



**marine harvest**  
excellence in seafood  
CANADA



# Wharfside

January 2011

## In This Issue

Training, Training and Training! ..... 1  
 Food Safety at the Plant ..... 2  
 Two Sea Lice Papers - opposite conclusions  
 - Now What? ..... 2  
 Local gal newest and littlest Canuck ..... 3  
 MHC Christmas Party Prize Winners ..... 3  
 PAA Events January and February 2011 ... 4  
 Oyster River Enhancement  
 Society Road Safety Improvements ..... 4  
 Producing top-quality fish  
 a thrill for career aquaculturist ..... 5  
 Recirc at Sayward North  
 proving itself in early days ..... 5  
 Marine Harvest continues  
 annual charity giving ..... 6  
 Knights of Columbus  
 Food Hamper Drive 2010 ..... 6

## Did you Know?

There are more than 25 varieties of coffee, the 3 main commercial types being Robusta, Liberia and Arabica.

## Can you solve this Puzzle?

Sammy buys 10 trees at a local nursery. How does he plant these 10 trees in 5 rows with 4 in each row?

Answer on Page 4

## Comments about this Newsletter?

Please email comments, articles and ideas to Ian Roberts, Communications Manager at [ian.roberts@marineharvest.com](mailto:ian.roberts@marineharvest.com)

**DOMTAR EarthChoice**  
High quality paper with a conscience

## Training, Training and Training!

By Ken Crewe, Human Resources Director



In real estate, success is said to come from 3 things; Location, Location and Location. While location is an important part of the success of Marine Harvest Canada, we rely on 3 other things

to ensure we have productive, safe and profitable operations, namely, Training, Training and Training.

Late last year we launched the first two of several new training modules targeted for our production employees. Module 1: The Biology of Salmonids and Module 2: The Production Lifecycle for Salmonid Fish, were launched in late November and four sessions of each program were delivered before the holiday season break.

The new courses were developed and delivered in partnership with the Center for Aquatic Health Sciences (CAHS). Overall, the feedback from employees who have taken the courses has been quite positive. Having pre-reading materials for class preparation and post-course review, efficient length and flow of the in-class component of the course, and the ability to interact with staff from other areas and departments are some of the success factors noted in course evaluations.

In 2011, we will continue to build our training and development programs to provide our employees with the necessary skills and knowledge to be fully productive in their roles. There will be continued offerings of Modules 1 and 2 and we are working with CAHS to develop additional modules, including one that will cover Saltwater Farm Operations and Technology, and a re-developed Fish Health module. We anticipate having these new modules ready for delivery some time in the second quarter. Also, building on to the introductory feed training that is delivered on site by Tim O'Hara and Production Managers, we will deliver a handful of Advanced Feeding sessions throughout the course of 2011. Other modules will roll-out in Q3/Q4.

Our HSE team will continue to ensure that

employees have access to all compliance-related training programs required for their respective positions, and we will continue to provide a variety of management skills training programs throughout the year in topic areas such as Project Management, Performance Management, Supervisory Fundamentals, etc.

I also want to take the time to remind staff that once you have signed up for a course, you need to ensure that you attend the course or notify organizers in advance if you cannot attend. Having empty seats because of no-shows to scheduled courses costs our company time and money. Happy Learning!

To register for any of the above courses, please email Suzi Gaskill at [Suzi.Gaskill@marineharvest.com](mailto:Suzi.Gaskill@marineharvest.com) – or call at (250) 850-3276, ext 7261. Please note that both of these courses require that you complete some pre-reading course material which will be provided to you upon registration. It is important that you complete the pre-reading in advance of the course date to ensure that we are able to move through the material in an efficient yet comprehensive manner during these relatively short ½-day courses.

Over the next few months, we will continue to develop and offer additional courses. A training schedule of course dates for the Fish-Farming Fundamentals programs will be posted on a quarterly basis. We will also take steps to coordinate all company-related training information (i.e. schedules, registration information, workshop/course materials) into a single, easy-to-access location. Finally, the Technician Advancement Program for SW technicians will be revised as we not only need to embed the new courses, but also need to update the form to make it current with respect to our actual operations as well as make it more user-friendly for the end users, our staff.

We strongly believe that training is an investment in each other that will pay dividends in many ways. For employees, it will help them achieve their career development goals. For the Company, it will help us improve our operations across all aspects of the four Law of the Farm filters; Survival, Growth, FCR and Quality.



# Food Safety at the Plant



By Dave Pashley, Processing Manager, Port Hardy Processing Plant



Our Port Hardy Processing Plant Quality Assurance (QA), Hygiene, and Maintenance Teams spend almost half their lives developing and monitoring procedures that continually focus on ensuring that our customers receive the finest, freshest and safest fish available. Cleaning, fixing, disassembling, assembling, scrubbing, testing, and sampling is a thankless job at times but someone has to do it and we're grateful they do.

Our QA Manager Julio Osorio and Supervisor Trevor Stevens manage the Hygiene Team. Consisting of 15 members, they are the unsung heroes in the plant. When the rest of us are sleeping, they're at the plant tearing it down, scrubbing, polishing, washing, and getting it back together again so we can start processing all over again (and again and again and again). The QA team sample and test everything through-out the whole process; Rain, snow or shine they start before daylight: on the boats, taking temperatures and pre-checking product quality, auditing the hygiene team's cleaning results, looking for any deviations from the set Standard Operating Procedures for cleaning and sanitation, checking microbiological results, temperatures and processes. Once processing starts they follow the fish through each operation, sampling, weighing, testing, swabbing, and monitoring right through to the box. When

the box hits the truck the process starts all over again. Julio and the QA team ensure the plant continually produces the best quality product in the cleanest most hygienic way possible.

Ron Meuleman and the Maintenance team ensure that all the equipment is properly maintained with a focus on food safety. Before the clean-up crew gets to work Maintenance disassembles all equipment in preparation for nightly cleaning and re-assembles in the morning before production starts, this routine happens every day we are scheduled to process fish.

Our Mission at the plant:

Every day of the week we produce, "safe" "wholesome" food, delivered to our customers in a way that ensures consumers have the greatest confidence in the product we process and deliver.

# Two Sea Lice Papers - opposite conclusions – now what?

By Clare Backman, Sustainability Director

Recently, two articles about the effects of sea lice and salmon farms on wild Pacific salmon were released. The papers were in different scientific journals and reached quite different conclusions – let's take a closer look.

In November a new paper, by Price, Morton and Reynolds,<sup>1</sup> looked at data from previously published papers on wild salmon juveniles and sea lice collected in the Discovery Islands and the Broughton Archipelago in 2007 and 2008. Some previously unpublished data from Klemtu was also included. The conclusions reflected those of the authors' previous papers finding that wild salmon populations are at risk from the sea lice and net cage production of salmon should be ended in favor of rearing in tanks on land.

Media coverage noted the report's findings of harm to wild salmon were in complete contrast to the record high return of Fraser River sockeye salmon just experienced. Then on December 13 a paper with some completely opposite results was released.

The second paper, by Marty, Saksida and Quinn,<sup>2</sup> analyzed a large set of data covering juvenile pink salmon (7 yrs.), adult pink salmon returns (60 yrs.) and farmed salmon (10-20 yrs.). The authors concluded that the level sea lice on farms is correlated (predicted) by the size of the adult returns of the previous fall and that levels of sea lice on wild pink juveniles is correlated to sea lice levels on the farms. But they found no correlation between the success of adult returns and the level of sea lice on the salmon farms the previous spring. Simply put – higher levels of sea lice (from farms or another source) do not predict declines in wild pink salmon returns. The downward fluctuations in the returns of 2001 & 2002 were caused by something other than sea lice. Therefore moving the farms onto land will have no affect on the up and down fluctuations in adult pink salmon returns.

The contradiction of these papers' findings is not completely crazy: the first paper used limited data and drew its conclusions in part from the authors' earlier observations of the apparent lethal effect of sea lice on some individual pink salmon juveniles. The second paper drew on much more information and while it agreed that farmed salmon can be the major source of sea lice, it disagreed that declines in populations of adult salmon are linked to the affects of sea lice on juvenile pinks – other factors caused the declines, likely other natural source diseases.

At Marine Harvest Canada we are determined to grow our fish with the least possible impact on the environment – including wild salmon.- so the findings of the second paper are good news. However, we will continue to actively control sea lice on our fish during the spring outmigration season as we collaborate on research that will help to refine our farm management practices and further safeguard the wild salmon.

1. Evidence of farm induced parasite infestations on wild juvenile salmon, in multiple regions of coastal BC, Canada in The Canadian Journal of Fisheries and Aquatic Sciences.
2. Relationship of farm salmon, sea lice and wild salmon populations, in the Proceedings of the National Academy of Sciences.



## Local Gal Newest and Littlest Canuck



Left to right: Dave Reynolds (99.7 The River), Ian Roberts (Marine Harvest Canada) with winner Madison Oke.

Just like ex-Canuck Cliff Ronning, ten year old Madison Oke is ready to show the Vancouver Canucks that a passion for hockey can overcome any vertical challenge.

On March 16th, when the Vancouver Canucks take on the Colorado Avalanche at Rogers Arena, young Madison will be there, skates and all.

Madison was the lucky winner of the 'Littlest Canuck' contest sponsored by Marine Harvest Canada and 99.7 The River Radio. A heartwarming letter explaining why she loves hockey combined with a little 'lady luck' was all that she needed to beat out hundreds of local hopefuls.

Dave Reynolds, The River's morning show host, was happy to see such a large response to the contest which began in early November. "Campbell River is hockey mad," Dave said, "The letters we received from hundreds of kids were really special and it was very hard to choose the finalists."

Thirty semi-finalists were selected based on the quality of their submission and five finalists were

randomly drawn. In addition to Madison, the other finalists were Tyson Goebel, Sage Cameron, Coulsen McCartney and Darian Swift. Each runner up will receive a prize package from Boston Pizza.

Madison won a signed Alex Burrows Canucks jersey and her family will receive an all expenses paid trip to Vancouver with four tickets to the March 16th game at Rogers Arena. Madison will be representing Campbell River Minor Hockey during the Canucks pre-skate and will stand proudly beside the team during the singing of the National Anthems. "Madison has a real passion for hockey and will be a great ambassador for Campbell River at the game," commented Ian Roberts, Marine Harvest's Communications Manager. "In fact, if the Canucks try to sign her on March 16th, I've already asked if I can be her manager."

You can follow Madison's adventure on Facebook/ The Littlest Canuck Contest.

## MHC Christmas Party Prize Winners

Congratulations to the following MH staffers who were the lucky winners of our Christmas party prizes. All MHC full time staff were entered to win.

Helicopter Flight  
for 5 persons

Paul Romanoff, Cleagh Creek

January 7th,  
Canucks vs Oilers  
Package

Josh Gowan, PHPP

January 8th,  
Canucks vs Red Wings  
Package

Dave Ashcroft, Sales

February 4th,  
Canucks vs Blackhawks  
Package

Lynn Sandberg, PHPP

February 12th,  
Canucks vs Calgary  
Package

Philip Stuart, Doctor Islet

February 12th,  
Canucks vs Calgary  
Package

Lee Nanson, Chancellor Channel



## PAA Events January & February 2011

**Mark your Calendars!**  
Positive Aquaculture Awareness has two fun events planned for January & February 2011.



### Positive Aquaculture Awareness 1st Annual PAA FunSpiel

Saturday, January 22, 2011  
Campbell River Curling Club

Tickets: \$50.00 each (includes dinner)  
Team of Four: \$200.00  
Maximum 24 Teams  
Teams Curl 9:00am to 5:00pm  
Dinner at 6:00pm  
Skills Contest - Prizes sponsored by  
Royal Bank Canada - 7:30 pm

TO BOOK YOUR TEAM OF 4 -  
contact Positive Aquaculture  
Awareness at [bcaquaculture@gmail.com](mailto:bcaquaculture@gmail.com)  
Saturday, February 26, 2011

### 12th Annual BC Aquaculture Achievement Awards

Saturday, February 26, 2011

We have the Hall booked, details and nomination forms for the Awards Night will be forwarded to you in the New Year.

Support Positive Aquaculture Awareness.

## MHC donates to Oyster River Enhancement Society Road Safety Improvements



Marine Harvest is pleased to help fund the Oyster River Enhancement Society's access road safety improvements. Ian Roberts and Greg Gibson stopped by just before Christmas to pass along a \$5,000 contribution. The members of ORES are excited to visit MHC's hatcheries and farms this spring.

Pictured here are ORES President Jim Loring, Ian Roberts, Greg Gibson and ORES Vice President Bruce Bell.





## Producing Top-Quality Fish a Thrill for Career Aquaculturist

By Gina Forsyth



Life can surprise us in positive ways and nobody knows that more than Chris Bobb, Interim Site Manager at Lime Point in Klemtu.

After graduating from high school in Port McNeill in the late '80s, Chris

followed his passion and enrolled in North Island College's auto mechanics course. But "the timing

wasn't right" - the course was postponed. Chris heard of a job opening at Ibec and was immediately hired.

And so his aquaculture career began. The money he saved to go back to school was used instead for a trip to Australia. "I've loved tinkering with machines since I was a kid but I realized quickly that on the farm I was where I was meant to be," Chris said. Until he made the move to Klemtu in May, Chris managed a variety of sites in the Broughton, most recently Sargeant's Pass.

Chris was born in Toronto and his family moved to Vancouver Island when he was a toddler. After time spent in Shawnigan Lake, he settled in Port McNeill,

where he's been for several years with his partner, Darcy. They have two girls.

When asked "what's the best thing about working for Marine Harvest", Chris' response comes quickly. "It's the sense of family and knowing there's always somebody looking out for you". He also speaks of the sense of pride that comes with the harvesting of fish he's put such time and energy into; fish that people say is the best they've ever seen. "It doesn't get any better than that," he says.

Chris enjoys riding quads and exploring the backroads of Port McNeill on his days off.

## Recirc at Sayward North Proving itself in Early Days

By Gina Forsyth

Since the last update in the February newsletter, Phase I of the new recirculation unit at Sayward North (SN) has begun operation. Fish were stocked to the system during the first week of November. Introduced gradually over several weeks as the bioreactors reached peak efficiency. The bioreactors convert ammonia, which is toxic to fish, into safer nitrates and also "eats" fine organic solids while removing excess carbon dioxide.

Total water use at SN will eventually decrease by as much as 2/3 from current levels as the remaining flow through systems are converted to or replaced by additional recirculation systems.

Dean Guest, Freshwater Production Manager, said that the first group of 600,000 smolts produced in the new system should be ready for delivery to site in January 2011.

"Our expectation is that this system will more than meet our needs," he said. The key to any successful recirc operation is the ability of the system to maintain stable water chemistry, temperatures, oxygen levels, as feed rates and biomass change. The system will be able to consistently provide

a high standard of water quality throughout the production cycle including times of peak biomass & feeding and the "smolting" process leading up to transfer to sea.

This will help us produce smolts of a consistently high quality from September through May Dean commented.

"In our opinion InterAqua Advance has the best technology available". The company, based in Denmark, has a patent on their recirculation system's design.

When asked why Marine Harvest has chosen this time to take such significant steps forward, Dean commented that "we needed to end the lake production of smolts in order to decrease potential fish health issues. This investment in our freshwater operations is a key way to increase both smolt size and quality while at the same time reducing environmental concerns". Two out of the three company's lake-based hatchery sites are already closed.

The second phase of work is scheduled to begin before the New Year. Four additional tanks and a



second bioreactor system will be installed in the same building.

Sayward North represents InterAqua Advance's first system in North America.



## Knights of Columbus Food Hamper Drive 2010



MHC'ers helped out with the Campbell River Knights of Columbus Food Hamper Drive. Many thanks to all volunteers that took part in this colossal event!

## Marine Harvest continues Annual Charity Giving



Marine Harvest held the annual Christmas donation luncheon in December. Clare Backman (far right), Sustainability Director, presented cheques of \$2,500 each to representatives of the following organizations (right to left): Georgette Whitehead of the Campbell River and District Women's Centre; Ann Minosky of the Campbell River Food Bank; John Gernon of the Knights of Columbus Christmas Hamper Fund; and Betty Tiede of the Salvation Army. Seated at the back is Kristi Super of Marine Harvest. Photo courtesy of Paul Rudan/CR Mirror



1st pick-up load of food donated to the Gazette Hamper Fund by all the employees at the Port Hardy Processing Plant.

Photo submitted by Dave Pashley

