



Environmental and Aquatic Science

Cefas offers an established track record of working with a range of international commercial organisations to provide environmental and aquatic science services.

We provide a range of development and assessment services for all major types of aquatic products. We have contributed to the successful development of numerous safe, effective and profitable products.

Our Expertise

The quality of our services is based on our wealth of experience, first class science linked to customer service and continuous improvement through investment.

Our internationally recognised team provide expertise in aquatic virology, microbiology, parasitology, ecotoxicology, molecular biology and histopathology.

Our Facilities

Cefas' world class biosecure experimental and aquarium facility offers a wide range of disease free test fish and crustacea and is Good Laboratory Practice and Good Manufacturing Practice compliant. This facility consists of over 200 tanks with full environmental control and in-tank cameras allowing a broad range of environmental and product evaluation studies to be undertaken.



Our services

We offer a range of services, including:

- Product safety and efficacy evaluations
- Product compliance for various regulatory protocols and procedures
- Fish vaccine and veterinary product evaluation
- Disinfectant testing including BS EN 1656/14675
- Feeding studies including pharmaceutical additives
- Ecotoxicological testing including using marine model and non-model invertebrate and vertebrate species
- In-vitro efficacy assays including MIC tests
- Disease challenge studies for selective breeding programmes
- Residue depletion and radiolabelled metabolism studies



Available challenge species

Salmonids, cyprinids, sea bass. Other species of fish and crustacean may be available on request.

Available Ecotoxicological species

Benthic copepod (*Tisbe battagliai*), bivalve embryo (*Crassostrea gigas* and *Mytilus edulis*), marine diatom (*Skeletonema costatum*), marine worm (*Arenicola marina*) and Juvenile turbot (*Scophthalmus maximus*). Other species of algae, invertebrate and fish available on enquiry.

Our challenge models

Bacterial *Lactococcus garvieae*, *Streptococcus* spp, *Renibacterium salmoninarum*, *Yersinia ruckeri*, *Vibrio anguillarum*, *Vibrio salmonicida*, *Aeromonas salmonicida*, *Moritella viscosa*, *Photobacterium piscicida*, *Piscirickettsia*, *Flavobacterium psychrophilum*.

Viral Viral haemorrhagic septicaemia (VHS), Infectious haematopoietic necrosis (IHN), Infectious pancreatic necrosis (IPN), Spring viraemia of carp (SVC), Koi herpesvirus disease (KHVD), White spot syndrome, Pancreas disease (PD), Sleeping disease (SD), Carp edema virus, Viral encephalopathy and retinopathy (VER).

Parasitic Sea lice (*Lepeophtheirus* and *Caligus* spp.) and Amoebic gill disease (*Paramoeba perurans*).

Fungal *Saprolegnia parasitica*, *Saprolegnia diclina* (*in-vitro*) and *Aphanomyces invadans*.



Enquiries

For further information on our services, please contact Mrs Louise Smith on +44 (0)1305 206664 or louise.smith@cefass.co.uk