

Aquaculture Innovation at the UK Agri-Tech Centre

The UK Agri-Tech Centre has made strategic investments to enhance the UK's capacity for aquaculture research and innovation. We provide expertise that delivers whole chain, science-based solutions, at scale, and connect an outstanding breadth of academia, industry, and policy across the UK.



Strategic Themes

We have identified four strategic innovation themes that align with real industry challenges, enabling a systems-wide approach.



One Health

Understanding the links between animal, human and planetary health.



Sustainable Production

Growing global food production with lessened impact on natural resources.



Resilient Food Systems

Adapting to our changing climate and the challenges that brings.



Intelligent Agriculture

Helping your business to focus on how to integrate technology that delivers impact.



Sector Focuses

The UK Agri-Tech Centre identifies and supports the following aquaculture sectoral priorities:

- Resilient production systems for a changing environment.
- Technologies to reduce and mitigate carbon/GHG emissions.
- Innovations enabling enhanced control of pathogens and parasites.
- Production methods that improve aquatic biodiversity.
- Effective adoption of advanced genetic improvement techniques.
- Implementation of measures to improve the welfare of farmed aquatic animals.

Capabilities & facilities:

The UK Agri-Tech Centre and its collaborative partners operate two dedicated aquaculture R&D facilities, supported by comprehensive laboratory services.

Marine Aquaculture Innovation Centre (MAIC)

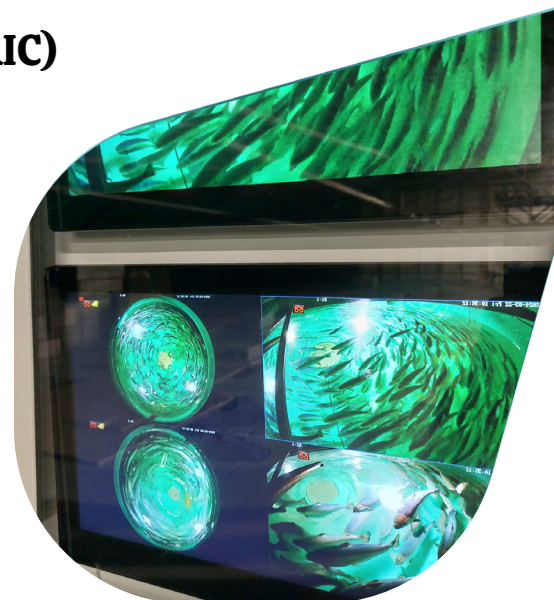
MAIC is operated in partnership with Otter Ferry Seafish Ltd, located on Loch Fyne.

The Centre houses six 25m³ and twelve 2m³ rearing tanks, each equipped with programmable lighting and feed delivery, water oxygenation, waste feed collection and CCTV video monitoring. The full-strength seawater supply is mechanically filtered and UV-sterilised before use and can be chilled when required.

MAIC is adaptable to studying diverse topics for temperate marine aquaculture species. Examples include feed ingredient evaluation; validation of operational welfare indicators; assessment of genetic strains; prototype testing; diagnostics testing; piloting of harvest and post-harvest methodologies; and development of rearing protocols for 'new' species.

Close environmental control helps to ensure reliable study data, with little variation among tank replicates. In the case of Atlantic salmon, longitudinal studies can be carried out from smoltification to harvest.

MAIC facilities are available year-round to aquaculture producers, technology suppliers and researchers, with options for both contract research and collaborative R&D.



*CCTV monitoring
of fish stocks*





Aquaculture Genetics Research Facility (AGRF)

The AGRF is operated in partnership with the Roslin Institute, University of Edinburgh.

The facility contains three recirculating aquaculture systems (RAS) located in two rooms. RAS A supplies two salmonid egg incubators; RAS B supplies twelve 50L and two 200L hatchery tanks; and RAS C (disease challenge lab) supplies sixteen 50L tanks and two 300L tanks.

The AGRF is designed to support research into disease resistance and genetic improvement of farmed fish, in particular salmonids. Temperature is also controllable for warmer water species.

The Roslin Institute additionally operates a series of small marine aquaria for research on commercially important bivalve mollusc and decapod crustacean species.

Ecosystem & Expertise

Membership

We are a powerful community that increases in size and influence with each new member. Our range of membership packages cater for the needs of innovators, scientists, and businesses of all sizes across the aquaculture supply chain and further afield.

Connections across all agri-industries

Our extensive network is made up of farmers, researchers, value chain specialist, tech developers, and leaders from across the the food production sectors. We offer valuable opportunities for collaboration and knowledge exchange.

Project management and sector expertise

Our sector experts and Project Managers, comprised of professionals with diverse and extensive backgrounds and members of the APM (chartered body for Project Management), bring a wealth of skills and experience to help you deliver impactful results.

Contact us at
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for more information