

Overview Of Cereal Growing In Orkney



By Peter Martin and John Wishart

Agronomy Institute, Orkney College UHI

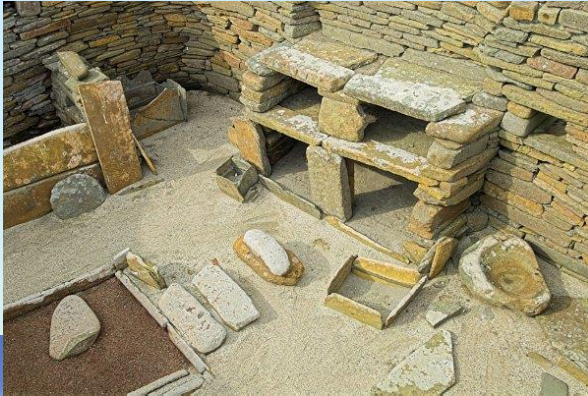
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Northern Cereals



Historical

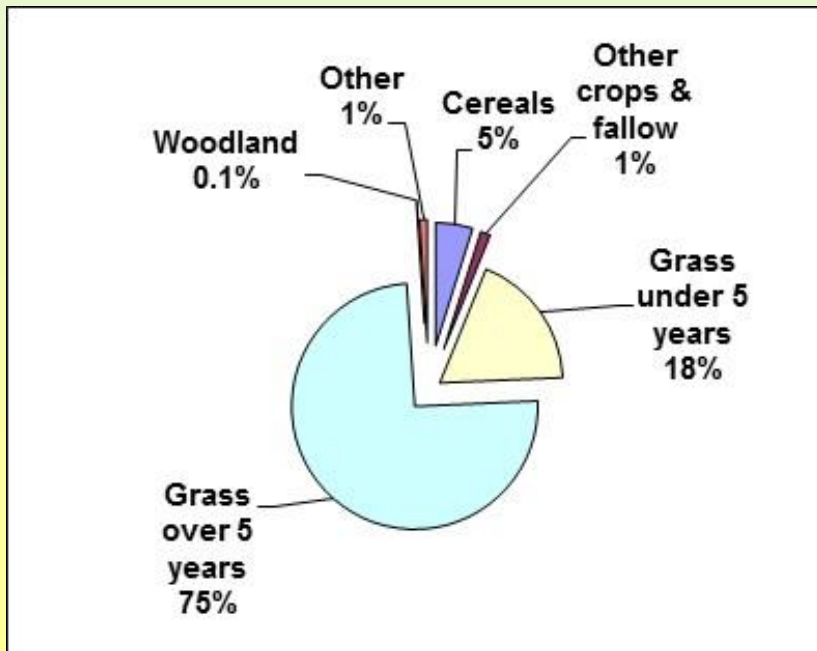


- Cereals grown in Orkney since Neolithic times (c. 4,000 BC):
 - Mostly barley (often naked); small quantities of wheat, mainly Emmer
- Oats introduced in the Iron Age
- Norse period (800-1468):
 - Barley (6-row, hulled; probably Bere) and oats dominate; Bere and black oats suited to sandy coastal soils (Mn-deficient)
 - Trading links with other Norse areas – grain, malt or beremeal an important Orkney export (Norway, Shetland and later Leith)
- 1800s – major agricultural improvements:
 - Soil improvement by draining and liming
 - Enclosure of stock
 - Post 1830's, steamer service allowed the development of a strong livestock industry
- By 1912, (13,500 ha oats and c. 1,600 ha of Bere
- Through 20th C, shift to growing modern feed barley, virtual loss of oats and Bere

Current Agricultural Land-Use In Orkney



- Ca. 93,000 ha of agricultural land
- Dominated by livestock:
 - High quality meat and dairy industry (83,000 cattle & 116,000 sheep)
 - 93% is grassland and rough grazing
- Only 4,500 ha of crops; c. 4,360 ha is barley
- Cereals grown for feed and straw. Often, but not always within a rotation:
 - 6-8 yrs grass
 - 2-3 yrs barley
 - Barley often undersown with grass in 3rd year
- High fertility soils resulting from applications of slurry/manure to grass and cereal fields



Main Uses Of Orkney Cereals



- On-Farm Animal Feed & Bedding
 - Most barley harvested as moist grain (23-25% mc) and treated with preservative
 - Smaller amounts harvested at higher moisture for crimping, as whole crop silage or dry grain
 - Straw is very important

Other On-Farm Uses

- Some dried grain retained on-farm as farm-saved seed.

Off-Farm Uses

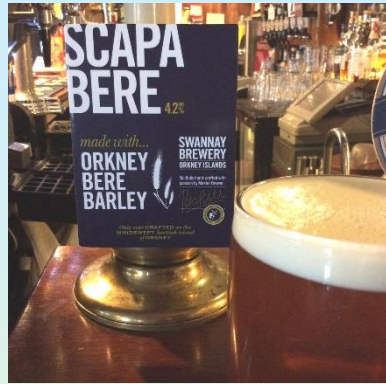
- A few growers produce certified seed
- Bere for malting and local milling (ca. 50 ha)
- Malting barley for Highland Park Distillery (ca 12 ha)
- Small areas of oats and wheat for local milling
- About 1 ha of oats for straw for weaving
- In good years, some export of straw and grain to Shetland

Challenges & Strengths Of Cereal Cultivation In Orkney



- **Challenges & constraints – mainly weather related**
 - Strong winds and soil waterlogging over winter prevent the use of winter cereal varieties.
 - Late planting (usually April). Probably latest planting of Spring barley in UK – depends on soil drying out
 - Short, cool growing seasons.
 - Strong winds near harvest can cause crop lodging or grain / ear shedding
 - Wet weather at harvest:
 - Difficult harvesting conditions
 - High grain moisture
 - Few readily accessible early maturing varieties for malting and milling
- **Strengths**
 - Hundreds of years of soil and farm improvements
 - Fertile soils and farm manures
 - Fields mostly suitable for modern machinery (size, slope, drainage)
 - A high level of mechanisation. Several large contractors. High machinery outputs helps farmers cope with narrow windows of opportunities for planting, spraying and harvesting.

Opportunities For Cereal Food and Drink Markets



■ Malting Barley

- 2 Distilleries and 2 breweries
- Highland Park and Swannay Brewery both have experience of using local barley.
- Highland Park has its own malting facilities.
- Bere - a traditional Scottish crop already being exported to Bruichladdich Distillery and Valhalla Brewery for niche products.



■ Cereals For Milling

- Barony Mill produces stoneground Beremeal (barley), oatmeal and wheat flour
- Used by local bakeries
- Some export of beremeal



■ Aim: to increase the range and quantity of genuinely "local" food and drink products for:

- High-value exports
- Tourists and visitors (c 140,000 visitors pa (excluding cruise ship passengers))