

Plant Disease in Kansas

Walnut Twig Beetle within 40 miles of Kansas border

Special points of interest:

- *Walnut quarantine disease knocking on western border.*
- *Impatiens Necrotic Spot virus of concern to greenhouses in SE quarter of the state.*
- *Wheat disease building up.*

The Plant Protection Program within the Kansas Department of Agriculture, the Kansas Forest Service, and KSU Extension Plant Pathologists met last week regarding the discovery of walnut twig beetle near the Kansas border with Colorado. The discovery was made in late 2014 by Colorado State University at the city of Eads. Eads is the county seat of Kiowa county.

The walnut twig beetle is the primary vector of the disease caused by a fungus, *Geosmithia morbida*, known as Thousand Cankers Disease of walnut. Kansas has an exterior quarantine that is aimed at keeping the disease and vector insect from getting established in the state and to enable harvested Kansas sourced black walnut articles such as logs and rough boards to move freely in interstate and

international commerce.

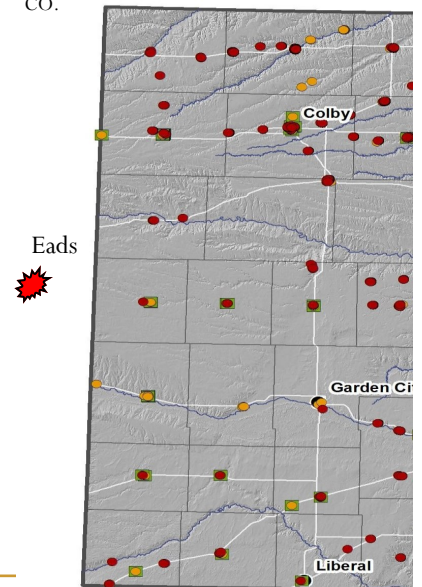
Some strategies for 2015 outlined in the meeting included:

- Outreach in the far western Kansas counties to alert and provide background information to stakeholders and the general public.
- Set up a sentinel site trapping program for walnut twig beetle.
- Work with federal and county agencies in discouraging the planting of walnut and recommend other choices of deciduous trees.
- Continuing discussions with states that have state quarantines in regard to the absence of TCD in Kansas primarily in central and eastern regions where wal-

nut is harvested.

- Discussion of long term monitoring in western Kansas and possible actions for walnut trees that may be found infested.

Figure 1. Known walnut locations in western Kansas (gray) and proximity to Eads CO.



Greenhouse inspections highlighted by viral diseases

Inspections for verification of plant pest freedom standards in greenhouses are common during the spring-time when flowers and vegetable plants are for sale. See images page 2, Figures 2,3, and 4.

Over the past two weeks, several operations in the SE quarter of the state were inspected and were found with various levels of *Impatiens* ne-

crotic spot virus which is thrip-insect vectored between numerous genus and families of plants common in greenhouses. At some locations, the infections was limited to a few plants while in other hundreds to thousands of plants were infected thus failing to meet plant pest freedom standards. Plants were rogued or disposed of as to prevent further spread to gardens, garden centers, and landscapes.

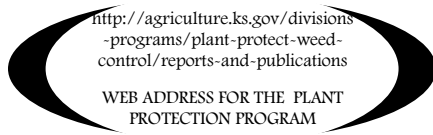
Knock out roses this year have had downy mildew problems along with reports of spider mites. Both pests defoliate plants and can move to uninfected plants in close proximity. DM is specific only to roses.

Other pest problems have included cucumber mosaic virus and POTY virus on wandering jew and numerous plant damping off problems. Unlike last year, tobacco mosaic virus has not been reported in the state.

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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.

Plant Disease in Kansas addresses disease situations in field crops, trees and shrubs of native ecosystems and landscapes, and plants or plant products in the forestry and horticultural trades. The Kansas Department of Agriculture works cooperatively with Kansas State University and Extension programs, Kansas Forest Service, United States Department of Agriculture, and various commodity groups.



INVASIVE SPECIES

Wheat disease beginning to build up in production fields

Leaf rust has been reported in some fields of south central Kansas and as far north as Manhattan in northeast KS (KSU). Levels have been low but indicate that local overwintering of leaf rust occurred and probably more widespread in OK and TX. The potential for leaf rust epidemics historically correlates with overwintering in Kansas and development of rust to the south of Kansas.

Other diseases observed in the state have been barley yellow dwarf virus in SE Kansas, tan spot, and bacterial leaf blight.

Figures 2,3,and 4. INSV ring patterns on coleus, stunted and missing plants from root rotting damping off in seedling flats of snapdragons, and cucumber mosaic virus with leaf color and growth abnormalities of wandering jew.

