

Shrimp Farming in China

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Since the end of last century, the shrimp farming industry in China has recovered from the epidemic of WSSV. Although the challenge of virus diseases is far from to resolve, there has been remarkable achievement in shrimp farming industry during the past decade.

The current penaeid shrimp species farmed in China mainly include three native species, *Fenneropenaeus chinensis*, *Marsupenaeus japonicus* and *Penaeus monodon*, of which *F. chinensis* once took the lead in the shrimp production of the world at 200,000 metric tones in the early 1990s. Now the introduced species *Litopenaeus vannamei* plays the most important role in the shrimp farming industry in China.

In 2009, the total production of farmed shrimps in China reached 796,479 metric tones for mariculture and 1,386,272 metric tones for freshwater culture, of which the exotic species *L. vannamei* dominated 72.9% (580,843 metric tones) and 38.8% (537,299 metric tones), respectively.

Broodstock of *L. vannamei* is mainly purchased from US at a scale of ten thousand pairs per year and the total 448 billion of post-larval shrimps were produced in 2009.

In northern China, extensive mode is commonly chosen by shrimp farmers due to the disease risk, especially for those who have to farm shrimp with seawater. The shrimp, *F. chinensis*, *M. japonicus* or *L. vannamei* is usually farmed in low stocking density together with the fish, crab, bivalve and jellyfish, respectively.

Compared with the tendency of extensive farming performed in northern China, intensive growing-system is popular for *L. vannamei* in southern China, which is featured by ponds built in supralittoral zone with a central drain and aerating equipment. The output of shrimp is ranged from 15t/ha/crop to 30t/ha/crop. Currently, the green-house pond is used in southern provinces for over-wintering farming to harvest the shrimp during the early spring. In addition, a few ultra-intensive systems are available in China.

Most experts and aquaculturists remain optimistic about the outlook of shrimp farming industry of China because of the huge domestic shrimp market, and the continual capital flooding-in also implies the confidence and enthusiasm to the future of the industry. However, the industry still has to face challenges from shrimp diseases, deteriorated water quality, limiting broodstock supply, land shortage, and cost increase for both shrimp pellets and pond rentals.

For the future of shrimp farming in China, it is concerned about the issues of environment and product security. Efforts are further necessary for the sustainable development under the guideline of the international principles for responsible shrimp farming. Moreover, to meet the requirement of coming low-carbon economy, new theory and effective techniques should be focused on for the industry.