

# Northern Cereals

## New Markets for a Changing Environment

A Northern Periphery and Arctic Programme (NPA) Project -  
European Regional Development Fund  
A Collaboration in Knowledge Transfer Between:  
**Iceland, Orkney, Northern Norway, the Faroe Islands and Newfoundland**

### OBJECTIVES AND EXPECTATIONS

**Aim:** Increase cereal growing for local food and drink products in the Northern Periphery Region, by supporting initiation and expansion of cereal cultivation. Use innovation to maintain and develop sustainable communities.

**Expected outcome:** More new jobs in local communities and raw material provided for local food and drink products. Increased sustainability among dairy farmers who can use grain for feed, reducing imports of grain/concentrates, leading to more economical farms and creating a market for domestic grain for feed and food. Increased knowledge among barley growers and food and drink producers in the region.

### TRAINING AND KNOWLEDGE TRANSFER

#### Training:

Training on malting at Highland Park Distillery, Orkney (2015-2017)  
Courses in Norway at Nofima, Ås (2016-2017) on baking technology

#### Knowledge Transfer:

Orkney Conference: Knowledge Transfer Event, October 22nd- 24th, 2015  
Norway Knowledge Transfer Event; Tromsø March 14th-15th, 2016  
Faroe Islands Knowledge Transfer Event: November 2016  
Iceland Knowledge Transfer Event: 2017  
Direct knowledge transfer to SMEs

#### Case studies:

Porvaldseyri farm Life Cycle Assessment: local sustainability  
Producing malt in Orkney from locally grown barley for Swannay brewery

#### Social media site:

Facebook: Northern Cereals Project (open group)

### BACKGROUND

Cereal cultivation in the Northern Periphery is generally challenged by a cool, short growing season. However, it is successful in regions where appropriate varieties are accessible together with a long term experience and knowledge among farmers, as in Iceland and Orkney.

Climate change is expected to have a big impact on European cereal production. High temperature and drought will reduce production in some southern areas, while higher temperature in the north is already increasing grain yields and making cultivation more reliable.

Due to the short growing season and high rainfall around harvest-time, grain is usually harvested at a higher moisture content than in more southerly areas. It is therefore important that drying procedures are as economical and sustainable as possible.

Barley is the most important cereal in the project region because it is well-suited to high latitudes. Barley grains are considered particularly healthy since they are high in fibre and antioxidants and contain beta-glucans which lower blood cholesterol and reduce fluctuations in blood glucose. With northern areas having an unspoiled environmental image, there is considerable potential for food producers to incorporate local barley into a diverse range of healthy food products. In addition, large numbers of visitors have created a market for high provenance alcoholic beverages which has resulted in a demand for local malting barley.

Project stakeholders are cereal and feed producers, food companies and initiators. Stakeholder involvement is integral to the project and is ensured by collaboration between partners and associate partners, and also through interactions with farmers and food industry organisations.

### PARTICIPANTS

#### Partner organisations:

- Matis – Icelandic Food and Biotech R&D (Lead partner)
- Agricultural University of Iceland (AUI) Iceland
- Norwegian Institute of Bioeconomy Research (NIBIO), Norway
- Agronomy Institute, Orkney College (University of the Highlands and Islands), Orkney
- Agricultural Agency of the Faroe Islands (BST), Faroe Islands
- Government of Newfoundland and Labrador, Newfoundland

#### Associate Partners:

**Iceland;** Federation of Icelandic Industries, Olgerdin, Thoran Distillery, Mother Earth Farm, Thorvaldseyri Farm, Belgsholt Farm and Agricultural Advisory Centre.

**Norway;** Hemnes Mikrobryggeri, Mack, Tromsø Bakeri, Eldhusbakeriet and Dyrøymat

**Orkney;** Highland Park Distillery, Birsay Heritage Trust, Orkney Food and Drink, Swannay Brewery, J & S Hay Agricultural Contractors and Garson Farms Ltd.

**The Faroe Islands;** Føroya Bjør, Hotel Føroyar, Bóndafelag Føroya, and Gutti Winther

