

STAFF BRAINPOWER PAYING BIG DIVIDENDS

Trevor Dawes has come up with length boards for measuring and barcode innovations that are simplifying processes in broodstock, and helped save time and increased accuracy – and improved harvest yields.

Dawes, who has been with the company for 23 years and served as the Breeding and Broodstock Technical Manager since 2015, says developing the length boards was a simple solution.

“I had no idea how well they would work and how inexpensive they would be compared to other length boards on the market,” he notes.

“When taking the data for our breeders, we want to ensure it is accurate as we use this data to generate indexes that we use to tell us which fish we should use in our breeding program.

“By putting a barcode every centimeter on a length board, we were able to incorporate the barcode scanners we were already using for other entries to enter the length of the fish into the computer without any errors. The fish lays on the board as normal, but the scanner just reads the first barcode past the tail and goes directly into the computer.”

Dawes says the easiest way to explain the barcode is that it is just an extension of the keyboard, and the reader converts the code into the characters with which it is formatted.

“We have taken it further now to incorporate other information we record on the fish,” he adds. “For example, we have been recording gill health and we found that it is a heritable trait, allowing us to add this as information we can use in our breeding choices.” Measuring the size and health of broodstock is key to understanding the population and determining the best approach to



breeding.

“Breeding is all about good data in and good data out,” Dawes says. “Capturing that data is the most important to provide our geneticists with good information so they can create breeding values for us.”

“One way to do this we found is using barcodes so that the same

information is being captured without mistakes, and it can be captured quickly.”

This has allowed the company to track individual fish, and implement what is essentially a “dating service” for fish reproduction.

“All of our potential broodstock used for breeding are tagged and

genotyped,” he says. “We track the individual fish using a RFID tag (PIT-Tag), but we also have the family information as well attached to this fish. Our geneticists will let us know which female and male we should cross to make our next generation. It is our job to know where these fish

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Macandales Equips Coastal Operations

PORT HARDY – **Macandales** has been serving North Island customers for over 40 years, and one of their largest is **Mowi Canada West**.

Dale Dorward, the 'Dale' in Macandale (his father, **Mac**, is the 'Mac' that started the business in 1978), says Mowi "Is our biggest customer, so we are tuned into what they're doing. We have very specific people in their company that we deal with here on the North Island, as their plant operation is here in Port Hardy, but we also sell products to their other locations like Klemtu."

Dorward notes that Macandales has been involved in supplying the fish farming industry since it started on the North Island in Winter Harbour, and served **Stolt Sea Farms** and **Marine Harvest**, now Mowi, over the years.

"Marine equipment is the largest part of our business with Mowi, and we supply outboard engines, do boat rigging and engine and



Dale Dorward is the owner of Macandales in Port Hardy

equipment repairs, plus we sell a lot of smaller power equipment to them, like generators, pumps, pressure washers.

"We've had a super relationship with them for as long as I can remember."

Macandales specializes in the sales and service of logging, marine, small engines, home and garden, and off-road recreation equipment and supplies. They also offer a large selection of workwear, safety gear, and

casual clothing.

The store at 8640 Wollason Street, just off Market Street, is Port Hardy's authorized sales and service centre for **Stihl, Husqvarna, Honda, Yamaha Marine** and **BE Power Pressure Washer** products. It also carries products from brands such as **Carhartt, Helly Hansen, Viking, Viberg, Lil Workers, Pioneer, Canswe, Big K, Sevaen, Stanfield's**, and **Mustang**.

The company's formal name is **Macandale Rentals Ltd.**, and they have 14 staff to serve customers across the mid and north B.C. Coast, and communities of Port McNeill, Port Alice, Alert Bay, Bella Bella, Ocean Falls, Klemtu, Woss, Zeballos and Holberg.

Macandales also provides the North Island with the largest selection of rental equipment ranging from construction equipment to home renovation tools to lawn and garden care machines.

www.macandales.com

Mowi Funding Assists Campbell River Hospital Foundation

Supporting important community initiatives is high on Mowi Canada West's agenda, so the company's ongoing financial support of the **Campbell River Hospital Foundation (CRHF)** is no surprise.

Stacey Marsh, Executive Director of the CRHF, says "As an organization, we absolutely rely on our partners, like Mowi,

to help ensure that our doctors, nurses and other key members of our local health care team have the tools they need to care for our loved ones."

CRHF holds eight major fundraising events throughout the year, including popular tournament "Golf Because You Care" with Mowi as one of its main sponsors.

Funds raised help purchase important equipment for the Campbell River Hospital, and the list is extensive. They include a Transport Ventilator and Transcutaneous Monitoring System for the Maternity Ward, biopsy guns for the Mammography and Prostate Clinic, an Ultrasound for the Intensive Care Unit, and Glidescopes for the Operating Room.

CRHF has also purchased patient lifts and slings, palliative care beds and contributed to a dementia art program at Yucalta Lodge.

"Our purpose is to ensure that Campbell River Hospital and Yucalta Lodge Long Term Care Facility are equipped in every



Brad Roberts, Jeremy Dunn, Dean Dobrinsky & Cody Assu competed in the Hospital Foundation's golf tournament

way to advance the health of all generations and to help maintain the vibrancy of our community," says Marsh, who has been with the Foundation for 11 years. "We exist to raise funds to fulfill this purpose."

"Our hospital is the first point of referral for emergencies and illness for Campbell River and North Vancouver Island and giving helps to ensure that our hospital is in the position to respond

to our health needs by providing diagnostic treatment and the many support programs that are required."

Marsh adds that through the generosity of donors and supporters, CRHF has been able to provide funding for medical equipment, staff education and special programs, such as MORE OB, music therapy and the Campbell River Hospital Food Forest.



Gary Hall, left, and Chris Read of Mowi Canada West

Brainpower Making A Difference

BRAINPOWER

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are and ensure we make the correct mating."

Much has changed over just the past five years, and Dawes explains that with the new Genotyping processes, Mowi Canada West is able to know more about each individual fish within a family, which is helping with gains in the breeding program.

"Mowi now has over 60,000 fish pitted at four sites," Dawes says. "Prior to 2015 we would only pitted at one site approximately 4,000 fish. With tracking these fish, we have had to make it user friendly using technology to make things flow easier."

Technology has made his job simpler.

"Technology has made tracking all of our individual pitted fish easier by reducing time entering data manually," he says. "Another



example of new technology would be the use of using ultrasound on our potential breeders. With this, we can reduce our overall numbers which results in less handling of fish."

Dawes adds that Mowi has tagged and run simple DNA samples at their land-based facility in Duncan, which allows identification of whether a fish is male or female earlier in their life cycle.

"That allows us to increase the number of eggs we can produce at this one facility.

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Fish are measured using the new length boards

OCEAN FALLS - 65 million smolts and counting

By **Ken Maddison's** count, that's how many baby fish have been reared since he started in the aquaculture industry in 2001.

"I have done a lot in the fish farm industry and have enjoyed my career," he says. "The biggest successes have been Homfrey Creek and Ocean Falls, that have allowed me to develop and produce close to 65 million smolts in my career."

Maddison manages the Ocean Falls operations, and notes that Mowi Canada West has been a great inspiration for community support in Ocean Falls.

"Ocean Falls was a booming pulp mill up until 1980 and was shut down and forgotten," he notes. "Because of the need for some underfunded projects in town, Mowi has been generous in donating paint for the court house, and rebuilding the causeway and new dock for the yacht club."

"Our employees donated their time which showed they are good corporate citizens and Mowi safety culture is at its



Ken Maddison

forefront," he adds.

Maddison was born in Nelson and moved to Cranbrook, where he graduated from high school. He lived in the Kootenays until 195, when he moved to Vancouver where he worked as a crane operator apprentice in the construction industry, on the original Sky Train approach in Surrey.

"I decided to leave the industry and pursue my passion – fish – with the understanding it would mean a pay cut, but I have no regrets," he says.

He began his career in Aquaculture in 1987 on a Partnership Trout Farm lease in Spring Valley, based in Langley, which supplied trout eggs to the Chilean Aquaculture industry.

In 1989, he enrolled at Malaspina College (now Vancouver Island University) in Nanaimo to earn his degree in fish health.

That same year he and his wife **Shelly** welcomed their son **Kyle** into the world. Kyle is now a Mowi assistant manager in Port Hardy, and their daughter **Ashley**, lives in Nanaimo and is a Certified Dental Assistant.

Maddison recalls starting to work in a lab, doing disease screening in a college lab leased by Jeremy Hackett and Joan McKay.

"In those days companies never had their own vets or fish health people," he notes.

Realizing being in a lab was not for him, and being an outdoors person, he applied for a Saltwater production position.

His first work site, Homfrey Creek, had a 20 foot trailer on

the beach with 3-40 foot Polar circles with one other person.

"I spent the next 12 years moving around Saltwater production, developing, and managing almost all of the sites in the Port Hardy area with Omega Salmon/Panfish, which are today Mowi sites," he says.

Then, in 2001, it was back to freshwater and Homfrey Creek, which was into "a fresh water lens site using enclosed containment in salt water where 90% of Panfish smolt production was done. Then Eggerton, and a Glacial Creek freshwater lens site for broodstock.

"In 2003, I was asked to go to Ocean Falls to go over facility drawings and help hire a manager," he says. "17 years later, I'm still here and loving it. As of May, Shelly and I are full-time residents."

"I have great staff and have worked with many great people in the industry in the last 30 years, some for over 18 years," he adds. "Happy to say, there is still a few more years to go!"

Great turnout for Mowi Women In Aquaculture



"I think it's great that we have a company that supports women in a leadership role"

Stephaney Van Acken

An inspirational, educational networking event.

That's how some of the 90 attendees at the second Mowi Women in Aquaculture event held September 20 at the Oyster Bay Resort summed it up.

Nadine Gibbs, the company's Canadian Sales Representative, says "As most of us are spread out within Mowi Canada West, this was a great opportunity for knowledge sharing and addressing the added challenges we face as women working in aquaculture. With a great mix of individuals present, it allowed newer employees to see opportunity within MCW and the strong leadership we currently have."

Mowi's Managing Director Dr. Diane Morrison spoke briefly about her journey in aquaculture, her hopes to attract and retain more women to the industry, and urged women to build a strong sense of their own. "I was overwhelmed to see such a large group of women attending the second Mowi Women in Aquaculture event. It's important for our women to have an opportunity to meet and network with their female colleagues. A special thanks to the organizing committee for such an empowering



"I felt empowered being among such great women"

Michelle Larochelle

and inspirational day. Aquaculture is a dynamic industry which provides many different career opportunities for men and women alike."

Shylo Look, Human Resources Generalist for Mowi's, gleaned two main points from the event. "It was inspirational to hear stories of women who are moving into leadership positions in the company," she says. "It gives hope to those who want to stay long-term in aquaculture and want to be able to move up within the company during their career. Second, it was also an awesome way to network with other women in the industry

so that stronger support systems are formed. I felt by hosting the event, Mowi sent a strong message of being supportive of the unique challenges that women may face during their career at our company that we really are working towards being more inclusive and

"I felt inspired by the stories"

Emily DeDominicis

supporting diversity."



PORT HARDY: New workers start at Boot Camp

PORT HARDY – For new trainees of Mowi Canada West, it's off to "boot camp" in Shelter Pass – not just to learn about company procedures and their positions, but to be drilled on safety, since new and young workers are statistically at risk in B.C. In other words: do your job well, but do it safely.

To that end, Mowi DATS program is a key aspect of training, as it contains everything an employee needs to know regarding their position and responsibilities, and keeps a running online checklist of their progress. Ray Anderosov is the Site Manager at Shelter Pass, and joined Mowi Canada three years ago after starting in the aquaculture industry in 2009.

"I started to get involved in work safety in 2005, becoming a union safety rep for the TimberWest sawmill," he recalls. "That was my first eye opener on how dangerous some of the jobs we do every day truly are."

Anderosov moved into the aquaculture industry after the sawmill closed,

and has completed many different training programs and classes for safety supervision and training over the past 16 years. "

We are able to mitigate risk of injury and help them start safely with the aid of our DATS program and eye checks," he says. "DATS prepares them for different tasks and the system is able to bring possible hazards forward before they even start the task."

"Eye checks are used before any task is started, and this educates the trainees on hazards and the controls we have in place and how to manage them."

Risk assessments are also conducted on new and large projects, and young and new workers are included in the process because it helps them understand how dangerous some of the jobs are. It also allows them to share their thoughts on the task, and they may even see a new hazard that may have been overlooked.

"New and young workers always



Ray Anderosov, centre, with sons Kane, left, and Kole, right

want to put their best foot forward and try to impress their new co-workers and supervisors," Anderosov notes. "While this shows great work ethic, it can also be dangerous because of their lack of experience. We want all our workers to be comfortable and confident – that can also cause workers to take on more than they can handle."

Anderosov notes that site staff lead by example and take great pride in working together as a team.

"No one can do all of this by themselves," he adds. "It's a team effort and I can't thank my team at Shelter Pass enough because we keep producing great workers who are ready

to move to where they are needed, and know that they will continue on with the safety first mindset.

Anderosov says Mowi wants staff to know that no job is worth completing if it can't be done safely.

"We all have a life away from the work place and at Shelter Pass we want all our staff and trainees to go home to their families safely and enjoy their time off," he says. "The hardest part of the training is saying goodbye to the new people; however, it feels good when you know you've started them on the right and safe direction."



Planning Is Key To Success



Operations Manager Kelly Osborne in front of the Aqua Tromoy

Benjamin Franklin once said: "If you fail to plan, you are planning to fail."

Kelly Osborne, Operations Manager* based out of Beaver Cove, believes that. His job, and the success of operations on the **Aqua Tromoy** well boat in particular, depends on it.

Coordinating all of the preparations, activities and staff aboard the vessel can be likened to building a house in a week, and the challenges of pulling it all together is challenging but with good planning, communication and cooperation it can be done and done well.

"If there's no planning, there's confusion which leads to

frustration and a poorly run project," says Osborne. "The hard part is making sure everybody knows what's going on as there's many factors that will cause changes. Planning and good communication are key to ensure good success."

Osborne has been with Mowi for 27 years, and as Operations Manager, he oversees infrastructure for the company's sites: Nets, cages, moorings, barges, maintenance, net washing, and treatments. The local area operations crews and site staff use their local resources to set up the sites and do many projects in their own areas, and it is the job of the Operations Department to use their centralized

resources to support them.

Much of their work involves the state of the art, 78-metre long Aqua Tromoy, the largest and newest mobile treatment vessel in Canada. With 3,000 cubic metres of onboard well space, its reverse osmosis system produces 230 cubic metres of fresh water every hour, and can fill up the well in about 13 hours.

That is an important part of the operation, as 7 hours in fresh water kills sea lice that have attached themselves to salmon. There are three other methods of eliminating sea lice: Peroxide, Slice – a food additive that knocks the lice off the fish – and a Hydro-Licer that uses an angled jet of water to knock

the lice off, yet doesn't remove scales from the fish.

Fresh water and peroxide treatments are done aboard the Aqua Tromoy, which travels from site to site. It has been to seven sites so far.

"We call it sending the fish to the spa, as it is very good for their general well being," Osborne says. "It's a fully integrated fish management plan."

*Note: Kelly Osborne has since taken responsibility for the Indigenous Monitoring and Inspection Plan as our IMIP Manager and will be working closely with the Fish Health and Food Safety Department as well as First Nations in the Broughton area.