



The Search For Dutch Elm Disease Resistant American



Caption 2: An American Elm seedling. Photo Credit: Wisconsin DNR.

Principal Investigators and Partners

- Wisconsin DNR
- United States Army Corps of Engineers
- USDA Forest Service

Timeline

- Launch – September 2025
- Expected Completion Date – 2035
- Status – Ongoing

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Project Overview

American elm was once a critical canopy species throughout its range in North America, including Wisconsin. The introduction and spread of the fungal pathogen Dutch elm disease (DED) throughout the 20th century has decimated populations and significantly reduced the ecological role of American elm, especially in bottomland forests in Wisconsin. However, large surviving American elm have been found throughout the Mississippi River floodplain in western Wisconsin. Since these trees have most likely survived prolonged exposure to DED and have not shown signs of decline, they may be expressing higher resistance to the fungus. A DED resistance screening field trial containing 28 large survivors has been planted to test these candidates for DED resistance.



Caption 1: A map of the project site. Photo Credit: Wisconsin DNR.

Key Points

- Collecting and testing large surviving American elms for DED resistance will identify local resistant families.
- By establishing a seed orchard of local, resistant trees, the Wisconsin State Nursery System can begin to produce resistant elm for its customers and partners.

Management Implications

- The production of DED resistant American elm will increase the success rates of plantings using the species in bottomland forest restoration.
- DED resistant American elm may also be able to survive longer, grow larger, and have the potential to play a larger ecological role than current DED susceptible populations.