



**Supplementary Fig. 1.** Antifungal activity assessment using the clear zone method. *Streptomyces bacillaris* S8 and its mutants were evaluated for their inhibitory effects against *Colletotrichum truncatum* (A) and *Fusarium* sp. (B) via disk diffusion assay. The bacteria, at a concentration of  $10^6$  cfu/ml, were pre-inoculated with 20  $\mu$ l on potato dextrose KNO<sub>3</sub> (PDK) media and incubated for 5 days at 28°C. Subsequently, after a 10-day incubation period, a pathogenic organism (0.4 cm diameter) was centrally inoculated onto the plate and further incubated at 28°C for 10 days. Each experimental condition was performed in quintuplicate ( $n = 5$ ).