Section 1 Abstracts: Molecular Biology of Hypovirulence

DNA Fingerprinting for Determining Genetic Relatedness within Vegetative Compatibility Groups of *Cryphonectria parasitica.* Y.-C. Liu and M.G. Milgroom, Department of Plant Pathology, Cornell University, Ithaca, NY 14853-5908, USA

Genetic relatedness within and between vegetative compatibility (v-c) groups from populations of *Cryphonectria parasitica* on chestnut was analyzed using DNA fingerprinting. A DNA probe, MS5.1, was used that hybridizes to 7-12 restriction fragments in each isolate of *C. parasitica.* Isolates were collected from two populations in Michigan and one from both West Virginia and Italy. The fingerprinting patterns were highly diverse within v-c groups in the West Virginia population. The proportions of bands shared within v-c groups ranged form 0.3 to 0.9. This proportion was not different within and between v-c groups in the West Virginia population. In populations from Michigan and Italy, the diversity within v-c groups was low. The proportions of bands shared within v-c groups varied from —0.7 to 1.0 in the two Michigan populations. The proportion of bands shared within v-c groups was between 0.5 and 1.0 in Italy. However, the proportions of bands shared between v-c groups were significantly less than within v-c groups in both Michigan and Italy populations. These results show that DNA fingerprinting may identify v-c groups as clonal lineages in the Michigan and Italian populations but not in the West Virginia population.