



## ANIMAL WELFARE POLICY

Seafresh Group (SFG) produces, manufactures, and distributes wild-caught and farmed seafood internationally, primarily shellfish (decapod crustaceans). A core objective of our business is to produce and supply the most responsibly produced seafood. For all seafood production, SFG understands and promotes the principle that best practice (for both fishing and aquaculture operations) is underpinned by good animal welfare.

### COMMITMENTS

SFG commits to comply with the legislation on animal welfare applying to the species we source, in both production and market countries. SFG commits to promoting best practice and improving knowledge and awareness of animal welfare in our supply chain, through research, certifications, supplier training and improvement projects. Our supplier approval process includes welfare considerations and criteria. SFG commits to working with suppliers and other stakeholders to eliminate any form of mutilation within our supply chains. SFG work with suppliers to implement and verify humane slaughter methods for decapod species, including farmed warm water prawns, crab, lobster, and crayfish. All decapods are slaughtered before they reach the final consumer, and this must be carried out by trained personnel.

### APPROACH

SFG advocates for a species-specific approach to animal welfare, whereby production methods meet the specific environmental, nutritional, health and behavioural requirements of the species involved, aligning with the five freedoms<sup>1</sup>. This also means that production systems should be managed, monitored, and improved using science-based welfare indicators. We work with our suppliers to apply this approach to all activities which involve live animals, such as during stocking, culture, handling, storage, transport, capture or harvesting, and slaughter, and make effective improvements across the supply chain.

SFG collaborates with academia, suppliers, customers, non-profit organisations, industry peers, and technology specialists to contribute to research on decapod welfare. We are members of The Shellfish Association of Great Britain (SAGB) and contribute to industry projects and multi-stakeholder discussions on crustacean. Our Director of Sustainability is responsible for overseeing the implementation of our animal welfare strategy.

A handwritten signature in black ink, appearing to read "Lasse B. Hansen", is positioned above a horizontal line.

Lasse B. Hansen, CEO  
11<sup>th</sup> September, 2025

<sup>1</sup> <https://www.woah.org/en/what-we-do/animal-health-and-welfare/animal-welfare/>

# ANIMAL WELFARE STRATEGY

## STRATEGY OVERVIEW

### Approach & Implementation

Our animal welfare policy is underpinned by an action plan which involves the following:

1. Engage with suppliers to conduct welfare risk assessments of production systems to achieve our policy objectives, identify opportunities to improve and/or gaps in knowledge which require further scientific research or advice
2. Where scientific knowledge is lacking, our action plans involve driving and supporting studies with other stakeholders and contribute to the development of science-based guidance for industry
3. Report our performance against our welfare KPI's annually, by species and supply chain, based on our established monitoring and due diligence systems

### Welfare Risk Assessment Methodology

The internal welfare risk assessment has been developed as a tool for assessing the inherent welfare risk in each of our seafood supply chains and each species, identify areas for improvement, and support our action plan. The assessment considers 7 main risk factors, by-catch, nutritional needs, environmental conditions, health, handling, mutilation and stunning & slaughter, and each risk factor is applied to every step where the supply chain has a degree of control and/or responsibility for the animal while it is alive. This covers from broodstock & egg stages for farmed species and from capture for wild species, until slaughter. For each step in the production chain and risk factor, a RAG rating (Red, Amber, Green) is determined based on the following criteria:

| Risk Rating | Description                                                       | Examples                                                                                                                                                  |
|-------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| High        | Highly stressful or damaging scenarios (without timebound limits) | Mutilation, stunning, slaughter, epidemic or severe cases of disease, very poor environmental conditions                                                  |
| Medium      | Moderately stressful or damaging timebound scenarios              | Live transportation, pumping, rigorous handling or handling for long periods of time, starvation periods, endemic diseases, poor environmental conditions |
| Low         | Minimal stress or potentially damaging scenarios                  | No handling, good environmental conditions                                                                                                                |

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This method is specifically looking at inherent risk, for example, any step which involves stunning & slaughter will always be inherently high risk, regardless of methods used in the supply chain being assessed. This allows us to identify where improvements are required to ensure that the risks identified are managed and mitigated where necessary. As academic research and industry developments advance our awareness and knowledge on crustacean welfare, we expect this methodology to evolve and strengthen year on year.

By reviewing our supply chain with a welfare lens using this holistic approach, we can map where good practices are implemented and where there are needs and opportunities for improvements, and as a result we can ensure that we effectively and strategically maintain and improve the welfare of the animals within our supply chain.

### WELFARE KPI's based on 2024 product sourcing

| OUTCOMES                                                                                     | KPI's                                                                 | Targets                | Progress | Action Plan                                                                                                                                                                                                                                                          | Timeline           |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| <b>MUTILATION</b>                                                                            |                                                                       |                        |          |                                                                                                                                                                                                                                                                      |                    |
| <b>Eliminate any form of mutilation on live animals</b>                                      | % shrimp PL's from non-ablated broodstock                             | 100%                   | 75%      | For the supply chains where eyestalk ablation is still used, engage with hatcheries to agree reduction plans with timebound targets.                                                                                                                                 | Ongoing            |
|                                                                                              | % crabs which have not had their claws nicked                         | 100%                   | 55%      | There are currently no practical alternative solutions available for vessels which must do this to ensure crabs do not fight when stored together.<br>Action is to remain engaged with and support collaborative projects to develop and test alternative solutions. | Ongoing            |
| <b>PRODUCTION</b>                                                                            |                                                                       |                        |          |                                                                                                                                                                                                                                                                      |                    |
| <b>Minimise antibiotic use, and ensuring antibiotics are used responsibly where required</b> | % of farms who do not use antibiotics                                 | 100%                   | 100%     | Continue to monitor based on impact of diseases.                                                                                                                                                                                                                     | Ongoing monitoring |
|                                                                                              | If required, % of farms exclusively using antibiotics therapeutically | 100%, where applicable | NA       | Not applicable                                                                                                                                                                                                                                                       | NA                 |

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| OUTCOMES                              | KPI's                                                                                                                                                                                               | Targets                    | Progress                            | Action Plan                                                                                                                                                                                                                                    | Timeline           |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| <b>Good Farming Practices</b>         | % of farmed product which is certified to against third-party aquaculture standards (ASC, BAP, GlobalGAP or Organic)                                                                                | 100%                       | 100%                                | Achieved - continue to monitor.                                                                                                                                                                                                                | Ongoing monitoring |
| <b>Higher Welfare Standards</b>       | % of product sourced from farms operating under a Higher Welfare Standard (where available) (e.g. certifications or customer standards which involve welfare requirements beyond the industry norm) | 100%                       | 67% (based on volume)               | Support the development and adoption of higher welfare standards (e.g. certification or industry standards)                                                                                                                                    | Ongoing monitoring |
| <b>Welfare Training for Producers</b> | % of suppliers covered by species-specific welfare training; this is currently only available/developed for Whiteleg shrimp ( <i>P. vannamei</i> ) by FAI Farms <sup>1</sup> .                      | 100% of <i>P. vannamei</i> | 55% of <i>P. vannamei</i> suppliers | Ask more producers (of <i>P. vannamei</i> ) to complete welfare training, and support the development of welfare training materials/guidance for other species where not yet available                                                         | Dec-26             |
| <b>Welfare Risk Assessments</b>       | % supply chains assessed using our welfare risk assessment methodology                                                                                                                              | 100%                       | 22%                                 | Continue completing assessments across all sources, identify where the inherent welfare risks are, and implement improvements where required. Some actions are and will be incorporated into collaborative research projects referenced below. | Ongoing            |

<sup>1</sup> <https://www.faifarms.com/>

# ANIMAL WELFARE STRATEGY

## HUMANE SLAUGHTER

Our goal is for all farmed decapods and any wild decapods landed live to be humanely slaughtered, and we aim to deliver this by working on two main objectives in tandem:

- 1. To ensure that animals are stunned and kept unconscious until slaughter, and handled responsibly throughout the process
- 2. To conduct verification tests using welfare indicators to confirm humane practices, and to support the development of operational welfare indicators

The following table is a summary of the progress we are making for each species against both objectives.

| HUMANE SLAUGHTER | (1) Stunned prior to slaughter & handled responsibly                                                                                                        | (2) Verification of slaughter method                                                                                                                                                                         | Actions                                                                                                                                                                                            |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lobster          | Lobsters are kept in controlled conditions (in water or air) throughout transport & interim storage, prior to stunning with electric shock before slaughter | Internal verification tests have been conducted based on expert advice.<br>Further scientific input required.                                                                                                | Engaged with industry stakeholders & scientists to develop best practice guidance & operational welfare indicators for this species.<br>Action plan agreed by December 2025.                       |
| Shrimp           | Shrimp are pumped or brailled directly from ponds, before stunning with electric or cold shock before slaughter                                             | Comprehensive welfare assessments completed on the first commercial-scale case study as part of a research project led by the University of Stirling.<br>Welfare improvements were identified & implemented. | Repeat welfare assessments on additional case studies & implement improvements where identified. Complete by 2025.<br>Continue to support the development of a humane slaughter protocol. Ongoing. |
| Crab             | Crabs are kept in controlled conditions (in water or air) throughout transport & interim storage, prior to stunning with electric shock before slaughter    | Internal welfare assessments and monitoring are in development. Further scientific input required.                                                                                                           | Engaged with industry stakeholders and scientists to develop best practice guidance & operational welfare indicators for this species.<br>Action plan agreed by December 2025.                     |
| Crayfish         | Crayfish are kept in controlled conditions (in air) throughout transport & interim storage.<br>No stunning step in place prior to slaughter.                | Limited research conducted on this species and potential stunning mechanisms.                                                                                                                                | To conduct electric stunning trials to verify and compare different stunning techniques that could be used at commercial scale.<br>Trial planned for 2026.                                         |

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## COLLABORATIONS & PUBLIC ENGAGEMENT

One of the principles behind our animal welfare strategy is that our company seeks to ensure that the work we do adds value to the operations within our producers and adds value to the wider industry. Below is a list of publications that refer to research studies we have been involved in, details on current ongoing projects, and public engagement.

### Research Studies

- Adams, R.; Stanley, C.E.; Piana, E.; Cooper, R.L. Physiological and Behavioral Indicators to Measure Crustacean Welfare. *Animals* **2019**, *9*, 914. <https://doi.org/10.3390/ani9110914>
- Weineck, K.; Ray, A.J.; Fleckenstein, L.J.; Medley, M.; Dzubuk, N.; Piana, E.; Cooper, R.L. Physiological Changes as a Measure of Crustacean Welfare under Different Standardized Stunning Techniques: Cooling and Electroshock. *Animals* **2018**, *8*, 158. <https://doi.org/10.3390/ani8090158>
- Wycoff, S.; Weineck, K.; Conlin, S.; Suryadevara, C.; Grau, E.; Bradley, A.; Cantrell, D.; Eversole, S.; Grachen, C.; Hall, K.; Hawthorne, D.; Kinmon, C.; Ortiz Guerrero, P.; Patel, B.; Samuels, K.; Valdes, G.; Ray, A.J.; Fleckenstein, L.J.; Piana, E.; and Cooper, R.L.. Effects of Clove Oil (Eugenol) on Proprioceptive Neurons, Heart Rate, and Behavior in Model Crustaceans. *Biology Faculty Publications* **2018**.145. [https://uknowledge.uky.edu/biology\\_facpub/145](https://uknowledge.uky.edu/biology_facpub/145)
- Results from fieldwork presented by the Institute of Aquaculture, University of Stirling, at the Shrimp Summit in Bali, June 2025, hosted by The Center for Responsible Seafood <https://responsibleseafood.org/ss25-shrimp-welfare/>

### Current Research Projects Ongoing

- Project Title: Optimisation and Validation of Successful Stunning Practices in Tropical Prawn Farms. Led by the Institute of Aquaculture at the University of Stirling, Scotland. Timeline 2024-2026.

### Public Engagement

Representatives from Seafresh Group have also participated in panel discussions & presented at conferences on the topic of animal welfare, including:

- AWRN-funded Workshop on Farmed Invertebrate Welfare for the London School of Economics, London, May 2024
- The Annual International Conference and Exposition of World Aquaculture Society and Asian Pacific Aquaculture, Indonesia, July 2024
- Animal Welfare in Aquaculture Workshop for PROBLUE: The World Bank's Blue Economy Program, online webinar, February 2025
- The Global Shrimp Forum, Utrecht, September 2023 & 2025