

# **Islander Kelp (Rathlin Kelp Farm)**

## **Introduction**

Islander Kelp Ltd. Is a commercial kelp farm on Rathlin Island, the only one in Northern Ireland. The kelp is cultivated from spores, farmed on at sea then processed as a ready to use food product – as kelp noodles and as raw kelp for dashi production.

The growing area in Killaney Bay in Church Bay Rathlin Island requires the renewal of the license from the DAERA. This paper sets out details on how the farm will operate.

## **Background**

Kelp was traditionally an important ‘cash crop’ on Rathlin, gathered from the shore and processed in kelp kilns. Kelp is still harvested wild, from the shore, in many parts of Ireland and Scotland, but on Rathlin it ceased in the mid 20<sup>th</sup> Cent. Islander Kelp Ltd set up as Ocean Veg Ireland Ltd. In 2015, and secured their first sales that year. Since then they have gone on to secure buyers in the Netherlands, Switzerland, Kildare, Dublin and Tyrone.

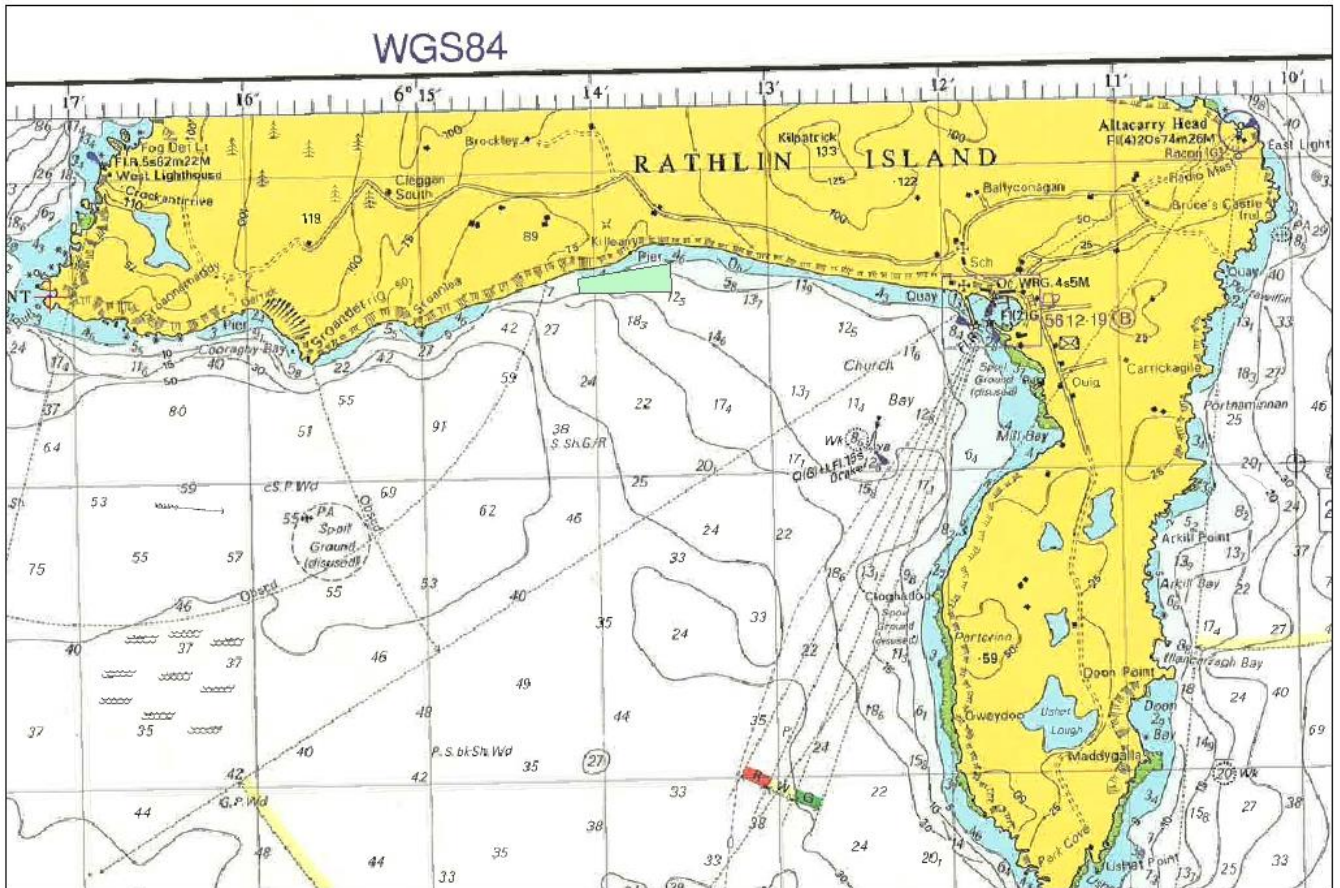
The business has been technically challenging to set up, and also to secure a market. It has managed to get to a self sustaining model, in terms of covering its costs and employing 5 (it was 7 before covid).

The business is a sustainable and very innovative example of a marine/blue economy business. Utilising the marine resource, in a sustainable way, to produce high end high value food stuffs, while creating meaningful employment for locals.

## **Islander Kelp Ltd.**

Ocean Veg Ireland are currently growing kelp on ropes (in the area set out in the chart – figure 1) from wild spores – spores that occur naturally at sea. This kelp is harvested, blanched/cooked and prepared as a fresh noodle products. A noodle cut is like ‘wakame’, a well known Japanese salad. The other is ‘tagliatelle cut’, where the prepared noodles are cut like tagliatelle pasta. These can be used as a pasta substitute, or in stir fries, soups and salads etc.

## Chart of Rathlin with Proposed Kelp Growing Area (in turquoise)



### Growing Kelp

Kelp growing on ropes is not new and in N Ireland and Ireland carried out by the Universities. The focus there is mostly as a biomass product for renewable energy. Ropes for are set to capture wild kelp spores in Scotland as local businesses. The kelp is then dried and ground up as a food additive.

The benefits of growing kelp is that we can chose which species we want, and grow it to a consistent size and chosen times of the year. This helps make the processing much easier for us, as the trimming, cleaning and cutting is a very labour intensive process.

Islander Kelp Ltd. have established a marine lab on Rathlin, using Rathlin Island Seafood former lobster depuration facility as lab tanks to bring ahead spools of string with baby kelp plants. This string is then set out on ropes at sea where weights of up to 16kgs per metre would be average by the month of June. The species grown are *saccharina latissimi*, *Laminaria digitata* and *Alaria esculanta*.

## **The Growing Out Site**

Kelp needs to grow in particular conditions. Where tides are too strong the kelp becomes too coarse. Too weak and the product is vulnerable to 'bio foul' – safe but problematic other marine plant life which can grow on kelp. Other conditions include the ability for the facility to withstand stormy weather, and also that it meets with environmental considerations, with Rathlin being a Marine SPA. We are also committed to making sure that the site does not impact on other recreational or business activities including fishing. Fishing and maritime activities are part of our family heritage – and like other fishing families, we want to make sure that fishing can continue as a business and way of life.

Islander Kelp Ltd. have selected an area close to Killaney Bay on the island for their growing out area. This area has tides between 1 and 3 knots, is not in waters used for navigation by commercial or leisure craft. It was also selected because it is largely an area of sandy seabed, and not known as a lobster fishing area.

## **What Does it Look Like?**

Ropes are deployed, anchored at each end and set to lie roughly 1 fathom below the surface of the water. The ropes are around 15 metres apart. Trial and error over the past 8 years have shown that the waters around Rathlin are hugely productive, but very challenging. As such the business works with only about 3 kms of rope, well spread out in the licensed area.

## **Specification**

Coordinates are:

SE Corner 55 17.544N 06 13.287W

NE Corner 55 17.703 06 13.318W

NW Corner 55. 17.686N 06 13.870W

SW Corner 55 17.528N 06 14.126W

- Lines will be set at lengths of approx 100 metres with 4 buoys and small weights every 25metres to keep the line and the desired depth
- Each line will be 100 metres, with 3 spools of string with the kelp spores that has been nurtured in the lab.
- Each line will have an anchor of between 70 and 100 kg made from basalt boulders.
- Lines are set to run parallel to the shore.

- Buoys will be set at the end of each anchor.
- Some buoys may be deployed to keep the lines closer to the surface when the lines become heavy with kelp – but this may not always be needed.
- The two outermost south facing points of the growing area will have two markers.

The following diagrams set out the arrangements for the site:

**Fig 1. Cross Section of Line Infrastructure**

