

## Southern Indiana Purdue Agricultural Center Forestry Research

**Title:** Restoring American Chestnut in Indiana

**Cooperators:** Purdue FNR, HTIRC, INTACF, Ag. Centers, Dubois Co. SWCD, SW IN Forestry Committee, Indiana Division of Forestry

**Date Initiated:** 2009

**Location:** SIPAC, Field 11

### Background

Following decades of selective breeding, researchers and forest conservationists are very close to producing blight-resistant American chestnut hybrids that will restore this majestic tree to its rightful place in eastern U.S. forests. The Indiana Chapter of The American Chestnut Foundation (TACF) started in 1996 under the leadership of Bruce Wakeland, a forester from northern Indiana. INTACF teamed up with Purdue University's Department of Forestry and Natural Resources and the Hardwood Tree Improvement and Regeneration Center (HTIRC) in 2006 to expand and accelerate Indiana's American chestnut breeding program and begin preparing for American chestnut restoration to Indiana's forests. Other cooperators include Indiana Division of Forestry and the U.S. Forest Service.

### Objectives

1. Test  $BC_3F_2$  families developed from Indiana sources for blight resistance
2. Establish an orchard for producing  $BC_3F_3$  seed that is 100% blight resistant.

Sites: Upland, unglaciated sandstone-shale soils of Gilpin series. East aspect.

Stands: Field, formerly pasture and Christmas tree production.

Treatment Area: 3.5 acres

### Treatments

2009-2012 – 7 ft. deer fence erected

2009-2013 – planted 120  $BC_3F_2$  seedlings in each of 9 plots. These represent family lines selected for blight resistance and true American chestnut form.

2013, June 14 – inoculated all chestnuts 1 -2 in. dbh and larger with weak strain of blight. Local strains of blight are already infecting some trees.