Karakterisasi biokimia bakteri endofit akar terung sebagai pemacu pertumbuhan tanaman dan pengendali penyakit layu bakteri in planta

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Abstract	An important disease in eggplant is bacterial wilting caused by Ralstonia solanacearum. The aim of this research is to characterize the biochemical endophytic bacteria isolated from eggplant root (BEAT) and as an agent for promoting plant growth and controlling bacterial wilt disease in planta. This research was conducted at the Plant Protection Laboratory and screen house of the Faculty of Agriculture, Jenderal Soedirman University, Purwokerto. This research was conducted descriptively to test the biochemical character of BEAT and used a Complete Randomized Block Design (RCBD) in the in planta test with 4 treatments, 6 replications and 3 plants each treatment, so that 72 plants were tested. The treatment consisted of control (without endophytic bacteria) and 3 BEAT isolates. The results showed that the endophytic bacterium AKc isolate had the ability as a bacterium to promote plant growth by producing IAA phytohormones, phosphate solvents, enzymes producing proteases, cellulase, amylase, chitinase, and HCN, as well as increasing the root volume and fresh weight of plants respectively by 40, 42% and 31%, suppressing the disease intensity by 33.33% and able to suppress bacterial wilting the best on the AUDPC value that is 47.32% -day.
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