

Section 2 Abstracts: Physiology of the Chestnut Blight Fungus

Protoplast Fusion Between Compatible and Incompatible Strains of *Cryphonectria parasitica*. S. Pecchia, S. Fanti and G. Vannacci. Dipartimento di Coltivazione and Difesa delle Specie Legnose, Sez. Patologia Vegetale, Università di Pisa, Pisa, ITALY

Fusion experiments were carried out between compatible and incompatible virulent strains of *Cryphonectria parasitica* using spontaneous mutants resistant to cobalt and PCNB as selectable markers. Drug-resistance did not affect spore formation and vegetative incompatibility reactions. Intrastrain fusion between two different drug-resistant mutants from a single strain and interstrain fusions between drug-resistant mutants from different compatible and incompatible strains were performed. Protoplasts from cobalt and PCNB resistant mutants were fused in a PEG solution containing CaCl₂, glycine and sucrose. Colonies from fused protoplasts were selected by their ability to grow in the presence of both cobalt and PCNB. Following all intra- and interstrain protoplast fusions, presumptive somatic hybrid colonies were obtained. They developed very slowly on selective medium and when transferred to non-selective medium their growth was faster and some colonies were sectored.