

# BIOCONTROL EFFICACY OF TRICHODERMA SPP. AGAINST PHYTOPHTHORA BLIGHT OF PEPPER

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Phytophthora blight (PB) caused by *Phytophthora capsici* Leonian is a devastating and economically important disease of pepper in Nepal. Existence of two mating types and soil-borne nature are the limitations for its proper management. An experiment was conducted in epiphytotic conditions at Luvu, Lalitpur where severe outbreak of PB used to occur. The experiment was designed in Randomized complete block with three replications. Three isolates of *Trichoderma harzianum* such as *T. harzianum* (T22), *T. harzianum* (T69), *T. harzianum* and one, *T. asperellum*, were tested for their efficacy in the field conditions compared to chemical fungicides such as Copper oxychloride and Fluazinam for two consecutive years, 2012 and 2013. In the first year of the experiment, the effect of all three isolates of *T. harzianum* were significantly different from the control. But in both the years, *T. harzianum* (T69), the local isolate was found better in reducing PB incidence and severity by 46% and 27% in 2012, and 36% and 42% in 2013 respectively and yield increased by 57% over control. However the chemical fungicides, Fluazinam was the best treatment in reducing PB severity with increased yield by 70% followed by copper oxychloride that increased yield by 62% over control during 2013. There was no significant difference in efficacy of T69 and tested chemical fungicides. Hence, the use of *Trichoderma* could be one of the environmentally sound tools for the integrated management of *Phytophthora* blight that reduce the health hazard and ecosystem pollution resulting from excessive use of pesticides.