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Deirdre Morgan Secretary to the Independent Review Group Department of Agriculture, Food and the Marine National Seafood Centre Clonakilty Co Cork aquaculturereview@agriculture.gov.ie

Submission to the Independent Aquaculture Licence Review Group

Our oyster farm was started by my father when my youngest sister was born. She now manages our sales department and is celebrating her 40th birthday in April.

Our licenses were granted in 1986 were renewed in 1996 but have been up for renewal since 2006.

The current renewal process is a much lengthier process and is more stringent and constraining. There appears to be nobody arguing the case for the development of the industry within the system and no recognition of the needs of the shellfish producer. We face uncertainty, an inability to plan our business and must survive and invest without any security of tenure.

80% of businesses fail before 5 years, 96% fail before 10 years. Our business like any other, has faced very serious challenges which we have had to adapt to and overcome not only to endure but to flourish.

What I want to ask you today is that the licensing and the licencing renewal process takes into account that we are a vibrant living industry existing in the real natural world and that it supports our innovations necessary to survive in our fluid business and physical environment.

Yours sincerely,

Kian Louet-Feisser Managing Director

Carlingford Oyster Company Ltd

Working with nature



A concrete example of an event that threatened our existence is the product recall due to Norovirus contamination that we underwent in February 2010.

At this time bacteriological testing was used to assess the food safety of oysters. These results were presumed to provide an indication of the viral contamination as the viral test was not widely available and still undergoing research.

Since 2000 we started to diversify from the bulk French market which experiences regular demand cycles into the Irish and UK foodservice market. 'Carlingford Oysters' are now a common sight on the menus of many of the UK's finest restaurants (including Bentleys, Harrods and Rick Steins). On her recent state visit our oysters were served to Michelle Obama in Matt The Threshers. This is an enormous responsibility as these establishments have trusted their considerable reputations to us with a product that can be eaten raw and which grows by filtering plankton and minerals on our shared coastline.

In 1994 Carlingford Lough became an area of protected designated shellfish waters under EU legislation and through rigorous and regular testing has enjoyed the highest A-classification meaning that our oysters can be eaten directly from the sea without further processing.

Despite the fact that our bacteriological classification results were perfect and also that as an added precaution we were placing our oysters in purification tanks before dispatch illnesses occurred. Our harvesting was suspended and samples were taken for Noro-virus. High levels were detected and a product recall was initiated. For a small FBO a product recall can often lead to the closure of the company and it took us over 12 months to recover. (Can I emphasise that we had fulfilled our obligations. Our records had shown that regular testing of our oysters to EU regulation had been carried out flawlessly. Bacteriological results showed that under current legislation our oysters were fit for placing on the market. I don't believe that it is our responsibility as oyster farmers to monitor and regulate the sewage effluent that makes its way into the sea.)

Since that date we have been lucky to be selected by the Marine Institute to undertake possibly the most extensive testing of Noro-virus in oysters in the EU in order to better understand and minimise this risk.







We placed bags of oysters at 8 locations throughout the Lough. We found that the Noro virus could be reduced by 50% by storing our oysters before sale in certain locations.

We applied for licenses in 2 of these areas and we still await for them to be processed. Seven years have since passed.

Noro virus is destroyed by the ultra-violet radiation in the sunlight so that in our existing licensed area we get no contamination for 6 months of the year, low results for November, December and April and high results for January, February and March.

We also built extra purification tanks so that we could extend the purification cycle from 42hours which is sufficient for bacteria to 140 hours as this showed to be more effective against viral contamination.

Finally we installed heat pumps on our 8 purification tanks to regulate and heat the seawater in order to optimise the metabolic rate of the contained oysters.

Following 7 years of testing, the data becomes statistically meaningful. We see that purification alone even for 6 day cycles at elevated temperatures is not always effective at extracting Noro-virus to sufficiently low levels to remove the risk of illness.

The results from our testing with the Marine Institute have been freely available to other oyster producers in Carlingford. It is vital information necessary in order to make a decision as to whether or not to put their produce for sale during the busy high risk Christmas season. However one unfortunate consequence for us is that when we applied for site T1/104 which from our research has shown to be the most suitable storage location, the area had already been extensively applied for.

This application is adjacent to our existing licence AQ511- site 25c which has transpired to be too deep to be suitable for storage. At the time we were unaware that licence applications would be accepted on a first come first served basis without any consideration of the merit of the application or the applicant. We also hoped that the existence of our existing site would give us some small precedence to the adjacent unlicensed area.

This has left us with an application which is probably insufficient for purpose when eventual guidelines are issued on proper procedure for dealing with Noro virus contamination. While we welcome the dissemination of the results of research for the benefit of the wider industry we would ask that some consideration could be made in the case for the extensive research work that we have undertaken over 7 years in conjunction with the Marine Institute.

A significant side effect of not receiving a response to our renewal application in 2006 is the fact that we cannot access any grant aid for capital funding from BIM so all of this investment must come from our own resources, unlike our competitors in other EU countries and in licensed areas in Ireland. Despite this in 2016 we invested €86,410 on new grading machines and €20,000 on modernising our purification tanks.







After 20 years of marketing, our brand of oysters is recognised and sought after. However this type of customer requires a regular year long supply of safe high quality oysters. Without relaying our oysters we would have to suspend our sales for between 3 and 6 months

of the year.

This would destroy everything we have worked so hard to achieve and is something that is very difficult for me to contemplate.

Please see attached the report from the Marine Institute on Noro virus 14/F852.







This is just one example where we require an amendment to our license in order to react to unforeseen circumstances and thereby remain in business.

I will list some more points briefly but if you require more detail I will gladly elaborate on them.

- 1. Storage of oysters higher up the beach for sale traditionally for the French market. This peaks for a few weeks before Christmas accounting for 80% of annual sales. We now are in a situation where our sales are spread evenly 52 weeks of the year. Therefore we need licensed area which is accessible during neap tides for storage of saleable oysters.
- 2 We are one of the very first oyster farms in Ireland. Our licenses were applied for in the 80s using maps drawn using sightlines. They were renewed in the 90s but now with the advent of GPS we are required to adhere to the exact coordinates drawn in the original license application.
 - The trestles are still in the same position they were 30 years ago but there are inevitable discrepancies between the actual trestle positions and the hand drawn original coordinates. Could I put forward the proposition that if an aquaculture licence is over 20 years old and if the licensee has made a new licence application in order to rectify the situation that some tolerance could be shown of the order of say 50m where the GPS position of current trestles differs from the originally submitted hand drawn licence boundaries.
- With the advent of Brexit we are working to diversify our 80% reliance on this market into the emerging Asian markets. This is highly profitable but is extremely quality orientated. They will only accept the very highest premium quality oysters. We are learning how to produce these but it requires different growing techniques and involves conditioning systers before sale higher up the beach. A place traditionally that we had no need for licensed area.
 - It also requires the replacement of diploid with triploid (sterile) seed oysters which grow faster and therefore must be farmed higher up the beach in order to control their shape and quality. This seed wasn't even widely available 10 years ago. Furthermore markets like Hong Kong and Singapore require a zero level of Noro-virus contamination.
- New diseases have emerged which if we don't respond to have the potential to wipe out our aquaculture. Oyster farming is a very holistic form of aquaculture. In the open sea it is unpractical and unviable to treat sick oysters with drugs. Quite simply we observe our oysters growing and try to make their environment as ideal as possible. When a disease strikes we observe the oysters that have the highest survival rates and try to replicate these conditions for the remaining stocks.

Recently we have had to deal with the OsHv-1 oyster herpes virus effecting seed and the Vibrio Aesturianus bacteria which causes mortality in mature oysters.

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We have worked closely with the Marine Institute to minimise their effects and they have issued guidelines on successful husbandry techniques. Most of these would require some amendment to existing traditional licensed areas.

In order to improve the quality of our oysters we have increased the frequency with which we turn our bags. (This has an effect similar to pruning a plant and gives our oysters a regular teardrop shape.) This is done every 4-6 weeks. It costs approximately 20c per bag per turn and so costs €10,000 to turn our farm of 50,000 bags. However it became apparent that our best oysters are growing in the locations where they are exposed to wave action where in effect they are 'turned' up to twice a day when the tide ebbs.

Traditionally our lines of trestles follow the gradient of the shore so that we can work them as the tide falls and rises. To maximise the natural wave action effect we need to realign our trestles so that they face into the prevailing waves so that the waves are channelled down between them.

We believe that current licence regulation stipulates the position and orientation of each trestle making any such adaption illegal.

We would also like to invest in modern advances in oyster culture such as the Australian Seapa System where the oyster bags hang from the trestles on a plastic swivel. This allows the wave action to move the bags more efficiently and produces an oyster of outstanding quality over a much greater area of our farm.

We also experimented with fixing a float to one side of the oyster bags and fixing the opposite side to the trestles. This has the effect of lowering and raising each bag with the tide in a manner which is independent of the wind strength.

We also believe that these minor adaptions may put us in breach of our licence conditions. It could be argued that these growing systems will reduce our impact on the wild life in our licence area because it reduces the requirement for human presence for turning oyster bags.

I am aware there is a clause in current legislation in section 101-67B that lays the ground for technology changes.

However as I believe that this clause has rarely been taken into effect (and as we are now in a situation where a renewal or licence application can take longer than 10 years to be granted) that a more stream lined, time lined process needs to be put into place to support, protect and grow our industry. In all honesty we cannot be expected to sit by and watch our stock die or lose our markets to competitors for years and years on end. We are competing now for markets on a global stage against the worlds finest oysters airfreighted from as far afield as New Zealand, the USA or France.

We can only do this if we produce world class oysters which we can only do if we are permitted to develop and take advantage of new technologies in advance of our competitors.

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In recent years mortalities caused by the Aesturianus bacterium have occurred during the summer and autumn months on stocks of oysters which have been turned. This is a very serious threat to the industry as it effects our mature saleable oysters which we have already invested in for 3 years. Some farmers have chosen not to turn their bags during this time but this has a severe negative effect on quality.

Several oyster farmers have started different trials focusing on ways to reduce this mortality with diagnostic support from the Marine Institute. Two of these involve using the floating bag or Seapa System.

The Hypothesis for this is that the oysters are in a stronger condition created by the regular moderate daily movement as opposed to being stressed by manual turning once every 4-6 weeks.

So far results are promising with some farmers reporting significant reductions in mortality rates.







I hope that I have shown that if it is truly the goal of the Irish government and the EU to develop aquaculture as a means of providing jobs, exports and a valuable, sustainable and healthy source of nutrition that it is incumbent on them to support us with a licensing system that encourages us, that allows us to develop but most importantly allows us to evolve and overcome the inevitable succession of challenges that we have faced and will surely continue to encounter.

Can I make the point that none of the activities we have undertaken has been for the purpose of increasing our output production. Our annual production has been stable at approximately 180-200 tonnes or 1.8 - 2 million oysters for the last 20 years

Thank you for taking the time to read this submission and taking an interest in our predicament. I hope that I have not gone into too much detail but our oyster farm is something very close to our hearts. It is a job we love and the oysters we take we take great pride in growing are a delicacy that are sought after by our customers all over the world.

Yours sincerely,

Kinn Louet-Feisser

Managing Director

Carlingford Oyster Company Ltd



