LABORATORY EVALUATION OF FUNGICIDES ON DEVELOPMENT OF *ALTERNARIA ALTERNATA*

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Field observations indicated that *Alternaria alternata* was associated constantly with senesced leaves of onion with a possible role of causing leaf senescence. This fungus was isolated and found to have a temperature optimum of 25°C for germination of conidia at 100% relative humidity. However the growth of mycelium was better at 30°C than at 25°C.

The effects of two systemic fungicides (benomyl and baycor) and nine non-systemic fungicides (cupravit, morestan, pomarsol, sulphur, brassicol, morut, antracol, difolatan and daconil) at concentrations from 0-1000 ppm on the germination of conidia and mycelial growth rate of this fungus, under laboratory conditions were investigated. All fungicides except cupravit inhibited germination of conidia at 10 ppm.

The fungus responded differently to the various fungicides in its mycelial growth rate. Difolatan, benomyl and pomarsol retarded mycelial growth at concentrations between 10-500 ppm and prevented growth entirely at 1000 ppm. Morestan, brassicol, morut, baycor and antracol retarded mycelial growth (considerably) at concentrations between 10-1000 ppm. Cupravit and sulphur permitted certain amount of growth at all concentrations tested. The fungus was usually killed after 3 days on media containing daconil, benomyl or pomarsol.

Sporulation by the fungus was inhibited by benomyl, pomarsol, brassicol, morut, baycor, antracol, difolatan and daconil at 1000 ppm. However some fungicides showed stimulatory effects on growth at certain concentrations.

This investigation provides evidence that benomyl, daconil and pomarsol could be used to control *Alternaria alternata* under laboratory conditions.