shellfish culture

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New hope for NSW farmers

Embattled Hawkesbury River farmers in NSW are expressing renewed hope as they receive POMS-resistant spat and 2240s from Shellfish Culture in Tasmania.

QX disease and then the invasion of POMS in 2013 has devastated the local industry. One farmer says before POMS there were 13 oyster farmers on the Hawksbury. Now only about six are actively farming.

Farmers are now receiving batches of spat from Shellfish Culture. "Both the scientists and Shellfish Culture have been making great advances in producing POMS resistant spat so that we feel there's definitely still a future for us," said one farmer.

Shellfish Culture has also received official sanction to supply spat into southern NSW oyster farms, and orders are flowing in.

The QX parasite struck the Hawkesbury in 2004 and wiped out many farmers. But SCL re-supplied customers on the river with Triploid Pacific oysters which are resistant to QX disease and grow quickly.

Then came POMS in 2013. Now, with the assistance of scientific advances and research by SCL, farmers are hopeful that better POMS resistant oysters will be produced in future.

"Its very pleasing to be able to supply spat back into the Hawkesbury region and further south in NSW," said SCL's Greg Bowers. "The growers have had many challenges and whilst still challenging, progress is happening. As we are all still learning what POMS brings to our Industry we can all see that there is a future post POMS. However in many cases it's a different operating model, such as window-farming.

"We have not forgotten our northern customers since the POMS outbreak and it's great to be able to support them once again."

Keeping a pristine lagoon

Known as PLOGA, the Pipe Clay Lagoon Oyster Growers Association recently held three oyster clean ups within the lagoon. The combined effort saw well over 20 tonnes of wild or feral oysters removed from the local environment.

Chairman of PLOGA, Greg Bowers, said he was very pleased with the clean-ups which involved both local growers and local community residents.

"It's very important our Industry is proactive in ensuring our habitat is healthy, sustainable and suitable to be used by all. We have many windsurfers, swimmers and the like enjoying our beautiful water way and via these clean-up days it's one way our Industry can support the local community."

Further working bees have been scheduled. The Shellfish Culture team supplied a bbq for participants. "Since the POMS outbreak it has been difficult to hold a clean-up without spreading the virus but we know we have the solution: so a more regular program of clean-ups is in place."

Oyster clean-up days: Pipe Clay Lagoon

Also in this issue:

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Chairman's Report

SCL's strategy day a month or two back was an important opportunity to review where we've come from since POMS struck Tasmania, and where our company will fit in the wider Australian oyster industry in the years ahead.

The day re-affirmed that, in this new POMS threat environment, SCL is fairly well placed in terms of its recovery from POMS and its future directions.

Part of our strategy, which we keep under constant review, is to look at our structure to ensure we have the capabilities to take the company, not just into the future, but precisely where we want to go in the future.

Greg Bowers, our General Manager, has identified some capability enhancements which will be required for our future development and we're beginning to address these areas so that our structure supports our positioning within the oyster industry in the years ahead.

We are also looking at how to better serve farmers in non-POMS areas of Tasmania. As you would know, we have strict biosecurity now in place and as a result we can provide spat to areas free of POMS.

Our biosecurity measures are audited regularly and in fact we've recently undergone our latest audit and have been certified to continue supplying 2240's to areas unaffected by POMS. We now want to build on this success to the benefit of both our farmers and our company.

In regards to Eyre Shellfish we have to acknowledge that it has been a very steep learning curve and we have learnt a significant amount over the last 8-12 months. During my recent visit to the site I was very impressed with the calibre of the new Team in place and in particular the progress we have made in regards to the nursery components of the facility.

The improvement in the overall management of the enrichment dams and the raceways is particularly pleasing to see with the current spat on site growing extremely well. Whilst we have had some challenges regarding the overall supply of spat, the feedback from growers who have received spat has been positive in regards to both its quality and growth.

Chairman, Greg Goodman

As a Board we are very mindful of the current situation within the SA Oyster Industry and I am confident we are doing all we can to contribute to a strong recovery over the next couple of years.

Additionally I appreciate very much the continued support that the growers are giving Eyre Shellfish in this difficult time and we look forward to regularly supplying spat to the market in the near future with our next spawn in July.

US focus on temperature controls during harvesting

Smithton oyster farmer Jon Poke is just home after a 15-day trip to the USA where he gained invaluable insights into the US industry. Jon was travelling as a Seapa consultant with a farmers' advisory group.

His travels took him right around the coast of the US, and to Canada, visiting multiple oyster farms. He said it was an opportunity to exchange ideas on Seapa systems, and to generally network at the same time.

US authorities are becoming very strict over food safety and oyster temperature control during harvesting, says Jon. "In summer, US oyster farmers typically have just one hour to gather oysters on a falling tide and put them on ice. As the ambient temperature goes up, the time in which to harvest goes down. As an observer you can see the vast quantities of ice piled on harvest vessels to ice down the oysters as soon as they are harvested."

Strict temperature controls are a measure to combat the vibrio bacteria which is present in all seawater. It can multiply rapidly on an oyster as temperatures elevate. "US farmers we spoke to said it was a food safety factor Australians would have to consider, too."

Jon also inspected the FLUPSY (Floating Upweller) system of rearing juvenile oysters. "On Humboldt Bay there's a FLUPSY that is like a mini-city. It's a large pontoon berthed at a wharf which draws nutrient rich water out of a channel and up through compartments containing juvenile oysters. It's really a replication of our system on land based nurseries that utilise a race-way, such as at Eyre Shellfish."

Jon was also intrigued by the possibilities in the clam industry. "In the US, clam culturing occurs on sea beds in very large harbours such as Chesapeake Bay. There would be great scope for the industry in Australia if we can find suitable bays with the right areas of sea bed."

Jon also spoke to American growers about their stock management software programs. His own business, Bolduans Bay Oysters Pty Ltd, developed its own software to manage some 500 different batches of oysters on its 35-40 km of racking at Smithton some 20 years ago. Variants of his system have been shared with others in the Tasmanian oyster industry.

"There are big efforts going into some of the major American oyster producers to track their oysters on farm. Technology these days allows farmers to track everything from size, density and growth rates to environmental conditions and projections of what will be coming out of the water at different times."

Coast Seafoods harvesting shows the use of ice during the process in Humbolt Bay, Eureka, California

General Manager's Report

With the conclusion of another financial year I'm very pleased with the progress the team has made in what are still challenging times due to the POMS outbreak three years ago. Each year we're seeing our recoveries, after summer, increase upon the previous years.

We endeavour to get all our stock "hit" by POMS which ultimately ensures increasingly higher percentages of survival. We know that Pittwater and Pipe Clay Lagoon experience a strong POMS hit each summer so we have been utilising this event to ensure our brood stock is exposed to the virus so as to breed from the survivors. Working on our FY'20 Budget I can see the improvements that have been made and continue to be made. But it also reminds us that it's a 3-5 year journey back to full recovery from POMs.

The pleasing aspect is that we are well on track on all fronts, especially the progress we have made in selling matures with the team at Pipe Clay Lagoon and Little Swanport doing a great job in getting out the volumes and the budgeted value. However spat is still our core business and the support we've had from the northern growing regions in Tasmania in regards to our bio secure 2240's spat has been significant and truly valued. It's been great to be able to drive the Industry via these POMS free regions.

Additionally, working with many growers in the Southern regions as they recover from POMS has been rewarding in regards to how all are getting on top of the window farming practices that are now in place.

Within this issue you'll read about the PCL oyster clean-ups we've completed with the other Pipe Clay Lagoon growers. It's becoming more and more important that we all contribute to ensuring our growing areas are well maintained and any marine debris is collected and ultimately reduced to ensure our clean pristine image and reputation is sustained.

Eyre Shellfish Update

The past few months have been quite challenging at Eyre Shellfish, but we are all very much looking forward to our next spawn. Since around February the site has experienced some high losses of spat from within the raceways and also out in Franklin Harbour. There are a variety of causes which has led to this shortage, causing sales orders to be delayed.

Most of the challenges we can put down to a new site, new processes and the like. We really are still in the later commissioning stages of the project. However the Board is confident that recent improvements that have been made will be very positive. Associated with the process improvements has been the recruitment of some significant technical expertise and capability.

It was evident during last summer that we needed to gain more experience with algae production, enrichment dams and overall spat development within a land based operation. We recruited two key personnel who have now been in Eyre Shellfish for a couple of months. Firstly Bryce Porker was appointed Operations Manager, and secondly Simon Rechner was appointed Nursery Manager. Both bring to Eyre Shellfish significant experience and technical skills across all facets of our facility. These two appointments complement the existing Cowell team extremely well.

As readers would know the South Australian Oyster Industry is in a very difficult period with the overall lack of spat being supplied since the POMS outbreak in Tasmania and with our next spawn planned for July we are keenly looking forward to being able to further support the growers in returning back to pre POMS stock levels.

"Always challenges – and you work through them as you go"

Bryce Porker has just taken on the role of Operations Manager at Eyre Shellfish.

He's responsible for critical tasks that range from planning budgets and customer relations, to algal production, water management, grading, and staff. "There is lots of variety in my work, and it is the step-up in my career that I've been looking for," says Bryce.

Originally from near Wangaratta in Northern Victoria Bryce attended Southern Cross University at Lismore, graduating with double majors in Applied Science, majoring in Fisheries and Aquaculture, and Marine Science.

After university he went to work for three years in the NSW Northern Rivers district, working with an aquaponics facility which was implementing an aquaculture and hydroponics system which Bryce helped to build while at university.

He then moved to Nelson, New Zealand, to work for the Cawthron Institute, NZ's leading science and aquaculture research organisation. Bryce then worked for a Cawthron partner, Moana, New Zealand's largest Maori owned fisheries company, which also boasts a land based Pacific oyster hatchery, similar to the new Eyre Shellfish operation.

Bryce Porker at work: Eyre Shellfish

Recruited to Eyre Shellfish, Bryce's position as Operations Manager encompasses site manager overseeing both the hatchery and the nursery. "I'm excited about the future with what we've got to offer at Eyre Shellfish. We're a very important component of the oyster industry and it is essential that our plant performs optimally in the future for the sake of the industry.

"It's a brand new site we've got here with new environmental and other challenges. But there are always challenges and you work through them as you go. We know what is in front of us, we've got a great team, and we're here to do it."

As a child growing up on a farm near Wangaratta, Bryce said he was attracted to a life working in the marine and ocean areas. "It was a passion from my early days, and was only fuelled further by regular pastimes such as trout fishing, spear fishing, and surfing."

Customer Profile: South Sea Oyster Farms

Tasmanian Ron Schwanke started his working life as an apprentice electrician. Then via fishing and abalone diving, he became an oyster farmer. "It was a lot of fun before POMS," he says, "but we're getting on top of the virus and it's still great fun farming oysters."

Ron and staff working on the farm: South Sea Oyster Farms

Ron is the owner of South Sea Oyster Farms, based at Pipe Clay Lagoon in southern Tasmania. He has two leases, one of 3.5ha and the other 12ha. Before POMS, Ron's leases were producing 140,000 dozen oysters and now, after POMS, 60,000 dozen. He employed eight full time staff before POMs and three now, although he is gearing up to employ more farm workers in the 12 months ahead.

"We're into our third year of POMs and we're learning how to cope with it. We're working differently to take into account the pre-POMs period and the season when POMs is active. When the water temperature reaches 18 degrees in the lagoon we know POMS is becoming active and we have to change how we handle stock, such as not using heavy grading machines."

In 2000, Ron installed a chiller on the farm, and he believes it's paying off now. "At the time we were a bit ahead of the industry. But now, when you take oysters out of the lagoon in summer and put them into 10 degree temperatures in the chiller it seems to stop the virus in its tracks."

"So we're pretty confident that we're getting the measure of the problem, and in the next 12 months we're looking at increased production again and employing more people. This year is the first year we've received the new generation POMS resistant stock from Shellfish Culture. The company is proving to be a back bone for the industry and the new stock we're receiving has an estimated value of survival of 80 to 90% compared to last year's EV of 40-60%."

Ron describes himself as a "gentleman farmer." "Our working sheds are on the edge of the lagoon and its qualities are such that I can simply put on a pair of waders and go out onto the lease. The ease of access is fantastic." His oysters harden off well and can survive long transportation to market. "We sell them as live and chilled and their taste is very similar to Coffin Bay oysters."

Ron sells his stock through an agent, Tim Bauer of Seafood Unlimited. He also sells to wholesalers in Victoria, NSW and Queensland, with most of his oysters being used in the restaurant trade.

"When I first became an oyster farmer it was hard work but fun. There's no manual on how to become an oyster farmer and you have to learn as you go along. These days it's even more complicated thanks to the bureaucrats. You have to spend a lot more time dealing with OH&S, food and safety audits, record keeping, management plans and the rest of the compliance issues. But at the end of the day it's still fun, and I wouldn't give it up for any other career on the planet."

OUR PEOPLE: David Shorten

David Shorten has taken up a senior role with SCL after moving from Queensland. He recently started work as Hatchery Manager at Pipe Clay Lagoon.

Prior to coming to SCL, David was Hatchery Supervisor at Seafarms Group in North Queensland, with a team of five under him working on all aspects of larval development.

"I knew of SCL's reputation and wanted to further develop my career and at the same time move to a more temperate climate than Queensland", said David. At Pipe Clay Lagoon he oversees a team of five involved in algal, larval and spat production. He and his partner have rented a house at nearby Sorell.

David's original career was in banking, and he describes himself as a convert to aquaculture. He always had a passion for the sea.

"I was a senior manager with the Commonwealth Bank, and was sitting in my office in George St, Sydney, one day and decided that banking was not the future for me."

David attended James Cook University where he studied a Bachelor of Science with a major in Aquaculture and then went on to complete further post graduate studies in Aquaculture.

In all, he's spent seven years working in the aquaculture industry. The last three of those years have been in various management roles.

Following university, David worked in many areas in Aquaculture. He studied the decline of jungle perch in Queensland freshwater systems at the Department of Fisheries in Queensland. "The species was once widespread throughout the east coast of Australia. However due to impediments such as dams and weirs they are now restricted to less inhabited north Queensland waterways.

"My work involved aspects of reproduction, and how to produce healthy larvae to repopulate

David Shorten

waterways where they are now extinct. He also worked with the CSIRO on nutritional trials involving salmonids, prawns and barramundi."