

Characterization of *Fusarium oxysporum* causing rapid wilt of birdsfoot trefoil in New York and Vermont

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A vascular wilt of birdsfoot trefoil (*Lotus corniculatus*) caused by *Fusarium oxysporum* was first reported in the 1970s in trefoil seed production fields in the Champlain Valley of New York and Vermont and in the late 1980s in trefoil forage production fields in western New York. Infected plants display root necrosis and wilt, leading to high rates of mortality in the seeding year. Isolations were made from symptomatic trefoil collected in the Champlain Valley of Vermont and in all major forage production regions in New York in 2004. All cultures of *F. oxysporum* isolated were subjected to pathogenicity testing on susceptible trefoil in the greenhouse, and a subset of virulent isolates was inoculated on other legumes to assess host range. The wilt pathogen was detected in the Champlain Valley of Vermont and in western New York but not in other regions of New York. The pathogen caused a vascular wilt of trefoil and peas but not of alfalfa, clover, soybeans or pinto beans, and *F. oxysporum* f. sp. *pisi*, causal agent of *Fusarium* wilt of peas, did not cause vascular wilt of trefoil. The isolates of *F. oxysporum* causing rapid wilt of trefoil are also being characterized for phylogenetic relationship to previously described formae speciales of *F. oxysporum* and by vegetative compatibility.