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## The use of sanitized ice for seafood storage

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This study incorporated selected sanitizers in to ice that was used for storage of whole tilapia fish and harvested fillets. The L efficacy of this development in reducing bacteria on the fish and in the melted water was investigated. The sanitizers were PRO-SAN\* (an organic acid formulation), neutral electrolyzed water (NEW) and tap water as the control. At 8 hourly storage intervals, survival of the natural micro flora on the whole fish samples was determined from the water of the melted ice prepared with PRO-SAN\* and tap water. For the fish fillet investigation, the samples were inoculated with Escherichia coli K12, Listeria innocua and Pseudomonas putida then stored on crushed ice that was sanitized with tap water (control), PRO-SAN\* and NEW. The effectiveness of the sanitized ice was determined by testing the survival of the inoculated bacteria on the fish fillet and in the water samples at 12 and 24 hours intervals for 72 h, respectively. The results of the study showed a bacterial reduction of  $<1 \log$ CFU on the fish fillet samples. For the water from the melted ice, the results showed 2 log CFU and >3 log CFU reductions for the whole fish and the fillets, respectively. The data showed a significantly (P<0.05) higher bacterial reduction in the water from sanitized ice when compared with the control water. This study showed that the practice of sanitizing ice used to store raw seafood has potential to reduce microbial numbers and thus help to minimize the chances for cross-contamination.

## Biography

Melvin Pascall completed his Ph.D. in Food Science and Environmental Toxicology from Michigan State University in 1995. After working for the Food and Drug Administration for 5½ years, he is currently an Associate Professor in Food Science at Ohio State University. He has published approximately 50 papers in reputed journals. He also serves as an editorial board member for the journals of Food Processing and Technology. He currently teaches courses in food packaging, food regulations and food plant management. His current research activities are in the areas of edible packaging, food safety and contact surface sanitization, and package/product development.

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