

Focus on United Kingdom

Potential of grain-based biofuels production could change agricultural dynamics in the U.K.

by David McKee

The United Kingdom (U.K.) is extraordinarily productive when it comes to one grain crop — wheat. A gentle, moist, maritime climate allows yields of seven to eight tonnes per hectare (ha) for a crop of 15 million tonnes, accounting for roughly 75% of the UK's total grain and oilseed production.

Stable feed and flour milling industries consume 12 million tonnes annually, but as much as 3 million tonnes of the U.K.'s high-starch soft wheat is usually exported to other European Union (E.U.) countries — primarily for feed use — with over half of that going to Spain. To limit the surplus, farmers have been paid to take 600,000 ha of land out of production under E.U. programs known as “set-aside.”

The addition of a new variable — biofuels production — has the potential to change this equation radically. The U.K. government has recently mandated the inclusion of 2.5% biofuels by 2008 and 5% by 2010. Suddenly the country, which has been something of a laggard behind continental Europe in biofuels production and consumption, has the potential to take a leading role. So far, Brussels has only issued directives (i.e. suggested guidelines for its member countries regarding biofuels), but the U.K. is one of the first countries to make them mandatory.

Alastair Dickie, director of crop marketing for the Home Grown Cereals Authority (HGCA) predicts that if the U.K.'s first ethanol plants are built as planned within the next two years, much of the wheat that is currently exported could stay in the U.K. There is also the potential for up to two-thirds of the land now in set-aside to come back into production. The 3 million tonnes of wheat that could be grown on these 400,000 ha would become feedstock for ethanol production, and thereby not violate E.U. limitations on wheat production for food.

But Dickie also points out that “the U.K. government is trade-oriented,” meaning it won't likely subsidize or otherwise



Key Facts

Capital: London

Population: 61 million

Religions: Christian (Anglican, Roman Catholic, Presbyterian, Methodist) 71.6%, Muslim 2.7%, Hindu 1%, other 1.6%, unspecified or none 23.1% (2001 census).

Location: Western Europe, islands including the northern one-sixth of the island of Ireland between the North Atlantic Ocean and the North Sea, northwest of France.

Government: Constitutional monarchy. Chief of state: Queen Elizabeth II (since Feb. 6, 1952); Heir Apparent Prince Charles (son of the queen, born Nov. 14 1948) Head of government: Prime Minister Anthony (Tony) Blair (since May 2, 1997).

Economy: The U.K., a leading trading power and financial center, is one of a quintet of trillion-dollar economies in Western Europe. Over the past two decades, the government has greatly reduced public ownership and contained the growth of social welfare programs. Agriculture is intensive, highly mechanized and efficient by European standards, producing about 60% of food needs with less than 2% of the labor force. The U.K. has large coal, natural gas and oil reserves; primary energy production accounts for 10% of GDP, one of the highest shares of any industrial nation. Services, particularly banking, insurance and business services, account by far for the largest proportion of GDP, while industry continues to decline in importance. GDP growth slipped in 2001-03 as the global downturn, the high value of the pound and the bursting of the “new economy” bubble hurt manufacturing and exports. Output recovered in 2004, to 3.2% growth, then slowed to 1.7% in 2005 and 2.6% in 2006. The economy is one of the strongest in Europe as inflation, interest rates and unemployment remain low. The relatively good economic performance has complicated the Blair government's efforts to make a case for Britain to join the European Economic and Monetary Union (EMU). Critics point out that the economy is doing well outside of EMU, and public opinion polls show a majority of British citizens are opposed to the euro. Meantime, the government has been speeding up the improvement of education, transport and health services, at a cost in higher taxes and a widening public deficit.

GDP per capita: \$31,400 (PPP); Inflation 2.3%; unemployment 5.4% (2006 est.).

Currency: British pound, £1 equals \$1.94, (March 2, 2007).

Exports: \$468.8 billion; manufactured goods, fuels, chemicals, food, beverages, tobacco (2006).

Imports: \$603 billion; manufactured goods, machinery, fuels, foodstuffs.

Major crops/agricultural products: Cereals, oilseed, potatoes, vegetables, cattle, sheep, poultry, fish.

Grain and oilseed crops: Wheat, barley, oats, rapeseed. **Agriculture:** 1% of GDP and 1.5% of the labor force.

Internet: code .uk, 6,064,860 million hosts and 37.6 million users (2005).

protect domestic biofuels production. Imported products will enter the market and be sold on an equal footing as domestic ethanol or biodiesel. However, he adds the caveat that imported biofuels “must be sustainable,” making reference to the environmental consequences of expansion of palm plantations for biodiesel in Southeast Asia.

It is still too early to say when large-scale biofuels production will come on line in the U.K. Currently, only small amounts of recycled vegetable oil are turned into biofuel. At least five or six ethanol plant projects have been announced, a couple with financing from planned stock market flotations. However, none have broken ground, and investors have become wary as wheat prices have jumped to their highest levels in recent history at the same time that petroleum prices have fallen. But Dickie maintains that “at current price levels growers will expand production,” implying that increased supply will bring down wheat prices and make the projects viable again.

The biofuels boom could slow the attrition in the number of U.K. farm operators. Today, there are nominally 70,000 farmers of whom 30,000 can be termed “serious” farmers. However, just 10,000 farmers are growing 80% of the crop, according to Dickie. Ten years ago, there were about 55,000 to 60,000 serious farmers, with 40,000 of them producing 80% of the crop.

Today in the U.K., about 2,000 ha are needed for efficient farming. Dickie says there has been “an expansion of contractual farming by non-owners,” which is “like share cropping.”

FLOUR MILLING

To date, the companies that dominate oilseed crushing and flour and feed milling in the U.K. have resisted the temptation to enter the local biofuels business. Two companies with 12 large mills between them — RHM plc (formerly Rank Hovis MacDougall) and ADM Milling — control roughly half of all wheat flour output. An even larger U.K. food company, Premier Foods, has been attempting to take over RHM.

NABIM, the national milling association, reports that all together there are 59 mills operating in the U.K. owned by 31 companies, far fewer than the 250 mills that were operated by 200 companies in the 1950s.

Total wheat usage at these mills has remained stable over the last five years at just over 5.6 million tonnes.

Despite a national wheat surplus, U.K. millers grind only 83% local wheat. French wheat is imported to make flour for French breads, and up to 10% of the requirement for certain types of flour may be imported from the U.S. and Canada.

RHM got its start in 1875 when Joseph Rank, the founder,

Frame

rented a small windmill. His milling business grew through technical innovations, including the introduction of steel rollers, and eventually through mergers with other milling companies. In recent decades, it has turned itself into a major food company again through acquisitions. Nowadays, the bulk of RHM's flour production is used to make

other company-branded consumer food products. For many of them, the cost of wheat is only a small part of the final price paid by consumers, helping to moot the food-for-fuel debate caused by rising grain prices.

Some British millers have attempted to respond to another environmentally driven consumer trend: the demand for

bread made from organically grown wheat. It did not exist on the market five years ago, but observers estimate that 1% of all bread now sold is labeled organic, though there is no official data. There is not enough U.K. wheat that is certified organic to meet the demand, and so the handful of millers specializing in this niche partially use wheat imported from North America, the Ukraine and elsewhere.

There is a small but vigorous oats and barley milling industry, primarily made up of producers in Scotland. Overall though, there has been a reduction in oats and barley production, even for malting, while wheat production has benefited from investments in development of new varieties to increase yields.

OILSEEDS AND FEED

ADM operates just one oilseed crushing plant, at Erith outside of London, but it is the country's largest. Cargill, which has several plants, controls the remainder of the country's oilseed crushing. Its largest facilities are a rapeseed processing plant at Hull on the North Sea and a soybean crushing plant near Liverpool. Domestic oilseed crushing only partially meets the demands of the livestock sector for protein. The port of Seaforth, adjacent to Liverpool, serves as one of the main entry points for the millions of tonnes of soybean meal imported annually from the Western Hemisphere

Intersystems

Industry Groups

Agricultural Industries Confederation (AIC)

Address: Confederation House
East of England Showground,
Peterborough PE2 6XE
United Kingdom

Internet: www.agindustries.org.uk

Home Grown Cereals Authority (HGCA)

Address: Caledonia House, 223 Pentonville Road, London N1 9HY, United Kingdom

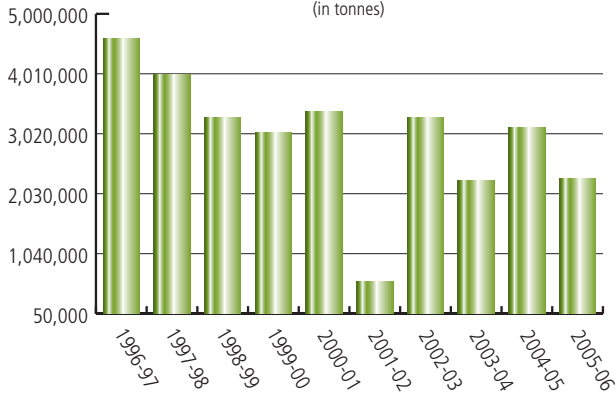
Internet: www.hgca.com

National Association of British & Irish Millers (NABIM)

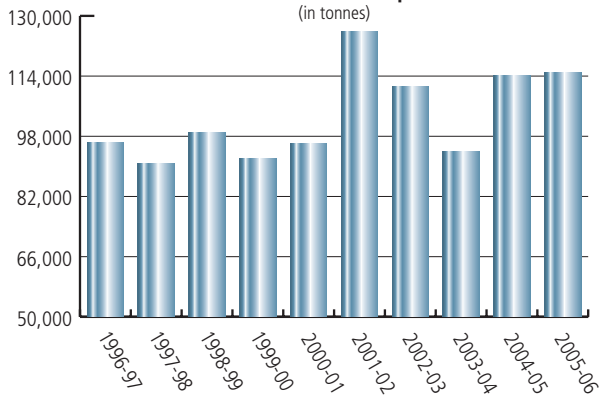
Address: 21 Arlington St., London SW1A 1RN, United Kingdom

Internet: www.nabim.org.uk

Total U.K. wheat exports
(in tonnes)



Total U.K. flour exports
(in tonnes)



Source: HM Customs

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as well as soybeans. The South American share for both has been steadily increasing while U.S. totals have declined.

The feed industry has been subject to much turbulence since the BSE outbreaks in the 1990s, bringing wave upon wave of restructuring, mergers, acquisitions and divestitures. Today, there are two compound feed manufacturers that operate nationally. The largest, BOCM Pauls, produces about 2 million tonnes per year of both ruminant and monogastric (pigs and poultry) feed, giving it a market share of over 20% of compound feed production. The second national player is the feed-related businesses under Associated British Foods plc, which are mostly consolidated now into its subsidiary, ABNA. There are two other categories of feed milling companies in addition to the above national compounders. Country compounders are companies generally with just one mill selling regionally, and the third category is cooperative- and farmer-owned mills. The latter type of mill is declining in number. WG

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