1 to 9 per cent and there after it declined gradually. Bhat (1983) reported decreased mycelial growth when sugar concentration was increased beyond nine per cent.

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Effect of Temperature and Relative Humidity on Spore Germination of *Alternaria cymopsidis* Rangaswamy and Venkatarao

Alternaria cymopsidis causes leaf spot in Cluster bean (*Cyamposis tetragonaloba* (L) Tabu.). Effect of different factors like temperature and relative humidity affecting spore germination was studied.

Spore germination was recorded on incubation for 6 hr at various temperatures, in a spore suspension under sterile tap water, following hanging drop method. At the end of incubation germination count was taken from 10 microscopic slides and expressed in terms of percentage.

Required levels of relative humidity were obtained by charging dessicators with suitable mixture of concentrated sulphuric acid and water. Cavity slides containing spore suspension were placed in these and incubated at 25° C for 6 hr, at the end of which period germination count was taken.

Among the different temperature levels studied, maximum spore germination (99%) of *A. cyamopsidis* was observed at 30° C followed by 25° C (92%). The least germination percentage (2%) was recorded when incubated

at 40° C. The germination percentage at 10, 15, 20 and 35° C was 8, 22, 81 and 14 percent respectively. There was no germination at 5° C. These findings are in accordance with reports of earlier workers who found 25–30° C as optimal temperaures for various *Alternaria* spp (Tak *et al.* ,1986; Mallikarjunaiah and Rao, 1972).

In the present study, hundred per cent spore germination was observed at 95 per cent of relative humidity followed by 96, 91, 87, 76, 45, 32, 20 and 7 per cent at 90, 85, 80, 75, 60, 65, 60 and 55 per cent relative humidity levels respectively. These results are in agreement with the findings of many workers in different species of *Alternaria* (Sarkar & Sengupta, 1978; Chandrashekar and Ball, 1980; Tak *et al.*, 1986). The study indicates that higher relative humidity levels are very much essential for disease development and a pre-requisite for outbreak of the disease.

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Standardization of inoculation technique using sporangia to identify mustard genotypes resistant to white rust

White rust of mustard (*Brassica juncea* (L.) Czern. and Coss.) incited by *Albugo candida* (Lev.) Kunze is destructive in Karnataka. Management of this disease through the use of host plant resistance needs to be emphasized as it would be a feasible approach. To identify stable resistant genotypes, a sound epidemiologically meaningful inoculation technique is necessary. Earlier reports of disease resistance is based on natural infection (Pouri and Bandyopadhyaya 1973; Verma and Petrie, 1978 and Srivastava and Verma, 1987). However, Verma and Petrie (1978) used sporangia in the detached leaf inoculation technique whereas Singh and Singh (1983) used sporangia to inoculate leaves. Saharan *et al.* (1988) used oospores to create inoculum on infector rows which served as inoculum