

Research Article

## Studies on Spore Biology and Epidemiology of Late Blight of Potato Caused by *Phytophthora infestans*

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### Abstract

The experiment was carried out with the objective to investigate the effect of weather variables on spore biology and mycellial growth of late blight of potato causing pathogen, *Phytophthora infestans*. Effect of temperature, relative humidity, leaf wetness and light exposure on lesion area, mycelial growth and other spore biology was measured under *in-vitro* condition. Maximum sporulation and sporangial germination of *Phytophthora infestans* occurred at 15-20C temperature with 90-100 per cent relative humidity. Sporulation did not occur below 10 C temperature and at 80 per cent relative humidity. Initiation and spread of late blight was observed when aerial temperature was 15-20 C with 90 per cent relative humidity. Disease was not initiated at less than 10 C night temperature and 80 per cent relative humidity. Sporulation and sporangium germination take place during night hours. The result of present study will be helpful in formulation of cultural management against the disease.

**Key words:** Pathogen, relative humidity, sporangium, sporulation, zoospore

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