

RESEARCH ARTICLE

Integrated management of black pod disease of cocoa caused by *Phytophthora palmivora*

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ABSTRACT

Black pod disease of cocoa (*Theobroma cacao* L.) caused by *Phytophthora palmivora* (Butl.) Butl. is the major constraint in cocoa production in India. Therefore, integrated field management trials were conducted in two locations of one of the major cocoa growing regions for two consecutive years. There were seven treatments such as four fungicides, one antagonist (*Trichoderma harzianum*), cultural practices alone and absolute control, in three replications. Cultural practices such as nutrient management, pruning, plant and field hygiene etc. were implemented in all treatments except control. The disease incidence in copper oxychloride treated plots at both the sites in both years was the lowest and significantly varied from control plots. There was more than 50 per cent reduction in disease incidence when cultural practices alone were implemented, compared to control plots. This indicates that in gardens with less incidence of black pod disease, economic management of the disease is possible by adopting cultural practices alone. There was also substantial reduction in black pod incidence in *Trichoderma* treated plots compared to control plots. Thus, the results of the study indicated that black pod disease can be effectively managed in gardens with high disease incidence by combining fungicide application with the cultural operations adopted in the trial. Economic management of black pod disease with chemical fungicides depends on magnitude of disease severity and loss.

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