B-37 **LABORATORY STUDIES ON GROWTH AND PRESERVATION OF *VERTICILLIUM LECANII***

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Effect of temperature on growth of a virulent strain (IMI–179172) of *Verticillium Lecanii* (Zim) Viegas was studied. Radial growth of colonies of uniform size, inoculated on Sabouraud dextrose agar in petri dishes and incubated at ten temperatures between 2.0°C and 31.5°C was measured. Growth was negligible at 20°C, after which it increased with temperature up to an optimum near 25°C and then decreased rapidly. There were small and irregular colonies at 30°C and no growth at 31.5°C.

SECTION B

In the studies on preservation, an attempt was made to improve the survival of blastospores on storage. First the effect of initial age of spores on survival in two suspending media at 20C was studied, followed by the effects of various suspending media on survival at 20C,–20C and during freeze drying. Analysis of probit percent mortality against log time was used to obtain median lethal times, LT 50s of blastospore of different ages and those suspended in various suspending liquid media for cold storage. The LT 50s of the blastospores of all ages suspended in both media were all less than a month. In various suspending media, at 20C the LT 50s ranged between 7 and 39 days and at–20C, between 1 and 970 days, the lowest being in hank's balanced salt solution and the highest in 10% skimmed milk. Freeze drying killed many spores. However the average percent survival in three media ranged between 43 and 55.