



DISEASE ADVISORY



Asia Regional Aquatic Animal
Health Programme

Acute Hepatopancreatic Necrosis Syndrome (AHPNS): Status Update

Network of Aquaculture Centres in Asia-Pacific, Bangkok, Thailand

Post-EMS/AHPNS Regional Consultation

Since the Asia Pacific Emergency Regional Consultation on EMS/AHPNS held in August 2012 in Bangkok, Thailand, many news reports have been widely circulated that have led to various baseless speculations and conclusions on the true nature of AHPNS. The disease, as previously reported, has been affecting shrimps in four Asia-Pacific countries (China, Vietnam, Malaysia and Thailand), with the greatest production losses reported in Vietnam. Given the uncertainty regarding the various causes of early mortality, Thai farmers have consulted with experts and government officials and agreed at a national meeting on 28 February 2013 to implement more stringent pond biosecurity and management measures, to focus on post larvae (PL) quality and to stock only PL10 or higher, until the causes are clarified.



Juvenile *Penaeus vannamei* from Vietnam: left with AHPNS; right appears normal.

Source: D Lightner

To this date, the case definition (both at farm and animal levels) developed by Prof. Donald Lightner is still the sole basis for proper diagnosis of the disease (refer to AHPNS Disease Card; http://www.enaca.org/modules/library/publication.php?publication_id=1060). It was also established in various expert investigations that the disease only affects younger shrimps, usually within the first 35 days after stocking in grow-out ponds. Thus, reports that the disease is also killing broodstock shrimp are baseless, and such reports should not be circulated unless scientific investigations have been done to prove that mortalities were caused by the same disease.

Unconfirmed Outbreaks

NACA has also received several reports on early mortality in shrimps from other countries in the region. These, however, were unconfirmed reports as confirmatory diagnosis (by histopathology) was not performed. In response to this, the Asia Regional Advisory Group on Aquatic Animal Health (AG) has decided to include AHPNS in the list of reportable diseases for QAAD (Quarterly Aquatic Animal Disease) Reporting in Asia-Pacific starting in the first quarter of 2013. This is for the sole purpose of gaining more information about the disease within the region (NACA, 2012. AGM 11: Report of the Meeting; http://www.enaca.org/modules/library/publication.php?tag_id=362&label_type=1&title=advisory-group-on-aquatic-animal-health).

Research Progress

Currently, scientific investigations on AHPNS are ongoing in several research institutions in the four affected countries, including a National TCP of FAO in Vietnam. As to the possibility that the causative agent(s) is infectious, the question is still open and experts (research teams from different agencies in Vietnam; Prof. Timothy Flegel of Mahidol University, Thailand; and Prof. Donald Lightner of University of Arizona, USA) are testing for transmission of the disease to healthy shrimps via bacteria, viruses, bacteriophages, fungi and parasites. They are also testing for environmental agents such as toxins (from both biotic and abiotic sources). So far, no causative agent has yet been found and the disease is still considered idiopathic.

Current Advisory

This disease update/advisory is issued to address the many circulating false and baseless speculations on the effects and spread of AHPNS in the region. NACA encourages shrimp farmers and producers in the region to properly consult fish health authorities and experts in their country for proper disease diagnosis, when early mortality is observed among cultured shrimps. Fish health authorities should then officially report confirmed cases of AHPNS to their respective national Competent Authority.