

# Blue **Bioeconomy**

NATURAL RESOURCES INSTITUTE FINLAND

# Feed and feed ingredients for fish farming



Fish farming is the fastest growing food production sector on a global scale. According to the Food and Agriculture Organization (FAO) of the United Nations, fish farms will cover the majority of the global food fish supply by 2030. Demand for feed continues to grow, as fish farming is increasingly shifting from natural nutrition to feeding. Conventional raw materials are not sufficient and new dietary ingredients are needed increasingly.

### **Benefits for customers**

The Natural Resources Institute Finland (Luke) is an expert in the research and development and testing of dietary ingredients and feeds based on customer needs. Together with Luke, customers can develop more competitive feed and feed ingredients, whose production impact is thoroughly known, for fresh water fish farming and water recirculation systems.

As a result of shared development activities, customers obtain information about the impact of feed and dietary ingredients on the appetite and production performances of fish including chemical composition of fish meat, the apparent digestion coefficient of dietary nutrients and feed conversion ration.







# **Examples of our services:**

- Identification of each customer's needs for information
- Test planning based on customer-specific needs in a suitable test environment in fresh water fish farming or water recirculation conditions
- Running a growth experiment using salmonid fish
- Investigation of the impact of different types of feed or feed ingredients on production properties
- Production of confidential reports for customers

## Why Luke?

Luke has research-based expertise in the development of various feed solutions. **Susanna Airaksinen**, product manager at Raisioaqua, talks about how an innovative feed was developed in cooperation with Luke to produce feed for Benella rainbow trout:

"Our successful R&D activities were heavily customer-driven. Benella is based on research originating from business needs. By identifying different bottlenecks, research activities may benefit businesses, even in unexpected ways," says Airaksinen, describing the successful R&D process.

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