



**UK Flour
Milling Industry
2008**

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

**21 Arlington Street
London SW1A 1RN**

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 more than £1billion. The UK is self-sufficient in flour with a small positive trade balance. Flour is used as the main ingredient in bread as well as in biscuits, cakes, pies, soups and a range of processed foods.

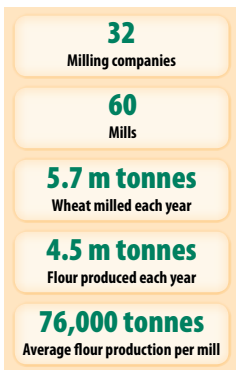
Nearly all UK millers are members of **nabim**, which is the trade association for British and Irish millers.

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 mills function as continuous-flow operations throughout the year.

In recent years the industry has continued to consolidate. There are now 32 companies operating 60 mills. The two largest companies account for approximately 40% of UK 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 wheats. The result is that usage of homegrown wheat is now double the level of thirty years ago.



The flour milling industry is the third link in the wheat supply chain. In 2008, it is estimated that approximately 1.9 million hectares of wheat will be grown in the UK. Approximately 35% of this area is varieties with bread making potential. Wheat is bought from grain merchants and farmers in the UK to be processed at our mills. This year, it is estimated that UK wheat will account for 81% of usage by millers; the remaining 19% 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.

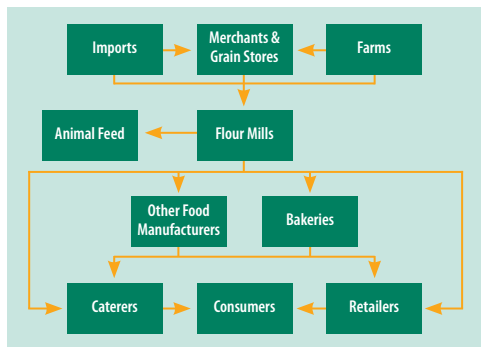
Millers blend different wheats into a range of 'grists' that are then milled to produce up 400 different types of flours.

Much of the flour that is produced is sold in bulk to the larger bakers and food processors. Smaller amounts go to craft bakeries, or 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 Assured Combinable Crops Scheme (ACCS), to retain and enhance consumer confidence in the food supply chain. Assured sources guarantee good standards of crop production and food safety, backed up by independent annual 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 wheat testing at flourmills.

The milling industry continues to work closely with departments of the UK Government, devolved administrations and other stakeholders including the Food Standards Agency.

The Supply Chain



Wheat Usage and Flour Production

Most of the wheat that used by UK millers is grown in the UK. For bread making, group 1 varieties are preferred. Other varieties are grown for specific breadmaking 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. Organic flours are growing in popularity but still only represent 1-2% of the market. Our other main products are bran for human consumption and 'wheat feed', for livestock.

Total UK Wheat Usage (000 tonnes)

	1987/8	1997/8	2002/3	2006/7	2007/8 (estimated)
Total UK harvest	11,908	15,018	16,006	14,735	13,137
Total wheat usage by millers	5,135	5,682	5,623	5,586	5,737
Home grown usage	3,495	4,625	4,751	4,716	4,626
EU usage	1,140	676	365	368	486
Third country usage	500	381	507	502	616



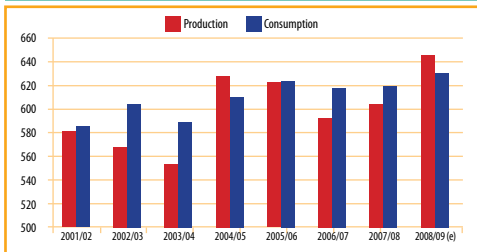
Total UK Flour Production (000 tonnes)

	1987/8	1997/8	2002/3	2006/7	2007/8 (estimated)
Total flour production	3,993	4,529	4,388	4,424	4,548
Flour Type (%)					
White breadmaking	53.3	53.3	54.3	54.6	52.9
Brown breadmaking	3.4	3.6	2.8	3.0	3.0
Wholemeal breadmaking	6.8	4.5	4.7	6.3	6.2
Biscuit	13.7	13.2	12.3	12	11.2
Cake	1.9	1.7	1.3	1.4	2.3
Pre-packed household	4.1	2.4	2.2	1.9	3.1
Self raising	2.7	1.8	N/A	N/A	N/A
Food ingredients	N/A	N/A	4.7	4.4	4.5
Starch manufacture	3.2	3.2	11.4	10.9	11.9
Other	10.8	16.5	6.3	5.4	4.9

Economics

With a growing world population and greater demands for meat and dairy products, there appears to be an ever increasing requirement for grain, including wheat. This is further amplified by the use of grain to make biofuels. Meanwhile, concerns over the consequences of global warming and the stagnation in yield improvements coupled with rising energy costs raise doubts about long-term food security.

World Wheat Production and Consumption

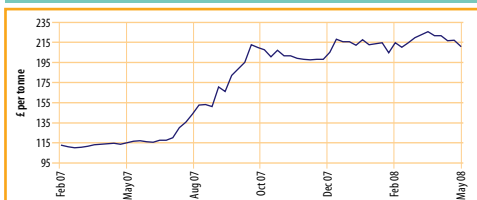


This, in turn led to massive volatility in wheat markets due to a combination of poor harvests, low carry-over stocks, increased demand (especially in India, China, and parts of south-east Asia) and speculator activity. Wheat market volatility is now three times greater than that of the stockmarkets and this situation looks to continue for the foreseeable future. Supply and demand for wheat are now finely balanced. It is hoped that world wheat production will increase sharply in 2008.

In April 2008, world feed wheat prices reached £190/tonne and the UK bread-making premium was in the range of an additional £25-£40/tonne. The price of organic wheat remains almost double that of the conventionally grown crop. The UK will be dependent on a good harvest in 2008 to ensure some improvement in the general situation.

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

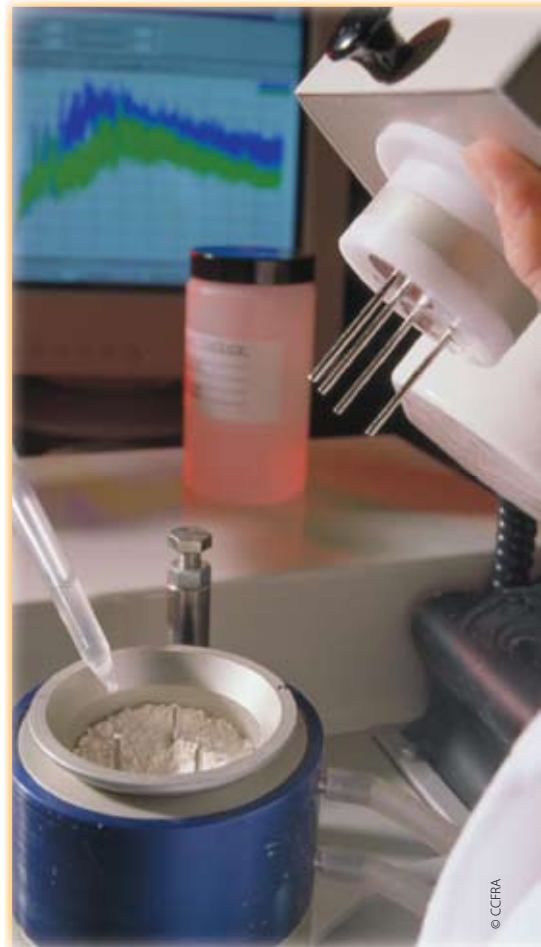
UK Bread Wheat Price (delivered Liverpool)



Research

The milling industry continues to invest significant amounts of resources in a range of research studies, from collaboration in large long-term LINK funded studies to shorter-term specific scientific studies. **nabim** and individual companies are associates of CCFRA and fund specific studies in addition to the 'member-funded' programmes. Member companies also fund near-market research to assist their own competitiveness.

nabim was a founder member of the BBSRC Diet and Health Research Industry Club in 2007 and this year is an active partner in a strategic study of the wheat sector with the international think-tank The Royal Institute of International Affairs (Chatham House).



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 transport. However, the industry continues to promote environmental good practice. It has sponsored an independent guide to best practice in energy efficiency, created a model environmental management system, is examining carbon and water footprint issues and is actively engaged with the Environment Agency.

The flour milling industry is a responsible employer and is aided in its approach to health and safety by **nabim**, which has commissioned research into safety issues. **nabim** also collates and disseminates data on accidents, issues guidance on a wide range of safety topics, and maintains a close working relationship with the Health and Safety Executive. These activities are designed to assist the industry maintain a safe working environment and minimise the risks to which employees, contractors, visitors and the general public are exposed.



Education & training

Milling combines traditional skills with technological and scientific advances. Despite being highly automated and capital-intensive, the sector has remained competitive by ensuring that staff are trained to the highest level. This continues to be an industry priority.

Companies' own training schemes are supplemented by outside providers. **nabim** operates a seven-module distance-learning programme in flour milling that is recognised as the leading international course. In 2007 it attracted more than 550 students, over 60% coming from outside the UK. A range of course material is produced to support the syllabus, each student being allocated one tutor per module.

The Campden and Chorleywood Food Research Association (CCFRA) and the Buhler Training Centre in Switzerland have recently supported **nabim** in the development and delivery of its Advanced Milling Diploma, designed to help produce the flour milling industry's operational leaders of the future. Early in 2008, six candidates from the 2006 entry became the first to be awarded their diplomas.

In addition, twice a year **nabim** runs 'management development' conferences with programmes varying from brains trusts and presentations to factory visits and 'outward bound' team-working events. These are designed to support member companies in the future development of managerial staff.



Flour, Bread & Cereal Products

In the UK there are currently more than 200 varieties of bread on the market. Latest developments include breads with added health benefits including omega 3 fat, prebiotic fibre, seeds plus fibre rich white bread. These innovations have been driven by consumer interest in health and well-being.

According to the government's healthy eating guidelines, one-third of our daily calorie intake should come from fibre-rich starchy foods such as breads, cereals, rice and pasta (www.eatwell.gov.uk/healthydiet).

Evidence suggests that eating whole grains such as wholemeal bread and whole grain cereals can help reduce the risk of illnesses such as heart disease, stroke, certain types of cancer and type 2 diabetes. One medium slice of wholemeal bread or one small wholemeal roll is equivalent to one serving of whole grain. Experts recommend that we should eat at least three servings of whole grain each day (equivalent to 48g/day).

Since 1956 the industry has funded the Flour Advisory Bureau (FAB), which provides information on all matters relating to flour and bread (www.fabflour.co.uk). In response to the increasing public health nutrition agenda, FAB's remit now focuses on issues led PR campaigns around healthy eating, allergy and intolerance 'myths' plus sensible weight loss approaches rather than faddy diets.

FAB has worked with the Home Grown Cereals Authority (HGCA), and the Federation of Bakers (FoB) to produce a multimedia educational resource titled 'The Grain Chain' (www.grainchain.com). It offers visual, up-to-date materials including activity sheets, games and quizzes which cover the key topics of arable farming, milling, baking, cooking and nutrition for children aged 5-16 years old. The resource can be used both in the classroom and at home.



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