shellfish culture

shellfish culture newsletter Winter 2008

New product names help consumers

In this issue

Shellfish Culture is introducing more consumer friendly names for its oyster products, responding to feed back from growers who say terms such as diploid and triploid aren't easily understood by consumers.

Richard Pugh, CEO of Shellfish Culture, says some farmers have reported some confusion about whether the technical terms mean the oysters have been genetically modified. "These are technical terms for describing the number of chromosomes, which carry the genetic information, an animal has. The important point to note is that our Pacific oyster seed is 100% Pacific oyster and contains no introduced genetic material from another species. More importantly though we want to make sure our customers and the public better understand the differences between the oyster types from a gastronomic point of view".

In future, Shellfish Culture will refer to its products as:

Standard oyster seed – formerly diploid

Spawnless oyster seed – formerly triploid

Thoroughbred oysters will retain their current name.

"We believe the new terms will be more consumer friendly. Spawnless oysters are a better understood concept because of the availability for some years now of foods such as seedless watermelon and grapes".

Shellfish Culture will in future use the new names in its packaging and marketing.

Spawnless oysters

- Shellfish Culture Ltd is the only commercial supplier of spawnless seed in the Australasian region.
- Spawnless oysters are full, firm and sweet year round.
- Spawnless oysters can attract a premium market price, compared to standard oysters, in summer.
- Standard oysters are either milky or spawn out during the peak summer demand period, whereas spawnless oysters retain the qualities that make them prime eating.
- Spawnless oysters provide increased growth rates because energy is not being channelled into reproduction.

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New generation designed to maximise profitability

Shellfish Culture continues to be long term supporters of the Pacific oyster industry breeding program being managed by Australian Seafood Industries.

Line 6R sold out at the beginning of this year with 20 million seed sold through out Tasmania, South Australia and NSW. This line has proved successful due to uniform growth, consistent shape, reduced handling, and improved quality of seed delivered to growers. Early indications are that the line will be uniform in its ability to condition.

The success of this line builds confidence that the breeding program is delivering improved oysters designed to increase profitability. Shellfish Culture will produce another batch of 6R available for sale in January 2009.

New generation

In January this year we produced a line from the latest generation – 7M. This line was selected based on its overall performance. 7M has a high Estimated Breeding Value (EBV) which is a measure made by geneticists to evaluate the performance of lines based on all measurable traits including shape, survival, growth and meat condition, measured at two years post spawning.

In the nursery phase, Shellfish Culture has seen promising results from this line in areas of uniform growth, high survival and uniform shape.

7M EBV summary for Tasmania and South Australia

Trait	Measure	Rank out of 24
Growth Rate	79 grams	14
Survival	84%	10
Width Index	0.67	3
Depth Index	0.34	13
Condition index	56%	6

The 7M line is now available for sale. Please contact Vicky Blizzard to place orders for 6R and 7M seed.

Borneo childhood inspires career

Tzu Nin Kwan grew up in a fishing village in Borneo. Today, with the support of a scholarship from Shellfish Culture, he's studying aquaculture at the University of Tasmania.

"For my honours next year, I'm considering looking at animal nutrition," says Kwan, who has spent six weeks working with Shellfish Culture. "Fish meal is getting very expensive, and in some ways it is also unsustainable. Salmon meal, for instance, is half made from fish. I'm interested in looking at alternatives such as the use of soybeans in fish meal".

Kwan's two year Shellfish Culture scholarship is worth $6,000. "Growing up in a fishing village inspired my interest in aquaculture, and a later interest in diving further stimulated my appetite for the industry."

Kwan says he has always been interested in fish health and disease prevention. His work at Shellfish Culture has given him a new perspective on the industry. "It has taught me more about the management of a research and production company. It's all very well to be interested in pure research, but in reality, this must usually occur within the frame work of a business."

Chairman's Report

Building a good team is one of the most important factors for success in any business. People are the lifeblood; their knowledge, skills, commitment and passion can be the difference between success and failure.

In recent months we've made several improvements to the operational structure of Shellfish Culture, with the primary aim of enhancing our seed products and the service we provide to our customers.

While service and products remain our priority, we also believe that running a modern hatchery requires commitments in areas such as selective breeding programs, triploidy, research and development, quality standards, training, and support of industry research initiatives and advocacy.

To meet these commitments, we maintain close relationships with organisations such as the Seafood CRC, representative groups such as the state oyster farming associations and the national representative body, the Shellfish Industry Council of Australia; and we provide assistance in organising the annual Shellfish Futures conference.

In order to help us achieve our aims, we recently appointed two well known and respected industry players to our Shellfish Culture team – Scott Parkinson and Kerry Wells.

Both are highly experienced operators. Scott, who is the former General Manager of Australian Seafood Industries (ASI), the industry owned selective breeding program for Pacific oysters, is heading up our hatchery operations and breeding programs. Kerry, who is the former Operations Manager of Bolduans Bay Oysters, Australia's largest producer of on-grown Pacific oysters, is heading up nursery operations and seed management.

Chairman, Greg Goodman

I hope you enjoy this latest edition of Shellfish Culture, in which we launch a new line of oyster seed, launch new product names, and reflect on the health benefits of oysters.

Density management: getting it just right

By: Kerry Wells, Shellfish Culture Production Manager

If I were to write a book about how to farm oysters, density management would be the main chapter.

Stocking density management is an important factor in producing a quality product, whether for juvenile or mature oysters. Get it wrong and you'll risk producing elongated shells (caused by crowding), poor or variable meat quality (lack of food) and large size variations (layering and competition for food). In very bad cases the result will be no growth or even death. If you manage densities correctly the stock will be healthy, more uniform and you will optimise meat yields.

Elongation of stock can be one of the first warning signs. We've all seen this classic scenario - a basket of oysters containing elongated shells in the upper layers and stunted rounded stock underneath. In this case the stock on top has benefited from the available phytoplankton and water flow, whereas the stock underneath receives little or no flow and phytoplankton. This smaller stock will require rehousing and regrading, perhaps several times. This is all extra work and it will cost you time and money.

Tips on how to manage densities

Starting off – the rule of thumb I work on is to initially stock at no more than 20% of the basket, tray or tube volume and then grade when the volume reaches about 50%.

Because no two farms are the same try experimenting with densities to see what works best for you. This is especially important if you are changing gear, or growing different types of oysters (standard, spawnless or thoroughbred).

- When to check – fortnightly for seed, monthly for stock above 20mm.
- When to take action – when the volume exceeds 50%, when fouling on the mesh starts to restrict flow, or when meat quality needs improving.

One of the most common responses I hear when stock is under performing is "but I haven't done anything different". That may be true, but the environment we work in is dynamic and constantly changing and you need to adapt with it.

Check your stock regularly, set up a management system to review stock and farm performance, and record the information for future reference and analysis.

- How to fix it when it's going wrong - grade, reduce density and manage height and rack location to rumble and re-shape.
- Making hard decisions - if it goes horribly wrong it is better to sacrifice some of the stock rather than ruin the whole lot. Yes, you'll do some dough, but it's better than losing the lot and releasing an inferior product on the market. Learn the lesson and get it right next time.

If you would like further advice or help with stock management on your farm, please feel free to call me on 03 6248 9441 or 0407 528 095.

Oysters: a healthy indulgence

Oysters have been on the menu from prehistoric times. You can see the evidence in oyster middens around the world.

They were an important food source wherever they were found, and oysters remain a popular treat, celebrated in oyster festivals all over the globe. But apart from offering a dining experience second to none, why else should oysters be at the forefront of the menu?

According to research published to coincide with the 82nd International Fair for the Hotel, Restaurant, Catering, Bakery and Confectionery Trades held in Hamburg in March this year, one clear "mega-trend" is that customers are looking for something between the opposite ideals of more health and more indulgence.

And what product better meets these two apparently contradictory ideals than our own oyster? The market, it seems, is just about crying out for the very thing that we produce. While we understand the indulgent pleasure of eating oysters, what's so healthy about them?

Zinc

According to the US National Institute of Health, oysters contain more zinc per serving than any other food. You can get your recommended daily intake of zinc (10-12 milligrams) from one half-dozen serving of natural or prepared oysters.

Zinc is an essential mineral that is found in almost every cell. It stimulates the activity of approximately 100 enzymes (which are substances that promote biochemical reactions in your body).Zinc supports a healthy immune system, is needed for wound healing, helps maintain your sense of taste and smell, and is needed for DNA production. Zinc also supports normal growth and development during pregnancy, childhood, and adolescence.

More controversially, an adequate zinc intake has been suggested to be important for decreasing fatigue and increasing sexual function. That old aphrodisiac legend may have some basis in fact!

Omega-3 fatty acids

Omega-3 fatty acids are an essential part of the human diet. While some omega-3s can be found in land plants, the important, long-chain omega-3s, called EPA and DHA, are found predominantly in seafood. EPA and DHA are vital nutrients, and are required by every cell in the body. DHA is crucial for brain growth and visual development.

In addition, long chain omega-3s are important for signalling along the nervous system, reducing inflammation, increasing blood vessel flexibility, helping blood flow, and may help reduce the risk of dying from a heart attack. Very few foods contain long chain omega-3s – the richest source is fatty fish such as tuna and salmon, with smaller amounts found in other seafood and enriched foods. According to the FRDC and CSIRO, oysters contain more omega-3s than snapper, barramundi and pink ling.

The typical Australian diet is low in omega-3s, but half a dozen oysters will provide about half your daily requirement of this vital nutrient.

Chockful of vitamins

Oysters aren't only a healthy source of zinc and omega-3s. One serving of oysters provides more than 20 percent of the recommended daily value of vitamins A, B1, B2, B3, C and D.

A single serving also supplies the full daily allowance of vitamin B12, iron, copper, iodine, magnesium, calcium, manganese and phosphorus.

So, enough of relying on the exotic nature and magnificent dining experience associated with oysters to bring customers to your door.

With some careful and innovative marketing, our industry can take advantage of current dining mega-trends and show the discerning consumer that oysters deliver both health and indulgence.