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SUSTAINABILITY REPORT December 2023



Bell Mills 2022



Water Vole (*Arvicola amphibius*) Feeding on the stream by the Office



Dawn Redwood in office car park (Metasequoia glyptostroboides)



Cinnabar Moth caterpillar (*Tyria jacobaeae*) in field West of the mill



Swift hunting on the wing

(Photo taken by M.Massie)

In Parks Field, East of the mill

(Apus apus)



Common Spotted Orchid (*Dactylorhiza fuchsia*) In field North of the mill

by E B BRADSHAW & SONS LIMITED BELL MILLS, SKERNE ROAD DRIFFIELD EAST YORKSHIRE, YO25 6XL

E B Bradshaw & Sons Limited

E B Bradshaw & Sons Limited (ABradshaws[@]) is a wholly owned subsidiary of Bradshaw Driffield (Holdings) Limited, which is itself a family owned and run company.

The company traces its origins to William Bradshaw, who was apprenticed to a miller in Bedfordshire in the 1790's. Taking over the windmill at Upper Dean, he added windmills at Riseby and Old Weston. His son, Benjamin took a 60-year lease of Perio Mills in Cambridgeshire in 1851. Benjamin's eldest son, Eleazar, left the family business to seek a wider experience in the industry and was appointed mill manager for Richard Kirby's mill at Driffield in 1875. He was made a partner in the business and finally bought it from Mr Kirby's estate upon his demise in 1894. Eleazar's great grandson's Simon and Stuart continue to manage the business and are therefore 6th generation millers. By the very nature that the company is a family company, each successive generation wishes to leave the business and the 450 acres of land it owns "a little bit better than they found it".

Executive Summary

i. <u>Milling Units</u>

More than 4,000 tonnes of wheat pass each week through Bell Mills, the historic and picturesque Driffield home of E.B.Bradshaw & Sons Limited. Equivalent in weight to 13 fully loaded Boeing 747 Jumbo Jets, the wheat is carefully selected, cleaned, mixed and milled into the finest flour and bran for the nation's confectioners, bakers, biscuit makers and breakfast cereal manufacturers.

The main "A" mill, originally commissioned in January 1990, though considerably remodelled since then, is capable of more than 10 tonnes of flour an hour and has features incorporated into the design to allow a wide range of flours to be milled in thoroughly hygienic conditions. Additional machinery will be installed in the next year to be able to mill white flours with increased natural fibre levels. The site is independently audited to the British Retail Consortium's (BRCGS) Technical Standard (Food Issue 9), by which the company has achieved 'Grade A+' at this year's Unannounced Audit. Further assurance on mill coproducts is achieved by FEMAS accreditation, whilst the Laboratory testing systems conform to the industry recognised UK Flour Millers (formally nabim) Accreditation Scheme.

Continual plant investment has always been a policy at Bradshaws, and this is still very much the case. Every year investment is made in the company's milling and ancillary operations. The flour packing warehouse is about to be computerised, with "real time" stock control via a bar coding system. The latest mill ("C" mill) commissioned during the summer of 2018 is running as designed. It is one of the most technically advanced mills in Northern Europe, manufactured by Italian Millers OMAS srl. Parameters such a food safety, flour purity and energy consumption were all considered in its design. Continual monitoring of numerous milling parameters ensures superb consistency of the resulting flour.

A Kosher for Passover milling unit was commissioned in December 2016. This completely isolated plant enables the company to mill flour under the direction of the London Beth Din. It complies with the strict Kosher for Passover requirements (over and above Kosher) and is also able to mill Wheaten and Shmurah flour, again under the stricter Kosher for Passover requirements. The company also achieved Halal Status for the full range of its flours, ground wheats and brans.

Additional grinding plant was installed in 2018, with a specialised bulk outloading facility commissioned in 2022 enhancing further the company's ability to produce a range of ground wheats at varying particle sizes in bulk, mini-bulk or bagged delivery.

A new bespoke management information system was introduced in March 2022. The system continues to be developed as mentioned above for stock control and a new sales order module is currently being designed with input from our office staff.

ii. Raw Material Procurement

What makes the Company unique in the UK flour milling industry is that it also runs a successful Arable Division. It procures up to 80% of the required wheat, dependant on grade. Bradshaws have developed a strategic partnership with a local seed merchant, which enables them to have grown varieties it would like to buy back on formal or informal contracts. The Partnership greatly increases the coverage of farms within our catchment area. With superb traceability through the milling process, flour customers can be reassured about the origin of the wheats used in their grists. In many cases even field numbers, stock seed information and harvest dates can be provided.

Environment and Health & Safety

We are fully compliant with relevant legislation appertaining to our site for the above. In addition, we actively manage a Site of Specific Scientific Interest (SSSI), which involves additional measures for our registration under Integrated Pollution, Prevention and Control (IPPC).

i. <u>Higher Level Stewardship</u>

The company has received a Higher Level Standard Stewardship Agreement from Natural England to protect and manage adjacent wet meadow land to the mill. This area, called "Parks Field", amounting to 2.5 hectares, has been part of the SSSI since 1990. Annual careful grazing had increased the flora and fauna and it now is one of a very few wet chalk meadows in the area supporting a thriving Common Spotted Orchid population (*Dactylorhiza fuchsia*). A new establishment of this rare plant has been successful in an adjacent field to the south of the mill. There has also a small group of European Water Voles (*Arvicola amphibius*) upstream of the mill.

ii. <u>Woodland Management</u>

We have entered into a 20-year Woodland Management Agreement with the Forestry Commission and Natural England on a 2.08 hectare wood upstream from the mill. This was originally planted in 1921 and 1923 by Alfred Bradshaw, it has been managed since then. Careful thinning of the wood five years ago enabled more sunlight to reach the wood floor and vegetation responded. This supported widening the range of plant species. The British Trust for Ornithology continues to run a Bird Count every year to monitor the range of birdlife in the wood. This year's survey noted a total of 36 different species, including Cetti's Warbler (*Cettia cetti*), (Great Spotted Woodpecker (*Dendrocopos major*) and Common Kingfisher (*Alcedo atthis*). The diversity of the bird species continues to rise and is at the highest level since records began (1999).

iii. Specimen Tree Planting

There is a continuation of the tree planting project at Bell Mills. This has included specimen trees from around the World. These include Dawn Redwoods (*Metasequoia glyptostroboides*), Maindenhair Tree (*Ginkgo biloba*), Black Birch (*Betula nigra*), White Gum (*Eucalyptus viminalis*), Californian Redwoods (*Sequoia sempervirens*), Aleppo Pine (*Pinus halepensis*), Cidar Gum (*Eucalyptus gunnii*), English Oak (*Quercus rober*), Black Mulberry (*Morus nigra*), Keyaki Tree (*Zelkova serrata*) and White Ash (*Fraxinus Americana*). Trees planted this year include more Hazelnuts (*Corylus avellana*), Black Mulberries and Horse Chestnuts (*Aesculus hippocastanum*)

We are members of	:	UK Flour Millers (formally nabim) The Agricultural Industry Confederation	
		Campden BRI	
		Food and Drink Federation	
		Sedex.	

These organisations are used to keep the company updated in all general and specific regulations associated with our activities.

Reporting of Company Sustainable Targets and Initiatives

We have a genuine concern for the environment and although we do not consider any of our businesses to be inherently damaging, we have nevertheless identified several aspects of our operations where we can make changes for the better:

Our energy use. Our water use.

Our packaging. Emissions from our buildings. Transporting our produce (eg SAFED training for our delivery drivers, route planning, Euro 6 engines across the delivery fleet, all drivers are CPC Qualified.) Reducing waste. Controlling noise in residential areas. The appearance of our premises.

To address these areas, we have developed a detailed Environmental Policy which is implemented and monitored at all levels throughout the business.

Some examples of the areas monitored include, but are not limited to, the following :

Primary Specific Energy Consumption per tonne of product 0.4% Reduction on 3-year average **Renewable Solar Energy Generation** 33,017 kWh produced. Since going "live" the panels have offset nearly 175,000T of carbon (12 months to July 2023) Mains water usage Maintained a lower usage per tonne of processed product compared to a 5year average. **Fugitive Emissions** Zero incidents. Carbon and Energy Intensity Ratio (Gross tCo2e/tonne of wheat milled) 0.047 **Total Site Waste Production** Down 57% on a 5-year average. This reflects a positive waste reduction plan.

We are members of Valpak for the recycling of paper packaging.

Broken wood and plastic pallets are collected and sent for recycling.

The site is continuing its project of rolling out Microwave sensor LED light replacement and "C" Mill operates on a "lights out" basis. Ongoing monitoring has shown that this investment has reduced the current lighting bill by nearly 50%. A new site mains electric transformer has been installed this year (complimenting the current three units), which has seen reduced power demand in the main mill, as monitored against grain processed. The IEE3 motor replacement policy continues for all new electric motors. A new compressor farm is being installed reducing power consumption for onsite compressed air delivery.

Community Engagement

As active members of the community, the company is involved in a number of initiatives within the locality. These cover social and educational activities.

- 1. Provide administration and financial support to the Driffield Children's Outing Fund. This registered charity was set up in 1922 by a past Chairman of the Company to organise a day trip to Bridlington for the Children and young people of Driffield Parish. Driffield had suffered many casualties in the First World War as local farms had lost horsemen to the War effort. Many, Fathers, Sons, Uncles, and grandsons were lost, and the trip days were to offer some respite to grieving families. It remains a Driffield tradition and continues to provide travel, subsidised events, and pocket money to local families for the day trip to Bridlington beach.
- 2. The company organises and runs a "Wheat to Bread" demonstration at annual Driffield Agricultural Show. This demonstration has been run since 2005. The Show is the largest one day Agricultural Show in UK, with typical attendances of 25,000+. The presentation runs throughout the day and explains the role wheat plays in the food industry as well as the story of bread. Dough pieces are prepared for the public to shape, which this year were made into pizzas and baked off. A "spin off" from this demonstration is the company's involvement in the Driffield Agricultural Society's Education Day, which has run since 2016. This year's event hosted 1,600 School Children, who attended numerous agricultural related demonstrations. Participating Schools sent Key Stage 2 & 3 pupils from Hull, The East Riding of Yorkshire and North Yorkshire. Great emphasis at each of these events is made of the importance of local agriculture in feeding the Nation.
- 3. We host wireless broadband equipment connecting the Driffield Senior School & Sixth Form site to the internet.
- 4. We host an EE Communication Hub which in addition to a Public Phone Communication System, it also provides private communication for the three Emergency Services (Police, Ambulance and Fire).
- 5. The company hosts a Humberside Police private communication hub.

Wheat Procurement

As mentioned in the Executive Summary, Bradshaws operate its own wheat Procurement Division. This operates a "Bradshaws Grain Partnership" encompassing 173 farms with an aggregated area of more than 114,500 acres. The Partnership traces its origins back to the early 1990's when the company encouraged farmers to develop food safety systems for crop husbandry, storage and delivering grain to the mill.

An addition to this partnership is a group of farmers where we obtain extra sustainability information and use this for special projects with our flour customers. This group now has 60 members who collectively farm a total of 79,500 acres.

Our wheat supplies are procured from the following sources.

1. We purchase wheat from farmers who have undergone a third party, independent audit to trade approved standards, such as the Red Tractor. This primary source from farmers currently represents around 80% of our wheat supply on certain grades, and around 50% on all grades. We offer buy back contracts with some of these growers and must complete an additional supplier

questionnaire, which now has a section on crop husbandry. This enhances the requirements of the Red Tractor.

- 2. The balance of our wheat requirement comes from a small group of TASCC, (Trade Assurance Scheme for Combinable Crops), audited grain merchants.
- 3. Across all our supplies, 100% of the wheat comes from farms which are independently audited to Red Tractor Standard. Most, if not all will be in Entry Level Stewardship. Amongst our suppliers 56% are in LEAF or enhanced environmental schemes such as Mid-Tier, Higher Tier, Catchment Sensitive Farming or Woodland Management.

Traceability Exercise for Biscuit Wheats



The company continues to develop and build on local supply chains to keep these as short as possible. A study of wheat deliveries for the months of October and November 2023 tracked biscuit wheat varieties from Farm to Mill.

The above map shows the farms that had supplied at least one load of wheat in this period (a number of these farms delivered multiple loads). In total there were 486 individual farms, sending 507 deliveries, amounting to more than 13,200 tonnes of wheat, 98% of which was from within North, South, East or West Yorkshire. The average distance travelled was 13.1 miles. We are one of very few millers able to operate such a large percentage of our wheat requirements from such a short supply chain.