Market Intelligence June 2019



AHDB

Exploring Asia: Understanding consumer needs

# CONTENTS

- 3 Foreword
- 4 Why Asia?
- 13 Meat
- 20 Dairy

豆根保

- 26 Potatoes
- 28 Foodservice
- 30 Key opportunities and considerations

and the second second

CHINA MO

OLYMPUS

PHILIPS

31 Top tips for exporting to Asia

# HORIZON



# FOREWORD

Exports offer a world of opportunities for food and farming here in the UK, whether you're a pork producer or a potato farmer. AHDB understands the importance of overseas trade and plays a key role in identifying lucrative new markets, gaining access for trade to begin and working with our farmers, processors, growers and industry to get the best results possible.

Taking the plunge into exporting can be incredibly daunting – with challenges never faced before. But taking that first step can revolutionise a business as well as support the continued economic growth of a country. In 2018, AHDB played a significant role in supporting the export of around  $\pounds$ 3.36 billion worth of UK red meat, dairy, potatoes, cereals and oilseeds products – bringing a boost to the UK economy as well as the individual businesses involved.

But a key element to exporting is first identifying which markets will bring the greatest rewards. The aim of this report is to provide industry with an in-depth look at the all-important Asian marketplace and learn how to adapt, improve and prepare for the journey ahead.

With 4.5 billion people living in Asia, rising levels of disposable income and a growing appetite for meat, dairy and potatoes, there's an abundance of opportunities for our exporters. However, understanding our consumers in these far-flung corners of the world is imperative if we are to reap the rewards of new market access. The importance of understanding markets was a key factor picked out in an earlier Horizon report on the characteristics of top-performing farms. This remains important both in the domestic market and abroad.

Whether we are looking to send trotters to China, beef to Singapore or dairy products to Japan, we must first gain greater insight into consumer attitudes towards the food they eat, the changing demand for specific products or cuts of meat and how we present our offering in a way that makes us stand out from our competitors. Following on from a series of articles and reports looking at individual countries, AHDB has compiled this report to give exporters the information they need to explore and capitalise on the many possibilities Asia presents.

#### Phil Hadley AHDB International Market Development Director

In the report, we explore key themes and priorities of the marketplace and highlight the need for exporters to focus on the country's unique production characteristics which communicate specific advantages – whether that's superior taste or higher safety. Understanding your key selling points comes from knowing the types of meals consumed by your target audience and their motivations for purchasing. Only then can you ensure that your product has the right on-pack messaging that will appeal to Asian consumers and sell in this competitive market.

We have so many incredible producers and processors in the UK offering high-quality produce that will prove valuable in new markets, we just need the knowledge and confidence to carry out this journey and that's an area where AHDB can be of great help.

#### Antoaneta Becker Food and Drink Sector Lead for the China-Britain Business Council

With its regional diversity, vast consumer base and constantly evolving consumer needs China represents a tantalising opportunity for food exporters of commodities and branded goods alike. Succeeding in the market though requires commitment to understanding its business rules, IP framework and regulatory environment, finding the right Chinese partner and staying on top of all the changes long-term. The China-Britain Business Council can support companies throughout the process of entering the market and growing their business in China (**www.cbbc.org**)



China-Britain Business Council 英中贸易协会

# WHY ASIA?

The lifeblood of the global market is trade. Exporting is not only at the core of any successful business, it is crucial for growing and improving a country's economy. While the UK is a net importer, it also produces great-quality food that has the potential to be well sought after in export markets. The industry is constantly under economic pressure and exporting provides an opportunity for producers to seek the best value for what we produce. For meat it can also help balance domestic cut preference by selling those products that do not have a strong market at home. AHDB understands the importance of export markets and the need to increase the UK's access to nations around the world. But why is there so much focus on Asia for our food and farming exports? It has been recognised that, as a whole, Asia presents many opportunities for UK exporters, but it is not without its challenges. Therefore, it is vital that exporters understand the marketplace if they are to benefit from overseas trade. Asia's 4.5 billion people constitute roughly 60% of the world's population. The region is experiencing extraordinary growth in population as well as affluence, which is expected to continue to accelerate, transforming the region into a consumption powerhouse. The 'tiger' economies of Singapore, Taiwan, Hong Kong and South Korea saw rapid growth in the latter half of the twentieth century and they now have matured markets with wealthy consumers and high spend. China is beginning its transition from an export-orientated economy to one driven by domestic consumption, while the emerging markets of Indonesia, Malaysia, the Philippines, Thailand and Vietnam (the 'tiger cubs') are now growing at around 5% a year.

In 2009, the size of the global middle class was 1.8 billion. This is expected to hit 3.2 billion by 2020 and 4.9 billion by 2030, with the bulk of growth coming from Asia – accounting for 66% of the global middle-class population and 59% of middle-class consumption in 2030 (OECD).

Middle-class growth drives changes in lifestyles and consumption patterns. Citizens who previously looked to food for sustenance increasingly demand meals that satisfy other needs, including convenience, flavour and a desire to try new things. There is a growing appetite for meat products as diets shift to include more animal protein, but cultural differences mean this pattern isn't the same everywhere. For instance, India currently consumes only 3.3 kg of meat per person per year – the lowest per capita consumption in the world. This isn't forecast to change substantially, although dairy consumption is growing steadily. India currently has a protectionist and mostly self-sufficient dairy market, but if, in the future, it participates in trade, the impact would be great, given the size of the market.

#### **Population growth**

According to latest forecasts from the International Monetary Fund\*, India is set to see the largest population growth in absolute terms from 2018 to 2023, increasing by more than 90 million people, to become the most populated nation on earth. China, Indonesia and the Philippines are also set to see substantial growth of over 10 million each. Population growth in the more developed East Asian nations is much less and Japan continues to decline. However, population is just one indicator of market potential and other factors such as income growth and cultural influences may be more important. India has low levels of meat consumption and imports, and so, despite its size, other markets may be more attractive to exporters.



Source: IMF

\*World Economic Outlook database, October 2018

## Urbanisation and ageing population

Asia is home to most of the world's megacities and its rate of urbanisation is the highest in the world at 1.5% a year. By 2030, over half of the Asian population will be living in urban areas, providing numerous opportunities for exports (FAO).

Urbanisation is typically associated with higher standards of living, larger incomes, changing work patterns and new dietary habits. Urban residents have access to a more diverse range of food and shopping channels. Many are time-poor and seek convenience food to fit around their working hours. This means meal-time fragmentation and an increase in snacking, with busy office workers consuming meals on the go. Urban dwellers also use foodservice with higher frequency, particularly in Asia where there are many affordable options and many homes lack full cooking facilities.

Another profound population shift affecting Asia is its ageing demographic. By 2050, over a quarter of people in the Asia-Pacific region will be older than 60 – more than double that of 2016 (UN ESCAP). This is driven by a fall in fertility and a steady increase in life expectancy. The developed economies of South Korea and Japan are already 'aged', while China, which has had population controls for 40 years, also has a burgeoning older generation.



Exporters should think carefully about the age profile of their targeted country. Older consumers may be more inclined to buy food products that feel familiar, while young consumers are more experimental and open to international flavours. When thinking about on-pack health claims, messages around healthy growth may find more traction in countries with young populations while claims about healthy bones and digestive health can resonate more with older people.





Figure 2. Age profile forecasts (2017–2030)

Source: World Bank



## Health

Health is of growing interest to consumers in Asia as affluence and education increase. At the same time, diet-related chronic diseases are on the rise and there is greater focus on the role of food in overall well-being. India and the Philippines appear to have the most health-conscious consumers, with over half surveyed in each country saying that a product's impact on health and well-being always influences their product choice (GlobalData). In countries with low trust in the food system, such as China and Vietnam, safety is a top priority and consumers have concerns about pesticides or chemical contaminants in their food and the effect on their health. Other countries embrace low/free-from claims, functional health benefits or look for certain nutritional profiles. These nutritional profiles can differ from those sought by Western consumers.



#### Figure 3. When choosing food products - how the product impacts my health and well-being

\* Figures do not add up to 100% due to rounding

Source: GlobalData 2018

While in the West we may associate fat with unhealthiness, in many Asian countries it is associated with flavour. Chinese and Japanese consumers have lower levels of fat rejection, and when it comes to meat purchasing, less than a third of Chinese and a quarter of Japanese consumers think that a lean cut of meat is healthier (AHDB/ICM). However, in Japan, we are starting to see a change in attitude among female consumers, who are looking to lamb as a healthier choice of meat.



Rejection of fat appears to be particularly high in Malaysia where 20% of consumers claim to avoid fat entirely and over 60% are trying to limit their intake, with a similar pattern seen in Singapore (GlobalData).

When buying meat products, different countries have different perceptions of what makes meat healthy, as the table below shows.

Consumers in many Asian countries associate health with reputation of a brand and being from a known origin. They want to know where their food comes from and how it was produced, for reasons of trust and a desire to avoid unsafe food.



## Japan – functional health claims

Japan's ageing and health-conscious population is particularly interested in food that has functional benefits, e.g. improving bone strength. Products

containing certain ingredients listed with the Consumer Affairs Agency may be sold with specific health claims under the 'Foods with Function Claims' (FFC) scheme. Dairy is a key category in the functional food sector, particularly yogurt, which commonly has probiotic claims that prove popular with health-conscious older citizens.



#### Singapore – Healthier Choice Symbol (HCS)

Issued by Singapore's Health Promotion Board, the Healthier Choice Symbol can be carried

by products that are healthier than comparable products in the category. There are six claims that can be made: higher in wholegrains, trans-fat free, lower in saturated fat, higher in calcium, lower in sodium or lower in sugar.

Comparative claims must be qualified with a further statement on the product's label, e.g. '25% lower in sugar as compared to regular [range or name of food category]'.

#### Table 1. When shopping for meat products, what makes you think a particular meat product is healthy?

Rank	Japan	China	India	
1	It is from a known origin	It is a brand I trust	It is a good source of protein	
2	It is a brand I trust	It is a good source of protein	It is a brand I trust	
3	It is a good source of protein	It is organic	It is from a known origin	

Source: AHDB/ICM

#### Table 2. When shopping for dairy products, what makes you think a particular dairy product is healthy?

Rank	Japan	China	India	
1	It is a brand I trust	It is a brand I trust	It is a brand I trust	
2	It is from a known origin	It is a good source of protein	Its vitamin content	
3	It is a good source of protein	It is organic	It is organic	

Source: AHDB/ICM

# Food safety

Food safety is a top concern for consumers in many Asian countries, especially those without developed and trusted food-safety systems. Informal production systems, cold chains and ineffective regulations all contribute to higher risks of food spoilage and contamination, while food fraud is widespread. Citizens today are more informed about food-safety scares due to social media and are distrustful of official channels.



There is a low trust in China's food system due to numerous safety scares. One of the most infamous was the 2008 milk scandal which saw the contamination of infant milk formula from one of China's biggest domestic brands. This led to a great deal of mistrust in domestic products and, according to AHDB/ICM research, 82% of Chinese consumers still often worry about the safety of their food. To mitigate risk, they rely on a number of coping methods, such as importing food, especially in categories seen as high risk, such as dairy.

Concerns about the safety of dairy in particular intersect with a perception that dairy is important for children's health. Therefore, it is not unusual for families to purchase more imported food after having their first child, even going so far as to give their child different food to the rest of the family.

After the media reported stories of pig diseases in Vietnam, a large number of consumers (35% in Hanoi) cut out pork entirely from their diet and chose chicken as an alternative meat choice, while others shopped

#### Jonathan Eckley AHDB Head of Asia



From our work in Asia, we have found that meat from the UK has a good reputation, not only for its taste and high quality but also for the food-safety standards we have in the UK. In many regions, the main priority for consumers is the safety of the meat they eat, therefore it's vital that we ensure all measures are in place to maintain our high standards through rigorous inspections and continuous monitoring.

We have seen that in countries such as China issues surrounding disease outbreaks, food contamination and low safety standards are taken incredibly seriously and can lead to countries being banned from exporting to these markets.

at outlets perceived as safer. Food safety is now a key concern in Vietnam and, among the urban middle classes who have the resources to mitigate risk, demand for trustworthy imported food is likely to grow.

While some consumers do not entirely trust the safety systems of modern retailers, these outlets continue to take a greater share of grocery sales. Despite many consumers relying on long-established relationships with trusted market vendors to mitigate food-safety risk and enjoying the lower prices offered by wet markets, growth in modern retailer spend is likely to continue. This is due to consumers working longer hours, increasing numbers of women in the workforce and improved regulations to help shift shoppers towards modern outlets.

Safety-conscious consumers want, and expect, as much information about their food as possible. Adding traceability and transparency to a product's offering can help to allay fears and encourage cautious shoppers. Rather than being squeamish or disinterested in production systems, consumers are interested in the story from farm to fork. Brands and retailers across Asia are responding to this desire, embracing technology both new and old, to deliver transparency to their customers.

# Quick response (QR) codes – used on packaging and in-store displays

- Consumers scan codes to get more information on a product
- Information typically includes nutritional content, recipe ideas and origin. For meat, date and location of slaughtering may be included
- Thai chain Tesco Lotus uses QR codes on 80% of its fruit, veg and meat

## Popular dishes and shopping habits to consider in Asia

Unlike consumers in the West who tend to buy food infrequently and store it in refrigerators or freezers, in many Asian countries consumers buy fresh food on a daily basis. This behaviour may be out of necessity, due to a lack of refrigeration and storage in the home, but it can persist even in high-income countries such as Japan, where over a quarter of grocery spend still happens in traditional markets (IGD Asia). Understanding and reviewing popular dishes across Asia can help exporters gain valuable insight into which cuts or ingredients are in high demand in each country. The visual below picks out some examples of dishes across the region. Exporters operating in focused areas of Asia may benefit from doing a deep dive into the eating habits of consumers within their category.



#### China

Western-style bakeries are now commonplace across Chinese cities, creating demand for butter, cream and cream cheese in foodservice.



#### Japan

Beef skirt and brisket are in demand in Japan, used in a variety of dishes such as gyudon - beef simmered in mirin and served over rice. Beef tongue is a prized cut that commands high prices.



#### Philippines Kare-kare is a th

Kare-kare is a thick, savoury peanut stew made with oxtail. It often includes other offal cuts such as calves' feet, tripe and pigs' feet.



#### Malaysia

Mutton curry is popular in Malaysia, with bone-in cuts simmered in coconut milk, shrimp paste and warm spices. Malaysia is an important market for sheep meat; imports make up over 90% of sheep meat consumption, but halal certification is important as a majority of the population is Muslim. Certification is through the Department of Islamic Development Malaysia (JAKIM).



#### Vietnam

Bún bò Huế is a popular noodle dish in Vietnam. It consists of vermicelli noodles in a deep, spicy broth made with shrimp paste, lemongrass, beef bones and beef shank. Beef is growing in popularity and consumed in traditional dishes as well as steakhouses which are popular amongst wealthy urbanites who pay more for imported meat which is perceived as safer and better quality.

## Market access

The table outlined below shows where the UK is able to export product. Access for red meat has increased over the past 2 years with the UK now able to export beef to the Philippines and Japan, as well as pork to Taiwan. China lifted its ban on British beef exports last year, a vital first step in unlocking this major market. The UK is currently working to further open Asian markets for red meat products. In addition, access for seed potatoes to China has recently been secured. Market access for dairy and crisps is also in place for UK exporters. The Government and UK business will be working hard for this to remain the case in a post-Brexit environment.

Brexit has created short term uncertainty around UK trade arrangements after the UK leaves the EU. The UK currently benefits from trade deals negotiated by the EU with third countries such as Japan and South Korea, which have reduced tariffs on certain goods imported

from EU members. Once the UK leaves the EU, it will revert to default tariffs which are less favourable – unless comparable trade agreements can be negotiated. However, there is some uncertainty around what arrangements will be in place at the point of Brexit as often agreements cannot be concluded until after the UK has left the EU.

UK trade with most countries in Asia Pacific is not through preferential trade agreements, though technical export certificates or licences are still required. Most of these have been put in place on a bilateral basis between the UK and third countries, rather than via the EU. However, the certificates usually reference EU rules and regulation which means they require updating for the post-Brexit situation. AHDB understands that discussions have been ongoing with third countries around this and disruption is not expected.

#### Table 3. Market access

	Access for						
	Beef	Sheep	Pork	Dairy	Seed potatoes	Ware potatoes	
China			1	<ul> <li>✓</li> </ul>	1		
Hong Kong	1	1	1	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>		
India		✓	1	<ul> <li>✓</li> </ul>			
Indonesia				<ul> <li>Image: A second s</li></ul>	1	✓	
Japan	1	1	1	<ul> <li>✓</li> </ul>			
Malaysia			1	<ul> <li>✓</li> </ul>	<ul> <li>Image: A set of the set of the</li></ul>	<ul> <li>✓</li> </ul>	
Philippines	1	1	1	<ul> <li>✓</li> </ul>	<ul> <li>Image: A start of the start of</li></ul>	✓	
S Korea			1	<ul> <li>✓</li> </ul>			
Singapore	1	1	1	<ul> <li>✓</li> </ul>	<ul> <li>Image: A set of the set of the</li></ul>	✓	
Sri Lanka				<ul> <li>Image: A set of the set of the</li></ul>			
Taiwan			1	<ul> <li>Image: A set of the set of the</li></ul>			
Thailand	1	1		<ul> <li>Image: A second s</li></ul>	<ul> <li>Image: A second s</li></ul>	$\checkmark$	
Vietnam				<ul> <li>Image: A second s</li></ul>			
Source: www.ukecp.com, AHDB, Defra							
Access Case by cas	Access Case by case basis						

# MEAT

Asia's growing appetite for meat, driven by wealth and urbanisation, offers a significant opportunity for UK exporters and will continue to do so for the foreseeable future.

According to GlobalData, Asia-Pacific is the largest market for meat in the world, valued at US\$288.1 billion, which was a 30% share of the global value sales in 2018. This is expected to continue growing at a compound annual growth rate (CAGR) of 2.2% from 2018–2023, with beef, sheep meat and pork all featuring at the dinner table to varying degrees across different countries. Asia's rapidly growing middle class is fuelling the increase in protein consumption, with markets such as China and Hong Kong key to current demand and future growth.

Looking across Asia-Pacific, China accounts for the largest share of sales, representing 73% of the value share during 2018. This was driven by a rise in disposable income and an increased appetite for meat.

While the size of China makes it an attractive option, it is Hong Kong that is expected to record the strongest growth rates leading up to 2023. This predicted rise in demand is being driven by a strong desire for high-quality meat, despite a backdrop of rising prices. The developed economies of Japan and South Korea are expected to decline in volume and value up to 2023, according to GlobalData. In China, popular beef cuts include brisket, shin and silverside





#### Figure 4. Value and volume growth analysis (in relative terms)\*, by country, 2018-2023

Size of bubble represents market value in US\$ 2018

Source: GlobalData Growth Forecast 2018–2023

# Freshness and food safety

Consumers in Asia make a strong association between freshness of a product and quality. For instance, AHDB/ICM 2017 research conducted in Japan showed that when consumers were asked how they judge the quality of meat, 52% ranked 'expiration date' amongst the top three options – which was broadly in line with the score for food safety (51%).

Grocery retail in Asia is highly fragmented. Exact quantities sold through the wet market are hard to calculate as outlets tend to be made up of smaller independent businesses and data collection is limited. In China, IGD Asia reports that the top 10 retailers account for less than 6% of the market. When it comes to freshness, many consumers in Asia like to buy their meat from wet markets, preferring meat that has not been chilled or frozen and is typically fresh from the farm that day. For fifth quarter products, wet markets provide a key outlet. However, the key channel for premium imported cuts is modern retailers, where shoppers are more accustomed to chilled or frozen meat.

The better option for exporters is to focus on in-store opportunities. Shopping behaviour very much links back to production and the in-store environment heavily pulls upon this message to create a feeling of freshness and inform the consumer about how the product has been produced.

#### Susan Stewart AHDB Export Manager



In Japan, fresh, chilled meat is typically seen as more premium than frozen. Currently, the fixture is made up of a mixture of domestic product alongside some imported products. For instance, I was told by Canada Pork that America and Canada both supply fresh pork with a 55-day shelf life.

Currently, British exports typically enter as a frozen product. This creates the challenge of overcoming the predisposed perception consumers may have about frozen meat. It's not to say frozen can't be a premium product, but it needs to strongly communicate its 'freshness and quality' to Japanese shoppers.



AHDB Export visit - Hong Kong - Fresh meat stand

#### Freshness – quick to store – China example

To adapt to consumers' desire to buy safe fresh products, the in-store meat fixture can often look very different to the domestic market. Retailers will often have whole cuts on display in a very raw fashion. This allows retailers to offer meat to those consumers seeking freshness in a different way to pre-packed products.

## Freshness – pre-packed communication – China example

Strong in-store activation communicating freshness is evident in Shanghai in the Hema Fresh store. Clear signposting shows consumers which day products have been packaged – with point of sale pointing back to the day of the week. The picture (right) captures the layout on a Monday morning and shows a clear '1' and colour coding to outline the day of the week; this gives consumers a clear indication of how fresh the products are.



Meat counter, China Hema Fresh store Shanghai

Pork consumption in Taiwan is high, at around 40 kg per capita

## Meat category forecast to 2023

Fresh meat in Asia-Pacific is as popular as ever and in 2018, according to GlobalData, fresh meat sold over the counter had the largest market share in terms of both volume and value. While they are smaller segments, the highest forecast volume growth to 2023 comes from ambient meat. Frozen meat is expected to register the highest value growth. Ambient meat covers all shelf-stable meat products, i.e. tinned meat in cans and meat in jars. It excludes cured and 'chilled raw packaged meat – processed', such as salami and chorizo.

As a way of comparison, in 2018 the largest category in value terms in the Western Europe meat sector was 'chilled raw packaged – whole cuts'. GlobalData also forecasts growth for time-saving formats such as marinated portions.

The fresh meat counter in store can offer great opportunities to showcase cuts. It can also open interaction between shoppers and staff members to talk about the quality aspect of the products.



Figure 5. Meat format – Value and volume growth analysis by market in Asia-Pacific (2018–2023) Size of bubble represents market value in US\$ 2018 Source: GlobalData



Great Food Hall - Hong Kong - over-the-counter meats

Whole cuts remain popular with shoppers, but shoppers are also seeing good ranging of thin sliced meat in China and Hong Kong. At fixture, there is strong communication/inspiration on dishes in which the meat can be used – in this example the 'hot pot'.



Yata food store, Hong Kong. Strong ranging of US thin sliced meats destined for the hot pot.

The hot pot offers consumers a communal eating experience and is the most popular type of foodservice restaurant in China. The meal is served with a large bowl of broth that is heated. Typical ingredients include raw vegetables or thinly sliced meats. Food is submerged into the broth to cook before eating. This is quite a contrast to our UK perceptions of a traditional hotpot. An example of how a dish can mean many things in different cultures and the suitability of the meat may differ significantly between the UK and Asia.

In Asia, the types of cured/dried meats eaten differs greatly to those consumed in the West. For example, ready-to-eat delicacies like crunchy braised pigs' ears are popular in China but are not a top seller in the UK. The category lends itself to more specialist charcuterie cured meat such as salami and chorizo. Another example of Chinese charcuterie is 'la chang', dried pork sausages. These cured meats, when sliced and steamed, have a distinctive chewy texture, which is enjoyed by Chinese consumers.

Exploring the ambient meat and cured/dried-meat categories presents the UK with longer-term opportunities but also brings a number of challenges. The type of cured/dried meats in Asia differs greatly to domestic production and is typically still quite a niche operation in the UK. The supply chain does have limited domestic production, but a great deal is outside of the UK. Whole carcasses (which are usually cull sows) are exported to Germany (89%) and Belgium (7%), where they are processed and utilised in the cured-meat categories. (HMRC, 2018).

South Korea is a small consumer of lamb with demand for shoulder, breast and flaps, but demand is growing

## Labelling and on-pack logo

Understanding how your products sit on shelf in relation to your competitors is critical. Seeing how other countries are communicating with consumers offers both an opportunity to ensure your product stands out from the crowd and guarantees that you convey the right messages to potential shoppers.

Looking at Asia's meat packaging on both domestically produced and imported products, it is clear that food safety and quality is fundamental. However, it is also clear that on-pack messaging for UK meat products could go even further in ensuring the right communication to the end consumer.

There is no escaping the logistical challenges to exporting and it is important to recognise a large amount of meat exports destined for Asia are packaged outside of the UK. This leads the industry to ask itself where does the responsibility and power lie in getting the right messages on-pack? One of the biggest challenges our exporters face is providing clear messages about UK product, highlighting our uniqueness to the unaware consumer – whether it be grass-fed, hormone-free or high animal welfare. Shelf space for imported products is also highly competitive – which means the UK is competing against other big importers not only to gain space but to also achieve strong standout messages that increase sales.

Therefore, with Asian consumers looking for more information about the food they eat, it is imperative the UK food supply chain ensures the right messages are visible on-pack to ensure they are in a strong position to compete with the powerhouses of the meat world.

There are distinctive differences between in-store fixtures in Asia and the UK market. Asian consumers prefer much greater transparency and it's not uncommon to see quite graphic imagery used at point of sale, to highlight hygienic and trustworthy slaughter and processing. An example from China can be seen below.



Hema Store – Shanghai, Nov 2018

#### Meat category consumption by country

Pork is the most widely consumed meat in Asia, particularly in East Asia (Figure 6). We expect this to continue to rise, with Vietnam being a key growth market. However, there may be lower levels of consumption in areas with a high Muslim population due to religious beliefs. For comparison, pork consumption across the EU is around 32 kg per capita per year, while US residents consume around 23 kg a year (OECD-FAO).

Beef consumption varies markedly across Asia, with consumption levels highest in Hong Kong, South Korea, Vietnam and Japan (Figure 7). Consumption is much lower in South Asia, partly due to religious factors. Per capita beef consumption is forecast to grow in most Asian countries, linked to urbanisation and growing wealth. For comparison, beef consumption across the EU is around 11 kg per capita per year, while US residents consume around 26 kg a year (OECD-FAO).

Sheep meat consumption is generally low across Asia (Figure 8). China has some of the highest consumption, although this is focused in the northern regions. Traditionally, sheep meat was more likely to be consumed here, especially during the colder months, due to a belief that it generated internal heat. However, consumption has been rising in the warmer coastal regions as wealthier consumers look to diversify their diets and are more likely to be able to afford it. It is estimated that around 65% of all sheep meat in China is consumed outside of the home. according to the US Meat Export Federation (USMEF). Hong Kong and Singapore have consumption at circa 2 kg per capita per annum, driven by high-end retail and foodservice sector. For comparison, sheep meat consumption across the EU is around 2 kg per capita per year, while US residents consume around 0.5 kg a year (OECD-FAO).

Other countries with higher levels of sheep meat consumption include Malaysia, the Philippines, India and Indonesia, although consumption is only circa 0.5–1.0 kg per capita per annum. The rise in consumption across Asia is expected to be low. However, it is predicted that China will be one of the higher growth markets.

Offal consumption is high in East and Southeast Asian countries, particularly in China, with tendons, tripe, intestines and tongue being prized products.

Bone-in products are also more popular in Asia, with fat-on meat linked to flavour. The popularity of cuts in Asia differs quite significantly from those which are commonly eaten in the UK – for example, there is a great demand for fifth quarter products and other bone-in products such as trotters.

Asia's growth forecast and size may be hugely attractive, but exporters need to accept the needs are very different and, typically, higher-volume cuts (steak/roasting joints) are not in great demand in Asia.



# Figure 6. Per capita pork consumption Source: OECD-FAO, Singapore government. Note: Hong Kong, Taiwan and Sri Lanka data 2013, Singapore 2015 2017 2027







# DAIRY

The Asia-Pacific region represents one of the biggest global opportunities for dairy products. In 2015, the region overtook Western Europe as the leading consumer of dairy products for the first time. This growth has been fuelled by an exploding population, greater affluence but also a recognition of the superlative nutrition and health benefits offered by dairy products. In 2017, the global dairy and soy food sector was valued at US\$426.6 billion.

Currently, per capita spending on dairy products is low so there is much headroom for growth. Additionally, dairy production for the market size is low (and declining in some markets such as Japan and Korea), so there are opportunities for exporters. The dairy and soy market is forecast to record a CAGR of 4.4% over 2017–2022 to reach US\$528.1 billion by 2022.



Figure 9. Putting Asia-Pacific in global context, 2012–2017 Bubble size indicates market size in US\$ million in 2017 Source: GlobalData Dairy and Soy Global Report, 2017

Milk is the largest category in the Asia-Pacific dairy and soy food sector, followed by drinkable yogurt and cheese. The milk category was valued at US\$61.5 billion in 2017, while drinkable yogurt and cheese were valued at US\$19.2 billion and US\$9 billion, respectively. Drinkable yogurt is the fastest-growing category, with value sales expected to grow at a CAGR of 12.1% during 2017–2022. GlobalData does include soy in its wider categorisation of the market. In Asia-Pacific the value of soy milk & soy drinks was valued at US\$6.5 billion in 2017, with value sales forecasted to grow at a CAGR of 6.6% over 2017–2022.



Fresh milk is a relatively small category compared with the West and so flavoured milks, milk powders and UHT milks may hold more opportunity. In Tier 2 cities<sup>1</sup> in China and developing markets such as the Philippines and Indonesia, a lack of universal cold-chain facilities means that ambient and UHT products could gain more traction. Irish brand Kerrygold has based its Chinese strategy on gaining traction in the premium liquid milk market. To do that, the company developed a brand, Jin Kai Li, uniquely for the Chinese market. According to Jeanne Kelly from the Irish Dairy Board, "Jin represents treasure and gold; kai – is a song of triumph and happiness; and li – means quality and premium advantage. They are three words that are commonly used in the Chinese language that, all together, represent premium and quality." Kerrygold has focused on small 250 ml pack sizes, in line with how the product is consumed in China. This highlights the importance of utilising strong consumer insight before launching a product.



The Asian marketplace has become a key target for dairy exports and it's imperative that we increase our presence in this region to grow our shipments and add value to the UK sector.

We are seeing cheese consumption increasing and quality is at the forefront of consumers' minds. But we've discovered that while buyers are interested in the provenance of a product, it's not enough just to say where it's from. Quality messaging is an important driver in purchasing behaviour. Consumers also want to know the story behind a product, they want imagery to reflect what they are enjoying – pictures of green pastures on-pack will go a long way to ensuring success in these markets.

Chinese cities are unofficially classified into tiers, according to their level of development and economic output: Tier 1 (Beijing, Shanghai, Guangzhou and Shenzhen), Tier 2 (such as Chengdu and Hangzhou) and Tier 3 cities (such as Wenzhou and Zhangzhou). See AHDB Country Focus Report on China for more information.

#### Francky David Global Consumer & HCP Insights Manager Nestlé

#### Case study: Nestlé consumer packaging research – Chinese baby food market

Our research shows that Chinese consumers trust European milk more than domestically produced brands, which is why most of our Wyeth products destined for China are produced at our Askeaton factory in Ireland. We recognise the importance of researching our export market, understanding consumer needs and packaging our products in a way that conveys the right messaging. We undertake extensive consumer research into any new packaging designs for our products, to ensure it communicates our key goals.

It's essential that our products appeal to our target audience, therefore we involve consumers from our chosen market before making any changes to our branding. One example is a packaging test we ran with MetrixLab for our Wyeth product range. We tested three creative routes and examined how the new packaging would look on shelf. The designs were then shown to our target market and designs were adjusted along with the key messages. The adjusted packaging scored well with consumers, with consideration jumping from 69% to 78% on the new designs. Following the research, we successfully relaunched in Hong Kong during quarter four of 2018.

Top 3 boxes	Before 69	After 78↑
It would be my only choice	14	15
l would consider it among 2 or 3 brands	27	34
l consider it among many brands	28	29
I might consider it	30	22

Figure 10. Brand consideration



For Nestlé, it's important that our consumers make the strong link back to the quality and safety standards of the products we produce. We know that food safety and quality is a top priority in China and our past adverts have worked hard to communicate the link back to production in Ireland, where we benefit from wonders of nature and green fields for cows for great-quality milk and where we follow the strict standard of Ireland food-safety regulation and tight infant nutrition regulation to provide safe products for mothers and their children.





## Key consumer themes for dairy in Asia

#### Safety

As with other categories, food safety is a big concern in many parts of Asia. In China, for example, 82% of consumers worry that food products might not be safe to eat. The 2008 baby milk scandal in China, where products were contaminated with melamine, leading to the deaths of six infants, eroded trust in the food industry. Consequently, 91% of Chinese and 94% of Indian consumers say they are willing to pay a premium for products that achieve safety standards. (TÜV SÜD Safety Gauge Food Segment Report 2016)



# Figure 11. 'I often worry that food products might not be safe to eat'

Source: AHDB/ICM November 2017

Tight regulation of production in the UK presents an opportunity to deliver products with messages around food safety. Claims such as organic, pasture-raised or antibiotic/hormone-free that are telegraphic of food safety could be used on-pack to appeal to Asian consumers. Seoul Milk in South Korea have relabelled their milk to show the bacterial and somatic cell count of the product.

#### Healthy lifestyle

Health claims such as 'reduced fat', 'lactose-free', 'probiotic', and 'fortified with calcium' are very popular in the region. Demand for products with 'all natural' claims are also on the rise as consumers perceive natural and organic products to be of better quality. Functional products with clear health benefits, such as probiotics with digestive support, are growing in popularity.

Consequently, manufacturers are expected to fortify dairy products with additional vitamin D (according to GlobalData, particularly relevant in Indonesia where wearing the hijab may limit the amount of sun female consumers can get naturally), calcium, and omega-3 fatty acids which are known to reduce the risk of heart disease. In the coming years, the Asia-Pacific region will witness more products such as the Megumi range of functional yogurts offered by Megmilk Snow Brand Co., Ltd.

Yili's Ambrosial is a good example of the type of product that performs strongly in the Chinese market and has been successful in other Asian markets. It is a drinking yogurt in an ambient format, which avoids coldchain issues, with flavours designed to appeal to the Chinese consumer. It offers a 35%-extra-protein claim. According to Yili, sale revenue in year one was worth 1 billion euros, rising to 1.4 billion euros in year two.

#### Demographic change

In more developing markets, such as Indonesia, the Philippines and India, the population tends to be younger. In more established economies, such as Japan and South Korea, the population is ageing. Where there are higher proportions of older people, products that deliver benefits such as bone strength, digestive and heart health may find more traction. Where the population is younger, then reproductive health, supporting breastfeeding and nutrition for children may be a bigger opportunity. It's important to remember that all markets will still have older and younger consumers so there will be opportunities across the board.

#### Children

Dairy products have been identified in Asia as being particularly good for growing children, offering benefits in delivering nutrients such as protein as well as calcium. Indeed, in China, young children and older consumers are the key age cohorts in terms of dairy consumption.

In South Korea, milk has been marketed as flavoured or used fun characters to encourage use. Snacking formats such as string cheese and cheese cubes and slices are also appealing to children.

> Chinese parents buy child-specific yogurt and milk

Around

## Localisation: Asian flavours

Exporters need to bear in mind which flavours may be popular locally as they may be very different from those in the West. Flavourings available in milk in Korea, for example, include melon, avocado and honey.



Okinawan sweet potato ice cream



Charcoal vanilla ice cream

Similarly, in ice cream and desserts, different flavours may prove to be popular in Asian markets. Instagramfriendly activated charcoal ice cream and flavours like matcha green tea, charcoal or roasted tea are available. Sweet potato, usually the purple variety, is also a popular flavouring for ice creams and desserts.

In China, 68% of respondents state that they 'very often'/'sometimes' try new or different varieties of yogurt, according to GlobalData, so there is clear scope to provide more unusual flavours. Yogurts including botanical flavourings have been launched in response to this need for novelty to stand out. Therefore, undertaking market research into prospective flavours and product concepts with target audiences in the market may prove to be a valuable exercise.

7-Eleven Malaysia has unveiled a range of soft-serve ice creams including Ebonylla, a charcoal vanilla. Also in Malaysia, FamilyMart have launched a Christmas-edition sofuto that includes a Japanese roasted tea flavour.

## Product/packaging formats

As a preserved product that travels better than some dairy products, cheese is an obvious choice for exporters. However, cheese can also represent more of a challenge in Asia, where the flavours are unfamiliar and consumers need help to understand usage occasions. Despite this, cheese is becoming a more popular flavour and can be used in some innovative product combinations we may not expect in the West.

Novel innovations we have spotted include cheese balls, cheese-flavoured fishcakes, cheesy ramen noodle soups, cup pizza, sausage stick with cheese and even cheese-flavoured rice wine.

## **Host foods**

With a growing demand for pizza and burgers in the Asian foodservice, packaged cheese such as mozzarella is proving very popular, as well as cheese slices. There may be further opportunity in designing packaging formats to appeal to children or delivering new product development in cheese with an Asian twist.

Flavours on pizza range from more traditional to something that is very uniquely Asian. In Korea, for example, during the World Cup in Brazil, Domino's unleashed the 'Churrasco Cheese Roll Pizza', a Brazilian barbecue and *pão de queijo* fusion, with a topping of beef and vegetables, encircled in glazed cheese rolls.

Also in Korea, Pizza Hut's autumn release included the 'Star Edge' pizza crust, stuffed with a sweet cinnamon apple nut or cranberry-flavoured cream cheese, and a surf-and-turf topping of sausage, shrimp, calamari, bacon, steak, and broccoli. It is not unusual for toppings to include ingredients like snails, cheesecake and sausage – sometimes on the same pizza. Korean flavours are worth keeping an eye on, since innovation here often spreads more widely to the rest of Asia.

## Cheese types

More affluent markets like Korea and Japan, where cheese is more established, are more open to trying stronger flavours, such as blue cheese, stronger Cheddars, etc. In markets that are as yet less familiar with cheese flavours, such as China, creamier and milder cheese, such as mozzarella, mascarpone and other cream cheeses, are more commonly used. Focusing on the sensory elements such as creamy flavour or on the melting and stretching attributes of mozzarella adds to the overall product experience and can be a unique selling point.

## Dairy drinks and cream cheese

Much like in the UK, there is a growing opportunity in dairy drinks in foodservice and retail and new formats including chilled coffee and tea are becoming popular. According to the New Zealand Herald, Chinese teahouses serve up to as many as 200 million dairy drinks a year. Some of these teahouses in large cities in China are so popular that consumers will queue for hours to get in.

Popular drinks that are unfamiliar in the West include bubble tea, a fruit or milk tea served iced or hot with pearls of tapioca, and tea macchiato or cheese tea, which is a black or fruit tea with a topping of whipped cream and cream cheese. Demand for the latter has fuelled growth in the cream cheese category, which is now worth 23% of Chinese cheese imports, according to Bord Bia. New Zealand operator Fonterra has promoted its product on the basis of being pasture-raised, the flavour and texture of which particularly lends itself for use in these tea toppings.

A consumer insights report called 'Dairy, The Value-Added Ingredient/Flavour' by Ipsos in 2017 found that integrating dairy with beverages leads to a 29% improvement in image of the brand and a 34% increase in desire to buy. Vietnamese iced coffee or cà phê sữa đá, made with sweetened condensed milk, or sometimes including yogurt or egg, is popular in Vietnam and beyond and is another example of the popularity of dairy-based drinks in the Asian region.



#### Challenges and further opportunities

According to secondary research, around 30% of children in China are lactose intolerant, and 92.3% of adults in China suffer from some level of lactose malabsorption (GlobalData). Growing recognition of the health benefits of dairy in the diet provides an opportunity for dairy producers to launch new and diverse lactose-free product ranges.

There has also been marketing of A2 milk in the region, made from cows that lack the A1 protein which can be problematic for some people and leads to dairy intolerance.

Free-from dairy alternatives, as in the rest of the world, are fast-growing in Asia and being naturally lactose-free may find it easier to gain traction than elsewhere.



# POTATOES

Across Asia, diets are shifting from fresh table potatoes to processed products. Domestic processing capacity and production of processing potato varieties is often insufficient to meet this growing demand, leaving many countries reliant on imported products. Frozen potato products are in hot demand in regions where Western-style fast-food restaurants are becoming more common. Snacking products are in growth across the region, driven by busy, urban workers, consuming on the go.

# Frozen

Foodservice is driving demand for frozen potato products, with French fries becoming more popular with customers who have increasingly westernised diets.

Japan imports the highest amount of frozen potato products in the region, shipping 354 thousand tonnes in 2018, nearly all of which were French fries. Most of the domestic potato supply is consumed as table potatoes, with only 1% going into the production of French fries. The USA supplies the bulk of frozen French fry imports, but under the new EU–Japan trade deal, tariffs will be slowly reduced to zero over the next four years, making EU exports more competitive. Post-Brexit, the UK has an opportunity to discuss access rights but should be aware of these types of existing EU trade deals.

China and South Korea have also seen strong growth in the import of frozen potato products as consumption expands beyond quick service restaurants (QSR) to become more mainstream. In China, most QSR outlets serve Chinese cuisine (75%), but American is the second most popular cuisine type (13%) (GlobalData).

# Snacking

Longer working hours and rising disposable incomes are expected to drive growth in savoury snacking across Asia. India is a key market, with growing incomes and a cultural tradition of snacking between meals. The Indian savoury snacking market is forecast to record a volume CAGR of 9.7% from 2017–2022 (GlobalData). Ethnic/traditional snacks take half of the value share in India, but potato chips make up 34% and processed snacks 11%.

Across the Asia-Pacific region, potato crisps were worth \$6.2 billion (USD) in 2017 and are forecast to grow to \$10 billion by 2022, with India, China and Japan expected to contribute the most to growth.

Flavours tend to reflect local cuisine – cheese and onion is unlikely to get Asian hearts racing. Spicy masala flavours are popular in India, while in Japan, seafood flavours are very common, including squid, seaweed and shrimp. Asian consumers also show a greater propensity for experimentation in their crisp



Value CAGR, 2017-2022

Figure 12. Value and volume growth analysis by country in Asia-Pacific (2017–2022) Size of bubble represents market value in US\$ 2017

flavours – some more unusual seasonings include mint (India), cucumber, blueberry (both China), pickled plum (Japan) and Cola (Korea).

In 2014, Haitai-Calbee released a honey butter chip to the Korean market, which caused near hysteria when it went viral through social media, with consumers praising its sweet and buttery flavour. Shortages led to long queues and bags being resold online for vastly inflated prices. Imitations soon followed and honey butter flavouring spread to other sectors, with McDonald's introducing honey butter French fries in 2015. Food fads are now a feature of the Asian food scene with trends travelling across borders via social media.





Asia is a market which holds great potential for our potato industry. In August last year, Liam Fox signed our plant health agreement for seed potato exports to China – opening up many opportunities for our growers in the UK.

We are also seeing increased demand for frozen potato products and savoury snacks, but it's vital that our producers in the UK have a greater understanding of consumer choice if they are to benefit from this growth in demand. We must ensure our products appeal to the target audience and are packaged in a way that conveys the right messages to the consumer.



# FOODSERVICE

Below is a summary of key consumer trends in the Asian foodservice market. These trends will permeate almost all channels and are the most relevant explanations of consumer behaviour in the China foodservice market.

#### Past 2010–2016

#### 'One size fits all' model applied to foodservice channels

Global chain operators treating the Australian market as an extension of the US/Europe.

#### Trust in operators

Consumers showing trust that foodservice operators know what's best for them.

#### **Clear channel boundaries**

Operators unwilling to venture beyond their core target audiences.

#### Indulgence over health

Consumers viewing out-of-home meal occasions as purely indulgent. View home cooking as healthy.

# Future

#### 'Laboratory' QSR market

Operators continuously introducing experimental and innovative products to differentiate from each other.

#### Widespread Individualism

Consumers displaying more complex and personal desires in regards to their food choices.

#### Ultra-premiumisation

Channels attempting to become genuine substitutions for FSR meal occasions.

#### 'Conversation culture'

Presentation of food and concepts revolving around sharing and talking about food experiences online.

#### Materialisation of healthy-eating trend

Smaller attitude-behaviour gap in comparison with other countries.





# \*\*% of surveyed consumers who visited an FSR in the previous week

Question: Which cuisine would you like to have more of when eating out? (choose all that apply)



#### Table 4. Foodservice: how it compares in Asia

Area	Current sales (USD\$ million) 2017	Forecast sales (USD\$ million) 2022	Growth rate (CAGR)	
China	603,427.93	767,991.87	27.3	
Japan	271,966.50	290,063.32	6.7	
Hong Kong	17,594.46	20,328.69	15.5	
Singapore	9,277.57	11,485.67	23.8	

#### Table 5. Foodservice category context

Key foodservice 2017 Volumes (000s tonnes) and growth rate forecasted from 2017–2022						
Area	Pork + 9.2%		Beef + 12.2%		Lamb + 13.7%	
China	7,225	+9.9%	854.5	+12.7%	434	+13.8%
Japan	567.5	+1.7%	216	+0.6%	4	+1.5%
Hong Kong	78.5	+8.1%	28	+77.2%	1.5	+23.8%
Singapore	16.5	+7.8%	6.5	+7.4%	1	+9.6%

# McDonald's makes hygiene and transparency key components of its dining experience

McDonald's Japan began strengthening its information disclosure and quality audits and controls for the country of origin and destination of food in 2014.

The company updated its website to enable customers to trace which farm their food originates from<sup>1</sup>. Scannable QR codes printed on wrappers and boxes allow consumers to easily access the official app or website for information on nutritional ingredients and allergens in food – a move that may attract the 35% of Japanese consumers who find on-package information that allows them to see where a product was made a very appealing concept in food and drinks<sup>2</sup>.

<sup>1</sup> Independent, September 2017

<sup>2</sup> GlobalData 2017, Q1 global consumer survey

# **KEY OPPORTUNITIES AND CONSIDERATIONS**

Asia is a vast and diverse region, offering a multitude of opportunities for British dairy, meat and potato producers, manufacturers and exporters. However, in order to get the most out of these opportunities, local knowledge is key and will pay dividends on gaining traction for the products in question.

#### **Key themes**

#### Focus on product quality and food safety

This is a critical area for consumers – how exporters communicate this to end consumers in Asia is vital. Relying on the country of origin to solely do this job doesn't suffice. Giving consumers more details and the ability to know the backstory creates stronger engagement from shoppers.

Other markets, such as New Zealand and Ireland, have focused on unique production attributes such as purity and pasture-raised that convey a specific taste benefit for the consumer and that also convey safety or superior flavour and texture.

#### Localisation is key

There is scope to manufacture products that are specifically developed for Asian palates and flavours. Spending time immersed in local markets, partnering with local companies and conducting marketing research in key markets of interest are key to success here. Understanding the types of meals your target audience eats and how they consume your products helps give the context of key selling points. For instance, within the meat categories a lot of consumers look at the fat levels to provide taste/flavour. Within dairy, it might help to unlock new flavour variants which are growing in popularity.

#### Novel formats and packaging

The breadth of uses and packaging in Asia demonstrates how manufacturers need to think beyond traditional, heritage products to unlock more opportunities.

Exporters need to look at what others are doing. For instance, within the meat category British products have less on-pack messaging around key issues such as safety and quality compared with other imported products. There is a danger that absence of these messages will lead to consumers not absorbing key selling points of your products.



# TOP TIPS FOR EXPORTING TO ASIA

Jonathan Eckley AHDB Head of Asia



#### Check health certification

Make sure you check all health certification to enable you to export to Asia. You can check these by visiting **www.ukecp.com** – make sure you familiarise yourself with the technical requirements of specific certifications.

#### Experience the market

One way to really know your chosen country is to visit the destination. AHDB trade shows in the Asia-Pacific region are a great platform to get an idea of the market, meet with influencers and showcase your offering. Meeting and maintaining relationships with partners is key to business in the region.

#### Understand your product's local fit

It's vital that you understand the key selling points of your product and the attributes it has which make it appealing in the Asian marketplace.

## Labelling and packaging

It's imperative that you ensure all of your key selling points and product specification meet technical and customer requirements. Ensure you put all of your products attributes on the labelling and package it to appeal to the Asian consumer. Talk to AHDB's export team or industry partners if you would like further guidance.

#### **Realistic timeframes**

Remember that good things come to those who wait. It takes time to build a successful overseas business, so be patient and take the time to build your relationships.

#### Health and functional benefits

As markets in Asia develop and become increasingly middle class and urban, the focus shifts away from basic nutrition towards products that promise better health to combat the diseases of ageing. Products promising functional health benefits such as digestive health, heart health or fortified foods are likely to find a market.

#### Own your premium

Inevitably, goods transported halfway across the world will need to sell at a premium to local equivalents to cover transportation costs. In order to succeed, the premium needs to be justified. Unique selling points may be around safety, provenance, depth of flavour, heritage – the list could be endless, but exporters need to work out how best to communicate these benefits to consumers and tell the brand story of your product in a way that is both relevant and compelling.



# AHDB TEAM



**Steven Evans** Consumer Insight Manager steven.evans@ahdb.org.uk 024 7647 8843



Susie Stannard Senior Consumer Insight Analyst susie.stannard@ahdb.org.uk 024 7647 8711



Zoe Avison Retail Insight Analyst zoe.avison@ahdb.org.uk 024 7647 8811

#### Produced for you by:

#### AHDB

Stoneleigh Park Kenilworth Warwickshire CV8 2TL

#### **T** 024 7669 2051

E comms@ahdb.org.ukW ahdb.org.uk

🎔 @TheAHDB

If you no longer wish to receive this information, please email us on comms@ahdb.org.uk

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 straightaway 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% of total UK agricultural output. Further information on AHDB can be found at **www.ahdb.org.uk** 

All other trademarks, logos and brand names contained in this publication are the trademarks of their respective holders. No rights are granted without the prior written permission of the relevant owners.

While the Agriculture and Horticulture Development Board seeks to ensure that the information contained within this document is accurate at the time of printing, no warranty is given in respect thereof and, to the maximum extent permitted by law, the Agriculture and Horticulture Development Board accepts no liability for loss, damage or injury howsoever caused (including that caused by negligence) or suffered directly or indirectly in relation to information and opinions contained in or omitted from this document.



© Agriculture and Horticulture Development Board 2019. All rights reserved.