

Economic evaluation of bacterial leaf blight
(*Xanthomonas oryzae* pv. *oryzae*) disease of rice

**Saleem II Yasin, Tasleem-uz-Zaman Khan, Muhammad Ayub, Javed Anwar
Shah & Muhammad Anwer**

Rice Research Institute, Kala Shah Kaku, Lahore, Pakistan

Abstract

Bacterial leaf blight (BLB) inoculations of 5, 10, 25, 50, 75 and 100% given to rice plants were compared with two non-inoculated healthy controls, Control-I (non-clipped) and control-II (clipped), in field studies. Percent disease in different treatments was proportional to, but remained lower than, the initial plant inoculation levels. According to the results, 10, 25, 50, 75, and 100% plant inoculation levels produced disease levels of 4.75, 13.73, 27.16, 43.28 and 58.86%, respectively, with paddy yields of 3.57, 3.17, 2.28, 2.30, and 1.80 t ha⁻¹ in the same order against 4.13 t ha⁻¹ in the Control-I. Paddy yield loss of 56.41% was recorded in 58.86% disease produced by 100% inoculation. The study quantified the potential of the disease to cause heavy economic losses to the rice crop.

Keywords: Bacterial leaf blight, *Xanthomonas oryzae*, rice, losses, economics.