Protection and Weed Control Program

Plant Protection and Weed Control staff work to ensure the health of the state's native and cultivated plants by excluding or controlling destructive pests, diseases and weeds. Staff examine and analyze pest conditions in crop fields, rangelands, greenhouses and nurseries. Action taken to control potential infestations of new pests, whether they are insects, plants diseases or weeds, is beneficial to the economy and the environment.

Our Mission is to:

- Exclude or control harmful insects, plant diseases, and weeds;
- Ensure Kansas plants and plant products entering commerce are free from quarantine pests;
- Provide customers with inspection and certification services.

The Plant Disease Survey in Kansas has been conducted since 1976. The survey addresses disease situations in field crops, native ecosystems, and horticultural trade. The Kansas Department of Agriculture works cooperatively with Kansas State University and Extension programs, United States Department of Agriculture, and various commodity groups.

Thousand Cankers of Walnut Survey update

Eastern Kansas is the target of the majority of the survey program for 1000 Cankers in 2013. Currently, staff and temporary employees are setting Lindgren traps and collecting insects for analysis for the walnut twig beetle. This tiny beetle of about 1/16 inch in length is the vector of a fungus that causes cankers responsible for the disease.

About 50 locations are being visually surveyed and trapped in northeast and east central Kansas. Soon southeast trapping will begin with another 50 locations to be trapped.

This is the second year of utiliz-

ing the lure baited traps for the walnut twig beetle. Sites that are being evaluated for walnuts and then trapped when trees are present include campgrounds, sawmills, compost and limb disposal sites, woodworking mills, transportation high risk sites like rail yards and truck parking lots, some plantations, and tree removal service equipment parking areas.

As the summer progresses, central and western Kansas sites will be evaluated and trapped but at a smaller degree. Currently a few sites are now being trapped in Harvey and Finney counties.

Thousand cankers is not known to occur in Kansas but in neighboring Colorado and other states to the west and also Tennessee, Virginia, and Pennsylvania. Quarantine restrictions and outreach efforts have been able to reduce the risk of introduction into Kansas from firewood and raw walnut logs.