

## RESISTANCE IN SESAME TO *Fusarium oxysporum* f. sp. *sesami*

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### ABSTRACT

Gamma ray induced 1076 mutants of sesame (*Sesamum indicum* L.) in M3 and M4 generations were evaluated for resistance to *Fusarium* wilt in a naturally infected field in Antalya. Sixteen mutant lines in the nursery were found to be promising as a source of resistance to *Fusarium oxysporum* f. sp. *sesami*. Subsequently, these lines and four local checks were screened in a randomised complete blocks design with three replications under naturally infected field conditions according to 1-9 visual field scoring scale in the 1998 and 1999 seasons. Based on the visual scorings, three mutant lines were identified for resistance to *F. oxysporum* f. sp. *sesami*. Pot screening procedure was also followed in order to verify the field results. Sixteen mutant lines and four checks were also tested for resistance to *Fusarium* wilt in pot culture inoculations in a growth chamber at 22°C and 16 hours day length. Based on the pot screening procedure, resistance to *F. oxysporum* f. sp. *sesami* was confirmed in the three mutant lines as recorded in the field.

**Key words:** *Sesame, Sesamum indicum* L., *Fusarium* wilt, *Fusarium oxysporum* f. sp. *sesami*, Field screening, Induced mutants