Contamination of Antimicrobial drugs in the Economic Coastal Aquatic Animals in Samutsongkram Province

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Abstract
The Contamination of antimicrobial drugs; oxytetracycline, oxolinic acid, and chloramphenicol in the economic coastal aquatic animals in Samutsongkram was investigated during December 2006 to November 2007. Razor clam (Solen regularis), blood clam (Anadara granosa), green mussel (Perna viridis), oyster (Crassostrea commercialis), hard clam (Meretrix sp.), swimming crab (Portunus pelagicus) and banana shrimp (Penaeus merguiensis) were target species and were sampling for 5 stations along the coastal area. Oxytetracycline and oxolinic acid were analyzed by HPLC and chloramphenicol was detected by ELISA technique.

The analysis showed that oxytetracycline and oxolinic acid were not detected in any samples at every station. Chloramphenicol was detected in hard clam (0.051 ng/g), oyster (0.047 ng/g), banana shrimp (0.031 ng/g) and razor clam (0.029 ng/g) in December 2006. Chloramphenicol was detected in blood clam during December 2006, January and February 2007, with a dose of 0.042, 0.038 and 0.030 ng/g respectively. Chloramphenicol was not detected in green mussel and crab samples. However, very less amount of chloramphenicol was detected in the hard clam, oyster, blood clam, razor clam and banana shrimp which lower than the MRLs set by Japan (0.5 ng/g) and Canada (0.1 ng/g). In conclusion, oxytetracycline, oxolinic acid and chloramphenicol contamination in the razor clam, blood clam, oyster, hard clam, banana shrimp, swimming crab and green mussel in Samutsongkram coastal area were acceptable for the standards set by importing countries such as Japan, Canada and the European Union etc.

Key words: antimicrobial drugs, oxytetracycline, oxolinic acid, chloramphenicol, Samutsongkram Province

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