



New Protec Gill

DELIVERING WIDE-RANGING GILL SUPPORT FOR SALMONIDS

DR NICOLE RUFF PRODUCT MANAGER

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Truls Dahl
Global Manager
Skretting Health Feeds



PRECISE FORMULATION

In addition, laboratory work has been done on testing whether functional feeds had an influence on the growth of the amoeba causing AGD. The effects of many combinations of functional ingredients and their response on the mucus of fish fed these functional feeds were examined. This work was done in partnership with Dr Astrid Holzer and her team at the International Institute of Parasitology and the Biology Centre of the Academy of Sciences of the Czech Republic. ARC has also conducted several AGD challenge trials with Dr Barbara Nowak at the University of Tasmania.

"Together with feeding trials in Norway, this research provided some excellent documentation that showed certain dietary components can help to further enhance gill condition," says Dahl. "The secret to Protec Gill is the way that these functional ingredients work together as a package to support the gill. On their own, the ingredients don't make a great deal of difference, but when combined very precisely they showed throughout the trials that they reduce fish mortality."

In following this broad-spectrum approach throughout the development process – from laboratory to trials to market – ARC has arrived at a diet that can be used in a lot of different circumstances rather than one that is only specific to one particular gill problem.

As is the case with other Protec protocols, Protec Gill is a proactive health diet, which means that ARC recommends it is used by fish farmers before they see any signs of gill disorders to give the fish some protection prior to the onset of a challenge and then throughout the course of that event to limit the potential impacts.

In Australia, we will be launching Protec Gill ready for the coming summer. For further information please contact Nicole Ruff (nicole.ruff@skretting.com). ■

Salmonid grow-out systems tend to be open to the natural environment, which exposes the fish to a variety of challenges to the gills. Launching in 2015, new Protec Gill uses functional ingredients that support and shield the gills when confronted with such events, enabling the fish to cope better and recover faster.

Gill disorders have become one of the most serious and widespread causes of mortality among farmed salmonids. While amoebic gill disease (AGD) has grabbed the headlines in recent years after impacting production sites not only in Australia, but also across Europe and Norway, it is by no means the only gill challenge that fish farmers face today. Situations are further complicated by a long list of possible causative agents, including jellyfish, phytoplankton, bacteria, viruses and parasites. Insults from any one of these agents can often lead to respiratory problems, stress, and subsequently death.

Developed by the Skretting Aquaculture Research Centre (ARC) in Stavanger, Norway, new Protec Gill builds upon the knowledge and expertise that came from delivering other Protec solutions to provide enhanced gill support.

"We have taken all the appropriate elements of Protec, such as strengthening gut health, supporting the fish's resistance to bacteria and providing a greater level of antioxidants, and then advanced the product to further address gill-related challenges. And crucially, Protec Gill supports the gills regardless of the challenge," explains Truls Dahl, Global Product Manager for Skretting's Health Feed.

FUNCTIONAL INGREDIENTS

Thanks to on-going functional feed research at ARC, which has been influenced by invaluable input from commercial fish farmers, Protec diets contain a wide range of novel ingredients together with optimised doses of vitamins and minerals that have been shown to support the immune system.

They act in synergy to fight the negative effects of stress in fish, caused by factors including disease, handling, transport and vaccinations, and they modulate specific parts of fish immune systems to respond better when dealing with infections.

For salmonids, Protec has proved particularly effective preparing the fish for stressful situations and is contributing to a reduction in the mortalities resulting from extreme environmental conditions. It is also being used to improve the healing capacity of skin and to reduce the impact of several diseases.

With the addition of very specific active ingredients, Protec Gill builds on these existing benefits making it more suitable to supporting fish that are dealing with gill challenges.

While the product is being launched into salmonid markets this year, work on the formulation began more than three years ago, in particular focusing on ingredients that support gill function, either through oxygen intake or tissue protection. ARC researchers also discovered that diet can influence some of the inherent properties of fish mucus, and that fish fed these diets also had significantly reduced mortalities after exposure to amoebae that cause AGD.