In vitro Chemical Management of *Stemphylium lycopersici*, inciting Flower Blight Pathogens in Chrysanthemum

A Snehalatharani, V Prasanna Kumari, P. Anil Kumar, K Gopal, K Jayalalitha, V Srinivasa Rao and V S N Deepika

Horticultural Research Station, Kovvur, A. P.

ABSTRACT

Chrysanthemum (*Chrysanthemum indicum* L.) is one of the oldest and widely cultivated flower crops in India. Many pathogens associate with flower blight disease of chrysanthemum including *Phoma ligulicola*, *Stemphylium* sp., *Alternaria alternata* and *Botrytis cinerea*. In the present study *in vitro* chemical studies were conducted on *Stemphylium lycopersici*, one of the flower blight pathogen of chrysanthemum from Andhra Pradesh. Efficacy of four fungicides *viz.* azoxystrobin, chlorothalonil, difenoconazole and mancozeb was evaluated against *S. lycopersici* at six different concentrations *viz*. 0.01, 0.05, 0.1, 0.15, 0.2 and 0.25 per cent of the fungicides encompassing recommended concentration. We observed that eventhough the chemicals showed differential efficacy against the pathogen, their inhibitory effect is directly proportional to the concentration of the chemical. Mancozeb, irrespective of the dosage used, showed cent per cent inhibition of the pathogen and is found significantly superior to other fungicides tested. Chlorothalonil at recommended concentration of 0.02 % showed 97. 54 % inhibition of the mycelial growth. However, azoxystrobin and difenoconazole at their recommended dose of (0.1%) were significantly inferior and showed 79.05 % and 78.90 % inhibition of the pathogen respectively. The present study provides directions for appropriate selection of fungicides for management of the pathogen under field conditions.

Keywords: *Chrysanthemum, Flower blight, Fungicides, Management, Stemphylium lycopersici.*