

Gold Standard Set For Fish Welfare



Veterinarian Terra MacDonald at a Mowi Canada West site

Veterinarian **Terra MacDonald** considers it gold. Gold as in what is recognized as the gold standard for animal welfare, set by the World Organization for Animal Health, labeled “The Five Freedoms.” These broad, all-encompassing guidelines developed to reflect an animal’s state of well-being are what **Mowi Canada West** is committed to in all of its operations:

- Freedom from hunger, thirst, and malnutrition;
- Freedom from discomfort;
- Freedom from pain, injury, or disease;
- Freedom from fear and distress;
- Freedom to express normal behaviours.

“We address these five freedoms in various ways,” says MacDonald. “We provide our fish with excellent nutrition in carefully formulated fish feeds that are appropriate for each life stage, and that is fed out in such a way that all fish in a population have an opportunity to feed.”

“By practicing careful handling techniques, using anesthesia when necessary, monitoring and mitigating environmental conditions and controlling water quality where possible, we aim to keep our fish free from discomfort.”

MacDonald says preventative vaccinations are used where possible, and appropriate medical treatment when necessary. Anesthesia is used while performing certain procedures, and humane euthanasia techniques and constant fish health monitoring are also part of freedom from discomfort, as well as freedom from pain, injury, and disease.

“Protecting our fish from predators and ensuring all handling techniques are gentle and humane, as well as only handling when necessary with harvest techniques developed to minimize distress allows our fish freedom from fear and distress,” she says. “Our low stocking densities in the cages (97% water and only 3% fish) allow natural behaviours including schooling, movement throughout the water column, jumping (an Atlantic salmon behaviour they do a lot) and feeding behaviours.”

A Doctor of Veterinary Medicine, MacDonald recently joined Mowi Canada West, and says the veterinary oath she took when she completed her degree very much guides her actions on the job.

“I will strive to promote animal health and welfare, relieve animal suffering, protect the health of the public and environment, and advance comparative medical knowledge.”

MacDonald notes that focusing on animal welfare is an integral part of everything the company does with and for the fish.

“We have an ethical responsibility to ensure the welfare of the fish that we farm to the greatest extent possible, in all aspects of our business, from egg to harvest,” she says. “It is seen as a long-term value driver and part of our commitment to the United Nations Sustainable Development Goals, specifically Goal 12: Responsible consumption and production, and Goal 14: Life below water.”

Mowi Canada West’s official Salmon Welfare Policy is an integral part of the business. The

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Managing Directors and Management Team have responsibility for the policy, but the welfare of the fish is monitored by trained staff and dedicated fish health professionals throughout the production cycle as part of their everyday activities.

"The welfare of fish is a relatively new concept, as only recently has it come in to focus on a national and global scale," MacDonald observes. "However, in aquaculture, we have long understood that there is a strong relationship between the health and welfare of our fish and quality and productivity, which of course has economic benefits.

"Only recently has policy and regulation started to catch up and place standards around fish welfare and recognize it as an important topic to be discussed along with any other animal, especially those used in production such as

cows, chickens and many others. Fish, of course, have unique considerations that should be addressed and discussed separately from these other species."

The Canadian government continues its ongoing development of an Aquaculture Act that will better define the rules and requirements for aquaculture on a federal level, and will hopefully incorporate some standards regarding fish welfare. In the meantime, Mowi Canada West is ahead of the curve.

The company is committed to certify its farms with standards that include Best Aquaculture Practices (BAP) and the Aquaculture Stewardship Council (ASC), amongst others, which include several welfare aspects that include water quality, feed sources, health management, harvest, and transport in their scope of accreditation.

"All daily activities, whether it is our fresh or saltwater operations, have fish welfare as a focus, from ensuring environmental conditions are optimal to preventative health

measures (vaccination, frequent monitoring and sampling) and, when needed, responsible medical treatment," MacDonald states. "Our staff are trained in fish behaviour, signs of disease, operational maintenance, water quality parameters, and environmental mitigation strategies."

She adds they are also trained in proper handling techniques, as well as humane euthanasia when necessary, and harvesting. Excellent record keeping is also an important aspect as it allows the team to make decisions and track trends to identify potential problems before they occur.

All treatments, preventative and those necessary due to disease, are prescribed by certified veterinarians and are strictly tracked and controlled.

"100 percent of our fish are vaccinated to reduce the risk of certain diseases which could compromise health and welfare," she notes. "We only use antibiotics when necessary to treat disease

when fish health and welfare is at risk, and hormones are never used as growth promoters."

MacDonald adds that any procedures that may cause stress, such as handling, are done under anesthesia so the fish are "asleep" to avoid unnecessary distress. Handling events such as welfare assessments are performed only as necessary.

Welfare assessments are carried out by trained staff at many points during the production cycle and can be performed when handling is occurring anyways, such as for sea lice counts or weight samples.

The ultimate goal of the program?

"We aim to ensure that the welfare of the fish in our care is as high as possible, through every stage of our production, from egg to harvest," she summarizes, adding she would like to see "improved mortality rates, consistently good welfare, and a high quality product at the end of the production cycle."

Orange Shirt Day

**Kwakiutl First Nation
September 30, 2019**

The Kwakiutl First Nation held an Orange Shirt Day event at the Wagalus School.

The event began with a prayer from elder Julia Nelson. The children then performed a welcome song, sung in their traditional language, and following the children's performance, two elders gave a presentation about their experience in the residential school system. Their stories encompassed the extreme challenge, the impacts on their lives, and their ability to recover from such an experience. To be able to deal with the emotional impacts and move their lives into a more positive direction was a good



Kwakiutl Orange Shirt Day

teaching moment for the children in attendance.

**Quatsino First Nation
September 30, 2019**

The Quatsino First Nation held an Orange Shirt Day event at the Quatsino First Nation Community Hall.

The event began at 12:00 pm and started with a welcome song from the children with four young representatives dance the Chief's welcome dance, followed by a lunch. The host announced that they did approach members of their community to talk about their

experiences; however, the members were not ready to open up about their experiences. The event was then arranged to present via video presentation to make those in attendance aware of the history of the impacts of First Nations experiences from the residential school system and how it transitioned into the Orange Shirt

Day event. The event became a day of community fun and involvement. The organizers then held a few games for the children and adults before door prizes were



Quatsino children dance the Welcome Dance

drawn.

All in all both events were successful and Mowi was honoured to have been able to support them and attend.



Grayson Hunt on Orange Shirt Day



Quatsino K'ak'ot'lat s'i school children

Mowi Canada West celebrates Employee Appreciation Day



Dr Diane Morrison with Amanda Luxton, Jessica Leck, Luigina Gardin & Renee Hamel who achieved for 5 years service with Mowi



Everybody enjoyed the day



It was a great chance to spend some time with friends



Daryl Misky is congratulated by Dr Diane Morrison for 30yrs service with Mowi

How do you recognize the passion and commitment of almost 600 employees? It is impossible to get all of them in one place at one time but Mowi Canada West did the best they could for the annual Employee Appreciation Day. Over 100 employees from all parts of the company gathered in Campbell River on 25th October for a day of games, prizes, recognition and some team building.

Attendees arrived to trays of appetizers served by senior management. There was a range of games available, as well as a chance to vote on a photo competition and to catch up with friends old and new.

To kick things off, a team building exercise required groups to

work together to build a tower out of spaghetti and marshmallows. The tallest tower was first in line at the buffet.

After a delicious lunch, Mowi Canada West MD, Dr. Diane Morrison, recognised those employees who had achieved long service awards in 2018. All who had worked for Mowi for five, 10, 15, 20, 25 and 30 years were recognized. The applause was long and loud for all, with special recognition for Daryl Misky and Dale Gowan who both achieved an amazing 30 years service. Unfortunately Dale was unable to attend due to work commitments. The pride shown by all Mowi employees who had reached these milestones was great to see.

This was followed by an excellent speaker, Gord Quaiatini, who shared information to the group on the recent Federal election and the Liberal Government platform to move salmon farming in BC into closed containment by 2025. He discussed how government policies came to be formed, how they have been changed in the past, and what has happened to cause those changes. A key message was that our Company (and in particular, our employees) has the ability to influence the government in keeping the election promise on salmon farming from becoming a reality. The presentation was quite thought-provoking, prompted many questions, and led to some great discussion.

Diane Morrison then led the group through some table top exercises where employees were asked to share what salmon farming and working for Mowi meant for them and what impact the proposed changes would have on their families and their communities. The responses to these questions were quite powerful. It was empowering to hear the passion being shared, what it meant to people to be able to do a job they loved, and live in a community that meant so much to them.

Commenting on the day, Dr. Morrison said, "What a fantastic day! I'm really proud of the hard work and dedication that our employees show everyday. I love the chance to let them how much they are appreciated."

Mowi utilizes innovative Gemini recycling program

Mowi Canada West is utilizing a new aquaculture plastic/ wood/ cardboard recycling program offered by **Gemini Marine Services Ltd.**

Erin Agostini, Operations Manager for the Sunshine Coast-based company, says the program is centered at Earls Cove, which is next to the terminus for the **B.C. Ferries** route connecting the Sechelt Peninsula and Powell River. It also recently signed a multi-year lease with **City Transfer** in Richmond.

Gemini, a Canadian owned and operated company with 13 long-term employees, has been operating in the marine transport industry in B.C. for over 30 years. It delivers approximately 45,000 tons of freight to Mowi Canada West sites from Campbell River to Klemtu each year, and has done work for the company for over 20 years.

Gemini not only delivered freight to sites, they also collected the waste and packaging from the sites on their return trips. They had observed that their customers, wanting to make a positive difference in terms of recycling, were looking for workable plans to reduce, reuse and recycle their waste – other than simply being taken to the landfill for disposal.

“Over the years we noticed that most of the plastic from our customers was not being sorted and processed but going to landfills and also causing environmental concerns,” says Agostini, who has worked in the aquaculture industry since 2002. “So in early 2018 we took it upon ourselves to design and create a world class system to process all the bi-product of the freight we deliver to our customers.”

Gemini staff noticed that most of the plastic was not being sorted and processed, but going to landfills, where it was causing environmental concerns since it was being off-loaded, sometimes sitting in open lots for 4-6 weeks with rodents and birds dragging items into local rivers.

Gemini has designed and created a world class system to process all the bi-product of the freight they deliver to its customers, and the company states that now, an estimated



Erin Agostini officially christens the newest addition to the Gemini Marine Services fleet, the Gemini Warrior

99% of all bulk bags, plastic liners, cardboard and wood pallets are processed and repurposed.

In 2019, the company invested in state-of-the-art equipment and in the construction of a 7,000 square foot building at its Earls Cove barge terminal which has dedicated space for handling, storage and processing plastic, wood and cardboard.

They expect to process approximately 250,000 kg of plastic and bulk bags from their aquaculture customers that will be delivered to recycling companies for repurposing. The recycled bulk bags, liners and plastic feed bags are being transformed into pellets, with the majority being turned into bags, bottles, drums, barrels, cages and pallets.

“We greatly appreciate the hard work that the sites have been doing to help us with this process, as they are responsible for sorting the pallets, bulks bags, liners and cardboard, prior to us picking it up,” Agostini says. “We are very pleased to continue to invest in the industry to reduce the amount of waste going into landfills.”

Teamwork Makes Health & Safety Goals Attainable

Safety takes teamwork. Without question, safety is everybody's responsibility, and Mowi Canada West has numerous programs in place where employees can contribute ideas to make job sites safer and more efficient.

It is the job of people like **Graham Byatt**, Assistant Manager at Larsen Island, and **Andrew Richford**, Acting Site Manager in Klemtu, to make sure that those ideas are listened to and implemented, and the company's strong safety record is testament that safety programs and procedures are working.

They assess sites and make sure progress is entered into DATS, making sure the Health and Safety procedures are followed, and goals are met.

"I'm responsible for ensuring the site is a safe place to work for all staff and addressing any safety concerns," says Richford. "The goal isn't to get people in trouble or to be the safety police – it's to grow our area's safety culture and try to assist the other managers in the area in creating a safe workplace."

He explains the goal is to assess sites at least once a quarter, which is done by doing a general walk around, monitor general housekeeping, read equipment logs, check fire extinguishers ensure guarding and other safety equipment is in place, inspect equipment on site and identify any possible failures in the safety system.

"For each inspection, a new DATS investigation is launched and a new task is created for anything that's found," he adds. "This allows everyone to be fully in the loop on what was found, and what's being done to correct it."

Byatt also has his Level 3 First Aid ticket, in addition to being the Co-Chair of the Health and Safety



Graham Byatt, Assistant Manager at Larsen Island

Committee.

"When I go to a site, there are certain administrative things that I look at such as the Daily Activity Log and the communications board, fire extinguishers, AEDs and safety gear, check the clearances on heaters, etc," he says. "I then go out on the system and do a basic system inspection like we would after a storm."

He also inspects stanchions, plug boxes, Davit posts, the compressor float, the feed shed, and looks for hearing protection/PPE in areas where it is needed.

Both Richford and Byatt have identified possible problem areas and helped develop constructive solutions.

Richford says the biggest thing they've discovered during the inspections is the

lack of proper guarding on the loading doors of some of our barges.

"As a team, in conjunction with our area's maintenance contractor, we've come up with a few different solutions to create a 'cage' or box to go around the pulleys which would prevent anyone from getting their hands or clothing caught in the pulleys," he notes.

Another example is being able to see a solution at one site and take that idea to the other sites. For example, one site has a system set up where their spill and escape response kits are sealed with breakaway tags like a fire extinguisher would have. This allows them to quickly verify each month that their kits are completely intact without having to empty each one out and check the contents, but still allows the kit to be opened by just lifting the lid.

Byatt shares two examples of collaborative solutions that have been implemented.

There was a concern with employees travelling up and down the highway between Campbell River to Telegraph Cove and Port Hardy due to lack of cell service in the event of an emergency, and a device called a SPOT Tracker was introduced.

"When an employee is travelling up the highway, they carry this device and if anything happens, they can activate it and someone will be alerted and help will be sent to the closest location. This can also be auto-activated if there is an accident," Byatt says.

The Health and Safety Department had correlated data showing that there was a rise on nicks and cuts so they brought forward an idea to make it mandatory that every employee must wear gloves when performing outdoor tasks. JHSC recommended it to senior management and they agreed with the policy.

A large list of gloves of various types were made readily available to all employees, and Byatt adds, "It is now company policy that everyone wears gloves when doing tasks, and for the most part, I think everyone is happy that we have the policy."

Great BC ShakeOut Prepares Workers for Earthquakes



All Mowi Canada West staff participates in the BC Big Shakeout

There might be a whole lot of shaking going on.

If a massive earthquake hits the West Coast, Mowi Canada West is doing all it can to make sure its employees and the communities it serves are as ready as possible. That's why they encourage all staff to take part in the annual Great BC ShakeOut, a worldwide earthquake, tsunami, and evacuation drill that took place at 10:17 a.m. on October 17.

Dan Pattison, Health and Safety Advisor, has co-organized the event for Mowi Canada West for the past four years and says, "We encourage all staff to take part in this important event and provide resources for workers to educate themselves on new information, as well as analyze any drills we receive afterwards so we can search for opportunities to strengthen our preparation and response."

Pattison says while each worksite may approach the event differently, in Campbell River they run information sessions prior to the event, provide re-stock equipment for personal emergency kits, and try to make it interesting by educating



Dan Pattison stands behind the contest winner, Diane Dunbar

staff with new information.

All workers that participate in the information sessions are entered to win a home disaster kit, with this year's prize going to lucky winner Diane Dunbar.

The Great BC ShakeOut is an annual opportunity to practice how to be safer during big earthquakes, and the first such drill, known as The Great Southern California ShakeOut, happened

in 2008. It was the largest earthquake drill in U.S. history, and involved 5.3 million participants. The Earthquake Country Alliance organized the ShakeOut, which was picked up by communities along the Cascadia subduction zone and has become a worldwide event.

This year, a record breaking one million British Columbians registered and participated in the drill, Pattison notes. In the last year, BC has had 533 earthquakes, with the largest (6.5 on the Richter Scale) striking Tofino.

"Every year, Mowi Canada West performs the drill and adds different elements that help staff prepare," Pattison says. "We've had guests hide out inside during the drill to help sharpen our accountability system, smoked out hallways to change the nature of our regular evacuation route, and even had workers pretend to be injured to put our first aiders to the test."

This year included participation in a community downtown evacuation where staff walked to high ground where the city of Campbell River had an information booth. Pattison adds that more workers are willing to take part in the

exercise, and it has become well accepted and routine practice.

"It is this routine practice that will provide workers with skills they need to survive and stay safe in a major event and every year," he says. "We provide equipment, emergency plans and invest time for our workers to drill as part of the job, but what really makes me feel it is successful is when coworkers tell me that they have set up emergency kits at home or have defined their plan with their family."

Pattison notes it can be difficult to educate people on emergency preparation as many convince themselves a major earthquake won't happen in their lifetime.

"History suggests otherwise, and events such as this serve as a strong reminder while offering skills and education that will keep people safer when a large earthquake or tsunami strikes our coast," he notes. "It's difficult to gauge how an individual will respond to a major disaster and only through repetitive training can a person arm themselves with the skills and knowledge needed to be prepared."