

# **Educating to change Australia's oyster culture.**

**Changing the supply chain to the value chain**

A report for



By Ben Ralston

2014 Nuffield Scholar

October 2015

Nuffield Australia Project No. 1421

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# Executive Summary

A changing culture, education and a robust supply chain are three very important roles in Australia's oyster industry. The Australian oyster culture is changing with the help of international chefs and one particular oyster finisher, Steve Feletti; who has been leading the way in changing the oyster culture in the way he sells and markets his oysters.

In the past, Australian oyster farmers sold live oysters in bulk to processors who would shuck the oyster and rinse the oyster meat under a fresh water shower. This method is becoming less respected and is seen as a lower profit way of selling oysters from the farm gate.

The majority of the worlds' oyster supply will see oysters being sold live and oysters will be shucked, either to order at restaurants and markets, or taken home and shucked in household kitchens. The reason behind this is the oyster remains alive until it has been shucked and then it will be served in its own natural juice. In fact, in some countries it is against the law to serve or handle oysters the same way Australians do. Educating the consumer is about teaching them how to handle, shuck and serve live oysters. The future opportunities for farmers are to sell live oysters with higher value or profit margins.

Re-modelling the supply chain is the aim of the study. The supply chain needs to be robust and add value. This needs to start at government and policy level; fed through to farmers, transport, restaurants; and finish at the consumers. The lack of communication between government, oyster associations, oyster committees and farmers is becoming an increasing issue.

The recommendations of this report show how a stronger supply chain could add value. The winners will be farmers changing their supply chain to the value chain, restaurants/markets selling higher quality, and the consumers getting value for money.

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# Foreword

My vision for the oyster industry within Australia is ambitious. My aim is to slowly bring change to Australia's oyster culture.

I am a proud 5<sup>th</sup> generation oyster farmer, who has grown up on the Clyde River on the east coast of Australia. At the age of seven, I was given my first boat: a seven-foot rowboat. I used to row this boat around the front of my father's shed fishing and just loved life. There would be times where the current from the tide would drag me away from the oyster shed, and passing oyster farmers would see me too far away from where I should be. They would pull their boat up next to mine, throw me a rope and tow me back to the front of our shed. That is when the love for our oyster industry started.

Change has to start with our government departments having a better working relationship with oyster farmers in order to make the right decisions. The next step starts with oyster farmers correctly packing, handling and branding their oysters. Also having control over the supply chain is a must; then it comes down to our fish markets and restaurants selling live oysters. It finishes with the consumer demand for buying live oysters and shucking their own.

In comparison to the rest of the world, Australia is behind in the way oysters are handled and presented. Change needs to occur at the grass roots level of farming and more respect is needed for our product in the way oysters are stored, handled and presented in shops and restaurants. If this occurs, we will see a shift in profit margins and farms will become of a higher value.

In the current climate you can be the best farmer in Australia but if you do not handle, present and sell your product correctly, then being the best farmer means nothing. We farmers need to split our farms into two; 50% farming and 50% selling; put the same amount of time into these two avenues correctly and you will have more success with your farm.

Selling oysters is all about selling a good experience. For example, when consumers buy flowers they buy on emotions. Different colours bring out different emotions. That is what sells flowers. When consumers buy oysters they are buying a good experience. Shucking your own oysters over a glass of wine creates that experience. If we as farmers sell a good experience, in turn everyone will win and consumers will be buying more live oysters and getting the true oyster flavour. For the consumer this will result in an increase in both quality and value for money. Farmers will be selling more than just oysters; they will be selling oysters along with the oyster experience.

# Acknowledgments

Words cannot describe how thankful I am to Nuffield Australia, and my sponsor the Fisheries Research and Development Corporation (FRDC). This opportunity is not only for me but also for the oyster industry. Scholars sharing their personal experiences on topics they have a vast knowledge in is a benefit to all.

I would like to thank my fiancé Teigan, who two days into my world trip found out she was carrying my baby girl. Teigan was my rock and her support for what I am trying to achieve for the oyster industry is the reason why I am a Nuffield scholar. On the up side, I got to miss all of the morning sickness.

I acknowledge my brother, John and the Ralston family, who have worked and made sure the farm kept moving forward. If I didn't have the support from my brother this would not have been possible.

I have met so many scholars along the way, which has been amazing, and, I have learnt so much from you all, thank you.

I had the pleasure of travelling with 10 scholars from Australia, Wales, UK, New Zealand, and Ireland. The diverse opinions within this group has inspired and assisted in achieving my own personal growth. I call the scholars I travelled with for farm advice or any type of advice. They are a really respected bunch.

Special thanks to:

- Baptiste Raimbaud from Bouin, Pays De La Loire. - A leading oyster farmer in France.  
Follow on Facebook: *Huitres Baptiste Raimbaud*
- Steve Feletti from Moonlight Flat Oysters. Steve is known throughout the world for his oyster brands, and is the most respected and leading Oyster finisher in Australia.  
[www.moonlightflatoysters.com.au](http://www.moonlightflatoysters.com.au)
- Andrew Wales, who is the Executive officer of Australia's Oyster Coast. Andrew has been the leader in a new and exciting way to regionally brand oysters.  
[www.oystercoast.com.au](http://www.oystercoast.com.au)
- To all my hosts; I could have not done it without you.

# Abbreviations

FRDC: Fisheries Research and Development Corporation

DPI: Department Of Primary Industries

NSWFA: New South Wales Farmers Association

OA: Oysters Australia

USA: United States of America

NSW: New South Wales

QAP: Quality Assurance Program

# Objectives

The purpose of this study has been to compare Australian oysters and its oyster industry with the most respected and highly valued oysters in the world, the French oyster. The aim of this topic is to see how Australian oyster farmers can add value to oysters through the supply chain by:

- Building stronger and better relationships between government departments and oyster farms.
- Exploring opportunities for export and the challenges ahead.
- Improving handling, packaging and oyster presentation.
- Turning the supply chain into the value chain.
- Selling a good experience.

# Introduction

## The history is amazing and the future is exciting

Oysters have been enjoyed as a part of Australia's culture for thousands of years, and 99% of Australian families would have an oyster experience to talk about - the history is amazing and the future is exciting.

Thousands of years before European settlement in Australia, the indigenous Australians collected oysters. After shucking the oysters the indigenous people would leave a small pile of oyster shells, known as a midden. The Australian museum states that oyster middens have been found in and around ancient indigenous huts. The middens have been carbon dated back 10,000 years (Neil, 2011).

The hurdles ahead of the oyster industry include the poor relationship and communication between Department of Primary Industry (DPI), Oysters Australia (OA), New South Wales Farmers Association (NSWFA) advisory groups and the grass root farmers. Membership numbers with NSWFA is in decline. The NSWFA, when asked if they would like to provide information for this report have refused to assist. This shows there is no good will between the NSWFA and the oyster industry to move forward for change. With a declining membership and representing fewer oyster farmers, questions needs to be asked into how much credibility the NSWFA has with representation.

The setup of associations is not ideal. Oyster farmers are asked to volunteer and represent other oyster farmers. In the future, as farms evolve to be more professional businesses this will become a problem. Farmers are becoming time poor and volunteering for roles such as becoming a representative will be difficult. At the same time it gives a chance for personal agendas to creep in, leading to a conflict of interest. The structure needs to change to progress, by association with good advisory groups and good representation.

The production for the Sydney Rock Oyster (Australia's native oyster) has decreased over the past 4 years. The production In 2010/2011 was 5,243,234 dozen. Then in 2013/2014 the production was 4,786,802 dozen, which shows a decrease of 456,432 dozen in four years. The trend has really put pressure on farms to work on how to increase the value of their

oysters, which is the reason for this study; to determine how to get more value for oysters through the supply chain.

Oysters are a luxury item; the trend is that more farmers are starting to sell live oysters direct to restaurants and private home addresses. This trend has been seen with young farmers all over the world, although the partnering of the supply chain is one that should be looked at. The result would be that oyster farmers would have to package oysters in smaller branded boxes, which will sell for a higher value. Farmers can also partner with retail or wholesalers to sell the branded oysters live, cutting down on wholesalers and costs of preparing oysters, which in turn increases farmers' profits.

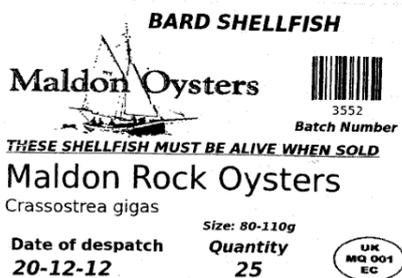
The change that needs to be seen in Australian oyster culture is to have consumers shucking their own oysters. It is a skill to shuck, and will only take time, patience and a good oyster knife. There are many benefits of shucking live oysters, which include higher quality product; and oysters will be served in their natural juice, which is the true flavour. This will create a good experience and most of all it's the correct way to serve oysters.

## **A global look at oysters**

Australia's way of selling oysters is quite different to the rest of the world. The majority of Australian oyster farmers sell their oysters in 40 litre hessian bags (average 50 dozen to a bag) to wholesalers or processors. The difference comes at the stage where processors will shuck the oyster, and then rinse them under a fresh water shower. The oyster will then be placed back in its shell, packed into a 10 dozen box and stored in a cool room at less than four degrees. The oysters will be then sent out to restaurants and fish shops for sale to the public.

Farmers from other countries in the world are shocked to hear how Australia sells oysters. In fact, it is against the law in France and other countries to sell oysters this way (Figure 1).

Figure 1: The oyster labels below display the fact that it is against the law to sell oysters dead (pre-shucked) at point of sale.



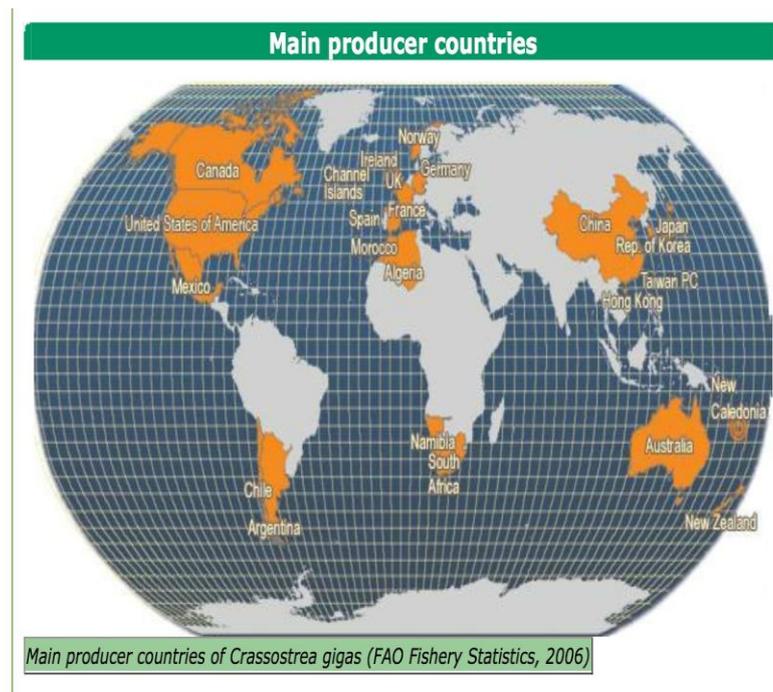
9	10	11	12	13	14	15	16	17	18	19	20	21	22
8	OAKFORD SHELLFISH												23
7													24
6	Species consigned (Common Name)						UK NO 001 EC						25
5	Rock Oyster												26
4	Species consigned (Scientific Name)												27
3	Crassostrea Gigas												28
2	"WARNING: These Animals Must be Alive When Sold"												29
1	J	F	M	A	M	J	J	A	S	O	N	D	31

(Label source: Feletti, S, 2015)

In oyster producing countries around the world oyster farmers pack oysters in branded small timber boxes (average 50 oysters per box). The boxes go to the wholesaler who then distributes into markets, fish shops and restaurants. Oysters are sold live and the restaurant or consumer shucks their own oysters and serves in its own natural juice.

In Australia there is a market for both the pre-shucked oyster from processors and live oysters. The main challenge is to create the change for selling and buying live oysters in the market.

Figure 2: The table below shows the main countries producing *Crassostrea gigas* (Pacific oyster).



Source: FAO Fisheries and Aquaculture Department 2006

## Annual Production

### Australia

- Oyster farming is imperative to the success of aquaculture in Australia, most importantly the ever-popular Sydney rock oyster (*Saccostrea glomerta*). It alone produces over 106 million oysters annually, valued at approximately thirty five million dollars (NSW Government, 2013).
- During an oyster's lifetime, they spawn multiple times. Although they generally start their life as a male, after their first spawning they change sex to female for further spawnings (NSW Government, 2013).
- One female Sydney rock oyster usually releases around 20 million eggs, whereas the female pacific oyster can release from 30 to 100 million eggs.
- Oysters may seem to grow easily; in actual fact the survival rate of oyster larvae during spawning is less than 0.1% (NSW Government, 2013).

- Oysters that survive spawning are called spat, the growing time until they reach maturity ranges depending on species. The Sydney Rock takes approximately three to four years. The pacific oyster can grow to maturity in as little as twelve to eighteen months, this is seen not just in Australia but worldwide (NSW Government, 2013).

*Figure 3: Oysters packaged for sale in Australia. The majority of oysters sold to processors in Australia are packed in 40 litre bags, as displayed in the picture below.*



Source: Ralston collection 2015

## France

- Over the years of 2012 and 2013, France produced 80 thousand tonne of oysters, however, over four years the production declined by 40 thousand tonne, due to the ostreid herpes virus 1 (OsHV-1) affecting the oysters (Oden et al, 2011).
- Due to the over-gathering of the wild oysters in France, the species began to dissipate, so Napoleon the Third introduced the first farms in 1849 to allow the species to grow without the over-harvesting risk (Driver, 2013).
- The French are the leaders in serving oysters correctly, they ensure all oysters are sold live to consumers and are freshly shucked before consumption (Driver, 2013)

- McCabe (2005) states that France has been consuming oysters since Roman times.
- The oyster industry in France provides approximately ten thousand jobs over the 3,750 oyster companies. The Christmas and New Year period in France is the busiest time of year, where fifty percent of the yearly production is sold over this period (Mr B.Raimbaud, Pers. Comm., October 2014).

Figure 4: Live oysters displayed in boxes, along with history about the oyster in France to appeal to consumers.



Source: Ralston collection 2015

## Ireland

- The pacific oyster production in Ireland in 2012 is on a much smaller scale than France, coming in at 7,313 tonne. Of this amount, 86% of the oysters are sold in France.
- Ireland has two species of oysters, the Pacific Oyster (*Gigas Oyster*) and the Native oyster (*Ostrea edulis*) (Tully & Clarke, 2012)
- Every year in September, the city of Galway is bustling with all-things oysters, including street parades and the world oyster shucking championship. The total cost for this Oyster festival weekend was 225 euro per person (in 2014).

- Ireland has their own oyster shucking champion, Michael Moran. The five-time champion has oysters in his blood. He is a seventh generation farmer and has the family business dating back over two hundred and fifty years (Thomas, 2014).
- The Pacific Oyster (*Gigas oyster*) is produced and sold from over 130 companies in Ireland, of these companies; almost 70% of the pacific oyster production is directly from the top 15 companies alone, which shows the scale of production from these companies.

**Figure 5:** Oysters packaged in plastic boxes along with seaweed and ice in Ireland



Source: Ralston collection 2015

## USA

- In 2010, the landing totalled 28.1 million pounds (12.745 million kilograms) of oyster meat (Lutz et al, 2012).
- There are five species of oysters in the U.S, those being the Pacific Oyster, Kumamoto oyster, Virginica oyster, *Ostrea edulis* (native oyster), and the Olympia oyster (Lutz et al 2012).
- Due to the rise in amount of sediment and silt in Chesapeake Bay, approximately 2,600 acres (1050 hectare) of oyster beds are lost every year (Oyster Recovery Partnership, n.d).
- Oysters in the United States are packed in small boxes and sold live.

**Figure 6:** *Oysters sold live in cardboard boxes at Wegmans in America*



Source: Ralston collection 2015

## Canada

- The oyster production in 2012 was over 11 thousand tonne (Canadian farmed Oysters, 2015). This trend has been seen since 2001, although there was a slight reduction in oyster production in 2008-2009 period (Fisheries and Oceans Canada, 2011).
- In Canada, the majority of oyster production is divided into two regions. British Columbia accounts for 64 % of oyster production, while the remaining 36% of production is in Atlantic Canada (Chopin, 2015).
- Canadian local, Patrick McMurray, holds the Guinness record for shucking the most oysters in one minute. He shucked 38 oysters in one minute in 2010, beating his previous seven year long record of 33 oysters (Guinness World Records, 2010).
- Oysters are quite important to Canadian aquaculture, being the most sought after seafood, behind mussels (Canadian farmed Oysters, 2015).
- The size of Canadian oysters vary, the cocktail oyster is less than 7.6cm, while the traditional oyster can range in size from 7.6cm to 12.7cm (Canadian farmed Oysters, 2015).

- In 2013, oysters accounted for CAD\$27.3 million (AUD\$28.64 million) in farm gate revenue. The highest value coming from British Columbia at CAD\$12.4 million (AUD\$13 million), followed by Prince Edward Island which made CAD\$7.7 million (AUD\$7.97 million), and New Brunswick at CAD\$5.7 million (AUD\$7.76 million) in revenue (Canadian farmed oysters, 2015; Chopin, 2015).

## New Zealand

The bluff oyster is native to New Zealand, and is the only oyster in the world that is farmed wild (Moore & Knight, 2004 as cited in Panelli et al, 2008, n.d).

- The Pacific oyster in New Zealand takes 12 to 18 months to grow and be ready for distribution.
- The Pacific oyster is thought to have been introduced to New Zealand in the 1970's, by a ship from Asia, which was delivering parts for the Auckland Harbour Bridge (New Zealand Aquaculture, 2012).
- Auckland, Northland and the Coromandel regions are the main producers of the Pacific oyster, they are generally farmed using racks and baskets which are made specifically for growing oysters. They are grown in estuaries and harbours.
- In New Zealand, Northland accounts for 51% of the pacific oyster production. Auckland accounts for 25% of production, while the Coromandel region produces 21% of the Pacific oyster total, followed by Marlborough, at 3% (New Zealand Aquaculture, 2012).
- Oysters in New Zealand are pre-shucked and snap frozen for shipment.

*Figure 7: Oysters are frozen in New Zealand and sold in Australia for AUD\$23 dollars a dozen.*



Source: Ralston collection 2015

# **Chapter 1: Building a robust relationship with government**

## **Issues of governance**

The major issue with oyster farmers in Australia is coming through communication and the government understanding of what is happening at the grass root farming level.

Many of the same oyster farmers represent the oyster industry on the farming committees, or are the advisory persons; this is not beneficial for anyone and will not give a clear indication of what is happening on different farms around Australia. A lot of decisions are made at these meetings and the representatives for the oyster industry most often make the decision using their own opinion, which sometimes may not reflect the majority opinion of the oyster farmers.

It is difficult to fully represent the views of all oyster farmers and it is a credit to the farmers who volunteer their time to be on these representative committees. It is important to understand, not all oyster farmers want to be proactive and be involved in industry decisions. At the same time this means the proactive farmers deserve their opinion on issues regarding their oyster industry.

## **Building Stronger Structures**

The oyster industry has a very diverse range of farms. Some are big or small with low profit margins, others being big or small with high profit margins. To make for a stronger industry all voices need to be heard. A way of achieving this is through a government oyster advisory independent contract. Which will be discussed further below.

One idea for change came from a trip to the US in 2014, after talking with a government employee who worked on a research vegetable farm. This person explained how he gets a better understanding of the farming methods and the vegetable industry. He would once a

week make arrangements to work on different farms to increase his knowledge and understanding of that farm's operations.

The current oyster industry is missing this communication between government bodies and oyster farmers. The industry should look at creating an independent contracted, government role in which the requirement that the contractor is to work 40 days on 40 different oyster farms within their division each year. The role would include working on big farms, small farms, high profit, and low profit. Then report back to the government with what is working and what is needed. The contractor will build personal relationships and on-ground understanding of the industry. This can be the start to building strong relationships between oyster farmers and governing bodies.

The contractor would be required to send out quarterly reports on what is happening at the government level and also at the farm level. The opportunity will come with so many vast opinions, with no outside emotions being involved and will give a clear snapshot of how the industry is going.

## **Industry bodies**

Oyster industry committees are important for strong representation. In industry, all proactive and leading farmers should be given every chance to have their say. The spokesperson and representative needs to be able to go to advisory meetings with a clear understanding of industry issues and reflect what the majority of farmers are feeling. If it is a vote, then the representative needs to be going to the advisory meeting with a clear view of how the majority of farmers they are representing would have voted within their division, and vote accordingly. Every step needs to be transparent. The idea of professional independent representatives needs to be considered. Technology has changed the way farmers can communicate and it really needs to be adapted more to involve farmers in industry discussions.

# Chapter 2: Opportunities

## Exporting oysters

When studying this topic and looking at global markets, it was noted that there is a huge demand for Australia's seafood and oysters. Seafood is 50% of the world's protein.

Australia has a great advantage in producing high standard of oysters. It is a credit to the NSW Food Authority and the benchmark that has been set, ensuring the high quality standards that oyster farmers in NSW maintain. The program called the Quality Assurance Program (QAP) has been set up by the NSW Food Authority. It involves water testing, oyster meat testing, correct handling temperatures and triggers for closure to harvest.

With the high standard for harvesting oysters and the most pristine water systems across the world, this adds to the potential for Australian farmers to market oysters for a premium price in export markets. Singapore and Hong Kong are shown to be the highest profit areas with French oysters sold for up to AUD\$100 per dozen at a cold store supermarket.

Compare this with NSW Sydney Rock Oyster (known as Australia's luxury oyster) 2013/2014 average price at farm gate being AUD\$6.60 per dozen.

### ***Steps to Exporting***

An export market has a lot of benefits to oyster farmers. However, looking at oyster farmers in Ireland and other countries, and how they pack and export oysters has shown that Australia is over-regulated and the set-up process is too complicated.

In Australia the regulation requires that you have a specialized packing room. The high cost to get a packing room approved, and the running cost and paperwork through audits, has proven to be an issue for farmers. The red tape will remain a hurdle and make the idea of exporting less attractive. This will give other countries' oyster farmers an edge over Australia.

### ***Benefits to Australia***

- All oysters sold internationally will be packed into smaller boxes and oysters will be shucked live.
- Oysters will be served in own natural juice. The true flavour of the oysters shows the high quality of Australia's oysters.
- It will, as prices and demand grows, put pressure on a domestic market to increase price.
- This will promote discussion on changing Australia's culture and help shift power back to the oyster farmers.

# Chapter 3: Adding Value

## Handling, packing and presenting oysters

### Handling for high quality

Oysters need to be handled correctly to maintain the highest quality and longest shelf life. When handling oysters it is important to understand this is the most important step in the supply chain. It is the critical factor in keeping higher quality oysters for longer. New technology should be adopted early: for example, place temperature loggers in boxes of oysters that are shipped. Once oysters arrive at their destination get the results uploaded to make sure oysters are staying at the correct temperatures when travelling.

Across the world there are a lot of different methods for handling oysters. France is by far the leader in this area. It starts before the oysters are harvested. The oyster finishing method is called *affinage*, and is one of the reasons why the French oyster is the most sought after in the world. The leading Australian farmer in *affinage*, Steve Feletti says “*it’s all about the finish*”.

To get the best shelf life with oysters they need to be taught how to drink and acclimatize. To achieve this, the farmer will place oysters at a height in the river or ocean, set so that on a low tide the oysters will be exposed to the climate. This practice strengthens the adductor muscle and prepares the oyster for harvest.

Buying pre-shucked oysters in a restaurant will cost between \$20 - \$30 Australian per dozen, compared with buying live oysters at a restaurant, where oysters are shucked to order, will cost \$40 - \$96 Australian per dozen. It all comes down to handling and severing the oyster in the right way. This will increase value in the supply chain and value to the consumer.

### Packaging

There are two types of packaging in Australia:

- The most common is the 40 litre hessian bag that is sent to processors. These oysters will be pre-shucked.
- There are a small number of farmers selling direct. These farmers pack live oysters in small branded boxes and receive higher profit.

France produces four times Australia's production and all oysters are packed into small timber boxes. Oyster farmers from France, Netherlands and Ireland all present oysters in timber boxes with professional photos of their oysters presented on top of the box.

- Packaging and branding correctly could be the difference needed to make higher profit margins in Australia. In the supply chain this should be looked at as a means to increase profit. It will be working on the other 50% of your farm that is not farming.
- Profit margins can double for half the amount of work.
- Selling oysters in small branded boxes will create new customers. Farmers will be able to sell live oysters direct or form partnerships with wholesalers to sell the branded oysters.
- It will be a cultural change for farmers and they have the opportunity to make it.

*Figure 8: Trial with branded oyster box at Sydney fish markets. The branded oyster box sold 50% more oysters than those packed in foam boxes.*



Source: Ralston collection 2015

Figure 8a: Oyster box branded similar to packaging overseas.



Source: Ralston collection 2015

### **Presentation adding value**

Presentation will be the part of the supply chain that could make a critical difference to selling larger quantities of oysters. For example, in the Netherlands experiments were done with presenting flowers for sale differently in the retail shops.

The usual method used to sell flowers is to bunch together and present in a small flower bucket. The flowers are placed in the bucket upright and all lined up on stands. What the customer will see when looking to buy will be the flower bucket stems and the flowers. The experiment saw the flower bucket instead of being stood straight up and down the flower bucket was changed to tilted forwards on a 16% angle.

The outcome was, when the customers were looking at the flowers they would see no bucket, no stem just all the blossoming flowers, petals and buds. The sales increased by 60%. America have caught on to this and in the Wegmans supermarket they have gone to the next level and stand the fruit and vegetables on the 16 degrees tilt for presentation. They go to the length of standing asparagus straight up and down. Compare with Australian supermarkets and you will find the asparagus lying on its side on top of each other. This shows the respect for the produce and the importance of food presentation.

Presentation sells; there are so many different ways to present oysters, such as using seaweed as a base, dry ice and timber boards just to name a few.

*Figure 9: Photo at an oyster bar in Paris being presented with dry ice. Oysters value from \$3.47 (2.50 euro) to \$12.37 (8.90 euro) per oyster.*



Source: Ralston collection 2015

# Chapter 4: Selling a good experience

The meaning of a good experience is the *“apprehension of an object thought or emotion through the senses or mind”* (American Heritage Dictionary of the English language, 2011). This is where Australia’s oyster culture is missing out.

Every household in France owns an oyster knife and has learnt how to shuck their own oysters. Shucking oysters is just a part of their culture. The French sell 50% of their production in the week of Christmas. Every oyster is sold live and most will be shucked fresh on Christmas day. In France it is very common to see oyster baskets and knives sold in many shops.

This is the good experience - sitting around shucking oysters with good friends and family, most often with a glass of wine or a beer to go with it. Once all oysters are shucked the oysters will be served with brown bread and butter.

Buying live oysters will create a good experience. Learning how to shuck your own oysters will be a skill for life. The idea of shucking your own oysters is a win for everyone.

- Oysters will be served in their own natural juice, which is the true flavour.
- Live oysters can be brought directly from oyster farms and delivered anywhere within Australia.
- The theatrics of shucking your own oysters will be a talking point at any place you are shucking oysters.

Oysters are a luxury item and are at the higher end of pricing, though oysters will create a good experience that other foods cannot. If consumers buy a good experience it adds value to the product as every time they think about oysters they will remember the experience and buy them again.

The vision is for every household within Australia to have a good quality oyster knife in the kitchen drawer. Enjoy the experience of shucking your own oysters with family and friends; then teaching your sons and daughters the art of shucking their own oysters.

Families will be able to share stories about the farms where they buy their oysters and pass this information down through generations creating a good experience. That's what Australia's culture is missing.

# Conclusion

Changing a culture and adding value to the supply chain is not always about dollars. Value can have different meanings to different farms. Some might be higher profit, for others could mean better exposure or even negotiating a better contract. If oyster farmers are looking at adding value to their supply chain they will have to look at every step through the process. Each step is as important as the next whether it be a strong relationship with the government bodies or knowing the courier is keeping your oysters at the right temperature.

Each step has to be thought through, planned and put into action so that it will add value to the supply chain. To achieve success it is important to develop a supply chain manual for each farm. It needs to be in-depth and go step by step. This can also be used as a marketing tool and passed to customers.

The findings from around the world show that if changes are made to packaging smaller amounts and selling live oysters, then consumers shucking live oysters will add value to not only the farmers but the consumer as well. There is a reason why the French oysters are rated the best in the world and it is not because of their oysters. It is their culture, the way they brand, pack and respect the oyster. French production in 2014 is six and a half times more than the Australian production. The French have no issues packing smaller amounts, and not one oyster is served the way the majority of Australia serves their oysters.

Australian oysters can be number one in the world, though there will need to be significant changes before Australian farmers can even think of challenging for that position.

Farmers always need to remain working to their strengths. Partnering programs help keep control of brands or products. The idea of partnering means it is a mutual understanding where both parties will receive value from the partnership. The importance of selling oysters with a brand and controlling the value chain is if farmers lose control of their own oyster identity they will lose the value of the oysters.

# Recommendations

- Have a government paid oyster advisory role where the job description is work for 40 days per year on farm work on 40 different farms per year. The advisory role could explain to farmers, as they work, what is happening within the government. Then once back in their government office the advisory officer can update the government.
- To add value pack oysters in smaller quantities in small branded boxes
- Type up an action plan for how your supply chain works. See what changes could be made to change the supply chain to the value chain.
- Extend the use of technology to help add value and keep track of the value chain, for example temperature loggers placed in oyster boxes to see what temperature the oysters are travelling at. There is also potential to explore the use of GPS trackers on oysters showing time from harvest to the customers' door.
- Wholesalers and retailers sell live oysters. The idea of buying live oysters and shucking them oneself needs to be promoted.
- Each farm and company needs to brand their oysters. It needs to be passed through to the consumer so they can start to find from where they prefer to buy their oysters.
- Farms embrace the idea of selling live oysters and packing smaller amounts (and price accordingly)
- Every house in Australia owns a good quality oyster knife (*Dexter Russell New Haven Oyster Knife*)
- Consumers learn how to shuck oysters without losing the natural juice of the oyster.

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# Plain English Compendium Summary

<b>Project Title:</b>	<b>Educating to change Australia's oyster culture</b>
Nuffield Australia Project No.:	1421
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<b>Objectives</b>	To identify what changes farmers can make in the oyster supply chain, to turn it into the value chain. Give farmers a better understanding of where is the most value in oysters. Start the change of Australia's oyster culture.
<b>Background</b>	The Australian oyster industry has under-sold itself for generations. In the past ten years, as overheads are rising, farmers are starting to look at different methods of selling oysters. Farms need to have an understanding of where the value is in the supply chain.
<b>Research</b>	This research looked at how different farms control the supply chain to get the most value for the oysters. Research was also undertaken to determine which country was leading the way in oyster value. The key is to find where the most value for oysters is.
<b>Outcomes</b>	Oysters need to be looked at as a luxury item that can create a good experience, as most products cannot provide this. The value with oysters being shucked with family and friends will create an amazing experience. Having parents talking and teaching the next generation on where to buy their favourite oysters. Also how to shuck oysters will change Australia's oyster culture.
<b>Implications</b>	The oyster industry can become the most respected and profitable industry within Australia. It will take a cultural change for farmers and also consumers. Selling live oysters adds value to the product, and allows consumers to enjoy oysters in their natural juices, thus creating a better experience for all.
<b>Publications</b>	