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Aquaculture disease experts to download at GOAL 2016

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5 September 2016 James Wright

Speakers include CP Foods’ Robins McIntosh and Hamish Rodger of FishVet Group

Tilapia. Photo courtesy of FishVet Group.

Wally Stevens, executive director of the **Global Aquaculture Alliance**, asks the same question – what is the aquaculture industry’s greatest challenge? – at GAA’s annual GOAL conference, and each year he hears the same answer from the audience: disease.

Major diseases have impacted global farmed shrimp and salmon production, for example, throughout the industries’ relatively brief history. This year at GOAL – held at the White Swan Hotel in Guangzhou, China – leading animal welfare and aquatic animal disease experts will share their knowledge about how producers can gird their operations during the panel discussion titled “Animal Health & Welfare: Latest Developments in Disease & Area Management.”

(Day 1, Sept. 20, 10:30 to 11:30 a.m. in the Grand Ballroom. See full conference schedule here: **https://www.aquaculturealliance.org/goal/conference-program/**.)

“Disease is the No. 1 constraint limiting aquaculture,” said George Chamberlain, president of the GAA. “It can impact profitability, sustainability, animal welfare and market acceptance.”

> We are beginning to roll back the mystery [of EMS]. Effective solutions have been found, but there is still a reluctance on the part of some to embrace these solutions.

Chamberlain will moderate the discussion with other noted disease experts, including Robins McIntosh, senior VP at **Charoen Pokphand Foods Public Company**, based in Thailand; and Hamish Rodger, global managing director at **FishVet Group, a Benchmark Company** based in Scotland. The session will discuss advances in the control of the shrimp disease EMS (Early Mortality Syndrome), EHP (*Enterocytozoon hepatopenaei*) infections in shrimp ponds, streptococcosis in tilapia, and ISA (Infectious Salmon Anemia) and sea lice in farmed salmon.

“Disease control is best achieved by an integrated health management program including diagnostic testing, breeding, vaccines, biosecurity, sanitation and husbandry practices,” added Chamberlain.

EMS, also known as Acute Hepatopancreatic Necrosis Disease (AHPND), had a severe impact on global farmed shrimp supplies beginning in 2009 in China. It soon spread to other areas in Southeast Asia, costing the industry billions of dollars, and remains a very complicated issue, said McIntosh.

“We are beginning to roll back the mystery. Effective solutions have been found, but there is still a reluctance on the part of some to embrace these solutions,” he said. “But for those that have, and many are in Thailand, the outcomes are very rewarding.”

In this battle, McIntosh added, shrimp farmers are not fighting just one disease. EMS is a “concurrent synthesis” of several diseases and bacteria, he noted, that often makes test tube results irrelevant. It is therefore difficult, he said, to determine the biggest problem in a particular pond because each situation can present unique obstacles.

“We tend to give a name to a singular farm issue – such as, that farm has WSSV (White Spot Syndrome Virus), or that pond has EHP, or that pond has AHPND,” said McIntosh. “The fact is, the pond often has more than one and it is the interactions that often makes the interpretation and solutions more difficult.”

While the farmed salmon industry can be viewed as a success story in aquaculture’s war against aquatic animal diseases, Rodger noted that the naturally occurring sea lice (*L. salmonis* and *Caligus* sp.) parasite remains a challenge in many regions where salmon is produced.

“Novel methods for the prevention, control and management of these parasites have been developed and utilized in the past few years and details of these will be discussed and presented including the use of cleaner fish, mechanical and environmental management methods, novel monitoring and intervention strategies, use of genomics, alternative chemotherapy and combinations and rotations of the above,” Rodger wrote in an e-mail.

Genetic selection, biosecurity, vaccination, nutritional support and management strategies are all key tools for producers in the fight against aquatic diseases, he added, including streptococcosis in tilapia.

> It makes sense for producers to work together to put themselves in the best possible situation to help prevent (or mitigate) outbreaks.

As the industry convenes to discuss disease, Iain Shone, development director at GAA, will present the latest on what is a potentially a key defense strategy known as **area management**.

Shone calls area management the “final frontier” for aquaculture development, adding that a select number of countries – as well as species sectors – have good examples of advanced area management systems, but it’s “far from commonplace.” Shone will detail for how GAA is approaching an area management standard, with a focus on biosecurity.

“There is always a new disease. It makes sense for producers to work together to put themselves in the best possible situation to help prevent (or mitigate) outbreaks,” said Shone. “The draft standard we are developing lays out best practice to do so. But we know this is an extremely difficult task, with many obstacles to overcome. Encouraging producers to work together can be extremely difficult for lots of reasons, but we have had great support for this development, including from the other certification schemes.”

@GAA_Advocate

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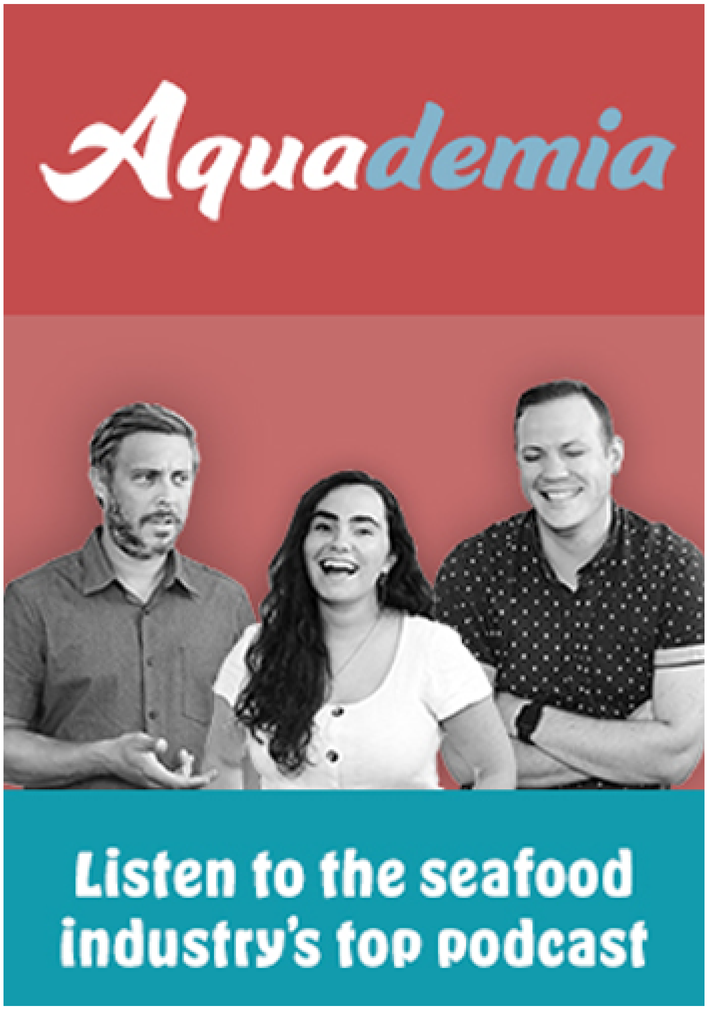

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