IN VITRO STUDIES ON THE EFFECTS OF TEMPERATURE AND pH ON THE ACTIVITY OF ALTERNARIA BRASSICICOLA

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Alternaria brassicicola is a seed-borne pathogen which causes a leaf desease in crucifer vegetables. The effects of temperature and pH on the development of this pathogen were studied in vitro.

An isolate of A. brassicicola, obtained from cabbage seed, was cultured on potato dextrose agar (PDA) and a suspension of conidiospores in sterile waterprepared from it. This suspension was atomized on to 2% water agar plates which were then incubated at temperatures of 12, 18, 24, 30 and 36 ^{o}C for periods of 3,6 and 24 hrs.in darkness. Incubation was terminated by pouring lactophenol with cotton blue on the surface of the medium. At 36 ^{o}C spore germination was negligible. At 12^{o}C germination was slow, no germination occurring till the elapse of about 6 hr.and about 50% germination occurring in 24 hrs. Spore germinated quickly at 18, 24 and 30 ^{o}C, a maximum of about 75% germination being reached within 24 hrs.

In another study, growth was studied in a synthetic medium in which the pH was adjusted to values of 6,7 and 8. pH 6 was most favourable for growth.

These studies indicate that a temperature range of 18-30 ^{o}C and a slightly acidic medium are favourable conditions for the activity of this pathogen.

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