A UK/US Free Trade Agreement and its impact on UK agriculture
CONTENTS

3 Executive summary
4 Introduction
5 Background to US agriculture
7 Production and trade – Meat products
13 Production and trade – Dairy products
15 Production and Trade – Cereals and oilseeds
21 Production systems
29 Policy
35 Reviewing potential trade positions
43 Export case studies
46 Conclusion
48 Postscript – A reflection on future trade dynamics
EXECUTIVE SUMMARY

In previous Horizon publications, we have examined future trade relationships, implications for the labour force and policy options among other issues, such as plant protection and the influence of the World Trade Organisation (WTO).

This issue ‘A UK/US Free Trade Agreement and its impact on UK agriculture’ examines the likely implications of a trade agreement between the two countries.

The potential UK/US free trade agreement (FTA) has been the subject of intense media scrutiny and speculation over recent months. This report seeks to cut through the speculation and provide evidence-based analysis on the opportunities and risks of a UK/US FTA for our industry.

We have posed these as a series of questions in our introduction. Questions like, will the US flood the UK with cheap food? Can UK farmers compete? How can UK farmers capitalise on any opportunities? And how best can UK farmers prepare for the future with global competition? We also take a look at the role of standards in multilateral and bilateral trade agreements.

To answer these questions, we have examined the US and UK agricultural industries in detail. This report explores the differences in production systems between the two countries including their scale and costs of production. We then go on to examine current trading patterns and the current key trading partners for the US and UK, and consider how this may change over time; we examine agricultural policy mechanisms. We also crucially identify the key offensive and defensive trade interests, using case studies to examine what accessing the US market involves. We look beyond an FTA and delve into the practicalities of trade.

What we discover is that the size and scale of US agricultural production mean that scope for UK producers to compete at a commodity level is limited. However, significant opportunities do exist within this vast market for products of high quality, value and consistency. Importantly, to make the most of the market, focus and resources must be devoted to developing customer relationships with US counterparts. We also find that the likelihood of US produce flooding UK markets is low in the short term, due to more lucrative and rapidly expanding markets closer to home. However, trade deals are by nature long term, and the UK industry will need to adapt, to compete in a more global setting.

Importantly, we find that much of the focus on standards shouldn’t ignore the fact that US producers can operate to a range of production standards. As long as returns from the UK market are seen as attractive, it is likely that US exporters will, over time, grab these opportunities, bolstered by the significant investment exporters and the US government alike make in overseas trade in agricultural goods.

There are challenging times ahead for UK agriculture. We can’t shy away from the fact that changes in agricultural policy across the devolved nations and new trade agreements will shape our industry over the coming years.

Sarah Baker
Strategic Insight Manager
INTRODUCTION

The UK officially left the EU customs union and single market on 31 December 2020. Having signed the Trade and Cooperation Agreement with the EU that ensures tariff- and quota-free trade, focus now turns to trade deals that the UK is currently negotiating with a number of trading partners across the world.

A potential deal with the US has arguably been the most widely covered, even though the new administration in place puts the progress of these negotiations behind others, like Australia and New Zealand. The widespread interest and speculation it has triggered has made it hard to separate the factual evidence base from the attention-grabbing headlines.

Previously, we have analysed the US from both a consumer perspective, as well as delving into the agricultural policy mechanisms. In this Horizon publication, we aim to provide the independent evidence-based analysis that is necessary to answer the questions on the minds of UK producers and consumers, and the wider agri-food sector. Questions such as:

- Is the US going to flood the UK with cheap food?
- Can our farmers compete against their American counterparts?
- What's the potential for the UK to use standards to limit import potential?
- What should our trade negotiators focus on?
- How easy is it for UK agri-food to capitalise on any opportunities for exports to the US?
- What support are American businesses likely to receive and what can the UK learn from this?
- What do farmers and food processors need to do to prepare?

This report will assess a range of evidence as it attempts to best answer these questions. This evidence includes current production and trade patterns, comparative costs and methods of production, analysis of the impacts of previous trade agreements, agricultural policy in the US and UK, and expert insight from businesses that are already exporting to the US.
BACKGROUND TO US AGRICULTURE

The US agricultural sector is huge in comparison to that of the UK, and over half of all land in ‘contiguous America’ (US not including Alaska or Hawaii) is used for agriculture – 17 times the size of the whole of the UK. Although the US is a huge country, over half of the total population live in only nine states, this concentration of people allows exporters to target areas where there’s the greatest demand. This population concentration impacts in several ways. There is more of a regional focus to food retailing than the national coverage we’re familiar with in the UK. It also means that in Rural America, agriculture can be a key part of the economy at state level, and that significance is reflected in politics.

Despite the enormity of the sector, and the scales of economy that come with it, the US agricultural sector faces similar problems to the UK in terms of farm incomes. According to the USDA, over 50% of farms in the US are currently recording negative income from farming activities, and rely on subsidy payments from the government in one form or another to remain profitable, or off-farm income. Debt to asset ratio on farms is the highest it has been since 2003 and total debt continues to increase. However, at 13.59%, debt to asset ratio overall is relatively low. Financial leverage in UK agriculture is similarly low, with average gearing across all farms at 11% in 2018/19, largely unchanged since 2009/10.

Over the last 100 years, food and fibre production in the US has increased 400%, while increased productivity across sectors has ensured that food prices for US consumers have remained low. Productivity in the UK has also grown over the past few decades, albeit at a slower pace than in the US (see chart below).

Figure 1. Total factor productivity 1980–2016

There is large support that private investment and science-based regulations have contributed to this increase in productivity through adaptation and innovation by US farmers and agricultural companies. Going forward, the US is aiming to capitalise on these foundations. As part of the US Agricultural Innovation Agenda, by 2050, the US aims to increase agricultural production by 40%, while simultaneously reducing the environmental footprint of the agricultural industry by 50%.

What are the UK and US seeking from a free trade deal?

Negotiations between the US and UK began virtually at the beginning of May 2020. Despite the limitations due to coronavirus, and delays due to a change in the US administration, officials from both sides have stated they want to continue dialogue. The US has had its negotiating objectives published for some time, since February 2019. The UK published its equivalent in March 2020. The table below compares the two negotiating mandates and what this may look like in reality.
<table>
<thead>
<tr>
<th>Area</th>
<th>What the UK wants</th>
<th>What the US wants</th>
<th>What does this mean for agriculture?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade in goods</td>
<td>Secure comprehensive access to US market through reduction/elimination of tariffs.</td>
<td>Ensure fair, balanced and reciprocal trade with UK.</td>
<td>Reduction of tariffs to US markets would likely enhance existing markets for UK products such as cheese, whisky and high-quality pork.</td>
</tr>
<tr>
<td></td>
<td>Secure broad liberalisation of tariffs on mutually beneficial basis, taking into account sensitivities, especially regarding agriculture.</td>
<td>Secure market access to UK by reducing/eliminating tariffs.</td>
<td>Market access may see some opportunity for niche, high-value products into the US.</td>
</tr>
<tr>
<td></td>
<td>Establish specific commitments for trade in products developed through biotechnologies.</td>
<td>Eliminate practices that are deemed to unfairly decrease US market access.</td>
<td>Potentially, there are opportunities for US beef into high-end foodservice and for US pork to displace current suppliers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Establish specific commitments for trade in products developed through biotechnologies.</td>
<td>US call for commitments in biotechnologies will see the US negotiators pushing for adoption of technologies like GM crops.</td>
</tr>
<tr>
<td>Rules of Origin (RoO)</td>
<td>UK to seek simple and modern RoO that facilitates trade.</td>
<td>Develop RoO that ensure any preferences agreed are applied to products genuinely made in the US or UK.</td>
<td>Both countries seem fairly aligned on RoO, however, as trade deals are signed with more countries, maintaining RoO requirements between the UK and other major trading partners, such as the EU, could become increasingly complex.</td>
</tr>
<tr>
<td></td>
<td>Endeavour to maintain effective protection of food and drink names.</td>
<td>Steamline RoO procedures and promote strong enforcement.</td>
<td>The UK has made reference to protection of geographical indicators, which has been a sticking point in negotiations between the US and EU. Farming businesses in the UK will see it as important to retain GIs when negotiating with the US.</td>
</tr>
<tr>
<td>Sanitary and Phytosanitary Measures (SPS) and Technical Barriers to trade (TBT)</td>
<td>Uphold UK's high level of animal and plant health as well as food safety.</td>
<td>SPS measures that build on WTO rights and obligations, specifically around science-based measures.</td>
<td>This is likely to be an area of contention. A lot has been covered in the media around US food safety standards. The US has stated that their food safety standards are the highest in the world.</td>
</tr>
<tr>
<td></td>
<td>Without exception, food imports will meet Uk's stringent food safety standards and independent food regulators will ensure that food imports meet the same standards as domestic produce.</td>
<td>Commitment that the UK will not shut US out of third country markets, for example, on non-science-based restrictions.</td>
<td>There are also issues around differing animal welfare regulations that could be a sticking point in negotiations. The UK has stated it will not import food that does not adhere to the UK’s strict animal welfare and food safety laws.</td>
</tr>
<tr>
<td></td>
<td>Seek to reduce technical barriers to trade by removing and preventing trade-restrictive measures in goods markets.</td>
<td>Establish a mechanism that removes unjustified barriers. Adoption of WTO TBT committee recommendations that apply to standards, conformity assessment, etc.</td>
<td>US wants science-based measures put in place based on WTO rules in the first instance. However, US supply chains are flexible and will be able to conform to UK standards if the financial incentive is there.</td>
</tr>
<tr>
<td>Environment</td>
<td>Ensure parties commit to international standards on environment and ensuring that parties don’t waive on these standards to gain competitive advantage.</td>
<td>Establish strong and enforceable environmental obligations.</td>
<td>Both countries are aligned on the basis of establishing strong and enforceable environmental obligations.</td>
</tr>
<tr>
<td></td>
<td>Secure provisions that help UK meet net zero targets by 2050.</td>
<td>Establish rules that ensure UK does not waive or derogate from environmental protection laws.</td>
<td>However, domestic policy with regards to agriculture and the environment differ to quite an extent. US ambitions are to increase production while reducing inputs; whereas UKs has ambitions to get to net zero, which may affect what the UK wants to import further down the line.</td>
</tr>
<tr>
<td>Regulatory alignment</td>
<td>Reduce regulatory obstacles and facilitate market access.</td>
<td>Promote greater regulatory compatibility to reduce burdens associated with unnecessary differences in regulations and standards.</td>
<td>The US has the desire for the UK to move to a science-led risk-based approach as opposed to the current EU regulatory stance, which is hazard-based, and seen as limiting to new technologies by the US. The US and EU have had much disagreement over this throughout their ongoing negotiations so will be a tricky one for UK negotiators to balance, with the UK going to be relying on the EU for much of its trade going forward.</td>
</tr>
</tbody>
</table>
PRODUCTION AND TRADE
MEAT PRODUCTS

In this section of the report, we set out some facts and figures to put into context the differences in scale between the UK and the US. We also identify the key trading partners for the US, in order to identify who the UK will be competing with in the event an FTA is signed. Furthermore, we assess where the US currently sends product to, laying the foundations to assess where the UK’s defensive positions may be in a negotiation.

BEEF AND VEAL

Table 2. Annual production and trade 2017–2019, 3-year average (tonnes)

<table>
<thead>
<tr>
<th></th>
<th>US</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>12.2m</td>
<td>906,000</td>
</tr>
<tr>
<td>Total exports</td>
<td>1.4m</td>
<td>171,000</td>
</tr>
<tr>
<td>Total imports</td>
<td>1.4m</td>
<td>361,000</td>
</tr>
</tbody>
</table>

UK trade volumes are product weight, all other figures are carcass weight equivalent (CWE)
Source: USDA FAS PSD database, Defra, HMRC, IHS Maritime & Trade - Global Trade Atlas®

US

With a cattle population of over 100 million head, and production totalling over 12 million tonnes, the US is the world’s largest producer of beef and a significant player in the global trade of beef. The US production system is focused on producing high-quality grain-fed beef for its domestic and export markets. The US’ largest destination for exported beef is Japan, a highly lucrative market, but also heavily competitive. Although exports to Japan are often high-quality cuts, a large proportion is frozen, and so has reduced value on a $/tonne basis. South Korea is also an important market for US exporters. In comparison, exports to the European countries, although relatively small in volume, are generally shipped fresh chilled and of much higher value.

Table 3. US annual exports of fresh/frozen beef to Japan, South Korea and selected EU countries, 2017–2019 average

<table>
<thead>
<tr>
<th>Country</th>
<th>Volume shipped (t)</th>
<th>Value ($ million)</th>
<th>Unit price ($/t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>262,000</td>
<td>1,615</td>
<td>6,200</td>
</tr>
<tr>
<td>South Korea</td>
<td>212,000</td>
<td>1,528</td>
<td>7,200</td>
</tr>
<tr>
<td>Netherlands*</td>
<td>11,000</td>
<td>129</td>
<td>11,600</td>
</tr>
<tr>
<td>Italy</td>
<td>4,700</td>
<td>48</td>
<td>10,200</td>
</tr>
<tr>
<td>Germany</td>
<td>2,700</td>
<td>29</td>
<td>11,000</td>
</tr>
</tbody>
</table>

*Likely to be in part carousel trade via Rotterdam, which is then distributed throughout Europe
Source: IHS Maritime & Trade - Global Trade Atlas®, USDA
The US is also the largest importer of beef from around the globe. Beef imported into the US consists mainly of lower value cuts for the manufacturing industry and is often processed into ground beef (mince). Canada is currently the US’ leading supplier, closely followed by Australia and Mexico.

Access to the US market is dependent on key technical requirements including the exporting country’s disease status and recognition of its regulatory system by the USDA Food Safety and Inspection Service. The external tariff is 26.4% but country-specific tariff rate quotas exist, as part of existing free trade agreements (FTAs), to reduce or eliminate tariffs for certain countries. A further TRQ is available for all countries with market access but is filled on a first come, first served basis.

Canada and Mexico have unlimited access to the US beef market through an agreement with the United States, Mexico and Canada (USMCA, previously NAFTA), while no tariffs are applied to Australian beef up to a limit of 433,214 tonnes. Under the Australian FTA, tariffs will be completely eliminated by 2023.

Top 3 suppliers of fresh/frozen beef to the US 2017–2019 average:
- Canada – $1.4bn – 271,000 tonnes
- Australia – $1.36bn – 230,000 tonnes
- Mexico – $1.1bn – 205,000 tonnes

UK
The UK is a net importer of beef, with Ireland being its predominant trading partner. Like the US, much of this imported beef will be used for manufacturing or the foodservice sector. As well as this, some imported beef does end up in the retail market, for retailers who stock both British and Irish beef. In 2019, the average imported price for fresh and frozen beef into the UK was $5,100/t, with Irish beef imports slightly below this figure. The average US export price in 2019 was about $7,200/t, which would suggest that the US already has access to more lucrative markets than the UK for large volumes of ‘commodity beef’. It is more likely the US will be aiming to gain a small share of the market, for high-value fresh cuts, to displace product in the premium foodservice sector, as it is already exporting in small quantities into the EU.

The UK’s major retailers are largely supportive of British beef, the share of fresh beef facings that are British remains consistently above 80% (AHDB/ESA Retail, Red meat country of origin audits). Aldi, Co-op, Lidl, M&S, Morrisons and Waitrose commit to stocking only British fresh beef, together accounting for 43% of fresh primary beef volumes sold in retail (Kantar, 52 weeks ending 12 July 2020). Based on AHDB estimates for 2019 using Kantar data, 83% of beef sold in the UK is sold through the retail market.
**SHEEP MEAT**

Table 4. *Annual production and trade, 2017–2019, 3-year average (tonnes)*

<table>
<thead>
<tr>
<th></th>
<th>US</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>68,000</td>
<td>299,000</td>
</tr>
<tr>
<td>Total exports</td>
<td>3,500</td>
<td>95,000</td>
</tr>
<tr>
<td>Total imports</td>
<td>107,000</td>
<td>83,000</td>
</tr>
</tbody>
</table>

Trade volumes are product weight

Source: USDA ERS, Defra, HMRC, IHS Maritime & Trade - Global Trade Atlas®

**US**

The US is both a small producer and consumer of sheep meat, with per capita consumption steadily falling since the 1960s. The US sheep industry has been in long-term decline, although it has shown some stability in recent years. Sheep meat production, which includes meat from both lambs and adult sheep, fell 59% from 1985 to 2017.

Despite low per capita consumption, the US is the second largest sheep meat importer in the world behind China, with imports steadily growing year on year. The major suppliers (and effectively sole suppliers) are Australia and New Zealand, which command 75% and 24% of market share, respectively. Australia has tariff-free access to the US market. As the USA withdrew from the Trans Pacific Partnership (TPP) in 2017, New Zealand face MFN tariffs into the USA, which are 2.8 cents/kg for sheep meat and 0.7 cents/kg for lamb.

Figure 2. *Per capita consumption of meat, 2019*

Source: OECD
The UK produces about 300,000 tonnes of sheep meat annually. Like the US, lamb consumption in the UK has been on a steady decline in the past few decades, with meat being seen by consumers as relatively expensive and difficult to incorporate into meals cooked at home. Lamb over-indexes in the out-of-home eating and takeaway markets.

The UK is the third largest exporter of sheep meat globally, but global trade in sheep meat is generally dominated by NZ and Australia. The EU is the largest destination for UK sheep meat, with France and Germany being the major markets. The UK exports a large number of carcases and half carcases to the European market. There has been small growth in exports to Middle Eastern countries in recent years but volumes are comparably small compared with the European market.

The UK is also a large importer of sheep meat, importing predominately legs of lamb from NZ and Australia to satisfy domestic demand, when domestic lamb is in shorter supply in the first half of the year. Recently, however, imports have been declining due to an increase in demand from Asia for NZ and Australian lamb, and a tighter global supply situation, which have resulted in global sheep prices increasing over the past couple of years.

**HALAL**

Both the US and the UK have significant and growing Muslim populations, which is an important factor to consider, due to the cultural significance of lamb in the Islamic faith. The UK has a Muslim population of about 3.3 million (ONS, 2018); in comparison the US has about 3.5 million Muslims. The demand for Halal-slaughtered meat in both countries has been increasing steadily over the past few years and continues to rise.
### Table 5. Annual production and trade, 2017–2019, 3-year average (tonnes)

<table>
<thead>
<tr>
<th></th>
<th>US</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>12.0m</td>
<td>930,000</td>
</tr>
<tr>
<td>Total exports</td>
<td>2.7m</td>
<td>353,000</td>
</tr>
<tr>
<td>Total imports</td>
<td>469,000</td>
<td>966,000</td>
</tr>
</tbody>
</table>

UK trade volumes are product weight, all other figures are CWE.

Source: USDA FAS PSD database, Defra, HMRC, IHS Maritime & Trade - Global Trade Atlas®

### US

The US is the second largest pork producing country and the largest exporting country in the world, although total EU external trade is slightly higher. The US’ main export destinations by value are (Total pig meat excluding offal – 2017–2019 average):

- Japan – $1.7bn – 405,000 tonnes
- Mexico – $1.3bn – 676,000 tonnes
- Canada – $958m – 237,000 tonnes
- South Korea – $577m – 206,000 tonnes
- China – $433m – 205,000 tonnes

US pork imports are sourced primarily from Canada, although there are a number of European countries supplying the US market such as Poland and Denmark. The UK exports a small amount of pork to the US (10,000 tonnes in 2019). This is generally a high-value product with various antibiotic-free and outdoor-bred welfare attributes associated and predominately goes into the foodservice sector. However, due to the on-going Airbus dispute between the US and the EU, the US placed retaliatory tariffs on EU and UK pork products, among others. This has resulted in a significant reduction in EU and UK exports to the US in 2020. However, these tariffs were rescinded in March 2021.

### UK

The UK is a significant importer of pork, importing high-value product from predominately EU countries. Imports are used to satisfy domestic demand, especially for bacon/loin products, for which there is a consumer preference. The major suppliers are Denmark, Germany and the Netherlands. The US supplies small amounts of pork but is generally priced out of the market by the EU external tariff.
Post-Brexit, it is possible that US pork may become more competitive with EU pork, depending on trade negotiations and tariff policies. It is likely the US will be targeting pork exports to the UK in upcoming trade negotiations. Relative to global trade, the UK exports a small amount of fresh/frozen pig meat, with the top destination being China, for which pork offal exports are also significant. Although small in global terms, these exports are a significant proportion of total UK production and, as such, are important for the UK industry, both in terms of adding value and balancing the carcase.

**Self-sufficiency**

Self-sufficiency comparisons between the US and the UK show stark differences between the two countries. The US is highly self-sufficient in both the beef and pork sectors. Although this does mask the fact that the US does still import significant amounts of beef. Similarly, on paper the UK is relatively self-sufficient in lamb, indeed in recent years this has continued to climb and is now over 100%. Again, however, this hides the fact that the UK still requires imports to fulfil its domestic demand for leg cuts of lamb, while simultaneously exporting carcases to balance the carcase. For pork, this is where the US is likely to be highly offensive; not only have they got a competitive product price-wise, but a surplus of pig meat in the country, from which to grow export trade. The UK relies heavily on imports of high-quality bacon cuts, currently from the EU. As we explore later, there is the potential for US products to displace some of this EU pork and compete in the UK marketplace.

*Figure 3. Self-sufficiency in selected sectors*

Source: USDA, HMRC, AHDB calculations
Table 6. Annual production and trade, 2017–2019, 3-year average

<table>
<thead>
<tr>
<th>Product</th>
<th>US</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid milk</td>
<td>98.5m</td>
<td>6.7m</td>
</tr>
<tr>
<td>Butter</td>
<td>878,000</td>
<td>167,000</td>
</tr>
<tr>
<td>Cheese</td>
<td>5.9m</td>
<td>461,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total exports ($)</th>
<th>US</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk and cream</td>
<td>1.7bn</td>
<td>777m</td>
</tr>
<tr>
<td>Butter</td>
<td>148m</td>
<td>328m</td>
</tr>
<tr>
<td>Cheese</td>
<td>1.5bn</td>
<td>868m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total imports ($)</th>
<th>US</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk and cream</td>
<td>130m</td>
<td>441m</td>
</tr>
<tr>
<td>Butter</td>
<td>319m</td>
<td>442m</td>
</tr>
<tr>
<td>Cheese</td>
<td>1.3bn</td>
<td>2.2bn</td>
</tr>
</tbody>
</table>

Source: Defra, HMRC, IHS Maritime & Trade - Global Trade Atlas®, U.S. Department of Commerce, Bureau of Census

**US**

The US tops the table again when it comes to dairy production. Average liquid milk production exceeds 98m tonnes per annum, and cheese production is just under 6m tonnes per annum. Dairy production in the US is made up of predominately individual or family farms. Most farms are members of producer-owned cooperatives, which act as brokers for milk sold on to manufacturers or processors. Some dairy cooperatives have their own processing capacity. The largest co-op is Dairy Farmers of America, which accounts for roughly 22% of US raw milk production.

Figure 4. Top 6 cheese suppliers to USA

Source: IHS Maritime & Trade - Global Trade Atlas® - U.S. Department of Commerce, Bureau of Census
The US imports about $2bn worth of dairy products each year, although this has been steadily climbing recently. By value, cheese imports make up over 60% of US dairy product imports. However, over 20% of this cheese comes from sheep’s milk. Most US cheese imports come from the EU, with Italy and France commanding the largest market share. The UK currently exports about $55m worth of cheese to the US every year, predominately cheddar, but also small amounts of Stilton.

**Figure 5. US dairy exports, by value ($ million), 2017–2019 average**

![Chart showing US dairy exports by value]  
*Source: IHS Maritime & Trade - Global Trade Atlas® - U.S. Department of Commerce, Bureau of Census*

The US is also a major exporter of dairy products, with the majority of US exported products going to Mexico, with China the next main customer. However, exports to China declined in 2019 due to trade disputes between the two countries. US exported products by value consist mainly of milk and cream (38%), cheese (37%) and whey (16%).

**UK**

Historically, UK dairy trade flows have resulted in the UK being a net importer, though, in 2019, the UK recorded a trade surplus in dairy products for the first time since records began (1997). Much of the UK exports consist of milk and cream, with Ireland being the main destination, where product crosses the border from Northern Ireland to be processed into cheese. Small amounts of cheese are exported to Europe. The UK exports about 7,400 tonnes of cheese annually to the US (3-year average), most of which is cheddar, though a small amount of artisan cheese is exported each year.

The UK imports about $3.7bn worth of dairy products each year. Unsurprisingly, the largest category by both volume and value is cheese. Significant amounts of cheddar are imported from Ireland, quite often made with NI milk. France and Germany also export significant amounts of cheese to the UK.
Table 7. Annual production and trade, 2017–2019, 3-year average (crop marketing years) – in tonnes

<table>
<thead>
<tr>
<th></th>
<th>US</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>50.3m</td>
<td>14.9m</td>
</tr>
<tr>
<td>Total exports</td>
<td>25.5m</td>
<td>747,000</td>
</tr>
<tr>
<td>Total imports</td>
<td>3.6m</td>
<td>1.8m</td>
</tr>
</tbody>
</table>

Source: USDA FAS PSD database, Defra, HMRC, IHS Maritime & Trade - Global Trade Atlas®

US

The US is the fourth largest wheat producer in the world, and wheat is the third most common field crop grown in America. US farmers predominately grow winter wheat, which makes up 70–80% of total US production. A proportion of spring wheat and a small amount of durum wheat also make up the planted area. Spring and durum wheat varieties are favoured in the Northern Plains, where the winter weather isn’t as favourable for winter wheat planting. There are five major classes of wheat crops grown in the US:

- **Hard red winter (HRW)** wheat accounts for about 40% of total production and is grown primarily in the Great Plains (northern Texas through Montana). HRW is principally used to make bread flour.
- **Hard red spring (HRS)** wheat accounts for about 20% of production and is grown primarily in the Northern Plains (North Dakota, Montana, Minnesota, and South Dakota). HRS wheat is valued for its high protein levels, which make it suitable for specialty breads and blending with lower protein wheat.
- **Soft red winter (SRW)** wheat accounts for 15–20% of total production and is grown primarily in states along the Mississippi River and in eastern states. Flour produced from milling-grade SRW is used for cakes, cookies, and crackers.
- **White wheat** (both winter and spring) accounts for 10–15% of total production and is grown in Washington, Oregon, Idaho, Michigan, and New York. Its flour is used for noodle products, crackers, cereals, and white crusted breads.
- **Durum wheat** accounts for 3–5% of total production and is grown primarily in North Dakota and Montana. Durum wheat is used in the production of pasta.

Source: USDA
The US is a major wheat exporter, exporting about 50% of its production each year. Growth has come from rising global populations and incomes that have encouraged an increase in global wheat trade.

Top 5 export destinations, 2017–2019 average:

- Mexico – $779m – 3.4 million tonnes
- Japan – $681m – 2.8 million tonnes
- Philippines – $635m – 2.7 million tonnes
- Nigeria – $359m – 1.6 million tonnes
- South Korea – $335m – 1.5 million tonnes

The US imports a small amount of wheat grain, primarily from Canada. Wheat products, which are predominately pasta and noodles, are imported from Canada, the EU and Asia.

**UK**

The UK’s net trade position varies from year to year depending on domestic demand requirements and UK wheat crop size. Typically, the UK is a net importer of milling wheat, while any surplus feed wheat is exported.

UK feed wheat faces competition from maize imports, which can be partially substituted into animal feed rations. Two major bioethanol plants in the UK can dictate UK feed wheat consumption and use a mix of wheat and maize (corn). Currently (2020), only one bioethanol plant in the UK is operational.

UK wheat imports predominately come from the EU but the share of non-EU imports has been increasing in recent years. Imports of milling grade wheat come from North America as well as Germany and France. Rules of Origin (RoO) limits now apply to UK-made flour, following departure from the EU. Previously, millers could use third-country-imported wheat to make flour, and then export throughout the EU without paying a tariff. A limit of 15% of non-originating materials within UK-made flour going to the EU now applies in order to qualify for preferential tariff rates.
Most of the UK’s wheat exports are destined for the EU, with additional shipments to Algeria and Morocco.

Top 3 importers to UK, 2017–2019 average:
- Canada – 370,000 tonnes
- France – 329,000 tonnes
- Germany – 243,000 tonnes

Top 3 Export destinations, 2017–2019 average:
- Ireland – 195,000 tonnes
- Netherlands – 177,000 tonnes
- Spain – 139,000 tonnes

### MAIZE

**Table 8. Annual production and trade, 2017–2019, 3-year average (crop marketing years) – in tonnes**

<table>
<thead>
<tr>
<th></th>
<th>US</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>360m</td>
<td>–</td>
</tr>
<tr>
<td>Total exports</td>
<td>53m</td>
<td>178,000</td>
</tr>
<tr>
<td>Total imports</td>
<td>923,000</td>
<td>2.3m</td>
</tr>
</tbody>
</table>

Source: USDA FAS PSD database, Defra, HMRC, IHS Maritime & Trade - Global Trade Atlas®

**US**

The US is the world’s largest producer of maize (corn) and a major player in the global corn trade.

A large portion of corn in the US is used as a main ingredient in livestock feed rations. The vast majority of feed grain plantings (95%) are corn, the rest being made up of sorghum, oats and barley.

Almost 40% of corn is used in the production of bioethanol. Increased bioethanol growth has been the primary driver for the increased planting area of corn over the past 25 years, with about 90 million acres now planted – similar in size to the whole of Germany. There are numerous by-products from bioethanol production that also end up in the livestock feed sector.
The main destination for US corn exports is neighbouring Mexico, with Japan also being a significant customer. Much of the corn grown in the US is genetically modified (GM) and, as such, there are certain restrictions on which varieties can be exported to the EU. The EU also has a variable rate tariff, which is based on a minimum price of corn delivered into Rotterdam, which protects European producers to some extent. As such, US exports to European nations are relatively small.

UK

UK maize production is grown predominately for livestock feeds, with smaller amounts grown for anaerobic digesters and bioethanol. The UK also imports a significant amount of maize each year, for use predominately in cattle feed. The major supplier is Ukraine, which has tariff-free access, within quota, to the European market. Canada and a number of EU countries all supply significant amounts of maize to the UK. Maize imports compete directly with feed wheat in the animal sector. Further exposure to the global marketplace for maize could put pressure on UK wheat prices. AHDB produces information detailing the volume of animal feed produced by manufacturers in GB and the amount of raw materials used in the process. It is updated each month and is used to produce the UK cereals supply and demand estimates.

BARLEY

Table 9. Annual production and trade, 2017–2019, 3-year average (crop marketing years) – in tonnes

<table>
<thead>
<tr>
<th></th>
<th>US</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>3.4m</td>
<td>7.3m</td>
</tr>
<tr>
<td>Total exports</td>
<td>114,000</td>
<td>997,000</td>
</tr>
<tr>
<td>Total imports</td>
<td>160,000</td>
<td>94,000</td>
</tr>
</tbody>
</table>

Source: USDA FAS PSD database, Defra, HMRC, IHS Maritime & Trade - Global Trade Atlas®

US

Barley production in the US is relatively small compared with other cereal crops. It is predominately used in the malting industry and for livestock feed. As in other countries, a revival of craft beer brewing in the last couple of decades has led to a moderate but steady increase in the use of malting barley, and also malt imports. Malt imports in 2019 totalled 439,000 tonnes, up from 331,000 in 2009, although import growth has levelled off in the past couple of years. US growth in imported malt has been primarily driven by an increase in craft brewery openings and an increase in popularity of craft beers themselves.

Figure 6. US malt imports

UK

UK barley production is again predominately focused towards the malting and livestock feed sectors. The UK also exports a significant amount of barley, predominately to EU markets but also to valuable markets in Northern Africa, though these markets have steadied a little in the past few seasons. Malt exports in 2019 were about 220,000 tonnes and fluctuate from year to year. Malt exports to the US have been steadily increasing over the past 10 years and the US is now the second largest market for UK malt exports.

SOY

Table 10. Annual production and trade, 2017–2019, 3-year average (crop marketing years) – in tonnes

<table>
<thead>
<tr>
<th>Product</th>
<th>US</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>112.5m</td>
<td>Nil</td>
</tr>
<tr>
<td>Soybean</td>
<td>50.5m</td>
<td>15,000</td>
</tr>
<tr>
<td>Meal</td>
<td>12.6m</td>
<td>88,000</td>
</tr>
<tr>
<td>Oil</td>
<td>1.0m</td>
<td>N/A</td>
</tr>
<tr>
<td>Soybean</td>
<td>471,000</td>
<td>747,000</td>
</tr>
<tr>
<td>Meal</td>
<td>534,000</td>
<td>2.0m</td>
</tr>
<tr>
<td>Oil</td>
<td>160,000</td>
<td>175,000</td>
</tr>
</tbody>
</table>

Source: USDA FAS PSD database, Defra, HMRC, IHS Maritime & Trade – Global Trade Atlas®

US

The US is the world’s biggest producer of soybeans, one of the country’s most valuable agri-commodity products. Exports are predominately whole soybean but also include a significant amount of soybean meal. China is the leading destination for US soybeans, purchasing an average $7.8bn over the past three years, but this has come under some pressure during the recent trade dispute between the US and China. Soybean meal predominately goes to Mexico, Colombia and Canada. Again, GM crops are used extensively in soybean production.

UK

Soybean production in the UK is virtually non-existent and, therefore, the UK relies heavily on imported soy. This predominately comes into the UK as soy meal which is used for animal feed protein and for human consumption in flour improvers, as well as industrial uses in paint and pharmaceuticals. Imports from the US averaged 257,000 tonnes over the past three years, almost solely as soybeans either whole or broken, as opposed to meal or oil. The UK’s largest supplier of soybean products is Argentina, by quite some margin, supplying on average 1.1m tonnes of soya meal over the past three years, almost double the next largest supplier, Brazil.
RAPESEED

Table 11. Annual production and trade, 2017–2019, 3-year average (crop marketing years) – in tonnes

<table>
<thead>
<tr>
<th>Product</th>
<th>US</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>1.5m</td>
<td>2.0m</td>
</tr>
<tr>
<td>Total exports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rapeseed</td>
<td>172,000</td>
<td>136,000</td>
</tr>
<tr>
<td>Meal</td>
<td>20,000</td>
<td>189,000</td>
</tr>
<tr>
<td>Oil</td>
<td>101,000</td>
<td>164,000</td>
</tr>
<tr>
<td>Total imports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rapeseed</td>
<td>593,000</td>
<td>218,000</td>
</tr>
<tr>
<td>Meal</td>
<td>3.3m</td>
<td>159,000</td>
</tr>
<tr>
<td>Oil</td>
<td>1.8m</td>
<td>85,000</td>
</tr>
</tbody>
</table>

Source: USDA FAS PSD database, Defra, HMRC, IHS Maritime & Trade - Global Trade Atlas®

US

The US rapeseed industry is relatively small, as the oilseed sector is dominated by soybeans. A large proportion of rapeseed and rapeseed products are imported, although the market remains small compared with the total US oilseeds sector.

Rapeseed is predominately imported from Canada for use in the animal feed industry. Oilseeds can be relatively well substituted with each other, and trade in rapeseed can depend on a number of factors, such as demand for certain protein meals and limits on domestic processing capacity.

UK

UK rapeseed production has been falling in recent years due to increased technical difficulties with growing the crop. Most UK rapeseed exports are destined for the EU for biodiesel production. As mentioned, many oil products are substitutable and the UK imports a large amount of oil cake from varying sources, predominately sunflower cake and palm kernel cake. Sunflower cake is sourced from a variety of locations but Argentina is the largest supplier to the UK. In terms of palm kernel cake, most UK imports are derived from Indonesia and Malaysia.
PRODUCTION SYSTEMS

Production systems in the US and the UK differ in many ways. The US, at 9.834 million square kilometres is more than 40 times the size of the UK. The US has much more varied and wide-ranging geographical and agricultural conditions, but there are a number of similarities between certain production systems, albeit on a differing scale.

Suckler cow

Cow-calf, or suckler cow, systems are predominately pasture-based (plus silage) around the world – including the US and the UK. In the UK, it would be typical for suckler cows to be housed during the winter; in the US, it would be typical for cows to be kept outside all year round.

Figure 7. Typical farm suckler herd production costs and returns 2018

Many suckler cows in the US are typically kept on range and prairie land, which typically has limited agricultural use and lower value than cropped land. Year-round grazing and range grazing of suckler cows show lower costs than systems that include housing. Due to the lower costs, this results in increased profitability at the enterprise and whole-farm level, albeit still loss making, once non-cash costs are taken into account.
Table 12. UK vs. US suckler herd statistics

<table>
<thead>
<tr>
<th></th>
<th>US</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of beef cows</td>
<td>32m</td>
<td>1.5m</td>
</tr>
<tr>
<td>Average herd size per operation (US term) or holding (UK)</td>
<td>43 cows</td>
<td>28 cows</td>
</tr>
<tr>
<td>Operations/holdings with up to 99 cows (%)</td>
<td>90</td>
<td>95</td>
</tr>
<tr>
<td>Operations/holdings with 100 or more cows (%)</td>
<td>10</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: USDA, Defra

**Beef finishing**

Beef finishing systems in the US and the UK range from pasture only; pasture and silage; silage and concentrate; and grain finishing. The animals can be outside, partly yarded, winter housed or fully yarded. They may be finished on the farm of birth; sold as stores to another farm to grow on (known as backgrounding in the US) or sold to the final finishing farm.

In the US, yard finishing (often referred to as feedlots but can involve a number of different diets, often with more emphasis on the use of grain and co-products than based on silage and forage) is usually for finishing weaned suckled calves from the suckler herds but can include a proportion of dairy cattle. In the UK, yard finishing will apply to cattle for slaughter from both dairy and suckler background due to the significance of the dairy-bred calves in the UK meat supply chain. The typical US feed yard pen size is about 75–150 head per pen, with 20–30 sq m per head. In the US, feed yards tend to be large, open spaces. In the UK, yard finishing tends to take place in covered buildings. These differences are predominately due to the varying climates between the two countries but are not exclusive to each country, and both the US and the UK use open and closed yards.

**Figure 8. Typical beef finishing production costs and returns 2018**

A range of feeding systems can be found in the both the US and the UK, although it is generally accepted there is more reliance on grain and corn (maize) for finishing in a typical finishing system in the US and more reliance on silage (grass and maize) in a typical finishing system in the UK, due to both market specifications and availability of inputs.
In the US, a significant proportion of ‘life-style’ family farms/operations are not dependent on the farm for their household income. This will include people who have inherited farms that are no longer big enough to provide a full-time income; those pursuing a country lifestyle to live and/or raise their family but have other income streams; and those who have significant other income streams and purchase farms/ranches for privacy. Similarly, in the UK, there are also a number of farming operations that either rely on outside income to maintain the farm, or don’t depend on the farm for an income.

A feed yard is the final stage of cattle production, with a focus on feeding steers and heifers a ration of grain, silage, hay, and/or protein supplement for the slaughter market, that are expected to produce a carcase that will grade select or better. The USDA Agricultural Marketing Service grades beef as whole carcases in two ways: 1. Quality grades for tenderness, juiciness, and flavour; 2. Yield grades for the amount of usable lean meat on the carcase. The quality grades are prime, choice, and select. Depending on weight at placement, feeding conditions and desired grade, the feeding period can be from 90 days to as long as 300 days.

In the US, cattle feeding is concentrated in the Great Plains, but is also important in parts of the Corn Belt, Southwest, and Pacific Northwest. Feed yards with less than 1,000-head of capacity compose the vast majority of US feed yard operations, but market a relatively small share of the fed cattle. In contrast, yards with 1,000-head or greater capacity compose less than 5% of total feed yards, but market 80–85% of fed cattle. Feed yards with 32,000 head or more of capacity market about 40% of fed cattle. The industry continues to shift toward a small number of very large specialised feed yards focused on raising a high-quality product for particular markets such as conventional, natural, hormone-free, etc.

Comparatively speaking, US beef farms on average have a lower cost of production than their UK counterparts. Significant savings are made where economies of scale come into play. Being able to spread labour cost across a vast number of cattle helps US farmers reduce costs. Furthermore, lower ratios of machinery per cow compared to the UK also help US farmers to be more competitive. Having said that, the US is a large place and logistics can often be a major headache. Some of the larger UK farms, as detailed above, are close to US COP. It is unlikely that US beef will be able to compete in the UK market on a large scale.

This is further evidenced by the fact that US beef exports currently have a focus on high-value export markets. These markets currently offer a significantly higher price per tonne than the UK market. Although, it should not be discounted that global commodity markets can, and do, shift over the longer term, which means that the UK market could become attractive to the US if price dynamics altered significantly.

**Table 13. Strengths and Weaknesses of US feed yards**

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>High labour productivity</td>
<td>High animal purchase costs</td>
</tr>
<tr>
<td>High feed conversion rates, DLWG and carcase yields</td>
<td>High dependence on livestock prices</td>
</tr>
<tr>
<td>Low non-feed costs – depreciation, labour</td>
<td>Cash business with no option to forgo income</td>
</tr>
<tr>
<td>Homogeneous products</td>
<td>Size and scale can create misconceptions relating to welfare</td>
</tr>
</tbody>
</table>
Pig finishing

Table 14. Pig production system statistics

<table>
<thead>
<tr>
<th></th>
<th>US</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure</td>
<td>72.4m pigs (all types)</td>
<td>0.4m breeding females</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.5m fattening pigs</td>
</tr>
<tr>
<td>Average operation size</td>
<td>1,089 (all types)</td>
<td>70 (breeding)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>509 (fattening)</td>
</tr>
<tr>
<td>Operations up to 999 head (%)</td>
<td>84</td>
<td>86</td>
</tr>
<tr>
<td>Operation over 1,000 head (%)</td>
<td>16</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: USDA, Defra

Pig operations in the US consist of three types of specialised enterprises:
- Farrow-to-finish operations raise pigs from birth to slaughter weight, about 105–125 kg
- Feeder pig producers raise pigs from birth to about 4.5–27 kg, then generally sell them for finishing
- Feeder pig finishers buy feeder pigs and grow them to slaughter weight

Most pig producers use some type of confinement production, with specialised, environmentally modified facilities. Confinement production allows year-round production by protecting hogs from seasonal weather changes, disease exposure, and predators. Manure collected from hog operations is typically spread as fertiliser on nearby cropland.

Some overlap exists in enterprise type. For example, farrow-to-finish operators may sell or buy feeder pigs if their feed production is smaller or larger than their own production needs. However, most producers use only one production system.

Figure 9. Typical pig production costs and returns 2018

One of the most striking features of the US pork industry – associated with technological change and evolving economic relationships among producers, packers, and consumers – has been the rapid shift to fewer and larger operations. Since 1990, the number of farms with pigs has declined by over 70%, as individual enterprises have grown larger. US pig operations tend to be heavily concentrated in the Midwest—Iowa and southern Minnesota, particularly—and in eastern North Carolina.

Large operations that specialise in a single phase of production have replaced farrow-to-finish operations that performed all phases of production. The use of production contracts has increased. Operations producing under contract are typically larger than independent operations and are more likely to specialise in a single phase of production. These structural changes have coincided with efficiency gains and lower production costs.
Most of the productivity gains are attributable to increases in the scale of production and technological innovation.

The UK operates similar production systems as the US, in that there are specialised production systems for the separate stages of production. However, the UK has a significant proportion of its pig production that is either reared or bred outdoors (over 40%). These production systems service more niche markets and command a premium in price. Much of the pork the UK currently exports to the US is under the ‘outdoor bred/high welfare’ banner, predominately going into the high-end US foodservice sector.

Within the pig industry, US producers have a greater competitive advantage than in some other sectors. This is largely due to the scale of US farms, being able to significantly reduce costs on a per kg of meat sold basis, coupled with the fact that the US is highly self-sufficient in pork, with a focus on producing products for export. It is likely that US pork could be competitive in the UK marketplace given appropriate tariff concessions, which we explore later in the report.

Source: USDA/AHDB

Dairy production

Dairy production in the US is carried out in all 50 states, but the main producing areas are located in the western and northern areas of the country, with states like California and Idaho having a smaller number of larger, highly specialised operations. Generally, dairy farms are family owned and managed with the majority being members of producer cooperatives. US dairy production is generally focused more on high-input/high-output systems when compared with the UK, with typical farms having yields over 10,000kg per lactation. There is however large variability in the size and scale of dairy operations in the US. Like beef production there is a small number of large-scale operations that account for a larger percentage of overall production. In absolute numbers, about 40% of farms consist of smaller family run operations, employing mainly family labour. In these types of systems, cows can still be housed in a tethered barn, using pipeline milking (as opposed to a milking parlour). Although farms of this size make up about 40% of farms, only 12% of cows in the US are part of this system. On the other end of the spectrum are large, highly specialised operations with 1,000–2,000 cows, which employ a mix of family and paid employee labour. Large dairy farms with 2,000+ cows account for about 2% of the farms in the US, but carry 40% of the US milking herd population.
Feed rations also vary, depending on location and cropping conditions. However, most farms, regardless of size, generally grow grass/alfalfa/corn/hay silage as a base to the ration. Concentrates, meal or additional by-products are usually bought in to supplement the ration, which varies depending on the size, scale and location of individual farms. Some larger, specialised farms will also buy in all the forage-based components to a ration as well.

The US dairy industry has been struggling over recent years, with continued increase in production against a backdrop of reducing demand for liquid milk. Processors are struggling to see returns from traditional product bases. In November 2019, Dean Foods, the largest milk processor in the US, filed for administration. It was subsequently bought by Dairy Farmers of America (DFA), which took over a number of Dean Foods plants. Likewise, US dairy farmers have also been struggling to maintain an income from dairy farming, with the average dairy farmer regularly showing a net loss in income from dairy farming in the past decade.

Cost of production in the US varies massively, depending on both location and farm size. Again larger farms have better ability to spread costs. However, many of the US farms have equal or above production costs when compared to UK farms. Therefore, it is unlikely that US products are going to compete heavily in the UK market place. Also, having recently been given increased access to both the Canadian and Mexican markets, as well as re-building lost trade with China, it is likely the US will be focusing heavily on developing those markets, at least in the short term.

Figure 10. Typical farm milk production costs and returns 2018

Source: IFCN, AHDB
Wheat

Wheat is the third largest crop in area and production in the US, behind corn and soya. Production consists of a mix of hard red winter, hard red spring and some smaller areas of durum wheat for pasta-making. A typical US wheat farm uses a ‘conservation tillage’ system. This is a generic term that includes varied tillage systems, but all rely on leaving crop residues in the field, usually more than 30% of the previous crop residue is left in the field. These systems include no-till, min-till, zone tillage strip tillage and ridge tillage. This is in relative contrast to the ‘typical’ UK farm, which would generally use a combination of ploughing, power harrowing and combi-drilling, to create cleaner seed beds. There are a number of farms in the UK practising min-till or no-till systems but it is still relatively uncommon in comparison to the US. Production of crops in the US is dominated by a small number of states in the Midwest, colloquially known as the ‘Heartlands’ or ‘Corn Belt.’ So called due to the region’s fertile, well-drained soils and moderate climate. Unlike other crops in the US, GM wheat is not approved for commercial growing.

A typical US wheat farm would be about 1,200–2,000 ha in size, relying on both family labour and employed labour, with a corn/wheat/soybean rotation in one form or another. Some farms may only have wheat and corn in the rotation, with a fallow year included as well. Average yields in the US are about 2.7 t/ha – 4.6 t/ha. In comparison, the average UK wheat yield of typical farms in the East of England is about 9 t/ha.

Figure 11. Typical farm wheat production costs and returns 2018

Source: agribenchmark, AHDB
Maize (US – corn)

Again, corn production in the US is dominated by the heartland states. Corn and soya are frequently used in combination with each other. The crops complement each other well and the use of genetically modified (GM) seed technology produces attributes for herbicide resistance, making the controlling of weeds much easier and more economical. Currently, GM crops in the EU are relatively limited. GM crops are approved for importation to be used in animal feed and, in a small number of cases, for cultivation. Growers in Spain and Romania have been growing GM maize for a number of years. However, the EU hasn’t authorised any new varieties for a number of year As with wheat, many corn farms use conservation tillage methods. The wide-spread use of conservation tillage led to a 45% decline in soil erosion between 1982 and 2012.

Typical US corn farms are about 1,200–1,300 ha in size and rely on a mix of family and employed labour. Although the majority of the labour cost goes towards family labour, hours per ha are fairly evenly divided. Average yields for corn are about 11–12 t/ha. Due to UK maize production being predominately used for livestock feed, and grown and consumed on the same farm, data is sparse around the various levels of yield achieved in the UK. Average yields are again likely to be much higher than in the US.

Figure 12. Typical farm corn production costs and returns 2018

Source: agribenchmark, AHDB

No data available for the UK
Domestic standards in a free trade agreement

In trade deal terms, there are various agreements within a trade deal that can be implemented, to ensure that a country’s set of standards and regulations are upheld. The WTO provides a framework for a rules-based multilateral approach to trade, to ensure that countries are not unduly discriminating against foreign products and thereby creating non-tariff barriers to trade. This is based on a variety of factors but, ultimately, comes down to whether the final product has a ‘likeness’ to its domestic counterpart. AHDB has published a full Horizon report, which explores the role of the WTO in more detail, and which can be accessed here. If trade-related or health measures such as Sanitary and Phytosanitary (SPS) measures and Technical Barriers to Trade (TBT) are to comply with WTO rules, they must not discriminate against ‘like’ products. In WTO case law, certain criteria have been used in determining whether products are ‘like’. These criteria include the product’s end uses in a given market; consumers’ tastes and habits; and the product’s properties, nature and quality.

A related issue is whether products may be treated differently because of the way in which they have been produced, even if the production method used does not leave a trace in the final product. When comparing two products, different processes or production methods (PPMs) used in the manufacture of these products do not automatically make them ‘unlike’.

Although countries may agree a set of mutually agreed standards within a bilateral or plurilateral FTA, the WTO framework provides a contextual backdrop as to what may be agreed.

Sanitary and Phytosanitary Measures Agreement (SPS)

WTO SPS Agreement rules discipline the manner in which governments apply food safety and animal and plant health measures. In short, the SPS Agreement tackles the twin challenges of ensuring consumers are being supplied with safe food, and checking that strict health and safety regulations are not being used as an excuse for protecting domestic producers or otherwise restricting trade.

For the purposes of the SPS Agreement, sanitary (human and animal health) and phytosanitary (plant health) measures are defined as any measures applied, to:

• Protect human or animal life from risks arising from additives, contaminants, toxins or disease-causing organisms in their food
• Protect human life from plant- or animal-carried diseases
• Protect animal or plant life from pests, diseases, or disease-causing organisms
• Prevent or limit other damage to a country from the entry, establishment or spread of pests

It is important to note that measures for environmental protection, consumer interests, or for the welfare of animals (other than as linked to the above-mentioned scope) are not covered by the SPS Agreement.
Technical Barriers to Trade Agreement (TBT)

This agreement seeks to ensure that regulations, standards, testing and certification procedures do not create unnecessary obstacles to trade. In this sense, the TBT Agreement has the same objective as the SPS Agreement. In terms of the relationship between the two agreements, the TBT Agreement covers all technical regulations, except when these are sanitary or phytosanitary measures as defined by the SPS Agreement.

Difference between a technical regulation and a standard

The difference between a standard and a technical regulation lies in compliance. While conformity with standards is voluntary, technical regulations are by nature mandatory. They have different implications for international trade. If an imported product does not fulfil the requirements of a technical regulation, it will not be allowed to be put on sale. In case of standards, non-complying imported products will be allowed on the market, but then their market share may be affected if consumers’ prefer products that meet local standards. However, within a bilateral agreement, standards can be set between the two parties and products outside these agreed standards can be excluded, or face a higher tariff barrier. Under WTO Article 10.7, a Member who has reached an agreement with any other country or countries on issues related to technical regulations, standards or conformity assessment procedures which may have a significant effect on trade must notify other Members through the WTO Secretariat of the products to be covered by the agreement, and provide a brief description of the agreement.

The TBT Agreement recognises countries’ rights to adopt the standards they consider appropriate — for example, for human, animal, plant life or health, for the protection of the environment or to meet other consumer interests. Moreover, WTO members are not prevented from taking measures necessary to ensure their standards are met, provided the regulations they use do not discriminate, either between other countries’ imported products, or between domestic producers and producers from the trading partner.

In a US/UK FTA context

Differences in domestic standards between the UK and the US have been the subject of much discussion and media interest since trade negotiations between the two countries became a possibility.

The UK currently has clearly defined standards, having adopted EU laws in this area as part of the EU Withdrawal Act. In the US, areas such as animal welfare legislation are devolved to the 50 states and, therefore, the legislation from one state to another varies. The US has a highly differentiated supply chain, with the ability to supply a wide variety of domestic and overseas markets, which often have a higher value than their domestic market, in order to extract the most value from production. These products meet various specifications depending on the market and consumer preference. This is in contrast to the UK market which is primarily driven by domestic demand.

The level of complexity in negotiating the standards in an FTA is extremely high and will ultimately be the subject of much negotiation within the trade talks. However, the pertinent facts around this issue are that US suppliers are able to meet a variety of standards. The US has diverse supply chains that supply a variety of customers both domestically and for the export market, all with differing standards. Regardless of the outcome of an FTA between the US/UK, US producers will be able to adapt their supply chains to meet the market, as long as it is economical to do so.

What this means for the UK is that, regardless of where standards are set within the trade deal, there is every likelihood that US producers will be able to meet those standards. Indeed, it would be contrary to the WTO regulations for welfare standards to be used as a barrier to trade, although they can be agreed between the two parties.
in a bilateral agreement. Therefore, what the UK may find hard is excluding ‘like’ product from the US without offering some form of concession in order to avoid a dispute at WTO. This is what the EU has done with the country-specific quotas for Hilton beef. In addition, the standards set within any UK/US trade deal cannot be higher than those set for domestic producers, under the non-discrimination clause previously mentioned.

For UK producers and exporters, entering the US market is extremely competitive. US customers demand a high level of quality and standards, both at the production plant and within the supply chain, as well as a consistent product that is competitively priced. UK producers would have to meet these high standards consistently to export successfully to US markets.

**State support for agriculture**

The WTO’s 1995 Agreement on Agriculture established rules governing market access, export subsidies and domestic support for all WTO members, with the aim of establishing fair, market-orientated agricultural trade.

Domestic support measures are divided into three boxes, with restrictions focused on the group of policies deemed to distort trade the most – known as the amber box. Twenty-eight members of the WTO (counting the EU as one) are committed to keeping their amber box spending to below 80% of their spending in the reference period of 1986–1988, though a small amount of spending, known as the de minimis level, is exempt. For developed countries, the de minimis level is 5% of the total value of production annually; developing countries have a limit of 10%. All members must notify the WTO of their spending under each box.

<table>
<thead>
<tr>
<th><strong>Green box</strong></th>
<th><strong>Blue box</strong></th>
<th><strong>Amber box</strong></th>
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<tbody>
<tr>
<td>These measures do not distort trade and are not linked to production or prices. These payments are not restricted by WTO rules, provided they meet certain criteria.</td>
<td>These measures are market-distorting but production-limiting. Payments must apply to only 85% of the base level of production. Spending on blue box measures is not limited.</td>
<td>These measures are the most market-distorting and subject to annual spending limits. For developed countries, the de minimis exemption is set at 5% of annual production value. Developing countries have a limit of 10%.</td>
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<td>Examples:</td>
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<tr>
<td>▪ Rural infrastructure spending</td>
<td>▪ Payments made on fixed areas or numbers</td>
<td>▪ Direct payments coupled to production</td>
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<td>▪ Research and disease control</td>
<td>▪ Payments made on 85% or less of production, in a defined time period</td>
<td>▪ Input subsidies</td>
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<td>▪ Decoupled payments not linked to production, e.g. Basic Payments</td>
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<td>▪ Price support mechanisms</td>
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<td>▪ Buffer stock schemes</td>
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US policy

The US Department of Agriculture has an annual budget that exceeds $140 billion – a figure that is comparable with the GDP of Kuwait. However, not all of that goes directly to farmers. Before the coronavirus pandemic, the USDA was set to spend around 65% of its budget for 2021 on ‘nutrition assistance’, a programme commonly known as food stamps, which supplements the food budgets of low-income households and is notified as a green box payment. A further 22% (about $32 billion) was budgeted to go towards farm, conservation and commodity programmes. Since the coronavirus pandemic hit, huge support measures have been implemented, which has increased the amount of USDA spending, particularly towards the nutrition assistance programmes.

Support to farmers comes mostly in two forms:

1. Direct income support for arable farmers through price- and revenue-based countercyclical payments that top up incomes if prices or revenues fall below a reference price.
2. Agricultural insurance programmes for which premiums are subsidised.

Other smaller programmes include a dairy margin coverage programme, which pays dairy producers when the difference between feed prices and milk prices falls below a certain level.

These programmes are all notified as amber box payments as they are linked to levels of production. However, the US has an annual limit of $19.1bn and, with judicious use of de minimis exemptions, keeps amber box payments below this level.

The US government has issued significant support packages in recent years, first to farmers impacted by the US-China trade war ($28bn), and then to those impacted by COVID-19 ($14bn). US notification of agricultural support spending has not been published since 2016 but these large aid packages may push the budget above the US’ committed spending limit.

Relevant links to US policy documents

- Commodity policy overview
- Agricultural Improvement Act of 2018 (2018 Farm Bill) – US Congress’ most recently passed farm bill

Supporting US Exports

As highlighted earlier in the report, the US is a significant exporter on a global scale. The US Department of Agriculture supports the country’s agricultural, food and drink exporters with a network of international offices. Through the USDA’s Foreign Agricultural Service, it operates nearly 100 different offices in embassies and trade missions around the world, with USDA staff acting as the eyes, ears, and voice for US agriculture. This means that the government invests in resources to help exporters comply with local regulatory issues, facilitate contacts with importers and customers, and even help with practical problems relating to shipments.

Promotion is also part of that remit. That can cover a range of activity, from US Pavilions at major food trade shows and exhibitions, through to dedicated trade missions. Significantly, the USDA also invests money in supporting specific export activity. Through its Market Access Program (MAP), government partners with US agricultural trade associations, cooperatives, regional trade groups and small businesses, all with a view to building export opportunities. Last year, that provided over $170 million\(^1\) to share the costs of overseas marketing and promotional activities, to the benefit of American agri-food exporters.

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1. fas.usda.gov/programs/market-access-program-map/map-funding-allocations-fy-2020European policy
US agri-food exports to the UK already total some $1.6bn and the American Embassy in the UK has a long-standing agricultural office. Inevitably, some American organisations will already be tapping into the resources that are on offer to support trade to the UK. With a trade deal that potentially enhances the opportunities to grow exports to the UK, others will no doubt be looking to use US government resources to support an increased trade push.

**Figure 13. Value of domestic support measures 2016/17**

![Graph showing the value of domestic support measures 2016/17]

**European policy**

The EU’s Common Agricultural Policy (CAP) was introduced in 1962 and has evolved substantially over time, moving support away from amber box measures and into the green box. The CAP is the EU’s biggest programme of expenditure, accounting for 38% of the total budget for 2014–2020. While the UK has now left the EU, many aspects of previous EU policies are still in operation; as such, we discuss them in this section before discussing how domestic policies may result in future changes.

Today, the CAP budget is divided between two pillars.

**Pillar 1** – Direct income support (Value €308.72bn 2014–2020):
- Basic payments to farmers, based on the area of land they own. Farmers must meet certain environmental and animal welfare standards to qualify (cross-compliance)
- Greasing payments for ecosystem services such as crop diversification and maintaining permanent grassland
- Market measures such as promotional campaigns and price support in the event of serious market disruption

**Pillar 2** – This covers a range of rural development programmes (Value €99.6bn 2014–2020). These are aimed at promoting competitiveness and sustainability.

Nearly all of CAP spending now falls in the green box as basic payments are decoupled from production. Market support measures such as intervention schemes fall under the amber box. Although the EU has a ceiling of €72.4bn on amber box payments, it typically uses very little of this allocation.
New UK policies

Agricultural policy in the UK is devolved between the four nations. Now the UK has left the EU, each devolved nation retains greater powers to administer its own agricultural policy. However, as the four nations exit from the common framework of the CAP, there is an increased possibility of divergence between the four nation’s agricultural policies. This could become important in trade negotiations. As negotiations for the UK are carried out by the Government in Westminster, it is important to ensure devolved policies are sufficiently aligned so as not to disrupt offensive interests in terms of meeting a potential trading partner’s rules and regulations.

The new agricultural policy in England will be based on a system of public money for public goods. Payments will be administered through new environmental-based schemes, in return for farmers and land managers providing services to the environment, for instance by improving biodiversity or capturing carbon. The first pilot of these schemes was recently launched, called the Sustainable Farming Incentive.

As environmental payment schemes will not be linked to production, these payments should fall into the WTO’s green box of support. However, the Agreement on Agriculture restricts green box payments for the environment and rural development to only the extra costs incurred by the farmer, or income lost as a result (income foregone), plus costs incurred. Although the environmental payment schemes’ designs are not yet complete, income foregone may play a part in setting levels of payments to farmers. However, in reality, income foregone is hard to calculate, so there is likely to be some headroom in the precise definition. In addition to this, the policy’s designers are exploring options for payment by results or market-based pricing mechanisms, which may not fall under a strict interpretation of green box support.

The Welsh government has produced its Sustainable Farming & Our Land policy document. Similar to the environmental payment schemes, the Welsh government is focusing on an environmentally based payment system that focuses on Sustainable Land Management (SLM). This is set to replace BPS and Glastir (Wales current environmental payment system), based on income foregone and costs incurred, currently used to calculate Glastir payments.

The Scottish government has produced its Simplicity and Sustainability policy paper, detailing how farmers and crofters will deal with the upcoming period of change. The Scottish government has opted for a period of transition, which will run until March 2024 and effectively maintains the status quo for Pillar I & II payments to Scottish farmers and crofters, subject to budget agreements from the UK government.

From 2021, the UK has its own allocation of amber box spending limits. Draft proposals submitted to the WTO set a limit of €5.9bn, while the EU’s maximum spending will reduce accordingly. Within the UK, there may be an allocation of amber box spending limits to each devolved nation, as agriculture is a devolved policy issue, although the UK currently has plenty of headroom based on its current amber box spending limits.
REVIEWING POTENTIAL TRADE POSITIONS

A look at previous US trade deals

The US currently has a number of FTAs in force, which cover 20 trading partners around the world. Here, we take a more detailed look at the most recently signed US trade deal (USMCA), as well as other trade deals the US currently has in force, to gauge an insight into what concessions the US Trade Representative managed to negotiate, to give an indication of what America’s offensive interests might be.

United States, Mexico and Canada Agreement (USMCA)

The USMCA is the most recent trade agreement signed by the US. It entered into force on 1 July 2020, and is the successor to the North America Free Trade Agreement (NAFTA). Although the bulk of the text remains largely the same, the US were able to include additional provisions for automobiles, labour and so on. Crucially, the US also managed to increase access for dairy products into the Canadian market. USMCA also provides increased environmental standards that exporters must adhere to. A key development in the FTA is a provision for cooperation on agricultural biotechnology, including new technology such as gene editing:

“For the first time, the agreement specifically addresses agricultural biotechnology to support 21st century innovations in agriculture. The text covers all biotechnologies, including new technologies such as gene editing, whereas the Trans-Pacific Partnership text covered only traditional rDNA technology. Specifically, the United States, Mexico, and Canada have agreed to provisions to enhance information exchange and cooperation on agricultural biotechnology trade-related matters.” USTR.

Key developments

Dairy market access:

- Canada will provide new access for US products including fluid milk, cream, butter, skim milk powder
- Canada to eliminate a pricing mechanism (known as class 6 and 7 milk) seen by the US as discriminatory against its producers wanting to export product
- Mexico agreed not to restrict US cheese products labelled with certain names

Reduce trade distorting policies:

- Agreement to not use export subsidies, or WTO special agricultural safeguard measures for products exported to each other's markets
- Improved commitments to increase transparency and consultation regarding the use of export restrictions for food security purposes
- If supporting producers, to consider using domestic support measures that have minimal or no trade distorting or production effects, and ensure transparency of domestic support programmes
Fair treatment of quality grading wheat
- Canada to grade US wheat exports no less favourably than domestically produced wheat
- No country of origin statement for US wheat exported to Canada
- Agreed to discuss seed regulatory requirements

Geographical indicators (GIs)
- Agreement to provide important procedural safeguards for recognition of new GIs
- Strong standards against issuance of new GIs that would prevent US producers from using common names

Other USA trade agreements in force (Source: USTR)

Australia FTA
- Price-based safeguard measures on agricultural products entering US

Chile FTA
- Tariffs for agricultural products completely phased out in 2015. Improved market access for raw agricultural products as well as processed products such as French fries, pasta and distilled spirits

Columbia Trade Promotion Agreement (TPA)
- 50% of agricultural tariff lines became duty-free upon entry-into-force. Remaining tariff lines will be phased out over 15 years
- Colombia eliminated duties on wheat, barley, soybeans, soybean meal and flour, high-quality beef, bacon, almost all fruit and vegetable products, peanuts, whey, cotton, and the vast majority of processed products
- The TPA also provides duty-free access for specified volumes of standard grade beef cuts, chicken leg quarters, pork, corn, sorghum, animal feeds, rice, soybean oil, and dairy products through tariff rate quotas

Israel FTA
- An Agreement on Trade in Agricultural Products (ATAP) is an accessory to this FTA after a disagreement between the two countries. Most recent is 2004 ATAP, which achieved ‘modest’ additional market access for US agricultural products. Negotiations are ongoing to find a permanent successor

Jordan FTA
- Additional to Jordan, a Qualifying Industrial Zone (QIZ) agreement allows products manufactured in Egypt or the West Bank and Gaza to enter the US duty-free
- At the Joint Committee’s most recent meeting in May 2016, the United States and Jordan discussed labour, agriculture, specifically current technical barriers to agricultural trade, acceptance of the Word Trade Organization (WTO) Trade Facilitation Agreement and accession to the WTO Government Procurement Agreement
- The parties opened a dialogue to outline concrete steps to boost trade and investment bilaterally, and between Jordan and other countries in the Middle East region. After the meetings concluded, the issue regarding import licensing of poultry from the United States was resolved to allow the importation of US poultry into Jordan. Poultry imports of $8 million were exported to Jordan in 2017

Korea FTA
- US total exports of agricultural products to Korea totalled $8.3 billion in 2018. Leading domestic export categories include: beef and beef products ($1.7 billion), corn ($1.4 billion), pork and pork products ($670 million), fresh fruit ($491 million), and wheat ($363 million)
Panama TPA
- Nearly 56% of US agricultural exports became duty-free upon entry-into-force, with most remaining tariffs phased out over 15 years
- Panama eliminated duties on high-quality beef, frozen turkeys, soybeans, soybean meal, crude soybean and corn oils, almost all fruit and fruit products, wheat, peanuts, whey, cotton, and many processed products
- The TPA also provides duty-free access for specified volumes of standard grade beef cuts, chicken leg quarters, pork, corn, rice, and dairy products through tariff rate quotas

Peru TPA
- More than two-thirds of current US farm exports became duty-free immediately after the Agreement went into force
- Tariffs on most US farm products will be phased out within 15 years, with all tariffs eliminated in 17 years
- The top US agricultural exports to Peru are wheat, corn, and rice

Singapore FTA
- Eliminated tariffs for agricultural products

A view from the export development team
“As part of a longer-term strategy, AHDB, working in conjunction with UK Government departments and industry, has been progressing the ambition to have market access to the US for our red meat sectors. We achieved pork access several years ago and the market has grown to a value of £20m in 2020, based largely on high-value, quality product with specific attributes such as high welfare or antibiotic-free, for example.

This trade was impacted in 2020 by the 25% tariff placed on EU imports by the US as part of the retaliatory measure regarding the Boeing-Airbus dispute. However, at the time of 4 March 2021 these tariffs have been temporarily lifted while a longer term solution is sought.

Beef access to the US has now been finalised and the first UK plants were listed on 9 September 2020. Commercial trade has commenced and has already delivered £2.5m in value to Q4 2020. Similarly, sheep access has progressed but will not be commercially permitted until US Congress repeals the legal restrictions on sheep meat from countries that have historic cases of scrapie – this impacts the UK and many other EU nations.

The road to market access is long and requires many steps before approval is granted, including, in the case of the US, rigorous inspection of our facilities and processes to ensure the safety of the products for import. The UK hosted a team of Official USDA inspectors in 2019 who, after reviewing our controls, reapproved our pork export standards and agreed equivalence of our beef and sheep meat standards, effectively opening the door for beef, a market we estimate to be worth £66m over the first five years, after the final administration steps are achieved.”

Dr Phil Hadley
International Market Development Director
Pork

Pork has the potential to be a highly sensitive product; currently EU tariffs, which the UK has largely adopted for pork in the new UK Global Tariff, price out US pork. Previous analysis of a no-deal Brexit scenario demonstrated how competitive US pork could be under the ‘no-deal tariff regime’, in comparison with some of the UK’s key EU suppliers. The analysis showed that at the tariff rate set at €0.10/kg, US pork (based on 2018 prices) would be competitive against both EU and domestically produced pork. With a significantly lower cost of production, and comparable transport costs to those of shipping pork from the EU to the UK. Favourable tariff access to US pork has the ability to displace EU pork.

From an offensive standpoint, high-value, niche products are likely to be a key area for UK pork. The US is highly competitive on a mass scale and is highly self-sufficient. Although US imports are large, comparatively speaking, to the size of UK production, they are predominantly from countries that are geographically close and also highly competitive. As we explore later in this section, niche products that have a well-defined USP have the ability to sell into the US marketplace from the UK. It is dependent on a number of factors, but UK pork can be competitive in the US marketplace, even with retaliatory tariffs in place.

Beef

For the last couple of years, at least at farm level, US beef prices have been comparable to UK- and EU-produced beef. For a number of reasons, the beef supply chain is becoming increasingly integrated, with a number of retailers setting up dedicated supply chains to improve traceability and create points of difference for marketing beef products. Processors that usually operate to contract with retailers also have a vested interest in maintaining sustainable supply and demand of domestic beef, in order to run processing plants as close to capacity as possible and remain profitable. This is often why UK beef can still outcompete for supply over EU beef, despite beef being cheaper in a number of EU countries. As well as this, consumer preference and trust in British products has influence on buying decisions at a retail level. A number of retailers have already committed to maintaining current levels of British beef stocked in their stores, regardless of any outcomes of future trade agreements.

The foodservice sector, however, is much more competitive, with a larger mix of origin countries being present. This is partly due to the fact that origin labelling isn’t as prevalent in the foodservice sector, but also because foodservice is highly price-sensitive. Much of the UK’s imported beef ends up in the foodservice sector, which is the area where US beef likely has the best chance to compete. The grading system in the US lends itself to compete in this area. In contrast to the EUROP grading system, the US grading system is more focused on eating quality for the end consumer. This allows US exporters to tailor products to fit a particular market, and hit a particular specification at certain price points more easily. However, the US export market is primarily focused on exporting high-value, grain-fed beef to lucrative markets. As shown in the chart below, the average export price for US beef is far higher than other major trading nations. The average (2017–2019) export price for US fresh/frozen beef was about $7,000/t. In comparison, the average UK import price for fresh/frozen beef was $5,200/t, which predominately comes from Ireland. Similarly, when looking at US export prices and UK import prices across the product ranges, the US can command higher prices on average than comparative products imported into the UK. So, although the US has the ability to compete on a cost of production basis, as it stands, for high volumes of beef, the US has more lucrative markets than currently on offer in the UK.
The US primarily imports manufacturing grade beef that is destined for further processing and eventually ends up as mince and burgers. The major suppliers, Canada, Mexico and Australia, all have tariff-free access to the US market. A large portion of what the UK exports is manufacturing grade beef, which now goes primarily into the EU. The average (2017–2019) export price for fresh/frozen beef from the UK is about $4,800/t, although this does fluctuate throughout the year, with the lowest prices in the later months when domestic demand turns towards high-value cuts and away from mince. Comparatively, US average import price for fresh/frozen beef is about $5,300/t, and, like the UK, this price also fluctuates slightly. In recent years, the average price of US imported beef has been increasing as global demand for beef continues to rise, exacerbated by the ongoing ASF situation in SE Asia. Looking into more detail at the variation between US and UK export and import prices for beef between product codes, on the whole, UK beef export prices for a number of products are lower than the comparative average import prices into the US.

Even when extra transport costs are taken into account, if the trend for global beef prices were to continue upward, there is potential for the UK to export manufacturing grade beef into the US, particularly when seasonal variations in beef price come into effect. This could also alleviate carcase balance issues when mince is in particularly low demand in the EU around the winter months and when import demand in the US is at its highest.
Cereals
For cereals, the global trade is fairly well aligned and is as much to do with geographical location as it is about price. For the UK, feed barley exports markets are well established for the years we have exportable surplus and, therefore, it is unlikely there will be much opportunity to increase exports to the US through any trade deal. The US is a large producer and exporter of maize. Having access to GM crops allows for significant cost reductions at farm level. This is an additional reason for a lack of feed barley export development to the US. Furthermore, if GM maize were permitted to be imported into the UK tariff-free, then this could place significant pressure on UK domestic barley pricing, as barley would need to balance to maize imports in feed rations.

Lamb
On a per capita basis, the US is a relatively small consumer of lamb, but, due to the scale of the US population, total consumption is relatively large. The US has a small domestic lamb industry compared with other sectors and, as a result, is one of the largest importers of sheep meat around the globe. Offensive interest for UK lamb would lie in high-value cuts, the predominant imported product into the US, and herein lie a number of problems. The first is that the UK is generally in deficit of high-value cuts, which is why the UK imports lamb from NZ and Australia in the form of legs, and exports whole or half carcasses out into the EU. So, there is a question as to how much UK-produced lamb would be available to UK exporters, to satisfy the US market. Furthermore, the US’ two main importers for lamb are NZ and Australia. At the moment, due to the global supply and demand situation for lamb, prices for UK lamb and Australia/NZ lamb are at relative parity, and have been for some time. However, this phenomenon could be time-limited. When embarking on trade deals and creating the trading relationships that come out of them, it is prudent to look on 10–15-year timescales as opposed to just the next couple of years. It is well known that NZ and Australia are highly competitive when it comes to lamb and, in normal times, antipodean lamb is priced at a significant discount to UK and, indeed, European lamb.

Figure 16. Global lamb farmgate prices

![Global lamb farmgate prices](chart.png)

Source: AHDB, MLA’s NLRS, NZ AgriHQ
Having said that, the US is a highly valuable market, with import prices between 2017 and 2019 averaging $8,400/t. UK exports in the same period were $5,600/t. However, as previously stated, the vast majority of current UK exports would be unsuitable for the US market, see Figure 18. There is a small amount of fresh-bone sheep meat in the UK exports that, at a glance, would be competitive into the US market. However, due to the vast difference in price, it is likely that the products within these HS6 codes are made up differently. For instance, fresh bone-in can cover both legs and shoulders. It is also worth noting that NZ and Australia are currently priced at what that market can command. If more competition entered the market, it is likely they could cut their price and still remain profitable. It is worth noting that currently the UK doesn’t have access to the US market due to a restriction known as the ‘small ruminant rule’. This import restriction is placed onto countries the US deems at risk of scrapie and BSE, both of which relate to a family of diseases known as Transmissible Spongiform Encephalopathie (TSEs). In December 2013, the US aligned its federal rules on BSE with the world organisation for animal health (OIE) approach and amended its domestic rules on the importation of cattle/beef products, allowing the importation from countries with a Negligible and Controlled risk such as the UK. It did not make the same amendments to its federal register for imports of sheep/lamb products. This means that the US currently does not permit imports of sheep meat from a number of countries, including the UK.
**Dairy**

The US is the world’s largest dairy market in terms of value, and presents significant opportunities in the marketplace due to the estimated growth in high-value markets such as butter and cheese. Butter in particular in recent years has seen an increase in consumption over the pond. US butterfat production has increased steadily during this time, but not enough to keep up with increasing consumption. Consumption of butter in the US surpassed production in 2016 and the two continue to diverge (see chart below).

**Figure 19. US butterfat balance**

![US butterfat balance chart](image)

The butter and cheese markets are heavily competitive at a retail level in the US, with numerous branded products competing for shelf space. One such success story from a European perspective is the growth of the Kerrygold brand, produced by Irish co-operative Ornua. The first Kerrygold shipments were exported to the US in 1999; since then the product has continued to grow and is now the second best-selling butter in the US. Hitting the right markets, sharp advertising and a strong brand, has allowed Kerrygold to continue to perform well, with volumes growing by 30% in 2018 alone. Despite this, consumption of butter in the US is still dominated by domestically produced butter that is generally more competitive on price. Kerrygold identified that their product would sell better in higher-end retail market, aimed at more affluent customers. Kerrygold also introduced butter sticks – quarter pound bars to appeal to the American home-baking market who are accustomed to measuring butter out in this way.

The US cheese market is growing equally well. The cheese market in the US valued at around $34.4bn, forecast to grow to $45.5bn by 2027. Both production and consumption have continued to grow in the US in recent years. Mozzarella and Cheddar remain the most popular cheeses in the US. However, growth has been driven in part by changing consumer trends and also by the increase in speciality/artisan cheese demand from US consumers. The US market provides some opportunities in the dairy sector for high-end speciality cheeses, provided the branding and marketing is effective.
EXPORT CASE STUDIES

Having market access and tariff-free trade is just one part of the jigsaw puzzle when trying to achieve offensive ambitions of a trade deal. Creating business relationships, finding customers and organising logistics are just some of the nuances that surround having an FTA. This is arguably where the hard work begins and that primarily lies with private companies, not government negotiations.

US customers are notoriously demanding, requiring a high level of standards and customer service. This often manifests as regular face-to-face meetings, as well as meticulous scrutiny of supply chains, to check potential customers are satisfied with the level of standards and also to understand what product the customer is really after. Here we take a look at a couple of UK companies, who have ‘been there and done it’ through existing market access routes into the US. We share some of the experiences and effort they went through to create those relationships.

**Karro – A case study for exporting pork to the US**

Karro food group is a leading UK processor of pork products with processing plants operating throughout the country. It supplies a variety of pork products to retail, foodservice and manufacturing customers across the UK. Recently it has developed an export market of high-value, high-welfare pork into the US with a leading restaurant chain – this has been maintained despite the imposition of additional tariffs by the US due to the niche market their product is targeting. This case study takes a look at some of the nuances involved in creating such a relationship.

The first thing to establish when attempting to set up supply chains in the US, even before quoting any prices, is to understand where the markets are located. The US supply chain is enormous and supplying different parts of the country from one place is near enough impossible. Understanding logistics and how much cost is required to ship products from various parts of the country to another is critical, as logistics have the ability to throw the supply chain out of the water. It is also difficult to compare prices as every situation is different and it is therefore important for each company to carry out its own individual assessment. One such problem Karro encountered throughout this process was a change to rules and regulations around driver hours, which completely changed the logistical approach and added around 50% to transport costs. With transport in relatively short supply in the US as well, it is also important to understand the availability of transport in various locations.
Once logistics have been assessed, creating and maintaining relationships takes a lot of time and effort. Each processing site that is approved for export to the US has to have undergone an USDA approval process, which adheres to a particularly high standard. This is carried out by US government officials, not the intended customer. However, every customer Karro has developed a relationship with has been out to the UK to visit its plants personally. Through creating these relationships, Karro set up a permanent office based in the US with two full time staff, dealing with customer relationships, managing sales and organising logistics. It took around five to six years of development work in order to create these relationships.

US customers are very specific in their requirements and appreciate face to face meetings to understand what the product is that is being offered and how it can fit into their business, more so than most European counterparts. Americans are also tough negotiators when it comes to selling commodity products and are extremely price focused, so having a well-established price structure is paramount. Finally, the legal structure in the USA means more time and money than normal is spent ensure that the contracts in place are legally watertight and that extra insurance is in place in order to cover any losses that might occur.

OMSCO – A case study for exporting organic dairy products to the US

The US market accounts for almost 50% of the global demand for organic food. Provenance is important, but taste and quality is king. OMSCO has been successful in entering the US market, however the process was long and took a great deal of time and effort, here we hear some thoughts from Richard Hampton, Managing Director of OMSCO.

Market Access

Export of food products to the US is subject to significant tariff barriers and a complex licencing regime for TRQs, which significantly adds to the Cost of Goods Sold (COGS) in marketplace. In addition, EU and UK food exports to the US were subject to punitive ad valorem tariffs of 25% throughout 2020 which had a significant negative impact on trade. This is not the first time trade disputes have led to increased tariffs for OMSCO products, and the current trade dispute is completely non-agriculture in nature. When developing an entry strategy to the US market, it is imperative these long term risks are accounted for.
Organic Regulation

It is important to understand the difference in organic standards in the US, and the legalities of trading. Trade is possible, but only under the terms of the **US/EU organic equivalence agreement**, which was rolled over for the UK on 31 December 2020. To achieve the correct status, the raw material will need to comply with the terms of the equivalence agreement – this is a particular challenge for products of animal origin (POAO). The supply chain also needs to be certified as National Organic Program-compliant under the equivalence scheme – this is the federal regulatory framework governing organic food in the USA.

US trading environment

Many businesses look at it as a country entry strategy, whereas it’s probably best to view it as a continental market entry exercise. It means the marketing offer, competition, pricing, retailer share and distribution arrangements can be completely different from one area to another. It is best to pick which part of the country would be a logical start point, launch, test, fine-tune and then expand with experience – understanding that success in one region does not mean the formula will translate into others.

The US retail market is highly fragmented. This is useful from a business development perspective, allowing a reduced level of risk both in terms of product and price positioning, and establishing successful distributor relationships. However, it also means the US supply chain is much more costly than we would be used to over here, rollout will be slower, and management will need to invest an important amount of time in person in the market.

Successful market entry in the US requires a good deal of research, careful selection of the right supply chain partners, investment in time and effort, and – above all – patience. But over time, the rewards can be significant for those who persevere.
CONCLUSION

An FTA with a major agricultural producer and exporter like the US is inevitably going to have significant implications for UK farmers and the wider agri-food supply chain.

Our analysis has attempted to examine the level of impact, and identify the main opportunities and challenges that the industry may face, as well as how farmers can best prepare.

In our introduction we posed a number of questions that we felt farmers would be asking:

Will the US flood the UK with cheap food?
Our analysis shows that this is unlikely in the short term. Although the US has, in many cases, lower costs of production, gained from their huge economies of scale, it also has lucrative markets much closer to home. However, if and when it decides to target UK markets, it is clear it could do so effectively and profitably. Given the level of spend behind developing overseas markets, this is something that UK producers need to be acutely aware of.

Can our farmers compete against their American counterparts?
The US, as previously mentioned, operates on a different scale from the UK for most agricultural production. Producing commodities at a similar scale and price is not feasible for many UK farmers. However, our case studies show that operating successfully in the US market is possible and may offer significant rewards. This will not happen overnight. Competing in the US market is not just dependent on an FTA. It requires careful planning, relationship building, and the reliable supply of a consistent, high-quality product.

What’s the potential for the UK to use standards to limit import potential?
Our analysis has looked past the headlines on standards and shows that, regardless of where the UK sets its standards for welfare or any other factor, the US has the ability to meet these standards and still maintain a competitive advantage in many sectors.

What should the UK focus be on for a trade deal with US?
Opportunities for UK exporters in most cases are likely to be limited to high-value niche products, which have a point of difference in the US marketplace. Trade relationships already established show that US customers are specific in their needs and demand a high-quality and consistent product. Competing in the US on a large-scale commodity basis is unlikely, due to the scale of both the US and some of the major trading partners that have access to the US market, with the UK unable to compete on a cost of production basis, due to the economies of scale required. However, there is potential for manufacturing beef to enter the USA, especially in the short term, with global beef prices relatively high. If UK exporters can capitalise on this, and create those trading relationships, it will stand them in good stead going forward.
UK beef has the ability to compete on price at certain times of the year, with both US beef and some of the major trading partners. However, as we have stated, having an FTA and favourable tariff access is only one part of the puzzle, and time and effort still need to be invested to build those relationships. Lamb export opportunities are a little more ambiguous. Although at a glance there is the possibility we can compete on price, the current major exporters of lamb to the US (Australia and NZ) are highly competitive and have a diverse offering to suit the market. The product mix for UK exports by and large don’t align with what the US customer wants, but if the US market is seen as more lucrative than the domestic market, there is the potential for opportunity in this area. There is also potential for US producers to capitalise on the growing butter and cheese markets in the US.

How easy is it for UK agri-food to capitalise on any opportunities for exports to the US?

Our case studies and analysis show that opportunities do exist and that it is possible for UK producers to capitalise on them. However, it would certainly not be easy, requiring long-term planning and preparation. Both time and investment are needed to develop relationships within the US as well as meticulous planning when it comes to creating supply chains and running processing facilities that meet US standards.

What support are American businesses likely to receive and what can the UK learn from this?

The farming lobby in the US is extremely powerful, with farmers making up a significant part of the electorate in almost every US state. This means they are given high priority when it comes to domestic policy, support and legislation, as well as in trade negotiations. Huge budgets are put behind developing overseas markets. If the US chooses to target the UK market, we can expect a highly efficient competitor, with the potential to significantly impact domestic producers.
POSTSCRIPT – A REFLECTION ON FUTURE TRADE DYNAMICS

This report has explored the potential impact of a trade deal with the USA from an agri-food perspective. The US deal won’t be the last the UK makes as we seek to open up new trading relationships for our economy (and based on current timeframes, a US–UK deal is likely not to be the first). What makes our domestic market so valuable for UK agriculture – a relatively wealthy population of 66 million, a consolidated retail sector – also makes it attractive to international competitors. This means improved market access for agricultural products will be on the wish list for many trade negotiators and not just those from the US Trade Representative. Expect increased competition from new trading relationships, with some trade deals resulting in increased access for cheaper food to the UK market.

A focus on the threats, however, means that we may overlook the opportunities. The idea of local supply chains is appealing for many, but the reality is that food is increasingly produced further away from where it is consumed. A significant proportion of the food consumed around the world crosses international borders. That will only increase as population growth trends in different parts of the world put pressure on food demand. As a net importer of many foodstuffs, and with an established domestic market, it is understandable that we focus on what’s on our doorstep. But there are success stories – China becoming the number one export market for British pork in little over a decade is perhaps the best example.

Future trade deals will create further export opportunity in the long run. However, that will require us to do things differently. We must be realistic about our ability to compete against commodity producers; the bottom line is that the UK is a relatively high-cost producer of high-quality food. Whereas UK exports in the past might have been about boat loads of cereals or lorry loads of whole or half carcases, the long-term future is more about containers of added-value products. We’re not starting from scratch. The UK’s food and drink exports have been growing and generated some £23.6bn in export sales in 2019, with over 40% of this from non-EU countries.

AHDB’s activity already extends to the international arena, whether that’s ensuring a trade presence for our exporters at global food exhibitions, our international consumer research, or our Country Focus reports. That export focus will become even more critical. Yet, as the two case studies included in this report have highlighted, trade opportunities are seldom quick wins for individual businesses. Reduced tariffs and simplified trade rules all facilitate trade, but building market knowledge, relationships and trust all takes time and commitment. This can mean altering production processes or developing bespoke packaging and product variants. And, even with a trade deal in place, businesses are still likely to have to navigate additional legislative and administrative requirements.

Collectively, this means that trade deals between two countries do not necessarily shift trade flows overnight. In the long run, market access changes will shift our trade dynamics and our trading partners. The extent to which reduced tariffs and other aspects of free trade agreements benefit the UK depends on our ability to proactively deal with the challenges rather than the industry waiting for change to hit.

Phil Bicknell
Market Intelligence Director
AHDB is a statutory levy board, funded by farmers, growers and others in the supply chain. Our purpose is to inspire our farmers, growers and industry to succeed in a rapidly changing world. We equip the industry with easy to use, practical know-how which they can apply straight away to make better decisions and improve their performance. Established in 2008 and classified as a Non-Departmental Public Body, it supports the following industries: meat and livestock (cattle, sheep and pigs) in England; horticulture, milk and potatoes in Great Britain; and cereals and oilseeds in the UK. AHDB’s remit covers 72 per cent of total UK agricultural output. Further information on AHDB can be found at ahdb.org.uk

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