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Bioactivity of Local Isolated Probiotic to Inhibiting Important Bacterial Pathogens in Aquaculture

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Abstract : Six probiotic strains isolated from Chiang Mai and Chiang Rai province, Thailand; CR1-2, CM3-4, CM5-2, CR7-8, CM10-5 and CM10-8 were used to study their morphology and inhibition activity on three pathogenic bacteria; Aeromonas sp., Streptococcus sp. and Flavobacterium sp. that isolated from infected Nile tilapia. The agar well diffusion technique was applied for 24 and 48 hours incubation. Interestingly, some probiotics showed good inhibition activity both 24 and 48 hours on each 3 bacterial pathogens. The capable inhibiting Aeromonas sp. were CR1-2 and CR5-2 with inhibition diameters of 13.0 mm and 11.2 mm, respectively. For Streptococcus sp., effective probiotics were CR10-2 with inhibition diameters of 10.7 mm. Whereas for Flavobacterium sp., effective probiotics were CR5-2 with inhibition diameter of 9.7 mm. It can be concluded that these probiotics have potentiality to develop as the pathogens biocontrol products. These will be support for safety and organic aquaculture that which the most worthy for people health.

Keywords : probiotics, Aeromanas sp., Streptococcus sp., Flavobacterium sp.
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