Effectiveness of Slurry Treatments in Controlling Individual *Endothia parasitic* Cankers on American Chestnut

MACDONALD, William L. and DOUBLE, Mark L. Department of Plant Sciences West Virginia University Morgantown, West Virginia 26506

Four different slurries of hypovirulent strains were used to treat virulent Endothia parasitica cankers on American chestnut growing at three locations in West Virginia. The slurries included: a mixture of debilitated white strains (B-type); a mixture of Italian strains ol intermediate pathogenicity; a pigmented but debilitated mixture of strains (Jr-type); and, a general slurry contain. ing a combination of all strains (General). New cankers were treated at monthly intervals as they developed from May to November by punching 0.5 cm holes to the cambium at 1 cm intervals around the canker margin.

Many of the trees in all treatments have produced callus tissue in response to treatment. However, the number of new infections is discouraging as many trees that responded well to treatment have been killed by subsequent infections. In a preliminary analysis of variance, designed to compare the effectiveness of the four slurries, the General and Btype slurries were significantly more effective in checking canker expansion. Both of these slurries contained the greatest number of debilitated strains. The majority Of the data collected during the 3-year study must still be analyzed.