

Saprophytic Survival, Growth and Sporulation of Virulent and Hypovirulent isolates of *Endothia parasitica* on Red Maple, Red Oak, and American Chestnut.

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To study the survival, growth and sporulation of one virulent and six hypovirulent isolates of *Endothia parasitica*, 10- to 15-year-old girdled stems of American chestnut, red oak, and red maple were artificially inoculated in August, 1979. Stems of red oak and red maple were killed by girdling with an axe; chestnut stems were girdled by inoculation with a virulent isolate of *Endothia parasitica*. The chestnut stems had not died after 5 months, therefore, the data are not yet available for this host.

Data are summarized for red maple and red oak 4 months after girdling. Survival of *Endothia parasitica* in red maple, as determined by culture of bark plugs from the inoculation point, was 85 percent for the virulent isolate and ranged from 5 to 58 percent for the hypovirulent isolates. In red oak, the virulent isolate was recovered 75 percent of the time from the inoculation site while the hypovirulent isolates were recovered from 25 to 100 percent of the time. The virulent isolate was recovered 69 percent and 63 percent of the time at 1 cm and 3 cm beyond the inoculation site, while hypovirulent isolates were recovered at 1 cm from the inoculation site from 19 to 63 percent of the time and at 3 cm from the inoculation site from 0 to 63 percent of the time.