

RESEARCH ARTICLE

# Determination of *Colletotrichum capsici* toxins by gas chromatography mass spectrometry analysis

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## ABSTRACT

Totally 20 isolates of *C. capsici* were collected from different chilli growing areas of Tamil Nadu, among them three namely, Cc1, Cc2 and Cc8 isolates were found to be more virulent. The toxins were purified from those isolates and analysed by GC-MS analysis. The toxic sample from isolates of *C. capsici* exhibited a few new peak signals in the chromatogram. The sharp peak of chromatogram of the three isolates toxins were 2-tert-butyl-4-isopropyl-5-methyl phenol, 2,4,6-trimethyl phenyl glyoxylate, 4-dimethylaminomethyl-3-cyclohexane-1-carboxylate. The purified toxic metabolites of *C. capsici* were found to show 100 per cent inhibition on germination of seeds of chilli, greengram, blackgram, redgram and paddy at 5 per cent concentration. The shoot as well as root lengths were also completely inhibited at 5 per cent concentration when compared to others.

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