

Southeast Asian Fisheries Development Center

Aquaculture Department

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2007

Biosecurity for shrimp farms

Aquaculture Department, Southeast Asian Fisheries Development Center

<http://hdl.handle.net/10862/630>

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Farm personnel should:

Not have visited other shrimp culture sites or facilities within the past 24 hours

Change into a work uniform and foot gear before entry into areas where shrimp are raised

Under some conditions, shower in addition to changing clothes, prior to entering the shrimp production facilities

3 Monitor the presence of viruses by sending tissue samples regularly to a disease diagnostic laboratory

DURING DISEASE OUTBREAK

- 1 Do not drain contaminated pond water
- 2 Report immediately the disease outbreak to either:

SEAFDEC Dumangas Brackishwater Station, Dumangas, Iloilo
Telefax no. (033) 527-3016

SEAFDEC Tigbauan Main Station, Tigbauan, Iloilo
Telefax no. (033) 511-9029 (Attn: TVCD)

SEAFDEC will provide free diagnostic services to farms suspecting or experiencing outbreaks

Tigbauan Main Station no. (033) 336-2965
Fish Health Lab mobile # 0918-387-3619

- 3 When proven to be infected by WSSV or other shrimp viral diseases, eradicate hosts (shrimp stock and other crustaceans) mechanically and hold rearing water for at least a week. Sell the shrimp if big enough, but gather the remaining crustaceans and burn

Bear in mind though that any uncooked, infected shrimp or its washings are potential sources of the virus

Ideally, **crusticide** treatment should be applied to affected ponds before **disinfection** and release of water

- 4 SEAFDEC will report this disease outbreak to the Department of Agriculture Local Government Units (DA-LGU)
- 5 DA-LGU will inform other farms in the locality of the outbreak to prevent the spread of diseases

AFTER DISEASE OUTBREAK

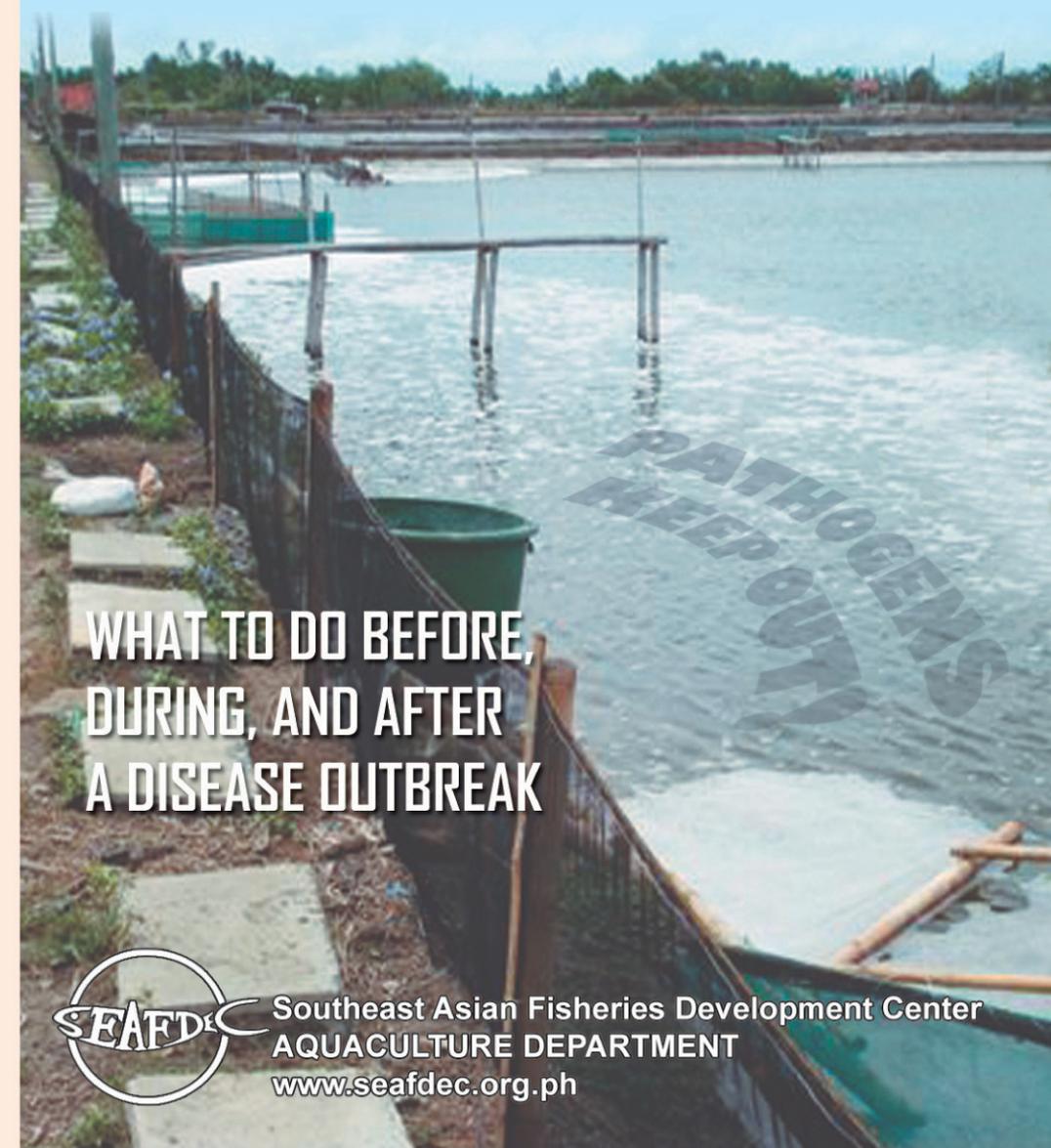
To avoid recurrence:

- 1 Review your operations. Did you do GMPs? Were the biosecurity measures in place? Was your monitoring adequate?
- 2 Modify culture system (use of greenwater, reservoir; closed/semi-closed system; crop rotation; screening and filtration)

The above procedure during disease outbreak was worked out during the "Awareness on biosecurity aspects of common shrimp viral diseases forum" held at SEAFDEC's Dumangas Brackishwater Station on May 31, 2007 which was attended by 27 shrimp farmers and other sectoral representatives from Dumangas, Zarraga and Leganes

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July 2007
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BIOSECURITY for shrimp farms



WHAT TO DO BEFORE, DURING, AND AFTER A DISEASE OUTBREAK



Southeast Asian Fisheries Development Center
AQUACULTURE DEPARTMENT
www.seafdec.org.ph

What is biosecurity?

Biosecurity is the practice of excluding specific pathogens from cultured aquatic stocks in the broodstock facilities, hatcheries, and farms, or from entire regions or countries for the purpose of disease prevention.

More viruses may be coming!

The tiger shrimp (*Penaeus monodon*) industry is already dealing with WSSV (white spot syndrome virus), and may deal with more when the culture of white shrimp (*Litopenaeus vannamei*) spreads. It is to be noted that the government has lifted the ban on the importation of *L. vannamei* on January 8, 2007. Importation is allowed for specific-pathogen free (SPF) broodstock only.

White shrimp culture in other countries has been hit by WSSV, taura syndrome virus, yellowhead virus, gill-associated virus, infectious hypodermal and hematopoietic necrosis virus, and infectious myonecrosis virus.

Although SPF broodstock are imported into the Philippines, the fry from the “SPF” broodstock is at best considered “high health.” Also, the SPF status is lost as soon as the imported shrimp come out of its production facility as they are now in a new or different environment that have natural viral populations.

Bear in mind that tiger shrimp and white shrimp belong to the same family of penaeid shrimps. What virus there is in one may infect the other.

Don't let pathogens in. But how?

Prevent diseases by good management practices.
Prevent the entry of viruses through biosecurity measures.
Have a disease diagnostic laboratory regularly monitor your farm.

There is no known cure for viral diseases

Once infected, don't allow a virus carrier to stay on the farm.
Don't spread the virus either to neighboring farms.
Follow the steps on what to do during a disease outbreak.

BEFORE DISEASE HITS YOUR FARM

1. Observe GMP or good management practices



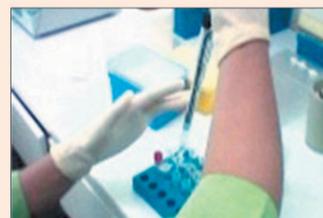
Provide settling and treatment pond



Provide reservoir with fish (tilapia is popular)



Provide a filtration system



Use good quality fry (or WSSV-negative fry as certified by a disease diagnostic lab)

2. Install biosecurity measures



Tire bath at the farm entrance



Footbath and hand disinfection at the pond entrance



Nets and high-density polyethylene liners as crab fence



Bird scaring device



Individual paraphernalia (feeding trays and boat, secchi disc, refractometer, basins, sampling materials) for each pond