DETERMINATION OF CHARACTERICTIC OF ACTINOMYCETES ISOLATES ON *PYRICULARIA ORYZAE* CAUSING RICE BLAST DISEASE ON SALT AFFECTED SOILS

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Summary

The objective of the research was to screen the characterictic of actinomycetes able to control rice blast disease caused by *Pyricularia oryzae* on salt affected soils. The inhibition of mycelia growth of P. oryzae by extract solution of Actinomyces isolates was examined in medium content 2g/l NaCl with 5 replications. The results found that the extract solution of three Actinomyces isolates S06-MBL, S09-MBL and S17-MBL were able to inhibit mycelia growth of rice blast fungus and S09-MBL isolate showed higher stabler antagonistic ability with diameter of mycelia growth is 25.2mm at 11 days after testing. Chitinase activity of the S06-MBL, S09-MBL and S17-MBL actinomycetes isolates was performed on chitin medium. The result indicated that, 3 actinomyces isolates had the chitinolytic activity and S09-MBL and S17-MBL isolates showed the highest chitinolytic activity with the chitin lyse halo radius of 23.2mm at 7 days after examination. Beside, the dose of chitinase of 3 actinomyces was also tested. The results indicated that S09-MBL isolate showed the highest chitinase activity with dose of chitinase reach 0.51 IU/ml at 7 days after testing.

Keywords: *Actinomyces, blast disease, chitinase, Pyricularia oryzae.*