

AQUA CULTURE

A s i a P a c i f i c

Polychaete Farming Business
in Thailand

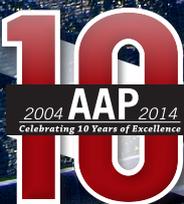
Probiotics for Disease
Prevention in Shrimp and
Tilapia Farming

Biofloc Farm for Spanish
Live Shrimp Market

Micro Aquatic Feeds

Taiwan's Seafood Business

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Aquaculture climate risk and insurance

By Katherine Hawes

The culture stock is the most important insurance interest for farms but the main insurance market fails to adequately provide for their biological risks, particularly when it comes to cover for climate change.

Aquaculture is a relatively new industry that is undergoing rapid growth. Not only does it produce aquatic animals and plants as food for human consumption but there are an additional diverse range of businesses and products which also fall under the heading of aquaculture, including jewellery and crafts, cosmetics, tropical aquarium, baitfish and medical research.

However, despite this diversity, the insurance industry fails to treat the aquaculture industry differently to any other sector. There is also very little choice of policies available with a limited number of insurance companies offering aquaculture underwriting services.

The term **aquaculture insurance** describes fast running insurable interest that would be normally used to protect an aquaculture business operation. For a large aquaculture company this would include insurance protection for buildings and equipment, employees, culture stock, vessels and other insurable interests.

One of the key concepts in insurance law is the idea of an insurable interest. In recent cases, insurable interest has been particularly important in relation to livestock and more specifically aquatic animals and plants under culture. Although within the aquaculture industry this is the most important insurance interest, it does present a few problems when it comes to insurance.

Aquaculture is a new and unconventional industry that fits awkwardly into national legislative frameworks. Too often, its operating framework is designed for agriculture or fisheries. For example, the law in some countries does not actually uphold rights of ownership of fish in fish farms. In these cases, if the ownership of the stock cannot be legally upheld, then it is extremely difficult to insure them! As a result, the lack of legislation in place for aquaculture can also present considerable difficulties for insurers.

Whatever the insurance policy, they usually address the following issues:

- What is insured
- Where it is insured
- What risks it is insured against
- How it is valued

- What the policy-holder should do if a claim occurs
- What general conditions apply

However, the key perils that the owners of aquaculture production operations generally want to insure against are as follows:

- Disease
- Infestations of parasites, predation
- Temperature fluctuations
- Plankton blooms
- Hazards such as drought, storm, flood, earthquake
- Equipment and system failure
- Vandalism
- Manmade pollution

Insurance in the Asia Pacific

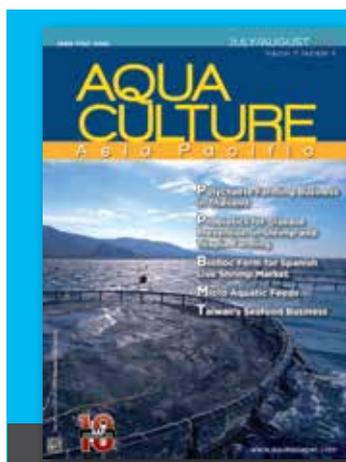
Within the Asia Pacific region, the new challenge facing the aquaculture industry is global warming and in particular climate change. Over the past few years, a number of serious disasters and losses in the Asia-Pacific region have caused a real threat on the industry, particularly for small-scale farmers.

Climate change has the potential to create real problems in the future. For example, as global warming takes effect, extreme weather conditions are likely to lead to changes in plankton profiles. There are already indications that this is happening, and many aqua farmers are trying to offset this risk by opening up to new areas to farm including offshore and underwater.

Climate change is now accepted as a real risk and even Lloyd's of London recently issued a call for insurers to begin adding the impacts of climate change and sea level rises into their insurance risk calculations.

Unfortunately, aquaculture is possibly more exposed to the uncertain overall effects of global warming than any other farming sector. There is evidence that weather patterns are changing and some weather phenomena are becoming more extreme. This could lead to increases in sea level and ambient temperatures eliminating some growing areas, while obviously creating opportunities to grow new ones.

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NEXT ISSUE

September/October 2015

Issue focus: Health Monitoring & Disease Management

Industry review: Marine Fish

Feed Safety & Hygiene/Genetics in Fish/Shrimp

Show & distribution: Aquaculture Europe, October 20-23, Rotterdam, Netherlands

China Fisheries and Seafood Expo, November 4-6, Qingdao, China

Deadlines: Articles - July 27, Adverts - August 3

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Climate change factors may also include the acidification of water, which in turn will alter our oceans ecosystems. This would increase the mortality for shellfish and in some areas, could also lead to a decrease in current fish stocks.

Freshwater aquaculture operations in low-lying coastal areas in the tropics are particularly at risk. These include a river basin flooding from increased rainfall, storm surges, and inundation of seawater from rising sea levels. Fish raised in freshwater aquaculture could be at risk from disease as a result of increased temperatures, low oxygen levels and rising sea levels.

Management of these risks can be difficult and expensive and minimising climate change risk through insurance does require a specialist underwriting approach. The main insurance market can easily manage risks when it comes to offshore aquaculture

equipment etc., but does not adequately provide for biological risks of culture stock, particularly when it comes to cover for climate change.

Moving offshore and underwater may help to mitigate some of the hazards of surface operation from climate change, but undoubtedly it will generate new issues and problems. For example, it may be harder to monitor stock and deal with disease issues underwater; and clearing mortalities may also be more difficult. Going underwater will also generate a significant increase in diving activity, the insurance of which is expensive.

Therefore, it remains to be seen whether any overall reduction of risk will be achieved by moving offshore and underwater. However, on the basis of the industry's evolutionary experience to date, there are bound to be some unpleasant surprises!

In conclusion, the insurance industry still regards aquaculture as a high risk industry and as yet, is unable to insure against climate change.



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