

Antimicrobial Activity of the Cyanobacteria spp. against Fish Pathogens in Aquaculture

Authors : I. Tulay Cagatay

Abstract : Blue-green microalgae cyanobacteria, which are important photosynthetic organisms of aquatic ecosystems, are the primary sources of many bioactive compounds such as proteins, carbohydrates, lipids, vitamins and enzymes that can be used as antimicrobial and antiviral agents. Some of these organisms are nowadays used directly in the food, cosmetic and pharmaceutical industry, or in aquaculture and biotechnological approaches like biofuel or drug therapy. Finding the effective, environmental friendly chemotropic and antimicrobial agents to control fish pathogens are crucial in a country like Turkey which has a production capacity of about 240 thousand tons of cultured fish and has 2377 production farms and which is the second biggest producer in Europe. In our study, we tested the antimicrobial activity of cyanobacterium spp. against some fish pathogens *Aeromonas hydrophila* and *Yersinia ruckeri* that are important pathogens for rainbow trout farms. Agar disk diffusion test method was used for studying antimicrobial activity on pathogens. Both tested microorganisms have shown antimicrobial activity positively as the inhibition zones were 0.45 mm and 0.40 mm respectively.

Keywords : fish pathogen, cyanobacteria, antimicrobial activity, trout

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