

**AQUACULTURE -
THE UNDERWRITING STORY**

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Aquaculture : The Underwriting Story

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Aquaculture, like other business, requires insurance to protect investment. In regard of stock protection there are many considerations facing an underwriter that make this perhaps one of the more complex of marine covers to provide.

We must cater for a wide range of situations. Some policies will work on a 'named perils' basis listing those perils for which stock loss is covered (eg. storm, disease, theft etc). But increasingly common is the more comprehensive cover provided by 'all risks' protection. Although a proximate cause or causes must still be identified, the 'all risks' approach reduces conflict arising where one or another possible cause might be linked to the loss (and where under named perils, only one of those causes is covered).

The diversity and geographical spread of aquaculture, the fact that many new proposals relate to new species and to companies that have no history of operation, demands close scrutiny of individual proposals. An 'off the shelf' approach is not practical. We need to

1. Assess the potential perils and examine the backup and security of *each* operation
2. Ascertain the appropriate indemnities (value) of the stock at *various stages of growth* and consequently the sum(s) to be insured
3. Look at the *aggregation of risk* and reinsurance requirements
4. Set a rate and terms that will generate sufficient premium to maintain the account yet still be marketable

Risk Assessment will follow the submission of a proposal form and consists of a personal visit by ourselves or a contracted surveyor. This survey looks at those influences that are likely to directly affect any part of the risk (such as management experience, water quality and quantity available, design of the system, alarm and backup systems) as well over riding influences such as the species being farmed (is it new to aquaculture, is it suitable for the site selected), financial security of the company and the claims (and operational) history. New farms (involving new species such as seahorses with no history of operation) would for example, be rated a much higher risk in regard of producing losses than an established operation (such as a salmon farm), with a good track record.

The Sum Insured is a moving target. Values change as fish grow. Population numbers vary with recruitment, natural mortalities and harvests (sales). Depending on the requirements of the proposer, indemnity will reflect anything from 'the cost of production' upto 'market value'. Even juvenile stock will have a 'market value' with some producers specialising in the production of juveniles for sale to other growers (eg. oyster spat). Again with new species or new sites, it can take some time to determine good estimates for parameters such as growth and mortalities. Where more than one species and one generation is involved the complexity of the calculations increases. Consequently the 'sum insured' which involves setting a 'maximum liability' as well as the 'average liability', tends only to be a 'best estimate' against which a 'deposit premium' will be charged. Adjustment based on the average of stock

declarations (submitted monthly) at the policy year end, will produce a credit or debit, depending if the estimate was high or low.

Aggregation of Risk occurs where a 'cluster' of aquaculture operations come on cover in one particular area. With the increase in probability that a common event (storm for example) is likely to affect most if not all of these operations, it is important that we extend the analysis of 'sums insured' to 'aggregation of risk'. Because individual operations are likely to incur values that change at different times from one another (harvest schedules may vary for example, recruitment for farms with different species will vary), the sum of the 'maximum sum insured' for each policy does not always reflect the maximum liability of an Insurer. Individual production plans and monthly values must be compared to identify this aspect (and determine reinsurance requirements) accurately. Various perils (eg. storm, disease or plankton blooms) and the likely impact on the different aquacultures (eg. land based abalone farms or sea based tuna farm) will also be taken into consideration during this exercise.

Rates and Terms reflect the perceived risk (and where applicable the operational history). Premium cost is derived from applying the rate (eg. 3%) to the average value at risk. An average liability of \$ 100,000 will therefore produce a premium of \$ 3,000. Other terms such as the excess or deductible, determine the proportion of liability carried by the policy holder and consequently can also affect the rate considerably. Excess's are generally based on a percentage of the value at risk at the time of the loss (to allow for changing sums insured) and will commonly range from 10% upwards. These may be applicable to whole sites or if more comprehensive cover is required, to more discrete locations (such as individual cages). Other terms may refer to exclusions (eg. deliberate slaughter, specific perils such as disease), or requirements (such as making regular stock declarations, staying within stocking density limits, notifying underwriters of losses and potential claims).

The underwriters involvement doesn't finish when the quotes go out (and policies are written). *'Follow up and support'* for the insured is an important part of aquaculture insurance. This may consist of advice given over the phone, the distribution of risk information to the benefit of all (or specific groups) of insured fish farmers, and repeat site visits aimed at monitoring risk and encouraging higher standards of security. In the event of claims, we will often have to work closely with appointed loss adjusters (as well as the insured), to interpret the events and accurately quantify the losses. Stock declarations must be gathered and assessed regularly, if the maximum liability looks like it will be exceeded new values may need to be assigned. It is very common (particularly with developing companies going through rapid growth) to spend almost as much time at renewal on reassessment of stock parameters, indemnities, reappraisal of risks, and aggregation of values, as we do for a new proposal.

Whilst fish are straight forward, at one end is a head, at the other end a tail, with aquaculture underwriting we never get ahead and the tale has no end.....