

## Variability in *Fusarium oxysporum* f.sp. *ciceri*

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### Abstract

Twelve isolates of *Fusarium oxysporum* f. sp. *ciceri* derived from single spore cultures, representing chickpea (*Cicer arietinum* L.) production sites of Pakistan were studied for their morphological characters and pathogenic variability. The isolates exhibited variation in morphological and cultural characteristics. Isolates FW-5 and FW-10 with a colony diameter of 7.57 and 8.9 cm were considered the fast growing whereas isolates FW-1, W-4, FW-7 and FW-11 (radial growth range from 4.6 to 5.8 cm) as the slow growing. Reaction of 10 chickpea genotypes to 12 isolates of *F. oxysporum* indicated that cultivars, Punjab-91 and C-235 were resistant to most of the isolates but gave tolerant response to isolates FW-4 and FW-10 while they exhibited variable susceptible reaction to other isolates. Cultivars AUG 424 and ILC 1929 showed susceptible response to all the isolates tested. The remaining cultivars showed considerable variation in disease response. Isolates also varied in their pathogenic variation to the cultivar tested. The most virulent isolates were FW-6, FW-3 and FW-4. Variability among the isolates of *F. oxysporum* was also determined on the basis of sensitivity of isolates to fungicides. A significant variability in this regard was observed. Benlate was found to be the most effective fungicide in suppressing the growth of all the isolates tested followed by ridomil and sancozeb.

**Key Words:** Chickpea, gram, wilt, *Fusarium oxysporum* f.sp. *ciceri*, pathogenic variability, resistance.