

Press Release

Thailand-Taiwan research team to release the primers and detection protocol of early mortality syndrome (EMS) in shrimp

8 January 2014, Bangkok - A group of Thai and Taiwanese announced the success in developing a detection method for early mortality syndrome (EMS) in shrimp, and the free release of primers and protocol for the public use to curb the disease outbreaks.

EMS outbreaks started in China in 2009 and then spread successively to Vietnam (2010), Malaysia (2011) and Thailand (2012). These outbreaks were characterized by acute hepatopancreatic necrosis in the absence of any accompanying sign of an infectious agent during the early cultivation period of approximately 35 days. In early 2013 the causal agent was identified as a specific type of bacteria that tentatively belong to the species *Vibrio parahaemolyticus* and the disease was renamed “acute hepatopancreatic necrosis disease (AHPND)”. Efforts to control AHPND have been hampered by the lack of a specific and rapid detection method that could be used to determine the reservoirs of the causative bacterial isolates, to insure their absence in shrimp broodstock and post larvae, to monitor shrimp during cultivation and to aid research on possible control measures.

Scientists, led by Prof. T.W. Flegel of Thailand and Prof. C-F. Lo of Taiwan, has successfully developed a PCR method to detect AHPND bacteria. The group decided to release, free for public access, detailed information on the sequences and protocols from their research for a PCR detection method for AHPND bacteria. This will allow for their wide and rapid dissemination and allow interested stakeholders to assess the efficacy in developing possible measures to reduce the risk of AHPND outbreaks.

In Thailand, this research has been carried out through cooperation among researchers at Centex Shrimp (Mahidol-BIOTEC cooperative center) and the Department of Public Health both at Mahidol University and the Aquaculture Business Research Center, Faculty of Fisheries, Kasetsart University and Burapha University. The work has been supported since 2011 by contributory funds from many sources including the Agriculture Research Development Agency, the National Research Council of Thailand, the Thai Commission on Higher Education, Mahidol University, the National Science and Technology Development Agency, the Patani Shrimp Farmers Club, the Surathani Shrimp Farmers Club, the Thai Frozen Foods Association, Charoen Pokphand Group, SyAqua Siam Co. Ltd. and Thai Union Group. In Taiwan, the research has also been supported from several sources including the Taiwan National Science Council, National Cheng Kung University (NCKU), National Taiwan University (NTU) and Unipresident Enterprises Corporation.

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Attachment: Announcement regarding free release of primers for specific detection of bacterial isolates that cause acute hepatopancreatic necrosis disease (AHPND)