

# Cereal Growing In Orkney – Value Of Domestic Production



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**Northern Cereals**



**Northern Periphery and  
Arctic Programme**  
2014-2020



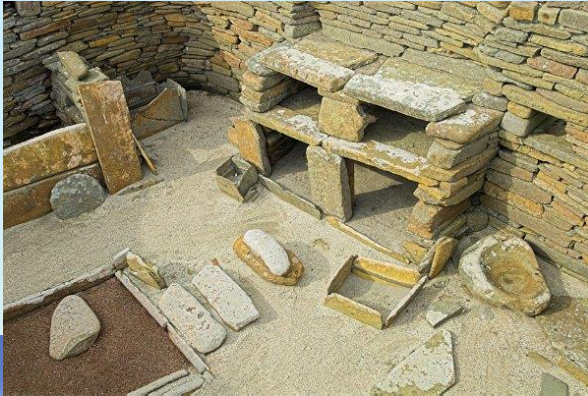
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# Historical



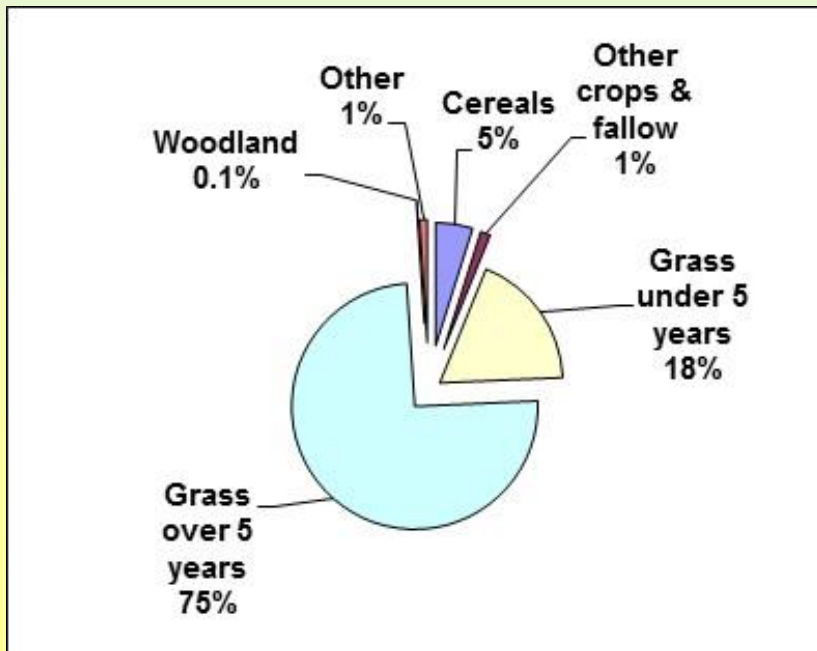
- Cereals grown in Orkney since Neolithic times (c. 4,000 BC):
  - Mostly barley (often naked); small quantities of wheat, mainly Emmer
- Oats introduced in the Iron Age
- Norse period (800-1468):
  - Barley (6-row, hulled) and oats dominate; likely that the barley was **Bere**
  - Trading links with other Norse areas – grain, malt or beremeal an important Orkney export (Norway, Shetland and later Leith)
- 1800s – major agricultural improvements:
  - Soil 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 20<sup>th</sup> C**, shift to growing modern feed barley, virtual loss of oats and Bere



# Current Agricultural Land-Use In Orkney



- Ca. 92,000 ha of agricultural land
- Dominated by livestock:
  - **High quality meat and dairy industry (82,000 cattle & 116,000 sheep)**
  - **93% is grassland and rough grazing**
- Only 5,000 ha of crops; c. 4,300 ha is barley
- Cereals grown for feed and straw. Often, but not always within a rotation:
  - **6-8 yrs grass**
  - **2-3 yrs barley**
  - **Return to grass / often undersown**
- Soils are very fertile - resulting from applications of slurry/manure to fields



# Main Uses Of Orkney Cereals



- **Animal Feed & Bedding**
  - Most barley harvested as moist grain (23-25% mc). Treated with preservative
  - Smaller amounts harvested at higher moisture for crimping or silage
  - Straw is very important for bedding
  
- **Other On-Farm Uses**
  - Some dried grain retained on-farm as farm-saved seed.
  
- **Off-Farm Uses**
  - A few growers produce certified seed
  - 50-60 ha of Bere and modern barley grown per year for malting and milling
  - 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

# Value Of Domestic Production



- “Orkney” – has become a brand.
  - Orkney food and drink products contribute significantly to local economy.
  - Markets: domestic (including tourism), UK and exports



- Animal Feed

- Without domestic barley production, beef and dairy industry would be much smaller
  - Est 20,000 t grain with a value of £2.4m
  - Straw, almost £1.0m. Very costly to import in poor years.



- Bere meal

- C 17 t of Bere milled per year by Barony Mill – an important tourist destination.
- Considerable trickle down of benefit to end-users
  - Especially local bakeries supplying tourist sector
  - Breads, biscuits



- Oatmeal and wheat flour

- About 2-3 t produced
  - Similar benefits to beremeal



# Value Of Domestic Production



## ■ Bere For Malting

- AI has revived a traditional use of bere for for brewing and distilling
- About 30 ha of Bere grown annually for malting
- Mainly supplied to Bruichladdich Distillery (Islay) for whisky
- Also supplied to Valhalla and Swannay Breweries
- Bere beers and whisky are high value / high provenance products



## ■ Modern Barley For Whisky

- “All-Orkney Whisky” Project from 2009-16 with Highland Park Distillery
- About 50 t of ‘*Tartan*’ grain produced per year by 5 growers
- Very high provenance, full local content and complete local processing
- To be described by Marie Stanton later

# Value Of Domestic Production



- **Barley for malting** – growers can receive almost 80% more than for feed barley
- **Added Value From Using High Provenance Barley**
  - Bruichladdich:
  - Bere spirit early maturing; sell from year 6 rather than 8-10
  - Unique provenance attracts a price premium – c. £10/bottle.
  - Higher premiums likely for older whiskies (e.g. HP's "All Orkney")
- **Oat Straw for weaving**
  - Important raw material for local crafts
  - Orkney straw-back chairs - a traditional item of furniture transformed into a high-status product
  - Probably about 20 makers of chairs
  - Chairs often provide an entry into wider furniture making businesses



# Summary

- **A long tradition of cereal growing in Orkney**
- **Cereals provide the basis for many high value Orkney food, drink and craft products**
- **Orkney's location, image and history has helped it become a source of high provenance food and beverages**
- **Recent increase in tourism has helped to increase demand for cereal-based products**
- **Commercialisation of Bere demonstrates ancient landraces have value – even in modern agricultural systems**