

SPECIAL REPORT



Thirty-eight (38) grow-out farms and seven (7) hatcheries might not seem a lot, but their very existence signals the Philippine entry into white shrimp *Litopenaeus vannamei* aquaculture.

Speaking during the 6th Philippine Shrimp Congress held 28-30 May 2008 in Bacolod City, south of the Philippine capital of Manila, experts from the United States, Thailand, Vietnam, India, Taiwan and France have agreed on how to ensure success in white shrimp culture.

Their advices are three-fold, based on their experiences, and are applicable to shrimp farmers in SEAFDEC member-countries:



SEAFDEC/AQD Chief Dr. Joebert Toledo opens the session on biosecurity and nutrition

(1) **The use of specific-pathogen free (SPF) or specific-pathogen resistant (SPR) broodstock and “high-health” fry.** Importations of SPF or SPR broodstock will only be from certified or government-approved sources. At the moment, only 10 facilities in the U.S.A. are accredited, all pre-cleared or certified by the Oceanic Institute or the United States Marine Shrimp Farming Program Consortium. On the other hand, hatcheries producing “high-health” fry from these imported broodstock would have to seek accreditation from the government. Accreditation is contingent upon water treatment (incoming and effluent water), physical isolation, aeration, and sanitation & disinfection facilities and practices.

(2) **The use of best management practices (BMPs) in grow-out farms** which means:

- provision of settling & treatment ponds, filtration system & reservoirs
- the use of probiotics (several products are commercially available and usually made-up of *Bacillus* spp.)
- installation of biosecurity measures, including tire bath at farm entrance, footbath & hand disinfection at the pond entrance, nets & high-density polyethylene liners as crab fence, bird scaring devices, individual paraphernalia for each pond, and hygiene facilities for farm personnel
- continuous monitoring of shrimp stock for disease symptoms. Institutions like AQD have disease diagnostic laboratories where shrimp farmers can send shrimp samples
- accomplishment of the certification to operate grow-out farms from the government prior to their operation

(3) The marketing of the right size of shrimp demanded by consumers, and compliance by producers, processors & exporters to regulations on food safety (e.g. HACCP), traceability, environmental and social components (e.g. fair trade)

The road to white shrimp in the Philippines has been long and paved with controversies. Prior to January 2007, the government banned the importation of *L. vannamei* (it is not native to the country) amidst fears of exotic disease agents that would ride on the white shrimp.

White shrimp culture in other countries is not problem-free. It has been hit by viruses -- i.e., white spot syndrome virus (WSSV), taura syndrome virus, yellowhead virus, gill-associated virus, infectious hypodermal & hematopoietic necrosis virus, and infectious myonecrosis virus – and bacteria (necrotizing hepatopancreatitis).

But the private sector, through the Fisheries and Aquaculture Board, lobbied for the lifting of the ban because shrimp farmers found tiger shrimp (*Penaeus monodon*) culture extremely difficult, as they have been forced to live with WSSV among other diseases. Some losses have been devastating.

It's too early for the Philippines to appear on the white shrimp radar. The biggest producing countries are Thailand, China, Indonesia, Vietnam, India, Ecuador and Brazil. Since white shrimp was first introduced to Asia from Ecuador in 2000, production has jumped 1,000% to nearly 1.6 million metric tons in 2005. In contrast, tiger shrimp only increased 15% in the same period. Shrimp production is now dominated by white shrimp (78%) and most (74%) are produced in Asia.

The need for research and development

Speaking at the Shrimp Congress, Philippine Senator Edgardo J. Angara called for an intensified research and development (R&D) effort to help boost the country's shrimp industry.

“Following the collapse of shrimp farming in the last decade due to the unsustainable practices and diseases, we realize now more than ever the need to beef up efforts at developing technologies and practices that will ensure the sustainability of the industry. I believe that potential problems in the shrimp industry can be prevented and by strengthening our R&D efforts,” said Angara, who also chairs the Philippine Senate Committee on Agriculture and Food.

He added, “Traditional farming methods no longer suffice. An export-oriented industry such as this requires more technology-intensive practices. Therefore, we must provide massive training and skills development for local shrimp growers and fishers, as well as their children. We will improve farming productivity if we are able to adopt modern technology and produce competent technical manpower.”

Angara also sees four major solutions in achieving long-term viability and productivity of the Philippine shrimp industry, enumerating among others: the need to tap existing pond resources, introduction of cost-effective and environment-friendly farming practices, adoption of a sound biosecurity program and to genetically improve shrimp species especially the tiger shrimp.

“If we strengthen research and development in the country, shrimp industry's output and productivity will definitely improve as investment in R&D has the highest economic return of all economic activities,” he said.

The Shrimp Congress was organized by PHILSHRIMP Inc. with the support of DA-BFAR, DOST, SEAFDEC Aquaculture Department, Negros Prawn Producers & Marketing Cooperative Inc, and the World Aquaculture Society.

The industry sponsors are Cruz Aqua / Epicore / Kona, Merck, Hoc-Po Feeds, Santeh Feeds, Schering-Plough, Spectrum International, Inve, BNH Marketing, Cargill, Feedmix, Novus, B-Meg, Yama Water Inc, CP, Bayer Animal Health / Genereach, Biostadt, and 2Go-Aboitiz. ☒



(from left to right) Honorable Senator Edgardo Angara (Philippines) expresses support to the shrimp industry and expounds on the need for research; AQD Scientist Dr. Celia Pitogo presents her study on disease surveillance in Southeast Asia; and visitors to the AQD booth leaf through publications on aquaculture