

Thousand cankers disease outbreak in Italy places the disease on European Plant Protection Organization Alert List.

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In September 2013, thousand cankers disease manifest in the international arena with its report on black walnut (*Juglans nigra*) in both a garden and a timber plantation in northeastern Italy (Figure 1). The disease complex, a combination of a fungal pathogen and insect vector, has proven aggressive on *J. nigra* in the western United States, and affects a range of *Juglans* spp. including commercial English walnut in California (*J. regia*). Based on the observed risk of the disease to *Juglans* sp. in the United States, the finding in Italy incited the addition of both the pathogen and vector to the European Plant Protection Association (EPPO) Alert List. In the EPPO region, *J. regia* (English or Persian walnut) is the most widely grown of the *Juglans* species. In California, the disease is widespread in commercial *J. regia* orchards and survey data illustrating the geographic distribution of the disease in California orchards is forthcoming. The recent finding of the disease complex in Italy clearly indicates that long distance, and even intercontinental movement of these organisms is possible.



Figure 1. In 2013, thousand cankers disease was found in Italy on black walnut. Cankers associated with beetle entry (arrow) are similar to symptoms of the disease in California. This is the first report of the disease in the European Union. (Photos: Lucio Montecchi, University of Padova.)

Thousand cankers disease continues to advance into the native range of *Juglans nigra* in the eastern United States and is associated with a new insect

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The thousand cankers disease complex on walnut is thought to originate from the southwestern United States where the walnut twig beetle vector, *Pityophthorus juglandis*, is considered native. The known distribution and epidemiology of the complex continues to evolve as the pathogen, *Geosmithia morbida*, and vector emerge in new geographic areas. Over the past 20 years, the disease has spread in western U.S. states causing extensive morbidity and mortality of eastern black walnut, *Juglans nigra*, planted outside of its native range. In 2009 the disease was observed in commercial English walnut, *J. regia*, orchards in California and has since been

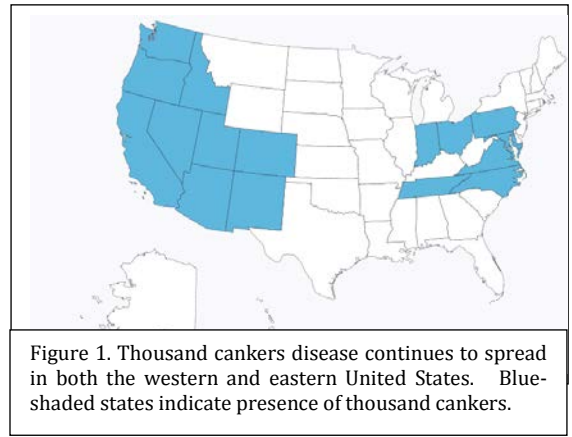


Figure 1. Thousand cankers disease continues to spread in both the western and eastern United States. Blue-shaded states indicate presence of thousand cankers.



Figure 2. In Indiana, the pathogen was found on small weevils. (Photo: S. Seybold).

documented in orchards throughout the state. In 2010 the disease was discovered within the native range of *J. nigra*, posing a threat to natural ecosystems and plantations of the high value timber species. Between 2010 and 2014, either the insect or the pathogen for thousand cankers disease has been detected in seven eastern states: Tennessee (2010), Virginia (2011), Pennsylvania (2011), Ohio (2012), North Carolina (2013), Maryland (2014), and Indiana (2014). Figure 1

illustrates the current distribution of thousand cankers disease in the United States.

The Indiana case reported in June 2014 marks the first time that the pathogen has been associated with an insect other than the walnut twig beetle. In fact, the walnut twig beetle has not been found in either Indiana or North Carolina. In Indiana, the pathogen was found on small weevils, *Stenomimus pallidus* (Figure 2), that had emerged from black walnut trees grown in a plantation in Yellowwood State Forest in Brown County.

Even before the advance of the disease to the eastern United States, many states had initiated quarantine regulations to prevent the introduction of wood from infested areas. Recent information on quarantine status can be found at the following website: www.thousandcankers.com

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In-A-Nutshell

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