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.