

AGRICULTURE IN THE UK

NIESR General Election 2017 – Briefing No. 4

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Key points

- Agriculture makes up 0.7% of GDP and employs 1.2% of the UK labour force.
- It is the main supplier to the food and drinks industry which makes up 20% of the UK manufacturing sector.
- 20% of agricultural labour force are immigrants, many who are seasonal workers.
- Only 3% of farmers are under the age of 35 and 30% are 65 or older.
- Many farmers depend on subsidies to ensure they can continue farming. For some up to 50% of all the money they receive is in subsidies, with small farmers particularly vulnerable.
- Farmers manage 70% of the UK land area and help to maintain landscapes of cultural heritage.
- They also contribute 10% to UK Green House gas emissions and some farming practices have significant negative impact on aquatic and other important ecosystems.
- Agriculture has impacts beyond the farm gate and effect non-farm rural employment.

Looking narrowly, agriculture in the UK is a small sector. According to the Office for National Statistics its share in GDP (% in total value added in GDP, Source: World Bank and OECD) was around 0.7% at the beginning of the second decade of 21st century. There are 380,000 employees in agriculture, forestry and fisheries (ONS, All in Employment by Industry, Jan – March 2017) working directly in the farming industry, with over 60% of these being owners, their spouses, business partners or directors. This number has hardly changed over the last few years, but the long term trend is towards a decline. (DEFRA Rural Productivity and Gross Value Added, Dec 2016).

Farmers through their integration into the food chain contribute 60% of domestic food supplies (measured in calories used) and to competitive exports of food and drinks. The food and drinks sector is the largest manufacturing sector in the UK contributing just over 20% of manufacturing sales (ONS).

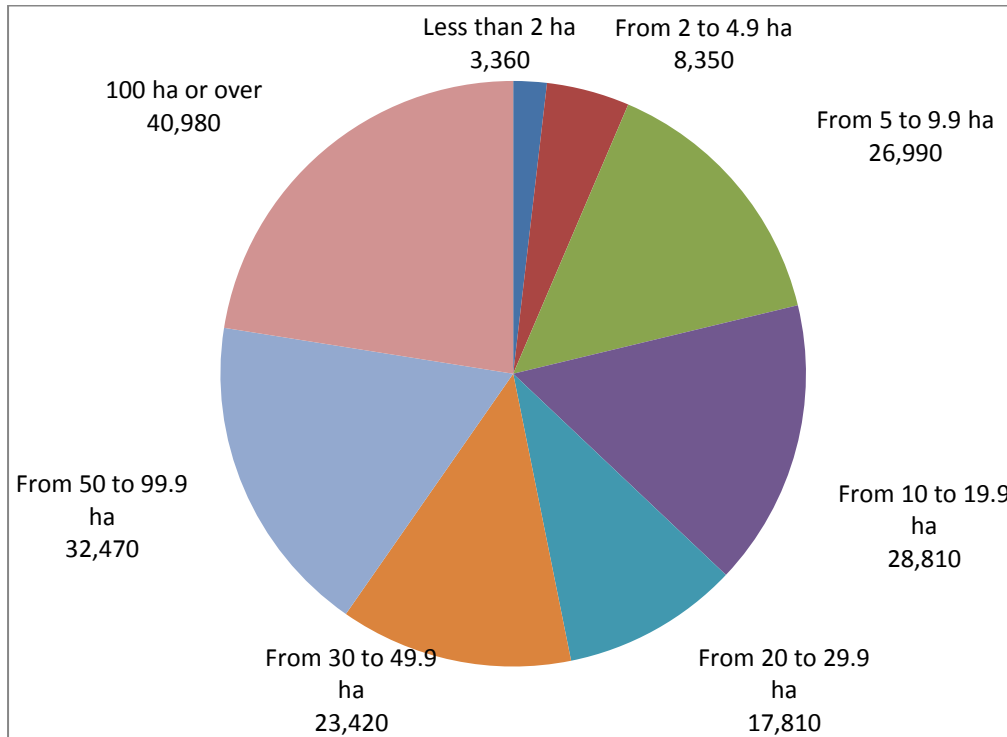
However, the importance of agriculture in the rural space is much higher than these figures may suggest. Approximately 70% of the UK land area is maintained by farmers, mainly used for arable production. Farming businesses are central to managing the rural environment. Rural areas are places for work, residence and recreation. But their importance goes beyond this – they provide services not only to rural but also to urban populations, including drinking water, flood protection etc. Agriculture and rural areas play their part in delivering solutions to global societal challenges, e.g. food and nutrition security, and climate change.

Given this large impact on the whole of the country, it is worth looking deeper into agriculture as an industry.

The farming economy

UK farms vary greatly in the land area and labour they employ and the size of their business. Farms are spread along a continuum from tiny holdings of less than 2 hectares (ha), mainly 'lifestyle' farms and specialist horticultural businesses, through to larger family farms, typically farming between 50 and 2000 ha, and up to trusts companies and charities of more than 3000ha utilised agricultural area. The most important for land cultivation and management are large farms (above 100 ha) which account to 22.4% of all farm holdings in the UK and three quarters of farm area.

Figure 1. The distribution of UK farms according to farm area in hectares (ha)



Source: Eurostat, online database

For the farm industry farm business size is more important than physical measure of land area. The EU measures the business size for all Member States in Standard Output in Euros, where standard output is the average monetary value of the agricultural output at farm-gate price per hectare or per head of livestock.

Figure 2. The distribution of UK farms according to economic size (€)

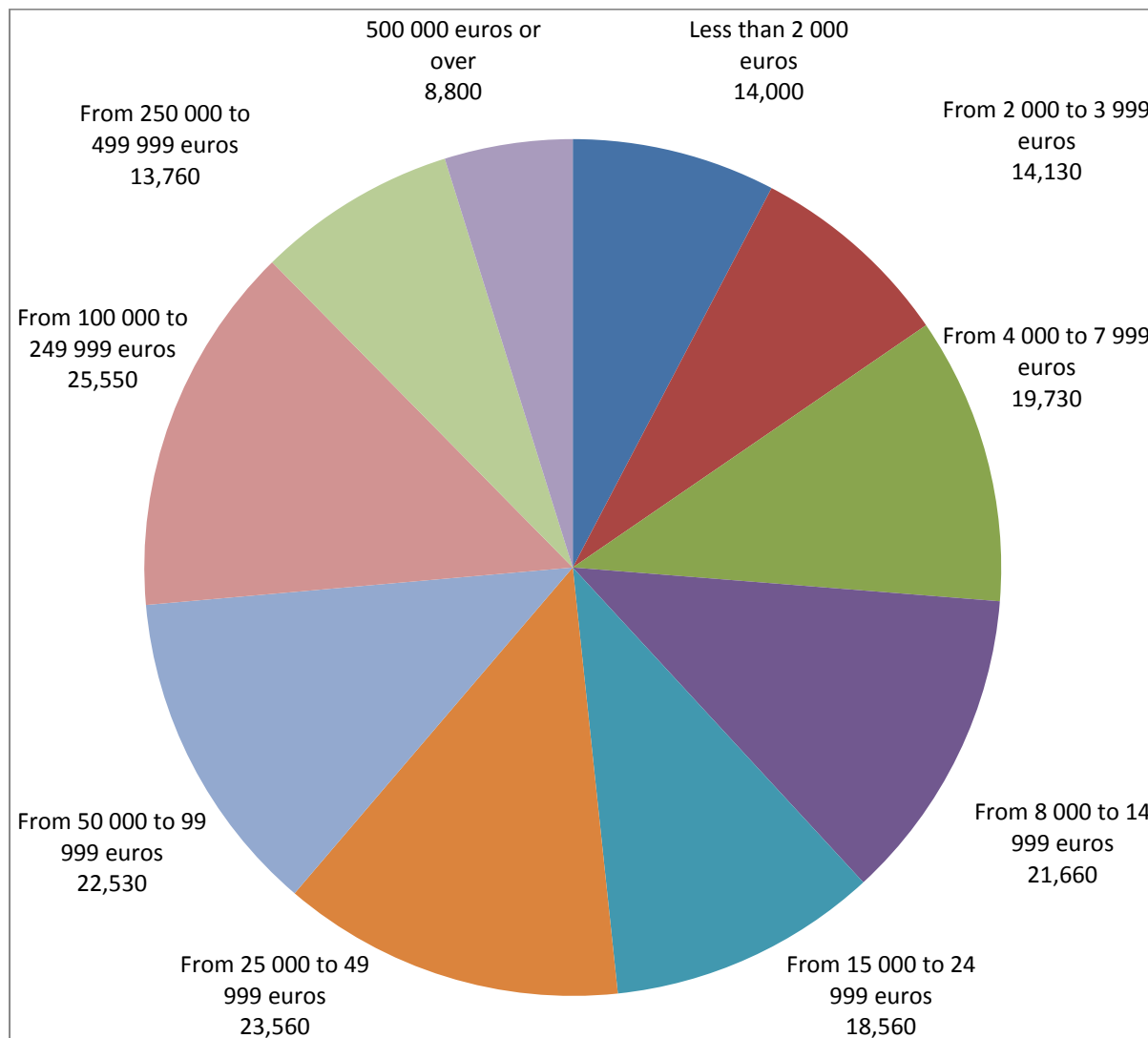


Figure 2 shows that farms in the UK are more evenly distributed when measured on business size because, typically small farms produce higher value products. Each of the middle-size groups account for between 11% and 14% of the total number of farms, whilst the smallest and the largest ones are below 10%.

Agro-environmental conditions across the UK are not homogenous and this influences product mix across the territory. Table 1 presents some striking differences in agricultural sectors across its four constituent countries.

Table 1: Indicators of UK farming by constituent country

Indicators	England	Northern Ireland	Scotland	Wales
Total agricultural area (million ha)	9.5	1.0	6.2	1.7
Number of farms ('000)	101	24.5	52.7	42.3
Average farm size (ha)	90	41	106	37
Crops/grass/ rough grazing (% of total agric. area)	40/44/10	5/78/17	10/24/66	5/68/27
Less favoured area (%)	17	70	85	81
Gross output per farm (£'000)	189.3	78.4	59.6	26.1
Gross output per ha (£)	2016	1925	507	879
Net Farm Income (average all farm types, £'000)	34	13	21	17

Source: Allen et al. (2014).

Less Favoured Areas (LFA) in England is less important than in the other three countries where 70% and more of the agricultural area is designated as LFA. Around half of the land area in England is under crops, whilst in the other countries it is either predominantly grass land (Northern Ireland and Wales) or rough grazing (Scotland). These production patterns, together with farm size and productivity effects, have led to a different reliance on subsidies: the lowest in England at 52% of the total income from farming, and highest in Wales at 142% (Allen et al., 2014).

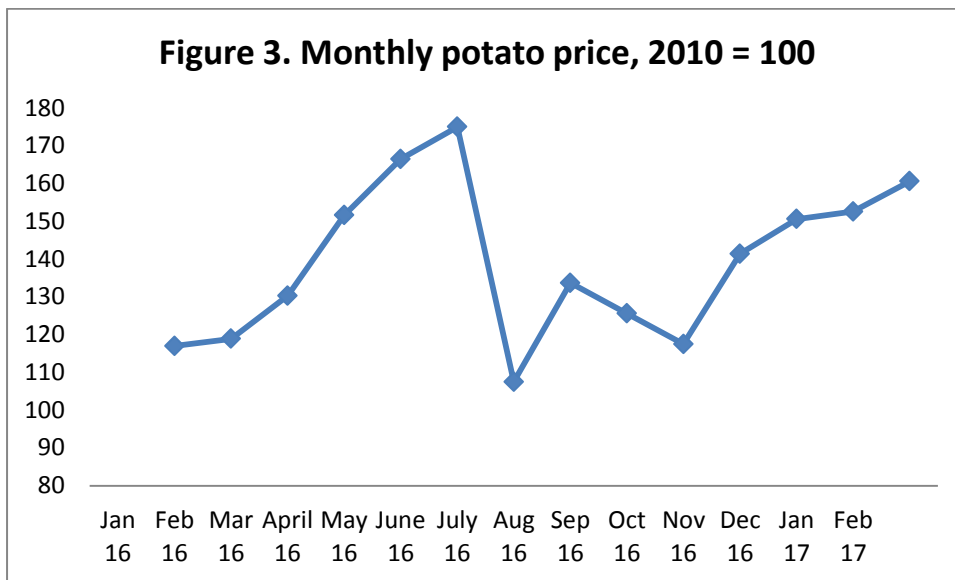
Many of the UK farms are family-owned and operated businesses. Some of these are part-time activities, and are frequently pluriactive or diversified. The importance of farming income in farm household income varies widely, from being almost the sole source to being only a minor component. The least profitable businesses measured by family farm incomes specialise in mixed farming and grazing livestock (other than dairy), and the most attractive but volatile are pigs and poultry. The latter, according to Farm Accountancy Data Network, in 2014 achieved incomes two times higher than the average family farm income in the UK.

However, aggregate farm incomes fell by 29% between 2014 and 2015 to £3.8bn. This was primarily caused by lower commodity prices.

Prices

Prices of agricultural products hit the headlines frequently. In 2015 prices of crop products fell by almost 6%, the average price of livestock by 10% and milk prices by 22%. These prices are driven by a variety of factors especially the exchange rate. The strengthening of the pound in the years up to 2015 meant a reduction in revenue for farmers selling internationally traded products. Prices also vary greatly within year depending on the production cycle of particular crops.

A good example for the seasonality in prices is potatoes. Figure 3 shows considerable fluctuations in price within year, and deep troughs in price at harvest time.



Source: DEFRA, Agricultural price indices, Monthly statistical notes

Farmgate prices make up a small fraction of the prices paid by consumers. For example, in 2015 only 50% of the price paid by consumers for untrimmed beef went to the farmer. For milk it was 28%. Other parts of the food production chain, such as the milk processors, packaging etc., contribute the largest share of value added and the share captured by farms have fallen over the last 30 years.

The agricultural labour market

Overall the workforce in farming is small, less than 2% of the UK labour force work in farming. The farm workforce is comparatively old and is aging and a number of farmers have turned to immigration to supply their labour needs. In addition horticulture depends greatly on seasonal immigration. This creates a unique set of challenges for the future of this sector. The number of EU nationals working in UK agriculture has gone up steadily, as Table 2 shows. While these workers are very important in some sectors of the industry their numbers are small and they make up just 5% of the UK farm labour force.

Table 2. Number of EU-born nationals employed in agriculture

Year	Number employed
2011	15,957
2012	19,138
2013	18,784
2014	22,371
2015	22,517

Source: ONS, Labour Force Survey, 2015

Additionally, overall 14% of the workforce in the food and drink manufacturing industry are foreign nationals.

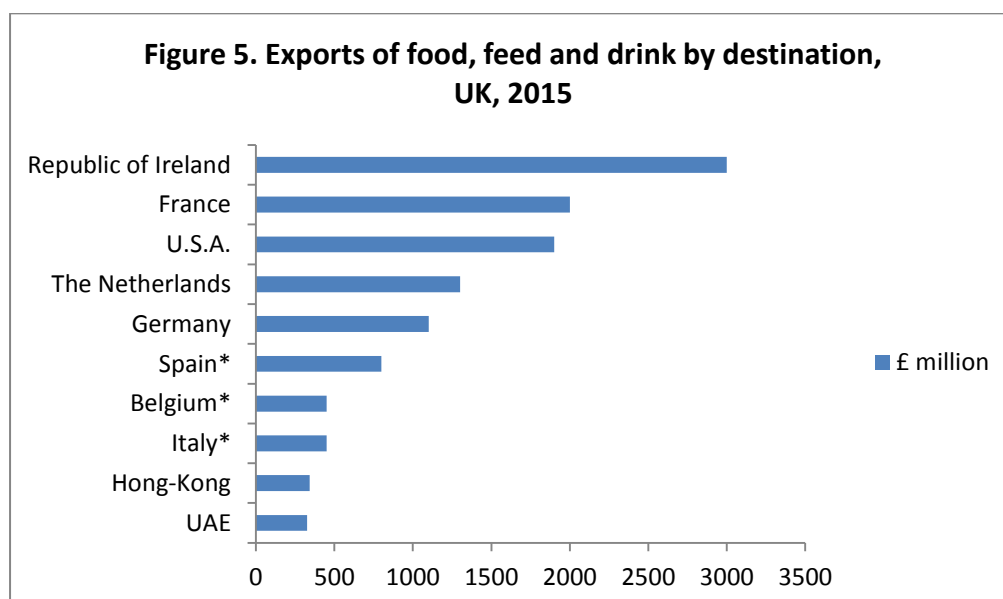
International trade

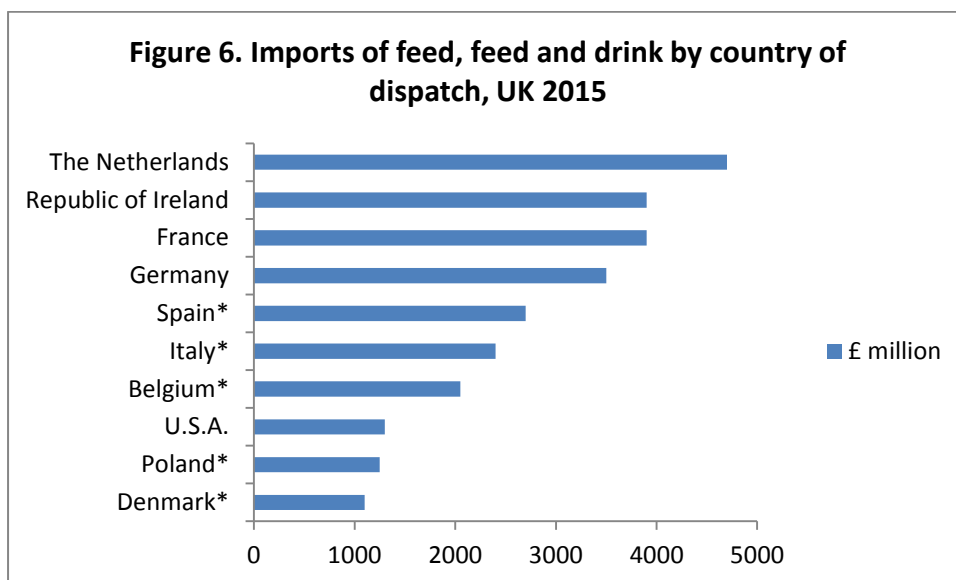
The UK produces about 60% of the calories it consumes and a large share of these is concentrated in products such as cereals. International trade therefore plays an important role in the delivery of our food and crises in international food markets, such as the ‘price spikes’ of 2007/8 and 2011/12, can be felt by UK consumers. Overall the UK has a deficit in its trade in agricultural and food products of about £20.5bn with exports at £18bn and imports at £38.5bn in 2015. This gap has also been widening in the last 10 years as Figure 4 shows.



Source: HMRC and DEFRA, Agriculture in the UK, 2015

Most trade in agri-food products is with other members of the EU, in particular The Netherlands (12% of imports, 7% of exports), Ireland (10% of imports, 17% of exports) and France (10% of imports, 11% of exports). The US, with 10% of UK exports, is the only non EU partner of significance in agri-food trade as Figures 5 and 6 show. Fresh fruit and vegetable are the largest category in imports with £5.2bn. On the export side it is whisky with £3.9bn, 19% of UK exports in this sector.





Source: DEFRA, Agriculture in the UK, 2015

Farming and the environment

Farming plays a particular role in maintaining and improving the environment. Farmers make use of the environment and the services it provides (so called ecosystem services) in the form of soil and water and other systems. In addition farming produces a comparatively large share of pollution. For example 10% of Green House gases in the UK are produced by farming (DEFRA, Agriculture in the UK, 2015) and a significant share of water pollution is caused by fertilizer and pesticide use or miss-use by the industry. Over 60% of nitrates and 50% of phosphorous in UK surface water come from agriculture (Parris, K. 2011). The Countryside Stewardship scheme, part of the Common Agricultural Policy of the EU allows for payments to farmers for enhancing the environment. Recent estimates suggest that crop pollination by insects underpins £430 million of crop production in the UK. (Hanley et al 2015 and Smith et al 2011).

Agricultural policy support

Farming depends greatly on subsidies. The total of £2.9bn received via the CAP represents 73% of total farm incomes in the UK. The Common Agricultural Policy (CAP) supports farmers' incomes through direct payments, 78% of the total. The remaining £700m is paid to encourage the enhanced production of environmental goods and eco-system services on farms and the UK government contributes directly to this, under the so called Rural Development budget to the value of £180m. Because most CAP payments relate to land area, larger farmers do receive the lion's share of the budget and smaller farmers still struggle to survive in the industry. For some, subsidies make up more than 100% of their household income and would be unviable without these payments. UK Government estimates that fewer than 50% of UK farms cover their inputs costs from the market alone. However, this leaves a large number of farms which are extremely profitable yet still receive significant subsidy (DEFRA, Agriculture in the UK, 2015). Brexit, and any subsequent redesign of agricultural policy, presents the opportunity to develop both a lower cost and more effectively targeted solution to rural support.

Under all possible Brexit scenarios, the UK will be outside the EU CAP. Normally, discussions about the loss of CAP payments and the need for other policy instruments to facilitate the post-Brexit adjustments take a very narrow farm perspective. Recent research from the Universities' of Lincoln and Kent suggest that the potential consequences could be felt far wider (Rizov, Davidova, Bailey, 2017). They analyse the relationship between regional CAP receipts and employment in non-farm small and medium-sized enterprises (SMEs), by considering both the direct and indirect effects of farmers' purchasing power. The results show that removing the CAP, and not replacing it with a national policy, would result in 1.6 per cent fall in employment in non-farm SMEs in the UK. To put this into context, this would represent a loss of about 250,000 jobs and a decrease in annual employment growth of about 0.2 percentage point. Since the largest number of jobs lost (200,000) are concentrated in rural areas, the negative impact on the rural job market might be very significant.

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