

THE EFFECT OF MYCOTOXIN PRODUCED BY
ALTERNARIA BRASSICICOLA ON CABBAGE
SEED GERMINATION AND SEEDLINGS

Renuka R. Habarakada and I.G.B. Herath
Central Agricultural Research Institute, Gannoruwa.

Alternaria brassicicola is a pathogen causing stem and leaf blight in crucifer vegetables. The pathogen is seed-borne as well as soil-borne. A study was carried out to determine the effect of toxin produced by Alternaria brassicicola on seed germination and seedling growth in cabbage (Brassica oleracea var capitata).

The fungus was cultured in Czepek Dox liquid medium and the culture filtrate was obtained by blending and filtering the broth. Culture filtrate was diluted with equal amounts of sterile distilled water. Seed germination was significantly reduced when the seeds were dipped in 50% culture filtrate for 3 hrs. Seed germination was also reduced when the seeds were allowed to germinate on a filter paper moistened with the culture filtrate. Seedlings grown in 50% culture filtrate wilted within 24 hrs.

Results indicate that there is a significant effect of mycotoxins of Alternaria brassicicola on germination and growth of cabbage seedlings. The dangers of introducing infected seeds to the soil and using already infected soils for raising nurseries are evident.