

Method Statement for Bay of Holland Seaweed Aquaculture

Project

The project aims to grow and harvest *Laminaria digitata* and *Alaria esculenta* to be collected and processed for use in cosmetic and health products (wraps, facial masks, soaps, shampoo and bath additives among other products), marketed online (Instagram etc.), using the unspoilt Stronsay location and environmentally friendly production as selling points.

Site

A trial site is to be developed to gauge the suitability of the location to grow seaweed for commercial production.

The site is located in the north-east corner of Bay of Holland, Stronsay. The depth ranges from 7 to 10m depth and the seabed is rock and gravel. The site has been chosen with reference to the Scotland Marine Plan and OIC Supplementary Guidance to avoid conflict with other users and avoid any environmentally sensitive areas and designated sites. There are no outfalls near the site. The water is clear and there is good flow in the bay. There are no coastal properties directly overlooking the site. A marine licence will be required and statutory bodies and the public will be consulted at that stage.

Access

The site will be set up and harvested using a fishing boat out of Whitehall, Stronsay.

The site can also be accessed directly from the east coast of the Bay where a small boat can be launched from the beach to monitor the site.

Production Cycle

The production cycle involves spore collection, hatchery growth, deployment on lines for grow out at sea, harvesting and processing. We will work with existing local hatcheries on Shetland and Orkney for the hatchery growth stage but may look to develop a hatchery on Stronsay if the project progresses well.

The proposed seaweeds have different development times. For *Alaria esculenta* spore collection will take place in winter, November-January, hatchery growth December-February, deployment at sea December-March with harvesting in early summer, May-June. For *Laminaria digitata* spore collection is in summer, July-August, hatchery growth August-November, deployment at sea November-December, and harvesting in early summer, May-June.

Grow-out infrastructure

A 100m longline is to be deployed. The longline will be 24-28mm sinking rope (Euroflex or similar). It will be positioned at 2m depth with polyform buoys attached at regular intervals for floatation. The moorings for the longlines will be 32mm 3 strand steel rope and 32mm chain attached to 100-200kg concrete blocks or fluke anchors.

The seaweed spools from the hatchery will be deployed by boat which only requires minor modification to enable it to move along the line and attach the seaweed for the grow-out phase. If the project is successful a dedicated boat may be commissioned at the appropriate time.

Processing

A drying facility will be set up at the former Stronsay South School location. The initial aim is for use in locally produced health and cosmetic products, marketed online. The exact products will depend on which seaweed species is chosen to be developed from the trials. But product development will progress throughout the pilot stage in anticipation of a successful outcome.

Decommissioning

When the aquaculture operation comes to an end all the infrastructure will be removed and reused elsewhere or sold or disposed of at appropriate sites.

John Gargiulo

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