



**UK Flour  
Milling Industry  
2011**

**The National Association of  
British and Irish Millers**

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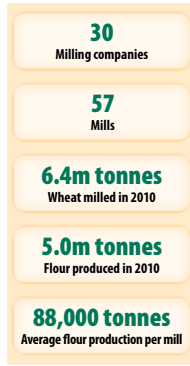
The flour milling industry is a vibrant sector that combines traditional skills with high technology to produce a wide range of flours. It is compact and highly efficient with a total annual turnover from all sources of approximately £1billion. The UK is self-sufficient in flour with a small positive trade balance. Flour is used as the main ingredient in many types of bread as well as in batters, biscuits, cakes, coatings, pies, soups and a range of processed foods.

Nearly all millers in the UK and Republic of Ireland are members of nabim, which is the trade association for the sector.

## The Industry

Flour milling in the UK today is an automated and efficient industry, having evolved a long way from the days of water-driven and wind-driven mills. Modern flour mills rely on the skill of the miller and high technology to function as continuous-flow operations throughout the year.

In recent years the industry has continued to consolidate. There are now 30 companies operating 57 mills. The two largest companies account for approximately 40% of UK flour production with a further 20 companies producing significant quantities

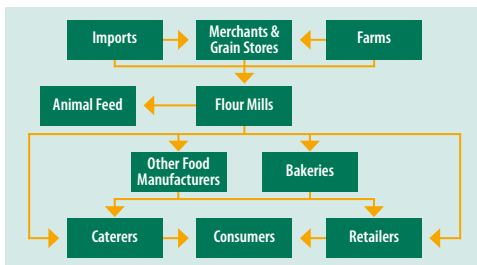


of flour. Many of the smaller millers have developed niches ranging from pre-packed flours to those for specific uses such as flours for speciality breads.

The UK flour milling industry remains the largest single user of domestic wheat. The industry has worked hard to promote the benefits of increased availability of UK bread-making wheat. The result is that usage of home-grown wheat is now double the level of forty years ago and a large number of flours and breads are produced entirely from UK grown wheat.

## The Supply Chain

The flour milling industry is the third link in the supply chain that connects farmers to consumers. In 2011, it is estimated that approximately 2.0 million hectares of wheat will be grown in the UK. Almost 45% of this area is varieties with bread or biscuit making potential (**nabim** groups 1 – 3). Wheat is sourced from grain merchants, farmers and central stores in the UK to be processed at flour mills. In 2010/11, it is estimated that UK wheat will account for approximately 83% of usage by millers; the remaining 17% will be imported mainly because it has different qualities used to produce stronger flours that are required by our customers. The industry works closely with plant breeders, agronomists, farmers and bakers to ensure that wheat breeding and agronomy continue to produce crops that are suitable for milling and baking.



Millers blend or 'grist' different varieties of wheat which are then milled to produce flour. Much of the flour that is produced is sold in bulk to the larger bakers and food manufacturers. Smaller amounts go to craft bakeries, or is pre-packed and retailed direct to consumers.

The quality and safety of both raw materials and end product is paramount to the industry. **nabim** is a strong supporter of initiatives, like the Red Tractor Crops Assurance Scheme and Scottish Quality Crops (SQC), that retain and enhance consumer confidence in the food supply chain. UK millers only purchase wheat that has been 'assured'. Assured sources guarantee good standards of crop production and food safety, backed up by independent inspections. Although there are different procedures for guaranteeing similar standards in imported grain, millers ensure that equally robust food safety standards are maintained. **nabim** also operates a scheme (the intake proficiency scheme) to ensure common standards of testing when wheat arrives at flourmills.

The UK milling industry continues to work closely with departments of the UK government, the devolved administrations in Northern Ireland, Scotland and Wales, and other stakeholders such as the Food Standards Agency.

## Wheat Usage and Flour Production

Most of the wheat used by UK millers is grown in the UK. For bread-making, group 1 varieties are preferred. Other varieties are grown for specific bread-making uses and the production of biscuits, cakes, batters and coatings. Canada, the USA, France and Germany provide the majority of UK imported wheat.

As a result of advances in technology and the skill of the miller, the industry produces over 400 different types of flour to meet increasingly specific consumer demands. Although organic flours have grown in popularity over a long period of time they still only represent 1-2% of the retail market but this has decreased slightly over the past couple of years. The other main products from flour milling are bran for human consumption and 'wheat feed' used in the manufacture of livestock feeds.

### Total UK Wheat Usage (000 tonnes)

	1988/9	1998/9	2003/4	2007/8	2008/9	2009/10	2010/11 (e)
<b>Total UK harvest</b>	11,714	15,018	14,288	13,137	17,227	14,076	14,878
<b>Total wheat usage *</b>	5,121	5,660	5,564	5,966	6,836	6,855	7,502
<b>Home grown usage</b>	3,796	4,632	4,730	4,768	5,627	5,792	6,547
<b>EU usage</b>	835	452	347	561	672	580	519
<b>Third country usage</b>	490	576	457	637	633	661	566

\* Human and Industrial usage - includes biofuels



### Total UK Flour Production (000 tonnes)

	1988/9	1998/9	2003/4	2007/8	2008/9	2009/10	2010/11 (e)	
<b>Total flour production</b>	<b>3,974</b>	<b>4,478</b>	<b>4,412</b>	<b>4,702</b>	<b>4,861</b>	<b>4,934</b>	<b>5,066</b>	
<b>Flour Type (%)</b>								
<b>White breadmaking</b>	53.5	53.6	54.1	51.2	49.2	49.8	47.6	
<b>Brown breadmaking</b>	3.5	3.2	3.0	2.7	2.4	2.2	2.0	
<b>Wholemeal breadmaking</b>	6.3	4.3	4.8	6.2	6.1	6.4	6.2	
<b>Biscuit</b>	14.6	12.7	12.4	11.4	12.0	12.3	12.4	
<b>Cake</b>	1.9	1.7	1.3	2.0	1.7	2.2	2.3	
<b>Pre-packed household</b>	3.5	2.4	2.1	2.7	2.5	2.3	2.3	
<b>Self raising</b>	2.3	1.6	N/A	N/A	N/A	N/A	N/A	
<b>Food ingredients</b>	N/A	N/A	4.6	4.1	3.6	3.6	3.4	
<b>Starch manufacture</b>	3.1	3.4	11.0	14.8	17.7	*	*	
<b>Other</b>	11.4	17.1	6.7	4.9	4.9	21.3	23.9	

\* Now included in the 'Other' category

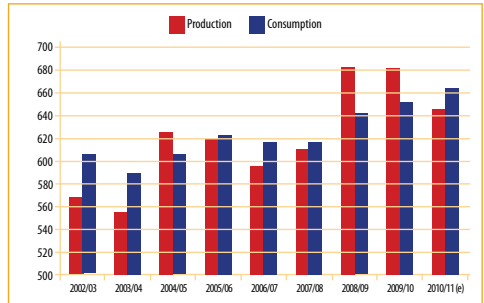
## Economics

The main input cost for flour milling is that of wheat which is the raw material. The energy required to mill it into flour and transport are the next largest costs. Rising energy and transport costs have presented the industry with problems that are likely to continue.

The volatility in wheat markets last seen in 2007/8 has returned. A combination of crop failure in Russia and the Ukraine, disappointing crops in Canada and Australia, tightness in supply in the maize market, strong demand from the Mediterranean region, coupled with speculation about prospects for 2011 have led world markets higher. Tight supplies of quality wheat, the UK's very enthusiastic export

programme and sterling weakness all helped to push domestic UK wheat prices to record levels at the start of 2011.

### World Wheat Production and Consumption

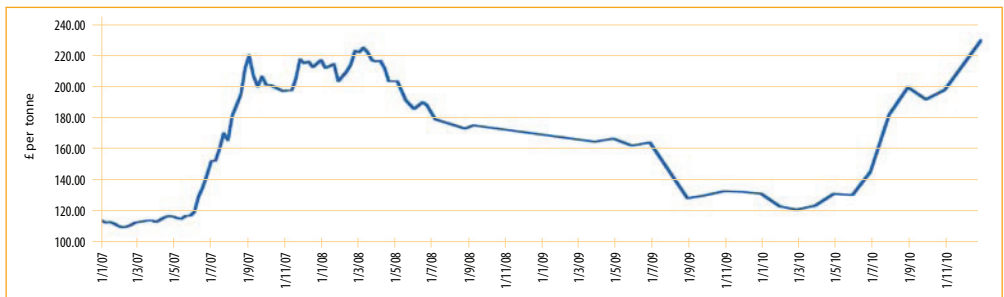


## Prospects

The 2010 global wheat crop was 647 Mt and was the third largest harvest on record. However the carry-over was only 185 Mt which was 13% lower than the previous year. Global plantings for 2011 harvest are projected to be 670Mt which is a rise of 3%.

The UK autumn plantings of wheat for 2011 harvest are estimated to be up 10% to 1.99Mha with a harvest of about 16Mt anticipated. Delays in the commissioning of up to two biofuel plants in the UK means that approximately only 1.0Mt of the national crop will be used for ethanol production in 2010/2011.

### UK Bread Wheat Price (delivered Liverpool)



## Research

The milling industry continues to invest significant resources in a range of research studies, from collaboration in large long-term studies into wheat storage, fusarium resistance and wheat genetics to shorter-term specific or applied scientific studies. **nabim** and individual milling companies are



associates of Campden BRI and fund specific studies in addition to the 'member-funded' programmes. Milling companies also fund near-market research to assist their own competitiveness.

Millers, through **nabim**, are members of two BBSRC research clubs – the Diet and Health Research Industry Club (DRINC) and the Crop Improvement Research Club (CIRC). **nabim** is also involved in candidate projects being submitted for funding to the Technology Strategy Board.

## Environment, Health & Safety

The milling industry has a very low environmental impact. The milling process produces almost no waste, so the main impacts come from the energy used during milling and transport. **nabim** reviews and reports on all environmental issues that impact on flour milling and ensures that members are adequately briefed. The industry continues to promote environmental good practice.

**nabim** engages with the industry, helping it improve occupational health and safety at work; **nabim** commissions research into safety issues, collates and disseminates data on accidents, facilitates discussion on a wide range of safety topics so increasing awareness of problems and solutions across the industry, and maintains a close working relationship with the Health and Safety Executive.

Of particular interest to the industry is the prevention of fire and dust explosions, and a highly-regarded consultant is retained to advise **nabim** and its members on safe practice and relevant research and legislation.



## Education & Training

Flour milling is a highly automated and capital intensive industry with an employed workforce of fewer than 3,000. However, it needs both technical and traditional skills to maximise the return from technological advance. Accordingly, high priority is given across the industry to training and development; **nabim** features strongly in this work.

A seven module distance learning programme developed and delivered by **nabim**, is the foundation on which almost all milling training is built. Providing an overview of the industry and its processes, and recognised as the leading international course, the programme attracted over 700 enrolments in 2010/11, two-thirds from outside the United Kingdom.

Over the last three years, **nabim** has been working with Improve, the sector skills council for food and drink manufacture, on the development first of occupational standards and subsequently of proficiency units and qualifications. These qualifications are now being made available by the awarding organisation FDQ, whilst **nabim** is in discussion with training providers, seeking to ensure a good take-up and retention of a milling focus.

Camden BRI and the Buhler Training Centre (Switzerland) support **nabim** in its Advanced Milling Diploma. A third Diploma programme is scheduled to commence in 2012. Twice a year, **nabim** runs 'management development' conferences for members. Training events and seminars are also organised on specific subjects as required.



## Information about Flour, Bread & Cereal Products

Through its subsidiary, the Flour Advisory Bureau (FAB), **nabim** proactively communicates with UK consumers through a range of media. The focus is the positive role of bread and flour in a healthy balanced diet.

FAB has a dedicated website at [www.fabflour.co.uk](http://www.fabflour.co.uk) which is used by consumers, health professionals and the media as a central source of information for all related matters. It also provides spokespeople, supplies recipes with contemporary images and offers scientifically sound advice about nutrition, flour and bread. 2010/11 campaigns such as 'Get a Balance' and 'Toast of the Nation' are used to demonstrate the positive nutritional role of bread and flour.

Addressing common misconceptions about the health benefits of bread and flour is also a major part of FAB's work. A dedicated press team works with the media to help inform and educate consumers that bread is not fattening, and that allergies and intolerances to wheat are rare. Evidence suggests that the real prevalence of all food allergy and intolerance affects less than 2% of the adult population.



FAB also works with the HGCA and the Federation of Bakers (FoB) to provide the Grain Chain ([www.grainchain.com](http://www.grainchain.com)), an educational website for students aged 5 to 16 years old. It offers visual, up-to-date materials including activity sheets, games, quizzes, recipes, videos and podcasts, which cover the key topics of arable farming, milling, baking, cooking and nutrition. The resource can be used both in the classroom and at home.



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