SUSCEPTIBILITY OF LETTUCE CULTIVARS TO ITALIAN ISOLATES OF *Fusarium oxysporum* f. sp. *lactucae* Race 4

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The use of resistant cultivars represents the most effective practice to manage lettuce Fusarium wilt caused by Race 1 of *Fusarium oxysporum* f. sp. *lactucae* (FOL). However, Race 4 of FOL is gradually spreading to new countries and, after being isolated in the Netherlands, Belgium, United Kingdom and Ireland, it has been recently detected in northern and southern Italy, complicating the adoption of the genetic control measures (Figure 1).

Several trials were carried out in greenhouse at temperatures between 26 and 30°C, using forty cultivars, belonging to different lettuce types. Seedlings (15-20-days-old plants) were artificially inoculated by root immersion in each conidial suspension at 1x10^6 CFU/ml of Race 4 isolates (FL1-19 and FL3-19) of *F. oxysporum* f. sp. *lactucae* and planted in 12L pots filled with a peat medium, using 30-to-40 plants/cultivar each trial. At the final evaluation the reaction of susceptibility was assigned to each cultivar (Figures 2 and 3).

Figure 1. Lettuce Fusarium wilt severity on lettuce grown in field.

Figure 2. Trials carried out in greenhouse to test the susceptibility of commercially available lettuce cultivars to Race 4 of *F. oxysporum* f. sp. *lactucae*.

Figure 3. Reaction of susceptibility of lettuce cultivars to Race 4 isolates of *F. oxysporum* f. sp. *lactucae*.