# Forest Health Highlights 2003 – Kansas

### **The Resource**

The most recent, complete measurement cycles of forested lands in Kansas were finished in 2002 by USDA Forest Service, Forest Inventory and Analysis (FIA) and Kansas Forest Service. "Status" was evaluated for all living plot trees. "Growing Stock" trees were generally healthy trees with very few damages, while "Rough/Rotten" trees were often declining due to one or more major damages. There were very few damages found on the ponderosa pines, but all of the deciduous trees had considerable decline problems on more than ½ of each forest type. The maples had more damaged trees than healthy, "growing stock" trees.



## **Special Issues**

Listed below are tree insects, diseases, and abiotic agents causing damages in Kansas.

**Ash borer/lilac borer -** *Podosesia syringae* - Host: Green ash. These boring pests have caused lodging of green ash in shelterbelt plantings on private lands. Found throughout the state in 2003. This very common pest limits the use of green ash in windbreaks to very fertile, moist sites.

**Bagworm -** *Thyridopteryx* spp. - Hosts: wide variety of trees and shrubs statewide. The bagworm now occurs in all areas of the state and infests not only landscape trees but also windbreaks and even trees far from human habitation. At present, bagworms are not causing widespread damage. Populations are building and should be closely monitored.

**Cedar webworm** – *Cudonigera sp.* - Hosts: Eastern redcedar. Found in Kiowa, Franklin, Ellis, Mitchell, Ness, Norton, Osborne, Rush, Rooks, Smith, Trego and Wichita counties. Fairly common, but damage is limited.

Eastern juniper bark beetle - Pholoeosinus dentatus Say - Hosts: Eastern redcedar. Occurs in

Douglas, Shawnee, Comanche, Franklin and Sheridan counties and probably statewide. The beetle alone does not often kill trees but if the fungus *Heterobasidion annosum* is present, trees of all sizes can be killed.

**European elm bark beetle -** *Scolytus multistriatus* Marsham - Hosts: American elm. Occurs statewide and helps spread Dutch Elm Disease. Average damage occurred in Kansas this year.

**Granulate ambrosia beetle** – *Xylosandrus crassiusculus* Motschulsky – Hosts: Pecan, oaks, honeylocust, American elm and persimmon. Found in Crawford, Bourbon, Anderson and Butler counties. Often attacks transplanted seedlings. First detected in Kansas in 2002.

#### Gypsy moth - Lymantria dispar (non-native)

This is monitored every year in recreational areas and near large cities. There were no gypsy moth issues in Kansas in 2003.

**Pine pitch moths** - *Dioryctria tumicolella* Mutuura, Munroe and Ross. – Hosts: Austrian pine and some Scotch pine. Found in Northwest and Southeast Kansas. Attempts to eradicate the pine pitch moth in Northwest Kansas are proving to be successful. In Southeast Kansas, the infestation is widespread and will probably not be eradicated. The moth occurs across the border in Missouri.

**Pine sawyer** – *Monochamus carolinensis* Oliver – Hosts: Pines, especially Scotch pine. Occurs statewide except for the far Southwest and Northwest counties. Attacks healthy and stressed Scotch pines. This insect spreads the nematode that causes pine wilt.

**Pine tip moths -** *Rhyacionia spp.* - Hosts: Austrian pine, Ponderosa pine and Scotch pine. Several species are found distributed throughout the state. Trees most likely to be infested are newly planted trees and trees several years old. Older trees in excess of ten feet are less likely to be infested, however, some older and taller Scotch pine trees were infested in western Kansas.

**Redheaded ash borer** – *Neoclytus acuminatus* Fabricius – Hosts: Ash, maple, redbud, black and honeylocust and hackberry. Found in Kiowa, Comanche, Clark, Reno, Sedgwick counties and probably occurs statewide. Damage is mostly confined to weakened and dead trees, but can often attack newly planted trees.

**Southern pine engraver** - *Ips grandicollis* - Host: Scotch pine. Only a small population occurred in 2002 in Kansas.

**Brown spot needle blight -** *Scirrhia acicola, Mycosphaerella dearnessii* - Host: Scotch pine. Christmas tree growers in Kansas continue to remove and destroy many heavily infected trees due to this disease. In 2003, the disease appeared to be at moderate levels.

**Dothistroma needle blight -** *Dothistroma* spp., *Mycosphaerella pini* - Hosts: Austrian and ponderosa pines. Damage was reported as light to moderate in the eastern half of Kansas and timely pesticide applications are used to control the disease.

**Dutch elm disease** – *Ophiostoma nova ulmi (Non-native)* – Hosts: American elm. Dutch elm disease can be a significant problem in riparian areas and cities throughout Kansas. The disease was moderate during 2003 in Kansas. Most cases of this disease were found in parks, ditchbanks, and windbreaks. These reports were primarily from the eastern third of the state.

**Oak wilt -** *Ceratocystis fagacaerum -* Hosts: Bur oak and red oak. Oak wilt continues to be a problem in forests along the eastern edge of the state. Only a few cases of oak wilt were reported in northeast Kansas. The damages from this disease were found in woodlots and housing developments established in previous oak stands.

**Pine wilt and Pinewood nematode -** *Bursaphelenchus zylophilus -* Hosts: Scotch pine and Austrian pine. Kansas has experienced epidemic proportions of damage due to this disease the last 3-5 years. Heavy mortality linked to this nematode was found frequently throughout Kansas, mostly affecting Scotch pine. The drought exacerbated the problem and the disease is now moving into Austrian pine in Southeast Kansas. Decline of trees was rapid in the fall under these dry conditions, and the disease is a limiting factor in plantings in eastern Kansas.

**Russian Olive canker** – *Tubercularia ulmea* – This was a common problem in plantings of windbreaks. Russian olive was found to have considerable cankers, flagged branches, and dieback. Several diseases have been reported to cause this disease in Kansas, but *Tubercularia* spp. was found most often.

**Sphaeropsis (Diplodia) blight -** *Sphaeropsis sapinea -* Hosts: Austrian and ponderosa pines Levels for this disease were moderate in Kansas in 2003, however some plantings were hit hard leading to tree mortality and decline. Most of the damages occurred in eastern and central Kansas.

**Thyronectria canker** – *Thyronectria austro-americana* – Host: Honey Locust This was a serious disease of plantings in Kansas during 2003. Over 75% of the plantings of this tree had 30-100% disease incidence and were reported in poor health. Most of the plantings were located in the central regions of Kansas and in the northwest.

#### **Abiotic Damages**

<u>Chemical Damages</u> - Herbicide damage to windbreaks and other tree plantings continues to be a problem in the central portion of Kansas. Pesticide drift from crop weed control programs causes noticeable decline to agro-forestry tree plantings in parts of Kansas.

<u>Drought</u> - Severe drought conditions continued throughout much of the state in 2003 weakening trees and making them more susceptible to insect and disease attack.

## **Forest Health Information and Assistance**

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