

# The power of the Lab Station

A higher water quality  
and knowledge  
to reduce production risk



## About

Follafoss smolt facility is in central Norway and produces 20 million smolts each year. It is owned by SalMar.

## Challenge

Follafoss built a new facility with 3 individual RAS units. Soon after starting up, different water quality challenges occurred. A very high turbidity in the RAS units was the most obvious cause for a lowered fish appetite and high FCR. However, there was also a feeling that pH instability and sometimes too high CO<sub>2</sub> caused poorer production.

## Solution

Follafoss chose to invest in a Lab Station from Blue Unit to minimize the risk in managing a RAS-facility and go into cooperation with the competences at Blue Unit to improve water quality. In this case turbidity was one of the most important issues to focus on. The measurements around the system made it possible to locate where turbidity was being generated. Periodic meetings and cooperation where data analysis and actions were exchanged made it possible to implement incremental improvements and see how much they each contributed to improve turbidity.

The amount of the measurements from a Lab Station made it possible to change air or water flows and see the results within a few hours. Another learning was that by reducing new inlet water, combined with higher pH, Follafoss was able to raise alkalinity.

Both parties could see the ideal alkalinity for each RAS system, which would maximise water stability and minimise the need to add calcium salts. In this way Follafoss increased fish appetite, improved fish performance and decreased calcium salt addition by 40%. This result also improved survival of delivered fish significantly to the sea this year from Follafoss.

## Results

8-12 weeks after installing the first Lab Station, Follafoss saw the following benefits:

- Solved the turbidity problem, which has caused lower appetite and poorer FCR.
- Reduced inlet water and calcium salt addition.
- More stable water quality and better fish performance both on land and in the sea.

To find more about how you can maximize your fish farm yield potential, please contact  
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For further information you are most welcome to contact Follafoss, Project Manager Karl Christian Aag.