

Shrimp Culture in Vietnam

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1. Overview of Shrimp Culture in Viet Nam

The main farmed shrimp species in Vietnam are *Penaeus monodon*, *P. merguensis* and *Metapenaeus ensis*. The most important species for shrimp culture is *P. monodon*.

In the last decade shrimp culture has rapidly developed as shown in the following figures:

- *The post-larvae (PL) production*: Between 2000 and 2004, the number of hatcheries grew from 2,669 to 5,094; the amount of PL from 10,000 and 25,900 M, respectively.
- *The area for shrimp culture*: The area in 2000 was 224,407 ha and in 2004 the total area was 592,585ha (47,477ha of intensive and semi-intensive culture and 545.108ha of extensive culture, including organic culture).
- *The total production of shrimp*: The total production in 2000 was 104,519 mt and increased to 295,660 mt (290,501 mt for *P. monodon* and *P. merguensis*) in 2004.

2. Policy Issues on the import and culture of exotic shrimp

Vietnam Fisheries Law that has come into force from July 1st, 2004 contains a chapter on aquaculture (Chapter IV). It stipulates aquaculture activities and some articles of the chapter are cited:

Article 23: Masterplan on aquaculture development

1. The masterplan on aquaculture development shall be a part of overall development masterplan of fisheries sector approved by the Government.
2. Ministry of Fisheries shall chair the coordination with relevant Ministries and provincial People's Committees in formulating the masterplan on aquaculture development nationwide and of specific province and city under central level.

Provincial People's Committees, on the basis of the masterplan approved by the Government and in accordance with guidance of Ministry of Fisheries, shall formulate specific masterplan to submit to the People's Council at the same level for passage and to report to the Ministry of Fisheries.

On the basis of approved masterplans and plan regarding the aquaculture development issued by provinces or cities under central level and in accordance with the direction of provincial People's Committees, the People's Committees at lower levels shall prepare specific masterplan on aquaculture site within their jurisdiction to present to the People's Councils at the same levels for adoption and to report to People's Committees at the direct higher level.

3. Any changes and supplement of masterplan on aquaculture development shall be decided by agency dealing with masterplan approval.

Article 24: Aquaculture conditions

1. Organizations and individuals engaged in aquaculture shall meet the following conditions:
 - a. Construction sites for aquaculture facilities shall be placed in accordance with the masterplan.
 - b. Aquaculture facilities shall be complied with technical and conditional requirements; veterinary sanity standards and environmental protection as stated by legislation.
 - c. They shall use feed and veterinary drugs that are up to standards as regulated by legislation regarding veterinary service.

2. Ministry of Fisheries shall issue standards, process and procedures of aquaculture sites; shall chair the coordination with relevant Ministries and ministerial-level agencies, provincial People's Committees to provide guidance, examination and recognition of qualified aquaculture sites conducted by means of semi-intensive and intensive methods that meet the food hygiene and safety standards.

Article 27: Allocation, lease and revocation of aquaculture land

1. The allocation, lease and revocation of aquaculture land shall be done in compliance with Land Law and other relevant legislation.
2. Organizations and individuals to whom aquaculture land is allocated and leased shall comply with rights and obligations as set out by this Law, Land Law and others regulations of relevant legislation.

Article 32: Concentrated aquaculture areas

1. The State shall support to invest in the establishment of infrastructure for concentrated aquaculture areas in accordance with development masterplan and plans of fisheries sector; shall invest in the setting up of monitoring stations for fisheries environment and fish disease control stations.
2. Organizations and individuals conducting aquaculture in concentrated aquaculture areas shall comply with regulations of concentrated aquaculture areas, professional technical requirements on aquaculture construction, aquaculture techniques and farming environmental protection.
3. Ministry of Fisheries shall make regulations relating to water quality standards on aquaculture, specialized technical standards on aquaculture construction; shall issue rules on organization and operation of concentrated aquaculture areas as well as closed-harvest time to ensure food hygiene and safety.
4. Provincial People's Committee shall have responsibility to manage concentrated aquaculture areas.

Article 33: Fish fry

1. The quality of fish fry for aquaculture, rehabilitation and development of fisheries resources shall be ensured in accordance with criteria system of Vietnam.
2. Organizations and individuals who produce and trade fish fry shall meet all trade conditions as regulated by Government, shall ensure the fish fry production to be in accordance with sector's standard requirements.
3. New fish fry and firstly-introduced fish fry used in aquaculture shall be recognized and allowed to be produced by Ministry of Fisheries.
4. The State shall issue policies to promote the research of precious and rare fish fry and the creation of new fish fry; shall invest in establishment of national hatcheries. Ministry of Fisheries shall coordinate with provincial People's Committees to examine the fish fry quality in hatcheries.

Article 34: Import and export of fish fry

1. The imported fish fry shall be subject to quarantine as regulated by legislation regarding veterinary service and plant protection and quarantine legislation.
2. New fish fry imported for the first time shall be approved in writing by Ministry of Fisheries.
3. The transit of fish fry through Vietnam shall be done in accordance with legislation relating to veterinary service, plant protection and quarantine as well as other relevant legislation.
4. Exported fish fry shall be under the list of specialized exportable fishery products except the exchange of fish fry, scientific and technical research cooperation, gifts or other special cases as regulated by Ministry of Fisheries.

Article 36: Prevention and control of fish disease

1. Organizations and individuals engaged in fish fry production and aquaculture shall apply measures to prevent fish disease. Where fish disease occurs, treatment shall be timely applied and local authorities and specialized agencies shall be informed at the same time.

Diseased farmed fish shall be treated in accordance with legislation on veterinary service and plant protection and quarantine.

2. Ministry of Fisheries and People's Committees at all its levels shall be responsible for prevention of fish disease. The proclamation of fish disease and its cancellation, the proclamation of the list on fish disease and epidemic shall be done in accordance with legislation relating to veterinary service.

3. Culture of *L. vannamei* and other exotic penaeid species

The only exotic shrimp species in Vietnam is *L. vannamei*. It was first imported into Bac Lieu province on January 4th, 2001 from Taiwan, while broodstocks and postlarvae were imported from Taiwan, Hawaii and Main Land of China

The total PL production is small coming from provinces of Quang Ninh (150 mln), Phu Yen (71 mln), Ha Tinh (35 mln), Binh Dinh (20 mln), Bac Lieu (8 mln).

The area of vannamei culture is still very limited.

The production is very small. The shrimps are cultured in provinces of Quang Ngai (800 MT), Phu Yen (615 MT), Binh Dinh (167 MT), Quang Tri (150 MT), Thua Thien-Hue (24 MT), Ninh Binh (10 MT), and Quang Ninh, Binh Thuan, Dong Nai.

4. R&D activities on *L. vannamei* and other exotic shrimps

L. vannamei is not yet popular in Vietnam. The Research Institute for Aquaculture No 3 is still researching on the culture of the shrimp.

5. Disease outbreak and management

There is no record of occurrence of Taura syndrome of *L. vannamei* in Vietnam, although other common shrimp diseases appear in other species. The National Fisheries Quality Assurance and Veterinary Directorate (NAFIQAVED) takes all measures to prevent the diseases.

6. Proposed Guidelines for the introduction and culture of the exotic shrimps

- The Ministry of Fisheries is now elaborating technical standards for the white leg shrimp hatchery.
- SEAFDEC to conduct some projects on disease control on shrimp culture in the ASEAN Region.