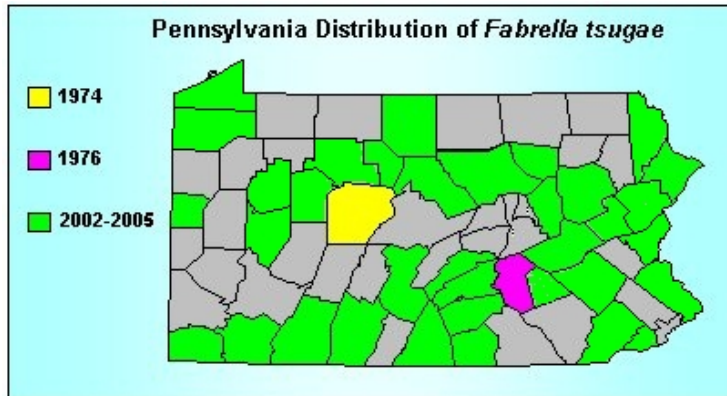


Forest Health Fact Sheet

Fabrella Needle Blight of Hemlock

Fabrella tsugae (Farlow) Kirschstein

In December 2002 a stand of native hemlock trees was observed to have an unusual needle cast symptoms in both overstory and understory trees. Further examination of the affected needles revealed signs of a fungal pathogen, later identified as *Fabrella tsugae*, a pathogen first detected in Clearfield County in 1974. Additional detections were made in Dauphin County in 1976. Further examination of hemlock stands throughout the Commonwealth from 2002 to 2005 revealed the presence of this disease in 35 new counties. Hemlock needle blight was also detected at sites in Maryland and New York.



Description: The fungi sporulate on the underside of the needles along the two stomatal ranks. Sporulation can be observed as a small, raised, pustule-like structure, with the epidermis forming a raised flap of tissue toward one side. Early coloration is light tan or whitish, which can darken to almost black later in the season. The best time to observe and take samples is mid-December through March.



Damage and Control: *Fabrella* needle blight causes needles to turn brown and drop off in late summer particularly in the lower crown. Damage is generally not considered to be significant, but can lead to twig and branch dieback when coupled with other stressors such as drought or hemlock woolly adelgid. Gathering and destroying fallen needles from around the tree in the fall may reduce damage to the lower crown. Selectively thinning branches from the lower crown, during the dormant period after rain events, will aid in circulation, and drying of foliage.