NEWS RELEASE

USDA Forest Service, Northeastern Area
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Oak decline on the rise in the Midwest

ST. PAUL, Minn. – Forest health managers are predicting oak decline will pose a bigger problem across several Midwest states in the coming years.

Oak decline is the death of oaks over a period of several years due to the effects of multiple factors, including species, site conditions, tree age and stress events.

“Oak decline and death are expected to be high over the next 15 years, and recent droughts almost assure that this will happen,” said US Forest Service Pathologist Linda Haugen in St. Paul, Minn.

White oaks are currently affected in Missouri, Iowa and Indiana. In central Michigan, many red oaks have recently died.

“Like in human populations, the most vulnerable members of the forest population are the very old and the very young,” added Haugen.

A number of factors caused a wave of red oak mortality in Missouri about 10 years ago. Now white oak decline is a growing concern there.

“We’ve seen more white oak decline in the past couple years,” said Missouri Dept. of Conservation Forest Entomologist Rob Lawrence. The factors causing the white oak decline seem to be different from those causing the red oak decline, he added.

Depending on where trees grow in the region, different factors contribute to the same end result.

For example, drought or gypsy moth defoliation can start a decline event. Trees that are stressed by these factors can be eventually killed by contributing factors, like two-lined chestnut borer, Armillaria root disease, or red oak borer.

Significant droughts in the second half of summer 2011 and for an extended period this year have contributed to the white oak problem, he said. “With the drought, we’re expecting to see a resurgence of the red oak decline as well.”

“It’s going to be a big issue because of the drought,” he said. “Over the next few years we’re going to see a lot more of the red oak decline. I think next summer we’re going to see a lot more issues with tree health in general.”

Wood boring insects such as the red oak borer in natural landscapes and the flatheaded apple tree borer in urban landscapes will also cause problems, said Lawrence.

“The Midwest droughts of 2012 almost assure that the predicted risk of high oak decline and mortality will occur,” added Haugen. Severe drought can certainly kill trees outright, particularly recently planted and young trees that do not have extensive root systems. Drought can also set tree decline in motion, so that tree death occurs over the next few years.

Michigan experienced a significant wave of oak mortality in 2011. Forest health managers there said they expect more unusually high oak mortality in 2012 and 2013 due to the ongoing drought.

“In Michigan the bulk of the mortality is occurring in northern pin oak that is growing on poorer quality sites,” said Dept. of Natural Resources Forest Health Monitoring Program Manager Roger Mech. Their staff has received many calls about it, he added.

“When you throw drought into the mix, it combines to cause the significant mortality that we’re seeing now. Since the trees will continue to grow older in sandy soils, we’ll continue to see more oak decline.”

The Forest Service developed a risk map in 2006 that predicted where there might be a high likelihood of tree mortality in the next 15 years. In the Midwest, the map showed a high risk of loss of oak trees, particularly due to oak decline in parts of Michigan, Wisconsin, Missouri and Indiana.

Forest health managers are trying to use more predictive information to reduce widespread impacts. They hope to grow forest stands that will be more resilient to stressors.

Contact your state forest health specialist for more information about how oak decline is affecting trees in your area.

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