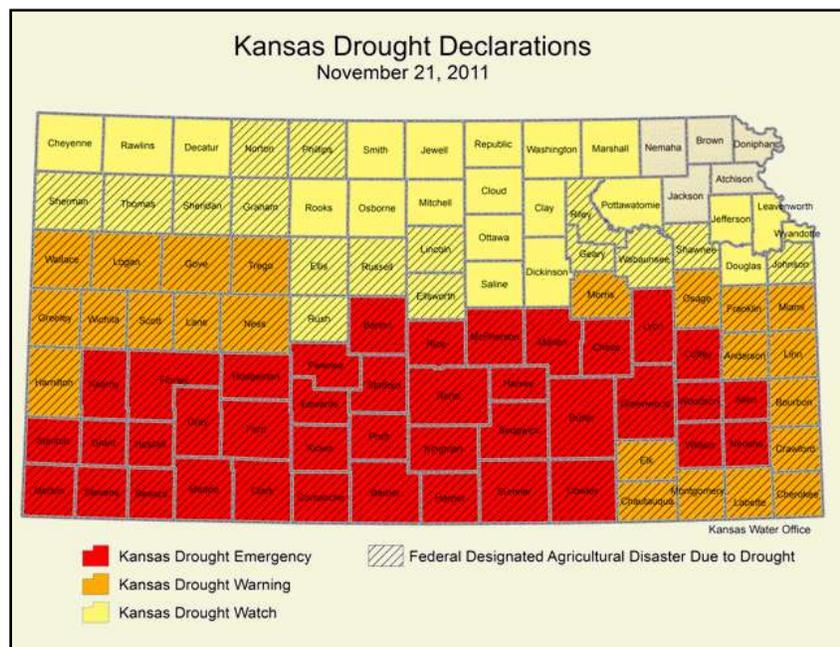


Kansas Forest Health Highlights 2011

As one of the Great Plains states with an agricultural-based economy, Kansas is proud to state that it holds just over 5 million acres or 10% of forest, woodland, and trees that play an important role in our day to day lives (GPI/FIA data). Over 95% of wooded areas are located on private land. Most of our forests are classified under the elm/ash/cottonwood group with hackberry being the dominant species and elm comprising the majority of forestland in the oak/hickory group. Since the state is located on the outskirts of the eastern hardwood forest, most forestland is located in the eastern third of the state.

Forest Health Conditions:

Kansas Forest Service works cooperatively with K-State Research & Extension and Kansas Department of Agriculture surveying for insects or disease. The largest forest health concern when looking back at our year in review shows that weather affected our trees more than in the past. As we all know it is hard to be a tree in a state with such large temperature swings, but our south west and central portion of the state have had been hit the hardest. Kansas has had extraordinarily warmer temperatures from summer into winter. The hotter temperatures, coupled with particularly low precipitation and the on-going nature of the weather, has led to many trees succumbing to the stress. Our evergreens were hit the hardest throughout the state.



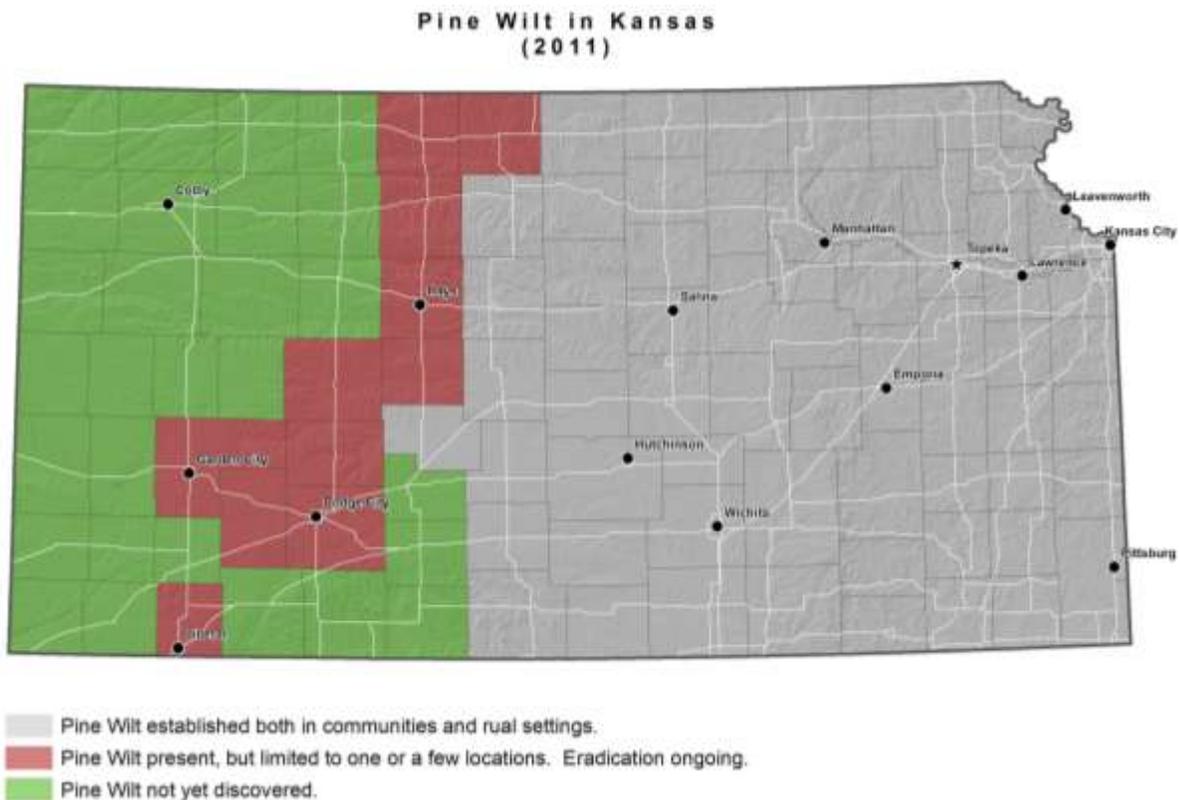
The continuation of the drought-like weather put close to 30% of the state within an extremely to exceptional drought status (Kansas Water Office). These above normal temperatures negated any positive impact the end of the year rains had on south eastern portion of the state. Ironically, areas along the Missouri River had a historically wet year due to the flooding event triggered by record snowfall in the Rocky Mountain region of Montana and Wyoming and record rainfall in central and eastern Montana during the spring.

Flooding damage to property could in some cases could never be recovered because of the sand deposits and the scour areas that are very large, especially in Leavenworth County. Some areas have 3-5 feet of sand deposits, while others are minimal and can return to acceptable production yields. As an organization, Kansas Forest Service has been assessing and mitigating flood damage on private and tribal riparian/floodplain lands that were impacted in 2011. Many landowners are looking to take these areas out of crop and place back into riparian/floodplain timber (Doniphan, Atchison, and Leavenworth Cos.).

Insect & Disease Issues:

Pine wilt (*Bursaphelenchus xylophilus* & *Monochamus spp.*)

The westward movement of pine wilt held steady this year. Most susceptible are Scotch pine, but Mugo, Austrian, and White pines are also affected. The disease may progress further towards Colorado with the increased stress brought on by the continued drought. Continual surveys by KFS and KDA of windbreaks and conservation plantings in the western counties allow for early detection and control.



Dothistroma needle blight (*Dothistroma septospora*)

This disease has been widespread throughout the state. Planted Austrian, Ponderosa and Mugo pines are affected, yet Scotch pine can also succumb after years of infection. The eastern and central portions of the state had the majority of occurrences.

Tip blight (*Diplodia/Sphaeropsis*)

A common disease on Ponderosa, Scotch, Austrian, and Mugo pines statewide. Despite the drought, this was documented across each region of the state in windbreak/shelterbelts and landscape plantings.

Ash lilac borer (*Podosesia syringae*)

This insect is a native wood borer that affects ash tree species. It is mainly found around the trunk and portions of major branches. The borer has been prevalent due to the increase in drought stressed trees. In addition emerald ash borer awareness around the state led to many calls concerning green ash trees (especially the south central portion of KS) dying or dead.

Kermes oak scale (*Kermes spp.*)

There are two types of this scale. One that affects bur oak and another that primarily affects pin oak. The later scale has eggs that hatch in September and causes much more damage by killing the terminal growth. This was seen in Manhattan, KS, but also along the eastern portion of the state in landscape and urban settings.

Obscure scale (*Melanaspis obscura*)

This scale affects oaks, hickory, walnut, maple, willow, and pecan that are stressed. In general, this was seen on oak (notably pin oak) in the eastern portion of the state in landscape and urban areas.

Oak Decline

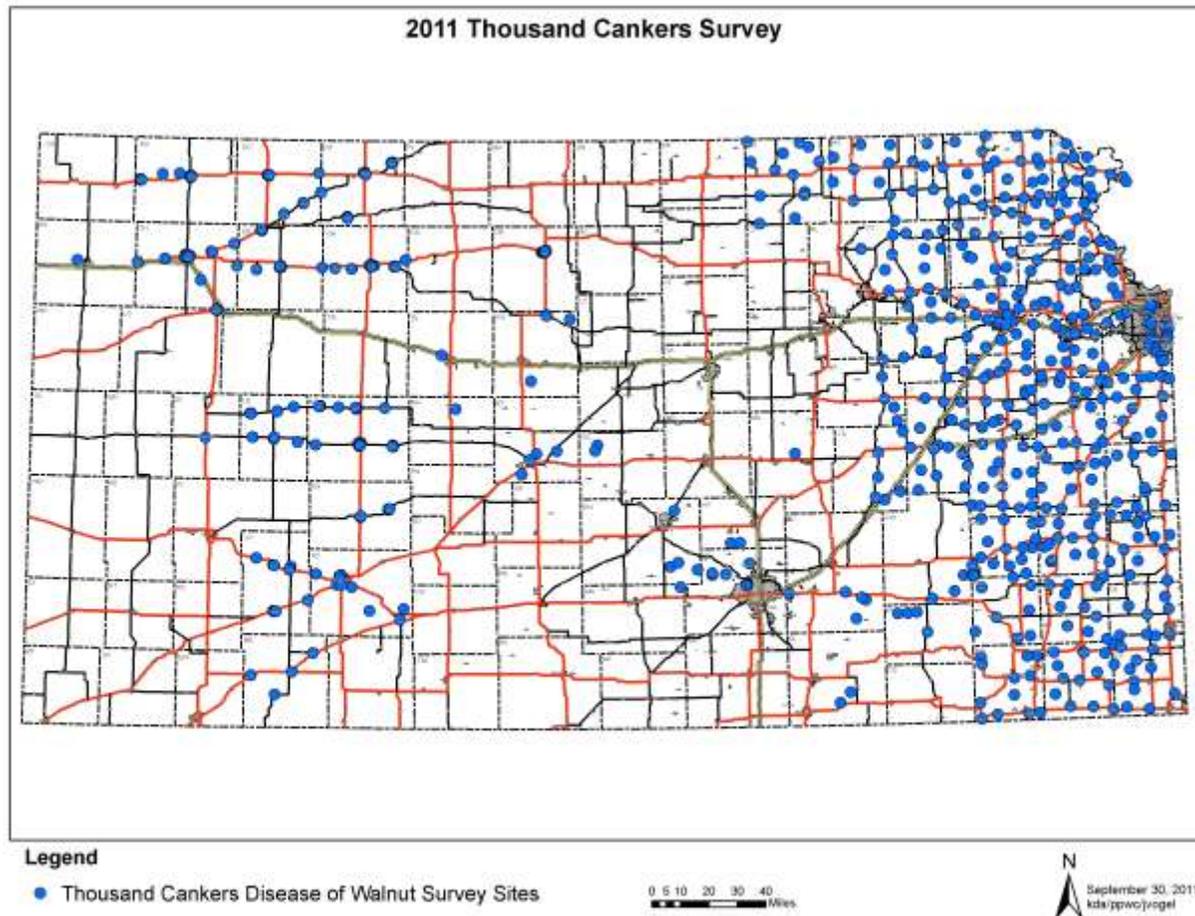
This concern has been addressed for the past several years, but with high temperatures and low moisture, decline was seen more readily from an interaction of stresses. Usually it is noticed and within 3-5 the tree succumbs and dies. Oak Decline progresses from the top down/outside to inside and you can see dead and live growth on the same branch as opposed to ramorum blight or oak wilt. This was seen in both rural and urban settings.



Photo credit: Jon Appel

Thousand Cankers Disease

In cooperation with Kansas Dept. of Agriculture and Kansas Forest Service, a survey of the health of black walnut across the state was completed statewide. Stressed walnuts have been given more attention and sent for testing if dark cankers are found. The fungus (*Geosmithia morbida*) and walnut twig beetle (*Pityophthorus juglandis*) have led to the death of hundreds of black walnuts in Colorado. Through diligent surveying, this disease has not been detected in our state.



References provided upon request.

For Forest Health Assistance and further information on Forest Health in Kansas, please refer to the following contacts and links below.



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www.fs.usda.gov/goto/r2/fh