

Screening of chickpea genotypes for resistance against Fusarium wilt

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Abstract

One hundred and forty five genotypes of chickpea (*Cicer arietinum* L.) obtained from various sources were evaluated to identify genetic sources of resistance against wilt disease under artificial disease conditions. Disease observations were recorded at seedling and reproductive stages. A considerable variation among the genotypes was observed at both the stages. Disease incidence ranged from 0 - 57.2% and 0 -100% at reproductive and seedling stage, respectively. At seedling stage, 14 genotypes (90395, C-235, C-44, CM2000, FLIP97-129C, FLIP97-172C, FLIP98-107C, FLIP98-227C, FLIP98-230C, FLIP98-231C, FLIP98-38C, FLIP98-54C, ILC7374, KC-89) were resistant, 65 tolerant and 66 susceptible. On the contrary, no genotype was resistant at reproductive stage, however, 12 genotypes (90395, C-235, C-44, E101XPB91, FLIP98-107C, FLIP98-226C, FLIP98-227C, FLIP98-230C, FLIP98-231C, FLIP98-38C, FLIP98-54C, ILC7374) were tolerant and 133 susceptible. Chickpea genotypes identified as resistant during this study may be exploited in breeding programs to develop resistant varieties.

Key words: Wilt, *Fusarium oxysporum* f.sp *ciceri*, chickpea, germplasm, resistance.