Newfoundland Aquaculture Industry Association

FOR IMMEDIATE RELEASE

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Newfoundland's Aquaculture Industry
Preparing for Increased World Demand while Planning Better Protection for Our Oceans

St. John's NL: The Newfoundland Aquaculture Industry Association (NAIA) recently hosted over 200 delegates for its 21st Annual Conference and Tradeshow, at the Hotel Gander, February 11th-13th, 2014. The event focused on the growing aquaculture industry in this province and the latest advancements and technologies in such areas as fish health, waste byproduct management and utilization, and sea lice management tools.

"Aquaculture continues to be the fastest growing animal food-producing sector in the world and is set to overtake capture fisheries as a source of food fish," said Miranda Pryor, Executive Director of the NAIA. "As the world's growing population seeks more and more healthy protein, fish farmers and aquaculture workers in this province have to be ready to share in that growth through responsible and sustainable farming practices."

The aquaculture industry in Newfoundland and Labrador is a major economic driver in many rural and coastal regions, employing approximately 1,000 people. It produced over 25,000 metric tonnes (55,115,000 lbs) of finfish and shellfish in 2013, worth more than $197 million in production value.

Fish farmers in Newfoundland and Labrador are actively developing an Integrated Pest Management Program which will support decision-making on the strategic use of appropriate approved products or technology for protecting fish and managing sea lice. There are a number of new technologies under development worldwide and many were discussed during the recent NAIA conference. Local, national and international speakers at the conference presented on fish health and sea lice management which provided valuable information for local farmers as they plan for the year ahead.

"All farmed salmon go into the water certified disease and parasite free, as per our current fish health regulations," said Pryor. "Sea lice are naturally occurring in the marine environment, and while avoidance is always the top priority for salmon farmers, sometimes our fish need to be treated by veterinarians because, although sea lice do not pose a human health risk, high levels of sea lice are damaging to our fish."

Our own Ocean Sciences Centre of Memorial University is engaged in a research project using a cleaner fish (cunners) as a natural sea lice controls in fish cages. In addition, optical sea lice controls (lasers) are being developed in Norway which will potentially be another natural management option available for farmers, with Newfoundland trials of the technology set to begin this year.

To date salmon farmers in Newfoundland and Labrador have limited tools for dealing with sea lice but one such option is Salmosan®. Treatments with Salmosan® are prescribed by a veterinarian and only administered by provincially certified workers. Salmosan® was first used in the New Brunswick industry in 1995, and was approved for use in this province in September 2010.

Pryor provided some perspective about the use of Salmosan® to protect salmon from sea lice while minimizing its effect on the ocean. "A standard treatment dose of Salmosan® prescribed by a veterinarian for a bath treatment is like pouring less than a two litre jug of Salmosan® into the equivalent volume of a tarped sea cage that would fill more than two Olympic-sized swimming pools. Treatments occur over a vast geographical area, in different bays over a period of many months".

The usage of Salmosan® has increased to meet the growth of the aquaculture industry in recent years. However, the amount of Salmosan® used is at a 'parts per million' level and becomes inactive before the seawater is released from the tarps. In 2014, the industry plans to focus treatments predominantly on the use of environmentally-benign hydrogen peroxide and well boat treatments thereby requiring less usage of Salmosan®. We remain committed to working with our fish health veterinarians and the Department of Environment to ensure the health of our fish and to minimize any potential impacts on the marine environment, with a special interest in the on-going research into natural, biological control methods.

Our provincial aquaculture industry is poised for further growth in 2014. Newfoundland and Labrador farms are committed to meeting that demand through sustainable farming practices and through the protection of the ocean for future generations.

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Background

- All treatment products undergo extensive risk assessments by Health Canada to ensure they are safe for salmon and other species, the environment and human health. Extensive lab and field research and monitoring has been conducted around the world and also in Canada.

- Integrated Pest Management Plan (IPMP) combines preventative farming practices like fish husbandry, single year class stocking, fallowing and low stocking densities with having a variety of approved treatment products for use when necessary. This approach allows farmers to focus on the prevention of sea lice and when necessary, to strategically use the right treatment at the right time, thus reducing the overall amount of approved product used.

- In 2010, the NL DFA Aquatic Animal Health Department completed an assessment of feral lobster behavior, at the Fisheries and Marine Institute, in long term holding under ambient conditions following bath therapeutants exposures on salmon farms in the Coast of Bays for 3 months, with the NAIA then continuing the study for an additional 8

months to monitor for any long-term effects. No negative impacts were recorded, with high survival rates and normal behaviors in terms of feeding, shelter seeking, reproductive and molting observed throughout the holding period.

- Volume of Olympic Sized Swimming Pools – www.en.wikipedia.org - Based on a nominal depth of 2 m, this is 2,500,000 L (550,000 imp gal; 660,000 US gal) or, in terms of cubic volume, 2,500 m^3 (88,000 cu ft).

- A standard treatment dose prescribed by a veterinarian for a Salmosan® treatment is approximately 1500 grams or 1.5 litres, however the active ingredient is only half (750 grams) of that. The average cage size in Newfoundland and Labrador is 100 meter circumference, with 15 meter depth, for an estimated total of 12,000 cubic meters or 12,000,000 litres per cage. The net is tarped, temporarily reducing the volume which minimizes the amount of product needed for an effective treatment. Essentially the Salmosan® is isolated to inside the cage, and the fish swim within its reduced volume for a prescribed time where the product acts quickly then degrades, following which the tarp is removed and the cage volume restored.