

Seed Transmission of *Fusarium oxysporum* f.sp. *lactucae*

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Twenty-seven seed samples belonging to the lettuce cultivars most frequently grown in Lombardy (northwestern Italy), in an area severely affected by Fusarium wilt of lettuce, were assayed for the presence of *Fusarium oxysporum* on a Fusarium-selective medium. Isolations were carried out on subsamples of seeds (500 to 1500) belonging to the same seed lots used for sowing, and either unwashed or disinfected in 1% sodium hypochloride. The pathogenicity of the isolates of *F. oxysporum* obtained was tested in four trials carried out on lettuce cultivars of the butterhead type, very susceptible to Fusarium wilt. Nine of the 27 samples of seeds obtained from commercial seed lots used for sowing in fields affected by Fusarium wilt were contaminated by *F. oxysporum*. Among the 16 isolates of *F. oxysporum* obtained, only one was isolated from disinfected seeds. Three of the isolates were pathogenic on the tested cultivars of lettuce, exhibiting a level of pathogenicity similar to that of the isolates of *F. oxysporum* f.sp. *lactucae* obtained from infected wilted plants in Italy, USA and Taiwan, used as comparison. The results obtained indicate that lettuce seeds are a potential source of inoculum for Fusarium wilt of lettuce. The possibility of isolating *F. oxysporum* f.sp. *lactucae*, although from a low percent of seeds, supports the hypothesis that the rapid spread of Fusarium wilt of lettuce observed recently in Italy is due to the use of infected propagation material. Measures for prevention and control of the disease are discussed.

KEY WORDS: Lettuce; Fusarium wilt; disease management.

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