Evaluation of bacterial contamination of water and shrimps in sugarcane effluent

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Abstract

This study aimed to measure the bacterial contamination (the total number of bacteria, Vibrio and total coliform and fecal coliform) of wastewater of sugar cane fields used in shrimp ponds and the number of total viable count of bacteria and total Vibrio in shrimp tissues on the KHORRAMSHAHR. For this purpose, within three months of shrimp culture period (August, September and October) twice a month from 3 stations (one station located at the entrance of shrimp ponds and 2 stations in the two ponds) and shrimp Gills samples were taken. The results showed that the number of total coliform and fecal coliform in sugar cane waste water was more than ponds water and vice versa total heterotrophic bacteria and total Vibrio was less. These conditions are probably due to the settling of coliforms and the higher total number of heterotroph and vibrio bacteria in ponds due to food residues and dead shrimp carcasses caused by diseases. Also, in comparison to months of sampling between entrance and ponds water, the highest amount of all bacterial indices was in August and the lowest was in October.

Key words: sugar cane wastewater, vannamei, bacterial contamination