

C. Transmission and Survival of  
Hypovirulent and Virulent Strains

Distribution and Frequency of Vegetative Compatibility Types of Virulent *Endothia parasitica* Strains near Parsons, West Virginia

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The distribution and frequency of vegetative compatibility types of virulent isolates to *Endothia parasitica* were examined over a 3-year period from 1977 to 1979. Isolates were obtained from cankers on American chestnut stems found in two areas near Parsons, West Virginia. After pure cultures of *Endothia parasitica* were obtained from each canker, the compatibility type was determined by pairing mycelial plugs on amended potato dextrose agar. For the 3 years combined, a total of 449 isolates have been examined and 324 (72 percent) have been classified into 16 vegetative compatibility groups. In 1977, 33 Isolates were classified in 9 vegetative compatibility groups; in 1978, 172 isolates were classified in 13 vegetative compatibility groups; and 244 isolates were classified in 14 vegetative compatibility groups in 1979. As the total number of cankers increased, so did the number of vegetative compatibility groups. However, the six major vegetative compatibility groups from 1977 remained the same through 1979. Since 1977, 125 isolates (28 percent) have been found that are vegetatively incompatible with the 16 vegetative compatibility groups. These isolates are currently being paired with each other to determine if additional vegetative compatibility groups exist.