

Pine Wilt Update in Kansas

JANUARY 22, 2009



Pine wilt disease: where is it and what is being done

Special points of interest:

- *Battleground: Mitchell, Barton, and Stafford counties.*
- *Pine wilt meetings in central Kansas: attend one.*
- *New publication by KSU describes symptoms and gives control recommendations for pine diseases.*

A lot of time has been spent surveying for both pine wilt and pine sawyers by the Kansas Department of Agriculture, Kansas Forest Service, and Kansas State University Extension Service in the fall of 2008 and winter of 2009. Most of these efforts have been focused on the transition zone in central Kansas and in western Kansas communities.

We observed increased pressure or additional finds in the transitional counties. This was to be expected. Those counties described as being transitional are Jewell, Mitchell, Lincoln, Russell, Barton, Stafford, Pratt, and Barber. We had reports in all those counties except Barber this year. In addition, we had one report in Ellis County in a new location from areas where the disease was removed last

year. We did not have any additional reports in Dodge City, Garden City, Colby and other communities of western Kansas.

Both Austrian and Scotch pine were the hosts in central Kansas. Mugo which had reports in 2007 was not reported in 2008. We had one report of white pine located in eastern Kansas where disease pressure was high. White pine is not considered a good host.

What are we doing? Fortunately this year we have some Emergency Pest Response funds available and are utilizing those funds to have trees removed and the wood destroyed. In this way, we hope to stop the next cycle of disease in communities such as Beloit, Russell, Great Bend, Hoisington, Stafford, St. John,

and Pratt.

Other efforts include informational meetings in many of those communities and working alongside city and county governments, extension agents, and other state agencies.

It is our intention to continue to utilize surveillance, education, and early removal of infected trees to address the spread of the disease into the western half of Kansas.

Please see the report on the next page that was given to the Kansas Forest Service on Kansas Department of Agricultural activities in 2008, current status of pine wilt, and plans for 2009.



Adult sawyer beetle about 1" in size

Pine Sawyer Update:

What did we learn this year from pine sawyer trapping?

- Pine sawyers are in the transitional counties. Many of these sawyers did not carry the pine wood nematode.
- The sawyers are active from late May into early November. This is why insecticides are not effective or economical.
- Pine sawyer emergence from a single piece of pine takes several weeks between the first and last sawyer.
- Sawyer eggs are being laid from early August into late September and early October.

PINE WILT UPDATE IN KANSAS

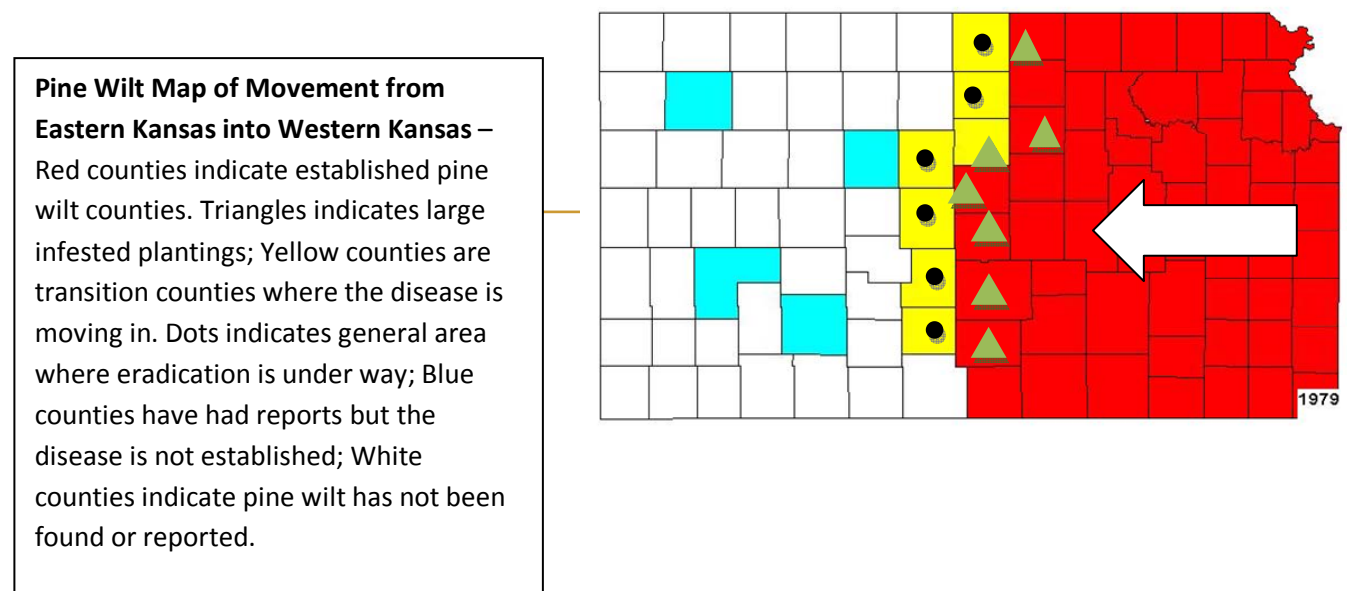
This past year we saw the disease move again into several counties that are in the transition area from infested established areas to the east into non established areas. The communities of Beloit, Russell, Lincoln, Great Bend, Hoisington, Mankato, Stafford, St. John, and Pratt are all at imminent risk to pine wilt establishment in their urban forest. In rural areas adjacent to these communities, Scotch and Austrian pines are present in farm windbreaks and yard settings. If left unchecked, these plantings will give way to pine wilt infestations and these species will begin a spiral of decline.

Past history of surveillance and removal of trees has kept pine wilt in check in the immediate areas in central Kansas where we have had finds. The lack of pine wilt or the presence of only a few trees around these historical finds in the transition zone testifies to the success of past efforts.

We have learned over the past two years that symptoms develop well into the winter months and sawyer beetles are active into early November. Therefore survey for pine wilt will start later in the year than in August and early September. Surveillance activities will begin in earnest in October and continue into January of 2010.

Primary focus of 2009 work will be in the counties (see map) in yellow and in the larger communities such as Colby, Garden City, and Dodge City where the likelihood of introduction via firewood or nursery stock is highest. In addition, we are concerned that pine trees as nursery stock transported along I-70 westward from infested areas in summer and fall months may be carrying hitchhiking sawyer beetles and will monitor communities and plantings of pine along the highway for pine wilt.

Outreach will be a part of the pine wilt work plan. It is important to develop community action groups to help in monitoring and controlling the problem in both the transition zone and non infested areas. Currently we are working with groups or individuals in Mitchell, Jewell, Barton, Ellis, Stafford and Pratt counties.



Community meeting schedule:

Mitchell and Jewell Counties:
February 10th at 10:00 am at
the Sutter Room in the Muni-
cipal Building in Beloit.

Barton County: February 11th
at 9:00 am at the KSU exten-
sion office at 1800 12th Street
in Great Bend.

Stafford County: February
11th at 1:00 pm at the Ameri-
can State Bank Hospitality

Room in St John.

Please contact the respective
county agent if you are attend-
ing although it is not necessary.



Pine wilt in a Scotch pine planting left unchecked.

New pine disease publication from KSU

This is an excellent publication
and should be a reference for
the professional or the home-
owner in Kansas. You can ob-
tain a copy by going to the
world wide web at [http://
www.oznet.ksu.edu/library/
plant2/1722.pdf](http://www.oznet.ksu.edu/library/plant2/1722.pdf) or contact
your local extension office and
ask for Pine Disease in Kansas
L-722 by Megan Kennelly

Images regarding the Pine Wilt Survey



Pine wilt in a Scotch Pine
Nursery, Johnson County ,
Kansas



A Lindgren trap used in saw-
yer trapping, Auburn Univ.



Example of not using proper
sanitation to get rid of a pine
wilt tree...Jeez

PLANT PROTECTION AND WEED CONTROL
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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.

Sampling and Control

When sampling for pine wilt it is important to take a representative sample of several branches or trees. If sampling large trees, take branch samples next to the trunk. Cut off a large branch about at shoulder height leaving about a 6 inch stub. Take 3-4 cross sectional samples 1/2 inch in thickness near the trunk. Some labs prefer you to take an 8 inch sample. Bag the sample and mail to the lab. Always label with the species of pine, location, and your contact information.

For Christmas trees or smaller trees take the cross sectional

discs from the trunk wood at about waist height..

Populations of nematodes are dynamic in the wood of pines and seem to go through cycles. It is possible because of these dynamics or the sample was taken from wood that was not infected although the tree was that we get false negatives from the lab test. Sometimes we have had success only after sampling a suspect tree 4 to 6 weeks after the first sampling. Keep this in mind.

Blue stain fungus in the wood does not mean it has pine wilt. Blue stain is transmitted by bark beetles and is fed upon by pine

wilt nematodes if present.

When we talk about control we talk about sanitation. It is so important regardless of how the pine died to get rid of that wood in the winter months. This wood in the absence of pine wilt may harbor sawyer beetles and pine bark beetles. Even if the tree is dead for over a year, you should dispose of it. We have found infected pine wilt trees to harbor the nematode for over a year.

Austrian pine trees that are severely diseased from pine tip blight should also be removed. From observation, if over

25% of the tips/branches have blight then cut it down. Again the tree will attract pine sawyers and bark beetles and possibly pine wilt.

Hire a professional arborist in your area to remove the tree if needed. Ask that the tree be chipped or taken to a burn pit to be destroyed. For pine wilt control, the stump does not need to be removed. Some cities require this but for control of pine wilt it is not necessary.

Contact your local county extension office for submitting a sample.