

Case #3

Subject: Accolade Hybrid Elm

(*Ulmus* 'Morton')

Location: University of Minnesota

Symptoms and Analysis: Early this summer we observed an Accolade elm growing on the University of Minnesota, East Bank campus, which exhibited symptoms of crown wilt and dieback. This tree was fully established and was growing vigorously without signs of mechanical damage or other causal agents of abiotic damage. The wilt in this tree was of particular concern because we had observed Dutch elm disease and isolated *Ophiostoma novo-ulmi* from another Accolade in the vicinity. Given the history of disease in the area, we quickly returned to the site to collect samples for fungal isolation.

In July, we observed approximately 20-25% crown dieback and areas of active wilt. However, there was no evidence of vascular staining or beetle feeding. Tissue samples were collected from symptomatic portions of the tree and cultured for fungal pathogens. After isolation there was no evidence of infection by *Ophiostoma novo-ulmi* and similar to Case #2 other fungi were isolated but without additional testing the causal agent could not be determined.



Cross Section of a Sample Showing No Vascular Discoloration



Crown Wilt - July 2015



Crown Wilt - September 2015