Lab and Field Studies of Hypovirulent Strains: Isolates from Italy

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Bark samples were taken from numerous abnormal cankers on Castanea sativa in northern, central, and southern Italy in August 1978. The strain composition in many of these samples is complex. Abnormal "white" strains were obtained from many of these samples, often in combination with normal strains. The white strains differed widely in pathogenicity, in some cases even when obtained from the same bark sample. Single spore isolation of several of the more debilitated white strains yielded mixtures of white and heavily pigmented abnormal strains as well as normal strains. The abnormal strains obtained differed widely in pathogenicity and double-strand RNA was detected in all of the abnormal strains tested but not in the normal strains. Clearly, these strains differ greatly from American hypovirulent strains that have been studied in detail. Their complex behavior has not been explained adequately.