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Just here for the bere

Distilleries and breweries help to conserve ancient Scottish barley



Harvesting Bere at Orkney College.

With the release of two bere (pronounced bear) whiskies and a beer, 2014 was a good year for the appearance of new drinks linked to this ancient Scottish crop. The development of these products has been facilitated by researchers at the Agronomy Institute of the University of the Highlands and Islands (UHI) based at Orkney College UHI.

by **Peter Martin and John Wishart,**
University of the Highlands
and Islands

Bere is a very old type of 6-row barley which has been grown in the north of Britain, especially parts of Scotland, for hundreds or perhaps thousands of years – long before plant breeders started producing modern barley varieties. At the start of this century, only small areas of bere were still being grown on a few of the more remote Scottish islands and there was a risk that the crop might be lost from cultivation. To avoid this from happening, the Agronomy Institute started a research and development programme with bere in 2002. The main aim of this was to develop new markets for bere as it was realised that this would be the most secure way of helping to conserve the crop on farms since the sale of grain would

provide growers with a payment for growing the crop. From a rural development perspective, another major attraction was that the development of new products based on bere would provide collaborating companies with an opportunity to develop higher value products, benefiting the region, but at the same time giving them a vested interest in the crop's survival.

Bere is one of very few European cereals with a tradition of being used for both milling and malting. The survival of bere in Orkney during the latter part of the 20th century was due largely to Barony Mill, a nineteenth-century water-mill which has been growing the crop for many years to produce beremeal for local bakeries and specialist food stores. The mill provided the Institute with its first few sacks of bere seed in 2002 and this was the starting point for the Institute's work with the crop.

The Institute's first commercial collaboration with bere started in 2004 in a project with Isle of Arran Distillers to develop a specialist bere whisky. For this, 19t of bere was malted



Stacks of Bere at Harray in Orkney which won the 1930 stack-building competition. (Orkney Library and Archives)

at Bairds Malt in Inverness and then sent to Lochranza distillery in Arran for distilling. The spirit matured more quickly than that

from modern barley and there have been two releases of this as a single malt – an 8-year-old in 2012 and a 10-year-old, bottled at cask strength, in 2014. This early collaboration with Arran Distillers was important because it demonstrated 'proof of concept' – that, in spite of its antiquity, bere could still be successfully malted and distilled using modern methods. Most importantly, it also demonstrated that it produced a very acceptable product.

Shortly after starting the collaboration with Arran, the Institute developed links with Sonny Priest, owner of the Valhalla Brewery on Unst in Shetland. The brewery is Britain's most northerly and Sonny was keen to



Isle of Arran Distiller's Orkney Bere whisky, released in 2014. The bottle label shows James Foubister of Deerness in Orkney harvesting Bere with a scythe around 1905.



Bruichladdich Distillery on Islay produces single malt whiskies in a wide variety of styles, using different varieties of barley, including Bere, as part of their exploration of terroir.

develop a beer based on bere because of the cereal's traditional association with Scotland's Northern Isles. A small quantity of Orkney-grown bere was malted for him by Crisp Malting Group in 2005 and in the following year Sonny released Island Bere which has been a very successful core product for the brewery ever since.

From 2006, the Institute has been involved in an important collaboration with Bruichladdich, a distillery on the Rhinns of Islay, which has been producing a core range of bere whiskies. The link started in 2005 when the Institute supplied bere to Dunlossitt Estate on Islay which then grew it at Kynagarry Farm for the distillery. The quality of the new-make bere spirit was so impressive that the distillery approached the Institute in 2006 to help it source larger quantities of the crop. The result was the development in 2007 of a supply chain in Orkney, managed by the Institute and including local growers. Each year since then, the supply chain has provided about 50t of bere which is malted by Bairds in Inverness and then sent to Bruichladdich for distilling. This is a major achievement for both the supply chain and the distillery as bere presents plenty of challenges for both! One of the main issues for growers is the long, weak straw of bere which makes it very susceptible to lodging in wet, windy seasons, making harvesting very difficult. For the distillery, the small grains of bere produce a very dense mash which has seriously challenged even Bruichladdich's robust Victorian machinery! Like Arran, Bruichladdich has found that its bere whisky matures quickly and, in 2012 and 2013, it released single malts from Islay-grown bere. This was followed in 2014, by the first single malt made from bere grown by Bruichladdich's Orkney supply chain in 2007.

Building on earlier successful collaborations, the Institute and the Highland Brewing Company started a new bere project in 2014

which resulted in head brewer Rob Hill producing Scapa Bere. This is based upon one of his core pale ales, Scapa Special, but replaces Maris Otter malt with that of bere. Over the summer, the brewery was unable to satisfy demand for Scapa Bere and quickly ran out of malt. Further product development is scheduled for 2015.

The benefits to end-users of developing bere-based products are largely those associated with using a unique, traditional crop, still grown in the area with which it has long been associated. There are also distinctive flavours associated with bere which are still being defined.

However, there are some disadvantages. Principal amongst these are the low grain yields – about half that of modern barley – and lower alcohol yields, mainly because of bere's small grain and higher nitrogen levels. These factors make bere products more expensive to produce so that they are always likely to be targeted at niche markets. Here, Scotland's Highlands and Islands are fortunate since many areas receive large numbers of visitors each year – Orkney, for example, with a resident population of about 21,000, currently receives about 200,000 visitors. For many tourists, consumption of local food and drink products is an important part of the tourist experience and these are especially attractive if they are made from local ingredients which have a traditional link with the region. The reputation of the Highlands and Islands for high quality products, combined with its unspoilt environment, is also a major advantage in establishing export markets for niche products.

As a result of the Institute's development work with bere, the area grown in Orkney



Island Bere, a bitter ale produced by Valhalla Brewery in Unst, Shetland and brewed with malt made from Orkney-grown Bere.



Bruichladdich Distillery's Bere Barley 2008 whisky released in 2014. Bere for this whisky was grown in 2007, the first year that an Orkney supply chain produced this crop for the distillery.



Pump clip for Rob Hill's Scapa Bere released during summer 2014.

has increased from about 5ha at the start of this century to about 25ha in 2014. With reserves of grain being held from one year to the next by both Barony Mill and the Institute, the conservation of Orkney bere is more secure than it was, but there is no room for complacency – as a succession of poor harvests could still cause a drastic reduction in seed stocks. Bere's profile is, however, gradually being raised as new products are helping to introduce it to a new range of consumers. It is hoped that this will result in further increases in demand which will allow even larger areas to be grown. ■

■ The author

Peter Martin and John Wishart have both been with the Agronomy Institute at Orkney College (UHI) since 2002. Peter is Director while John is the Institute's Technician and manager of the bere supply chain operations. They can be contacted at peter.martin@uhi.ac.uk and john.wishart@uhi.ac.uk.