

RECENT ISSUES OF SHRIMP IN INDONESIA

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1. BACKGROUND

Indonesia is the largest archipelagic country in the world, however, its share in the world production and export of fish and fisheries products remain very low i.e. 4 % and 3 %. Indonesia's potential coastal area for shrimp is 900,000 hectares and currently only 42 % have been utilized. In addition, there is another potential inland area for shrimp, yet the area was undetermined in the national land use plan.

The structure of shrimp farming in Indonesia is 75 % conducted in traditional way having yield of < 0.5 MT / ha, 15 % is semi-intensive with the yield of 1 – 2 MT/ha, and the rest of 10 % is conducted intensively with the average yield of 3 MT/ ha. Total production of shrimp (cultured and wild catch) in 2000 and 2001 were 243,000 MT and 248,000 MT respectively.

The main species of farmed shrimp are black tiger shrimp (*Penaeus monodon*) contributing 63 % of the total production, white or banana shrimp (*Penaeus merguensis* and *P. indicus*) contributing 19 % of the total production, and the rest *Metapenaeus sp.* Recently, Vannamei and Rostris are new species becoming popular, but still limited companies are commercially farming.

2. SHRIMP EXPORT

Shrimp is the main source of the Indonesian export of fisheries products amounting of 60 % the total value. Shrimp export in 2000 and 2001 were 116,187 MT and 126,978 MT amounting of US\$ 1.02 billion and US\$ 0.93 billion respectively. Japan has been the main market (50 %) for Indonesian shrimp export followed by the US (18 %) and EU (15 %). Roughly, the bulk of the shrimp (85 %) are exported in the frozen form, and 10 % in the fresh chilled form and the rest is in the canned form.

Indonesian shrimp export in the first semester in 2002 tends to have slightly decreases. Supply from Indonesia to Japan period January to July 2002 was 5,399 MT, a decrease of 0.22 % compared to those in 2001. Meanwhile, supply of Indonesian shrimp to the US market from January to June 2002 was only 1,779 MT decreasing 9.51 % compared to those in 2001. Indonesia also suffered decreasing shrimp export to the European Union due to antibiotic issue.

3. ISSUES RELATED TO TRADE

There is an increasing tendency for some developed countries to impose increasingly stringent non-tariff barriers, particularly on standards of quality and hygiene as well as issues of non trade concerns such as environment, labor, animal welfare, and genetically modified organism (GMO).

Chloramphenicol and other Antibiotic Residues

Chloramphenicol issue is the recent example on how some developed countries are systematically using various non-trade barriers as disguised restriction to trade. Switzerland Veterinary Federal Office (FVO) found chloramphenicol residue (0.07 ppb) on Indonesian shrimp export on September 24, 2001. The EU Council Directive issued in September 2001, requires that all shrimp exported from Asian countries are subject to antibiotic analysis in the port of entry. The EU released EC Decision No. 2001/705EC on 27th September 2001, regarding all Indonesia shrimp export have to be checked with Rapid Alert System (RAS) and must be zero tolerance of chloramphenicol in every testing. This policy was soon followed by Canada. On June 14, 2002, the USFDA also announced “FDA Increases Sampling of Imported Shrimp and Crayfish (Crawfish)”, and it will detain and refuse entry to any product in which traces of *chloramphenicol* have been detected. The maximum permissible level for the antibiotic has been lowered for the second time to 0.3 ppb. The previous maximum amounts were 5 ppb and then 1 ppb. In deciding on the level of 0.3 ppb, the US has joined Canada and the EU in establishing what has basically become “an internationally accepted standard”.

The question at stake is whether such measure is imposed solely based on the argument to protect the consumer’s health or otherwise if it is used as a pretext to impose technical barrier to trade that subsequently could become disguised restriction to trade. Up to now, there is no international standard that can be used as reference for establishing zero tolerance.

Moreover, a study released by Dr. JC Hanekamp of the Heidelberg Appeal Nederland Foundation said that the average person would have to eat 40 kg of shrimp a day, every day, for an entire lifetime to reach even a one in a million chance of getting cancer from ingesting foods contaminated by chloramphenicol as high as 10 ppb.

The case of chloramphenicol issue urged some shrimp exporting countries like China and Vietnam to conduct spot testing of the imported foods samples produced by EU and US for their local market. They found some food products produced from the EU and the US were containing chloramphenicol at dose of 0.3 – 0.5 ppb.

From the consumer’s point of view, shrimp intake in the European and American diet is very small compared to those from meat and poultry products. Therefore, all shrimp producing countries are very concern that the zero tolerance imposed by the EU, Canada and the US is not really based on sound scientific justification particularly risk assessment or risk analysis but merely based on “precautionary principles”. *Chloramphenicol* is just one issue and there are some more possible technical barriers to trade related to antibiotic residues.

Based on this phenomenon, Indonesia proposed a discussion paper entitled “The Need of MRL for Chloramphenicol in Shrimp” during The ASEAN Codex Task Force Meeting last May 2002 in Bali and during the 13th Meeting of Codex Coordinating for Asia on 16 – 20 September 2002 in Kuala Lumpur. The result this MRL will be further discussed under meetings of the Codex Committee on Residues of Veterinary Drugs in Foods.

Environment – Sea Turtle

The US requires that wild catch shrimp entering the US market must have been harvested in a way causing no harm or threatens turtle species. The US Law (Section 609 of PL 101 – 162) essentially requires that foreign shrimp capture practices to be the same as the ones imposed on US shrimpers by using Turtle Excluder Devices (TEDs) in commercial boats.

This issue could also be challenged by scientific evidence on the existing population of the threatened sea turtle in the shrimp catching area. To response the US requirement of using TEDs, the Government of Indonesia also invited the US mission to conduct inspection on Indonesian shrimpers.

4. GOVERNMENT’S EFFORT TO IMPROVE EXPORT PERFORMANCE

To increase and improve the export performance, the government of Indonesia continuously conducts socialization and extension to all shrimp farmers as well as processors on the ban of using chloramphenicol in their farming practices. Officially, the use of chloramphenicol for treating animals for human consumption was prohibited since 1982. Chloramphenicol is not produced in Indonesia; therefore the control of its distribution right now has been increased by the Agency for Controlling Foods and Drugs.

Indonesian Regulation Related to the Use of Antibiotic in Aquaculture:

- Circulated Letter of Directorate General of Veterinary No. 1143/IVa on November, 19th 1982 regarding trade license and animal drugs circulation (including fish).
- Decree of the Ministry of Agriculture No. 806/Kpts/TN.20/12/94 on December, 15th 1994 regarding animal drugs classification (including fish).
- Indonesia National Standard for shrimp artificial feed No. 02-2724-1992, prohibition using antibiotic particularly oxytetracycline and it’s derivate (have been in revision).
- Indonesia National Standard for black tiger shrimp production on farm No. 01-6497-2000, prohibition using chloramphenicol on fish farming.
- Indonesia National Standard for frozen shrimp No. 01-2705-1992, all frozen shrimp must not content oxytetracycline residue and its derivate (have been in revision).
- Indonesia National Standard for fresh shrimp No. 01-2728-1992.
- Circulated Letter of Directorate General of Aquaculture No. 3025/DPB.5/IX.530.D5/X/01 on January, 4th 2002 regarding prohibition using chloramphenicol on shrimp farming.
- Decree of the Ministry of Marine Affairs and Fisheries No. KEP.26/MEN/2002 regarding supply, circulation, using and supervision of fish drugs.

Follow-up actions:

- Identifying of the source of antibiotic contamination (whether from farming, handling of post harvest product, processing (freezing) or naturally from the water).
- Producing and disseminating of poster pertaining prohibition of using antibiotic in aquaculture and its impact.
- Socialization of regulation of prohibition using antibiotic during fish farming to regional officials, fish farmers and entrepreneurs (stakeholder).
- Improving skill and knowledge of fish farmers on implementation of good culture practice in fish farming (HACCP implementation on aquaculture).
- Monitoring of antibiotic residue on shrimp products and shrimp feed.

- Certifications of shrimp products to be exported (must be free from chloramphenicol).
- Developing capability of fish testing laboratory or fish inspection quality control.
- Developing supervision of using and distribution of animal prohibited drugs.
- Finding substitute of safe antibiotic for shrimp farming.

Current Result:

Indonesia requested the European Commission to release some detained shrimp cargoes to be retested of chloramphenicol content. For example, in the case of “rejected” shrimp cargoes of PT Laura Indo from South Sumatra Province arriving on 19 July 2002, a retest was conducted using HPLC with the limit of detection up to 0.12 ppb. Among the 18 samples, 14 were not detected containing chloramphenicol and 4 samples were detected containing chloramphenicol between 0.15 – 0.40 ppb.

Meanwhile, recent analysis for chloramphenicol residues on shrimp products and feed conducted by the Indonesian Food and Drug Authority reported that no residues were not detected on the samples.

Table 1. Analysis Report of Antibiotic Residue on Shrimp Product

No.	Species	Source Area	Monitoring Date	Result (ppb)	Remarks
1.	Black Tiger (<i>P. monodon</i>)	South Sumatera	25/4/2002	ND	Semi intensive aquaculture
2.	Black Tiger (<i>P. monodon</i>)	South Sumatera	25/4/2002	ND	Semi intensive aquaculture
3.	Black Tiger (<i>P. monodon</i>)	North Sumatera	29/5/2002	ND	Intensive aquaculture
4.	Black Tiger (<i>P. monodon</i>)	North Sumatera	29/5/2002	ND	Intensive aquaculture
5.	<i>Vanamei sp</i>	East Java	19/6/2002	ND	Semi intensive aquaculture
6.	Black Tiger (<i>P. monodon</i>)	East java	03/7/2002	ND	Intensive aquaculture
7.	Black Tiger (<i>P. monodon</i>)	East java	03/7/2002	ND	Semi intensive aquaculture
8.	Black Tiger (<i>P. monodon</i>)	Lampung	4/07/2002	ND	Intensive aquaculture
9.	Black Tiger (<i>P. monodon</i>)	Lampung	4/07/2002	ND	Traditional aquaculture
10.	Black Tiger (<i>P. monodon</i>)	South Sulawesi	24/07/2002	In process	-
11.	Black Tiger (<i>P. monodon</i>)	South Sulawesi	24/07/2002	In process	-
12.	Black Tiger (<i>P. monodon</i>)	West Java	29/8/2002	In process	Traditional aquaculture

ND : Not Detected

Limited Detection 0.1 ppb

Detected by Indonesia Food and Drugs Authority

Table 2. Analysis Report of Antibiotic Residue on Shrimp Feed

No.	Sample Code	Monitoring Date	Test Result (ppb)
1.	Kendi Mas	25/04/2002	ND
2.	Gold Classic 903	29/5/2002	ND
3.	Gold Classic 903	29/5/2002	ND
4.	Supreme 963	29/5/2002	ND
5.	Supreme 964	29/5/2002	ND
6.	SQ 3 B	29/5/2002	ND
7.	SQ 4	29/5/2002	ND
8.	SQ 5	29/5/2002	ND
9.	9003-SP	29/5/2002	ND
10.	9004	29/5/2002	ND
11.	9004-S	29/5/2002	ND
12.	884	30/5/2002	ND
13.	884	30/5/2002	ND
14.	Global 883	07/6/2002	ND
15.	Global 884	07/6/2002	ND
16.	Global 885	07/6/2002	ND
17.	Tata 2	19/6/2002	ND
18.	Marine 999-3	19/6/2002	ND
19.	Pasta V	03/7/2002	ND

ND : Not Detected

Limited Detection 0.1 ppb

Detected by Indonesia Food and Drugs Authority

5. PROBLEMS

- Lack of capability for fish inspection quality control to analyze antibiotic residue with 0.1 ppb limited detection.
- Limited availability of instrument for determination of antibiotic (High Performance Liquid Chromatography/HPLC).
- The spread of shrimp aquaculture area and export ports.
- Limited personnel of laboratory analysts, particularly to operate HPLC.