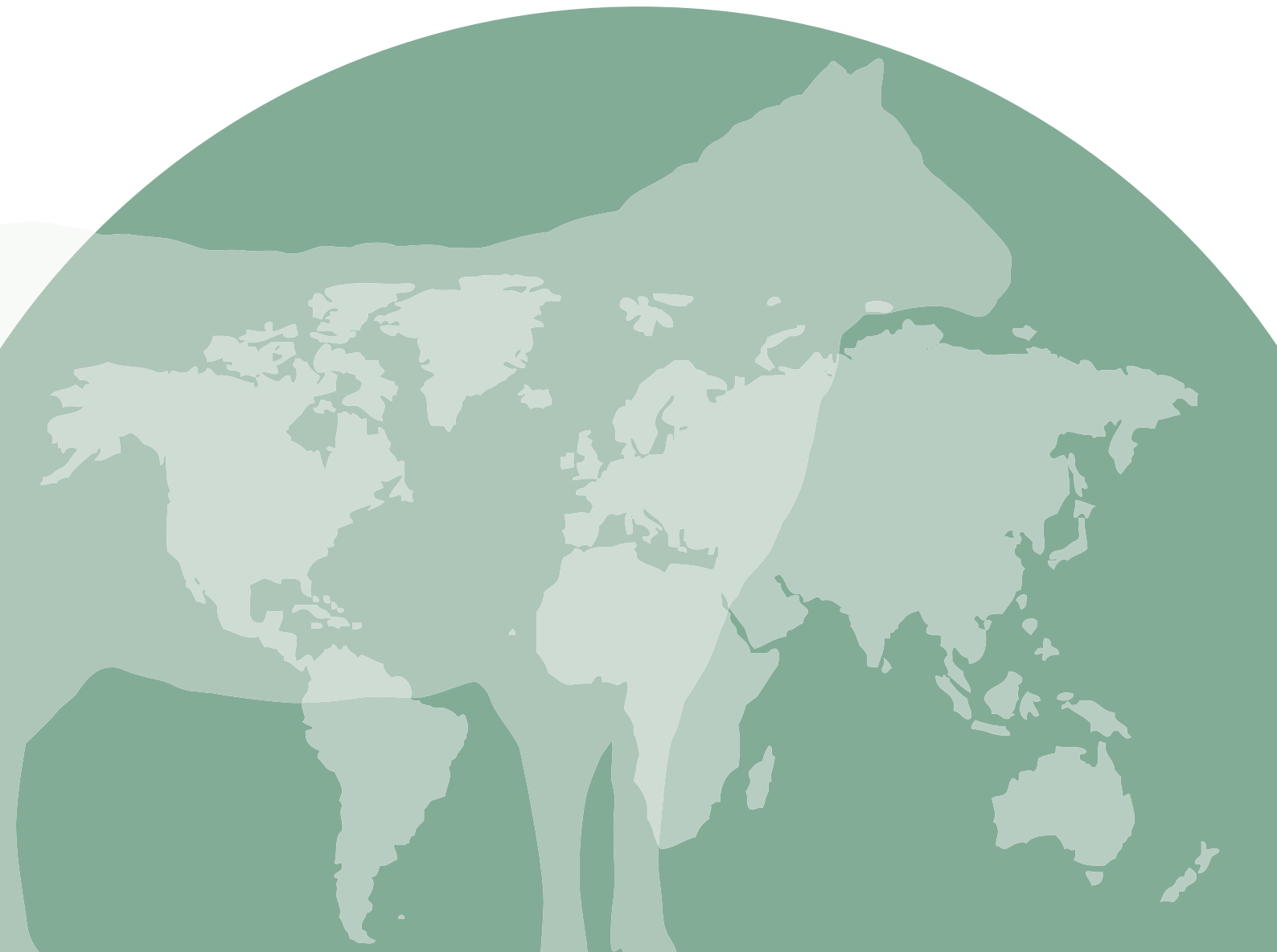


How are global and Australian sheepmeat producers performing?

Global *agri benchmark* network results 2016



Contents

Highlights – Sheepmeat.....	1
Introduction	1
What is <i>agri benchmark</i>?.....	2
Global price and cost trends.....	4
Food and meat prices	4
Global sheep price trends	4
Sheep price forecasts	5
World sheepmeat supply	5
Sheepmeat consumption.....	6
Sheepmeat trade	6
Global performance of sheep farms	8
Whole farm profitability	8
Sheep flock costs, returns and profitability.....	8
How efficient are Australian sheepmeat producers?... 	10
Total returns	10
Total liveweight sold per ewe	11
Losses of ewes (annual) and lambs (birth to weaning).....	11
Weaned lambs per 100 ewes per year.....	12
Lamb growth rates – birth to weaning and/or slaughter.....	12
Cash and total costs of meat production.....	13
Labour costs and productivity	13
Total costs ⁵ of meat production.....	14
In comparison... Australian sheep systems have:.....	14



Market Information
 Meat & Livestock Australia
 Ph: 02 9463 9372
 Fax: 02 9463 9220
 Email: marketinfo@mla.com.au
www.mla.com.au

Published by Meat & Livestock Australia Limited
 ABN 39 081 678 364
 January 2017
 © Meat & Livestock Australia Limited 2017

MLA makes no representation as to the accuracy of any information or advice contained in this document and excludes all liability, whether in contract, tort (including negligence or breach of statutory duty) or otherwise as a result of reliance by any person on such information or advice. Reproduction in whole or part of this publication is prohibited without prior consent and acknowledgement of Meat & Livestock Australia.

All use of MLA publications, reports and information is subject to MLA's Market Report and Information Terms of Use. Please read our terms of use carefully and ensure you are familiar with its content – [click here for MLA's terms of use](#).

Highlights

Sheepmeat

- Sheepmeat prices remain comparatively high, due to rising global demand (especially in China and the Middle East) – since peaking in 2011, prices have declined and are expected to continue declining over the next few years as supplies respond.
- Sheepmeat production is expected to continue to grow globally, with the exception of New Zealand, with Australia expected to grow its share of global export growth and become the leading exporter of sheepmeat.
- Sheepmeat consumption will continue to grow slowly in developed countries by 2% per annum and 12% per annum in developing countries, with 94% of total consumption growth in Asia and Africa.
- Sheep farms globally continue to make profits at the whole farm level, and in some countries this is related to the level of diversification or government support.
- Australian and New Zealand sheep farms are the most profitable in the medium-term, although profit levels have declined slightly from 2014 levels.
- In 2015, all of the typical sheep flocks analysed in Australia covered short- and medium-term costs at the enterprise level, with three of them also covering long-term costs, with the remainder contributing to, but not fully covering, opportunity costs.
- Sheep farms globally have generally experienced declining costs (in USD) since 2013, especially for feed grains and fuel, which in part reflects exchange rate movements against the USD.
- In Australia, total returns to the sheep enterprise only (not counting returns from other outputs of the farm such as crops or cattle) for the eastern typical farms had more mixed results, with nearly all farms experiencing decreased returns across most categories in comparison to 2013 and 2014.
- Australia tends to have similar ewe and lamb losses to most other regions of the world, with the exception of South Africa, Brazil and France.
- Australian farms tend to have lower weaning rates than European countries, and maintain similar weaning rates to more rangeland or less-developed production systems where nutrition and/or genetics may be constraints.
- Australian systems generally maintain above average growth rates for animals being sold or slaughtered at weaning, which is comparable to most global regions, including Europe and NZ.
- All Australian systems achieve cash costs of <USD2/kg lwt of sheepmeat produced. Globally, only farms from Uruguay, South Africa, Namibia, Brazil and NZ have total costs <USD2/kg lwt. Extensive grazing systems are the least expensive for producing sheepmeat.
- Australian labour costs are 10 times higher than China, African and South American countries, and 50% higher than NZ and European countries. This is counteracted by Australian sheep systems producing 5-10 times more sheepmeat per hour of labour input than the rest of the world.
- Australian farms maintain a low total cost of sheepmeat production, with New Zealand, Uruguay, and some farms in China, Brazil, Namibia and South Africa also maintaining low total costs.

Introduction

This report presents the *agri benchmark* network's perspectives on recent global sheepmeat developments, the economics and drivers facing producers around the world, farm profitability (globally and in network countries) and views on likely future developments and challenges.

It then asks the question 'how competitive are Australian sheepmeat producers and what are the main areas where our productivity differs from other countries?'

The analysis and perspectives are as of mid-2016, though farm data is for the 2015 year.



What is *agri benchmark*?¹

agri benchmark is a global, non-profit and non-political network of agricultural economists, advisors, producers and specialists in key sectors of agricultural value chains. The cattle and sheep network has over 30 member countries, covering 90% of world beef production and 55% of sheepmeat production and has been producing the results of comparative analysis over the last 14 years.

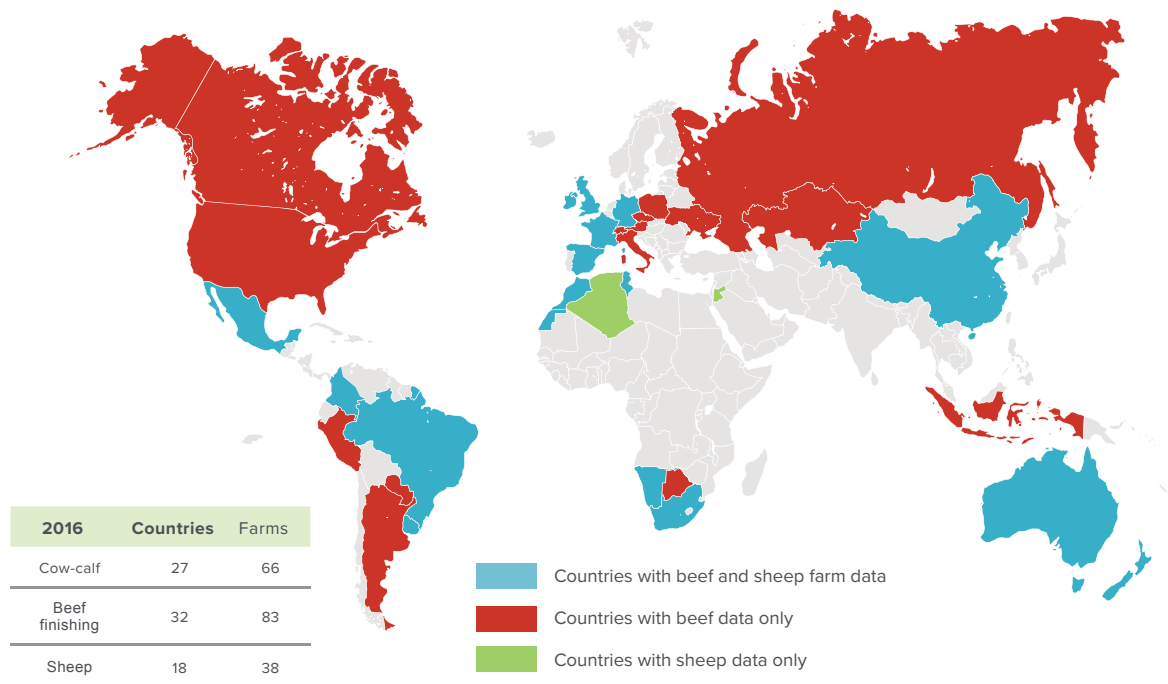
The core competence of the network is in analysing production systems, their economics, drivers and perspectives.

agri benchmark aims to assist:

- producers and their organisations to better align future production through analysis of comparative performance and positioning;
- non-profit organisations (governments, NGOs, international organisations) to monitor global agricultural challenges; and
- agri-businesses to operate successfully through in-depth understanding of markets and customers.

agri benchmark has branches covering beef cattle and sheep, dairy, pigs, cash crops, horticulture and organic farming. Within sheep, it covers breeding and finishing enterprises (ewes and lamb/sheep finishing). It is also unique in being able to separately measure the performance of the breeding and finishing operations even on joint breeding/finishing farms. Furthermore, it measures sheep enterprise performance separately from (and together with) other outputs where the farm business is diversified (in Australia typically with some cropping, but often also other enterprises such as cattle).

Figure 1: Countries in the *agri benchmark* beef and sheep network



¹ See <http://www.agribenchmark.org/home.html>

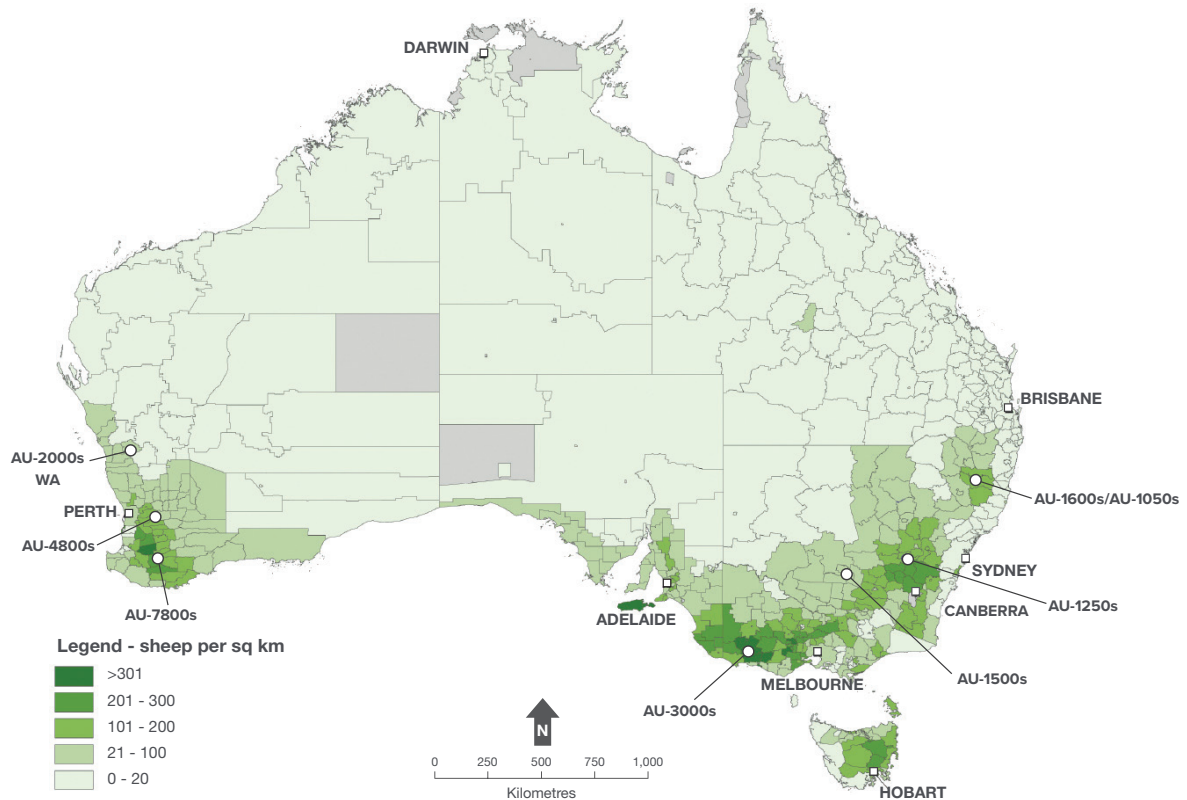
The farm-level results in this report are drawn from the collection of ‘typical farm’ data in each country, and subsequent analysis and research efforts of all member countries culminating in the 14th annual *agri benchmark* conference in Córdoba, Spain, 8-16 June 2016.

‘Typical farms’ are farms ‘engineered’ by local producers and experts to be typical of a country’s main sheep production systems, using annual data drawn from farms in the key production regions. In Australia data is collected for seven typical sheep farms across NSW, Victoria and WA.

Table 1: Australian *agri benchmark* typical cattle farms

Sold (ewes)	Farm make-up
AU 1200	(1250 ewes) – NSW slopes; Border Leicester X Merino, Dorset; sheep + crops
AU 1600s	NSW Northern Tablelands; Merino, Dorset Merino; sheep + wool + cattle
AU 1500s	NSW south western plains; Merino, White Suffolk; sheep + crops
AU 2000s	WA low rainfall; Merino, Merino and Poll Dorset; sheep + crops
AU 3000	Western VIC; Coopworth X Dorset
AU 4800s	WA medium rainfall; Merino, Merino and Poll Dorset; sheep + crops
AU 7800s	WA high rainfall; Merino, Merino and Poll Dorset; sheep + crops

Figure 2: Location of Australian *agri benchmark* typical sheep farms and sheep density



Global price and cost trends

Food and meat prices

- Global food prices in USD doubled in the 10 years to 2011, but have been highly volatile over the past 15 years (see Figure 3). Currency volatility, especially the USD, has played a significant part in this, as has fluctuating crop harvests (and inventories) and growth in food demand and imports in developing countries, led by China.
- Food prices peaked in 2011, corresponding to the high in cereal prices, with dairy product and meat price peaks typically lagged by 2-3 years (as livestock production takes time to adjust to changes in grain input costs) – peaking in 2013 and 2014, respectively.
- Even after the fall from 2011 to 2016, food prices remain 50% higher than prior to 2004.
- With the falls in grain costs commencing in 2012, and subsequent falls in other costs, led by fuel, fertiliser and interest, plus a sharp rise in the USD, meat prices began to decline significantly in 2015 (in USD terms), with further falls in 2016.
- The 23% decline in global meat prices (in USD) since 2014 (first eight months of 2016) has been led by pig meat and sheepmeat with 28% declines, followed by poultry 23% and beef 18%.

Figure 3 FAO monthly cereal, meat and food price indices

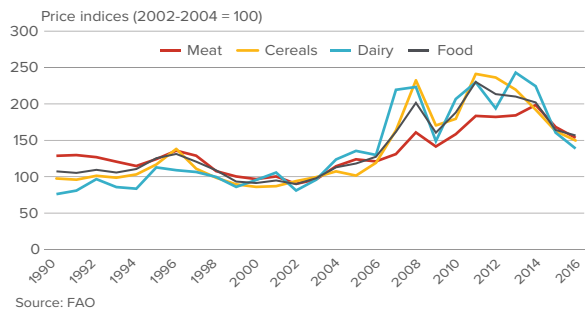
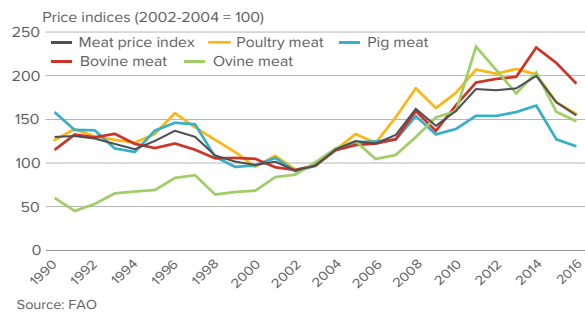


Figure 4 FAO monthly meat price indices



Global sheep price trends

- Sheep prices in USD terms also fell in recent years, having peaked in 2011 in most countries. The main exceptions were in China, the Middle East and some African countries.
- However, as with cattle, sheep prices in local currency terms have generally risen further in the last few years for most countries (see Figure 6). The exceptions here are China, Algeria, New Zealand and the UK, which have generally fallen, even in local currencies.

Figure 5: Sheep prices in USD: agri benchmark farms

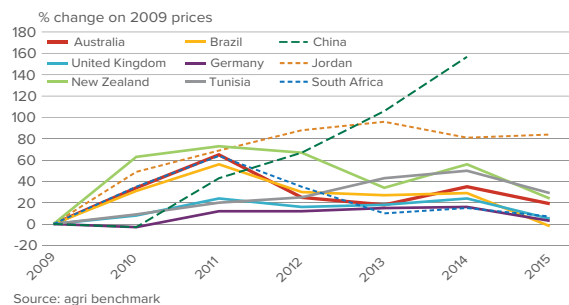
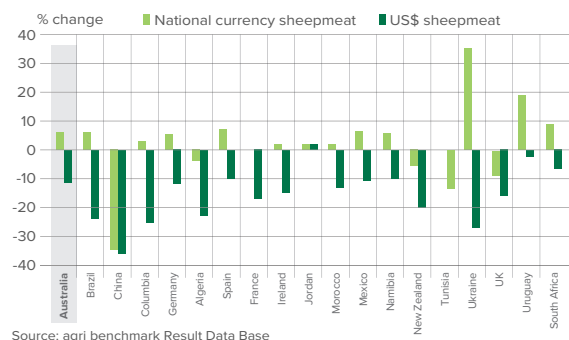


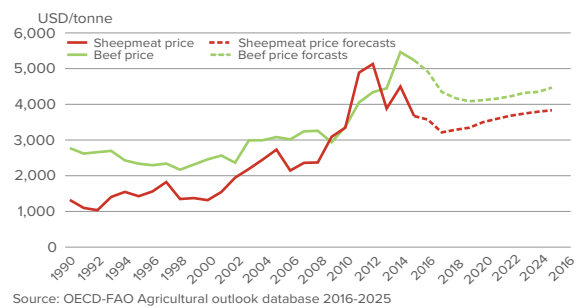
Figure 6: Sheepmeat price changes in USD and national currency from 2014 to 2015



Sheep price forecasts

- The July 2016, OECD-FAO forecasts for world sheepmeat prices have prices in USD falling a little further in 2017 before a steady recovery (see Figure 7). The short-term decline is based on forecast rises in sheepmeat supplies in China and Australia, lower prices for beef and other competing meats, a rising USD, low grain costs and softer import demand in China and the Middle East.
- In the medium- to long-term, world sheepmeat prices are expected to resume their upward trend due to rising import demand (especially in China, the Middle East and South America) fuelled by population and income growth. Supply growth is likely to be highly constrained by land, feed and water constraints and environmental restrictions.
- This forecast price pattern is similar to that predicted for world beef prices (see Figure 7).
- Even after the forecast 37% fall in global sheepmeat price between 2012 and 2017, prices for the 2016-2025 period are projected to be over 50% above those in the 2000-2010 decade (prior to the extraordinary 2011-2012 peak).
- Like beef, these OECD-FAO projections released in July 2016 have been lowered 15% on those released in 2015. This revision has been attributed to a larger supply response to recent high meat prices and low grain costs than had previously been anticipated, as evidenced by the rise in supplies in 2015 and subsequent reduction in sheepmeat prices.

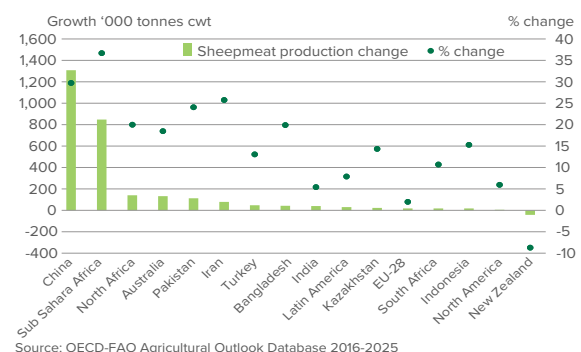
Figure 7: OECD-FAO world sheepmeat & beef price projections to 2025



World sheepmeat supply

- Despite recent falls in sheepmeat prices from their peaks in the 2011-2013 period, sheepmeat is in growing demand globally and production remains a profitable pursuit. Hence, most major suppliers (except New Zealand and parts of Europe) are expecting sheep flocks to expand and production to keep increasing. The OECD-FAO is projecting a 22% growth in global sheepmeat supply in the next 10 years, up from 15% growth in the past 10 years and 20% in the 1995 to 2005 period.
- Developing countries lead the charge, especially Asia and Africa. Growth in Chinese production is forecast to be similar to the previous decade, at 30%, while growth in Africa is also forecast to be 33%, similar to the 35% growth in each of the preceding two decades.
- Developed countries are only expected to rise a small 7%, up from 1% in the previous 10 years and a fall of 9% in the 1995 to 2005 period.
- Australian production is predicted to rise 19% in the 10 years to 2025, up from only 2% and 1% in the preceding two 10 year periods. New Zealand's sheepmeat production is predicted to fall a further 9%, the same as in the 2005-2015 period – as competition for land restricts production.

Figure 8: Forecast sheepmeat production growth 2015-2025

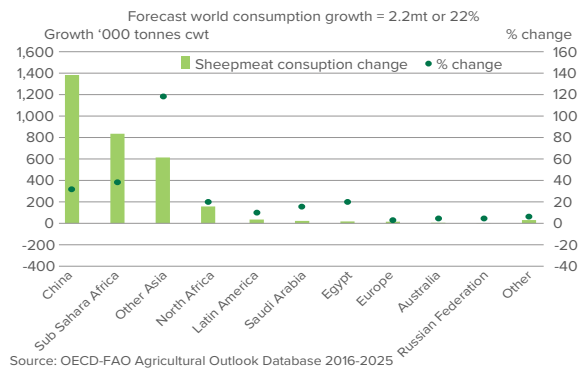


² OECD FAO Agricultural Outlook 2016-2025, <http://www.oecd.org/publications/oecd-fao-agricultural-outlook-19991142.htm>

Sheepmeat consumption

- World per person consumption of sheepmeat has recovered in the past four years, back to the peak reached in 2007, before the extraordinary prices dropped consumption around 2011. OECD-FAO expects this growth to continue in the next 10 years, with a 10% rise, led by Asia.
- While China continues to dominate growth (with 27% growth in the past 10 years and 26% forecast in the next 10 years), other countries in Asia are also on the rise.
- Per person consumption in developed countries is expected to rise 2% in the next 10 years (after falls of 13% and 14% in the previous two 10 year periods) and developing countries to rise 12% (up from 8% in the preceding 10 years). The notable falls, both in the past and forecast for the coming 10 years, are in the US, Japan, Australia and New Zealand (the latter two due to high export demand).
- Africa is expected to continue its slow growth in per person consumption of sheepmeats, up 5%, the same as the past two 10 year periods.
- In total, sheepmeat consumption is forecast to grow by 3.2mt or 22% in the coming 10 years, up from 16% in the 2005-2015 period and 19% between 1995 and 2005.
- Of this growth in sheepmeat consumption in the next 10 years, 94% is expected to be in Asia (70% of this in China) and Africa (84% in Sub-Sahara Africa).

Figure 9: Forecast sheepmeat consumption growth 2015 to 2025

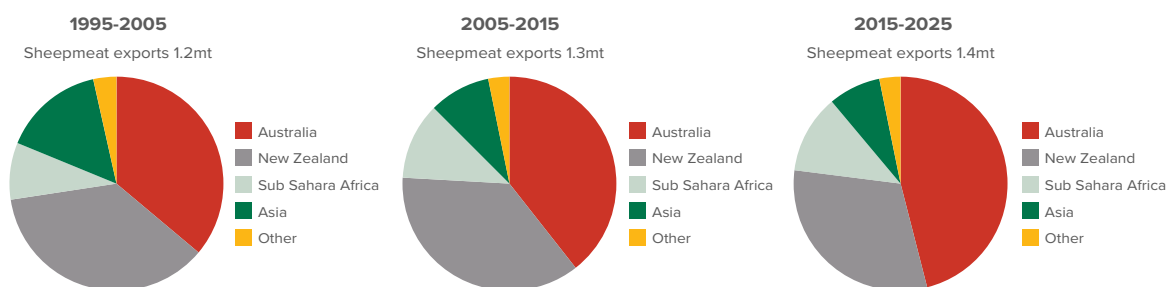


Source: OECD-FAO Agricultural Outlook Database 2016-2025

Sheepmeat trade

- The world sheepmeat trade also continues to expand, with the OECD-FAO forecasting another decade of growth close to 200kt (15%) between 2015 and 2025 (after 212kt growth in the 2005-2015 period).
- The world sheepmeat trade is dominated by exports from Australia and New Zealand, principally to Asia (especially China), the Middle East, the EU and the US.

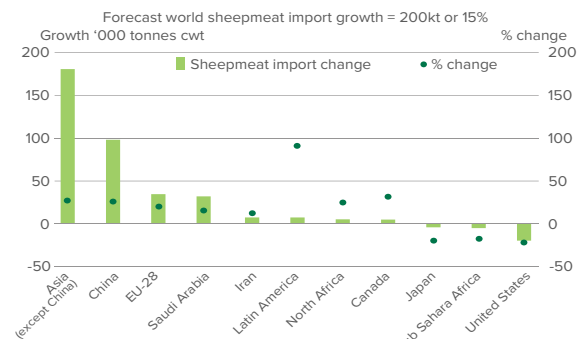
Figure 10: World sheepmeat export shares (excluding Europe)



Source: OECD-FAO Agricultural Outlook Database July 2016

- In the coming 10 years, Australia is expected to dominate export growth with a 126kt or 25% rise (up from 77kt and 53kt in the previous two 10 year periods). In contrast, New Zealand exports are forecast to decline 41kt or 9% (after rising 31kt and 13kt in the previous two 10 year periods).
- This would lift Australia's share of world trade in sheepmeat (excluding exports by European countries as it is principally internal trade) from 37% in 2015 to 46% in 2025. New Zealand's share would fall from 36.5% in 2015 (almost equal to Australia's 37%) to 31%.
- Nor are other potential sheepmeat competitors expected to expand exports – with exports from Sub-Sahara Africa lifting only 14kt (as against 48kt and 26kt in the previous 10 year periods), a fall in exports by India and no growth from Latin America.
- The principal growth market is again expected to be Asia (up 178kt or 21%), though growth in China's imports is forecast to be only 50kt or 20% (down from 209kt in the 2005-2015 period).
- Sheepmeat imports by the Middle East is also expected to expand further, with Saudi Arabia forecast to rise 31kt or 15% (compared with 44kt in the 2005-2015 period).
- Imports by the EU are forecast to recover around half the quantity lost when New Zealand diverted shipments to the expanding China market – up 32kt or 17% (after falling 77kt in the 2005-2015 period).
- The UK's exit from the EU could see a renegotiation of both import quotas into the UK and the EU for both Australian and New Zealand.
- Sheepmeat imports into the US are expected to fall in the next 10 years – down 22kt or 23% (after growth of 12kt and 53kt the previous two 10-year periods).

Figure 11 Forecast sheepmeat import growth 2015 to 2025



Source: OECD-FAO Agricultural Outlook Database 2016-2025



China



Global performance of sheep farms

Whole farm profitability ('000 USD)

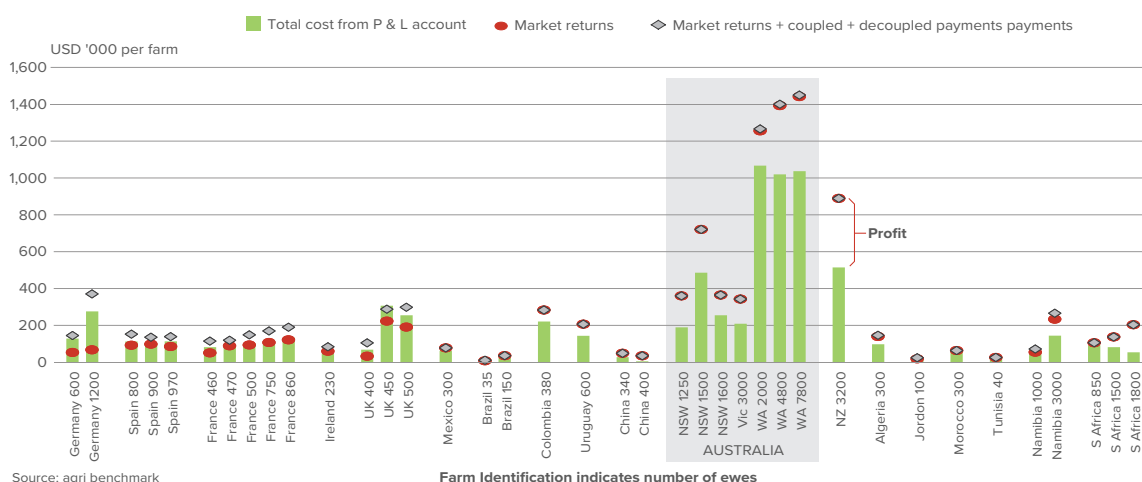
All but 3 of the 38 typical farming systems (across 18 countries) managed to make a profit at the whole farm level in 2015, although this is partly dependent on other enterprises or non-farm returns (coupled and non-coupled government payments).

On a whole-farm profit basis (medium-term profitability), Australia's 'typical' sheep farms were the most profitable (in USD terms), in part due to their scale and incomes received from other enterprises (crops and beef). In absolute terms, and similar to 2014, the most profitable farms globally were from Western Australia (AU-7800, and AU-4800), followed by the New Zealand farm (NZ-3500) and south western NSW farm (AU-1500).

Australian sheep farms generally maintain higher levels of profitability due to the diversification of the typical mixed farming systems and their scale. In 2015, cropping returns in particular, especially in the WA systems, were generally above average due to favourable yields. Notably, AU-2000, although being the only Australian typical farm to produce a loss in 2014, has achieved significant profits in 2015.

On average, European farms achieved a net loss of 55% without government payments in 2015, but with government payments achieved an average net profit margin of 24%, whereas Australian farms averaged 31%. Globally, this represents a small improvement in EU profitability and a small decline in Australian farm profitability when compared to 2014 (except for AU-2000).

Figure 12: Whole sheep farm profitability ('000 USD)



Sheep flock costs, returns and profitability (USD/100kg lwt)

When the 2015 profitability of the sheep flock is examined, without taking into account returns from other enterprises on the same farm or government payments, the global financial performance is generally positive (better than for beef cattle) and in marginal terms, similar to that achieved in both 2013 and 2014.

Many countries, even with significant government payments (excludes de-coupled payments), are not profitable in the long-term. The exception to this is Uruguay, New Zealand, China, Colombia, Jordan and some systems in Australia and Africa. The 2015 profitability of sheep flocks in many other parts of the world was marginally higher than that achieved in 2012, 2013 and 2014, although total returns still failed to, or only just covered, short-term cash costs in many European countries.

In 2015, all of the typical sheep flocks analysed in Australia covered short- and medium-term costs (includes depreciation), with three of them (NSW-1500, NSW-1250, and VIC-3000) covering long-term costs (opportunity costs), with the remainder contributing to, but not fully covering, opportunity costs. For the majority of Australian systems (excluding WA-4800 and WA-7800) this has improved from 2011 to 2015.

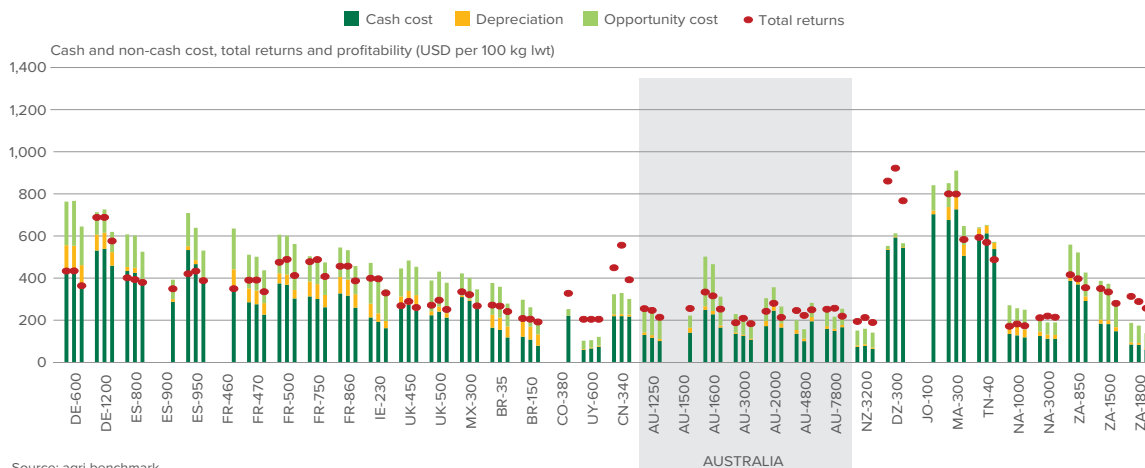
Two farms from WA (AU-4800 and AU-7800) and the Uruguayan farm (UY-600) had higher costs in 2015 than in 2013 and 2014. In WA this was due to drier seasonal conditions.

All other farms globally have generally experienced declining costs since 2013, which in part reflects exchange rate movements against the USD.

At the same time, and following the price and exchange rate developments, the total returns of the farms were also lower.

Profitability is analysed by comparing total returns with three cost levels – cash costs (short-term), then adding depreciation (medium-term) and then adding opportunity costs (long-term)². Medium-term profitability was in 2015 lower than the year before in one German farm, two French ones, Ireland, Uruguay, China (after a dramatic increase in 2014, it is now achieving the lowest levels of profitability since 2013), four Australian farms, New Zealand, one Namibian farm and two of the South African farms.

Figure 13 Time series of flock costs, returns and profitability 2013-2015 (USD/100kg lwt)



Source: agri benchmark



² Short-term profit is where returns (from sales and coupled government payments) covers all cash costs (including interest and family wages), medium-term profit allows additionally for depreciation, and long-term profit allows for the opportunity costs of land and other capital invested. Opportunity costs on capital such as land, is calculated using a market leasing rate in each country.



How efficient are Australian sheepmeat producers?

Total returns (USD/100kg lwt)

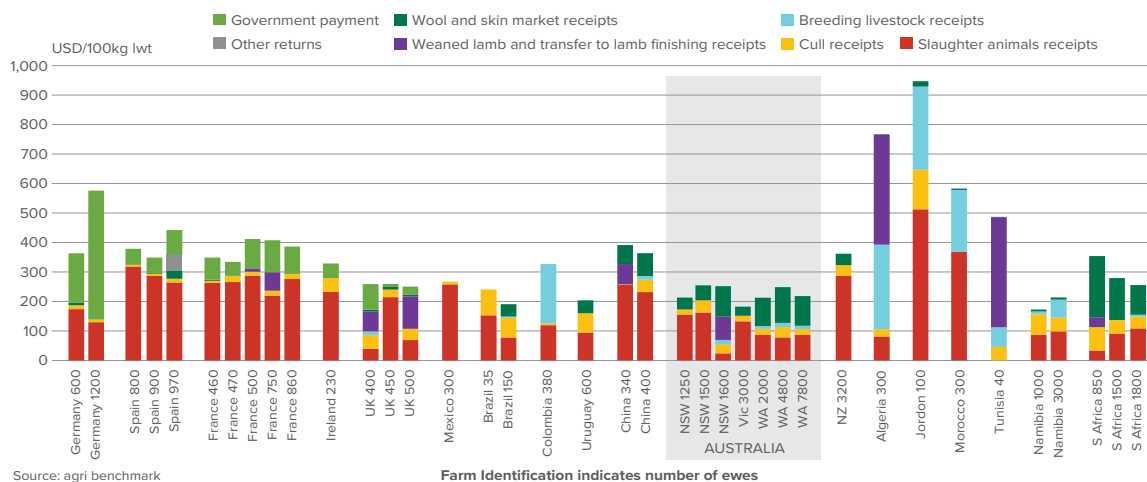
Australian sheep systems are diversified in comparison to the rest of the world, with wool and cropping being major sources of additional income. The majority of Australian systems are in mixed farming zones, which also represent areas of highest sheep production and flock sizes. In terms of sheep enterprise returns, wool returns, which have increased from 2013 levels, is only a significant contributor to enterprise returns in Australia, NZ, China, Uruguay and South Africa. Other countries, like the UK, NZ and Uruguay, also commonly maintain diversification with cattle enterprises.

Australian and NZ typical sheep farms are the largest by global standards, having from 2 to 8 times higher total returns (revenue) from the business.

There is large global variation in total returns (revenue) per 100kg lwt sold. Countries like Germany, Spain, Ireland, UK and France (EU countries) receive significant amounts of government payments. These are either Whole-farm Payments (United Kingdom), Livestock Payments or a combination of the two (all other EU countries).

In Australia, the 2015 total sheep enterprise returns for the eastern typical farms had mixed results, with all farms experiencing decreased returns across most categories in comparison to 2013 and 2014. The exception was AU-4800, which experienced a slight increase, mainly as a result of increased receipts for wool and slaughter animals due to change in flock structure (change to producing first cross lambs). For the Australian Merino dominant typical farms (AU-1600, AU-2000, AU-4800 and AU-7800) wool returns made up 40-50% of total returns, which is only matched by the South African farms.

Figure 14: Total sheep enterprise returns (USD/100kg lwt) – 2015



Source: agri benchmark

Farm Identification indicates number of ewes



Total liveweight sold per ewe (kg lwt per ewe)³

Generally, Australian systems produce above-average amounts of liveweight per ewe, with the exception of AU-1600, which is predominantly based on a fine wool Merino flock. The highest production per ewe came from NSW 1500 (AU-1500), which is a Merino ewe and First Cross ewe based flock producing mostly first cross and some second cross lambs. This was closely followed by two dedicated lamb producing flocks, AU-1250 and AU-3000, which are comparable to the highest meat producing flocks in Europe.

Low levels of production per hectare tend to come from regions with lower rainfall and rangelands environments (China, Brazil, Jordon, Namibia, South Africa and some parts of WA). Moderate to high productivity occurs in higher rainfall regions across Europe, Australia and NZ. Very high land productivity occurs in systems in Mexico and Tunisia, where animals are housed.

Comparatively, Australian farms found in lower rainfall zones of WA are also similar to Uruguay, China, Morocco and also parts of Europe (Spain and Germany). The higher rainfall farms found in south west WA, western Victoria and central NSW have comparable land productivity to European, UK and NZ systems.

Figure 15: Total liveweight sold per ewe (kg)



Losses of ewes (annual) and lambs (birth to weaning)

Australia tends to have similar ewe and lamb losses to most other regions of the world, with the exception of South Africa, Brazil and France. In South Africa, this is predominantly caused by predators, particularly the jackal, Brazil the rangelands systems under which they run, and in France, due to their intensive multiple lambing systems, high proportions of multiple births, and a shift in focus on to meat production with reduced emphasis on mothering ability. Ewe losses globally tends to vary between 1% and 7%, while lamb losses varies from 1%-17%, with Australian systems maintaining ewe and lamb losses at around 6% or less.

³ Total liveweight sold per ewe is generally dominated by the sale of slaughter lambs in most production systems, although a few exceptions exist where there are well established finishing systems (UK, Algeria and Tunisia).

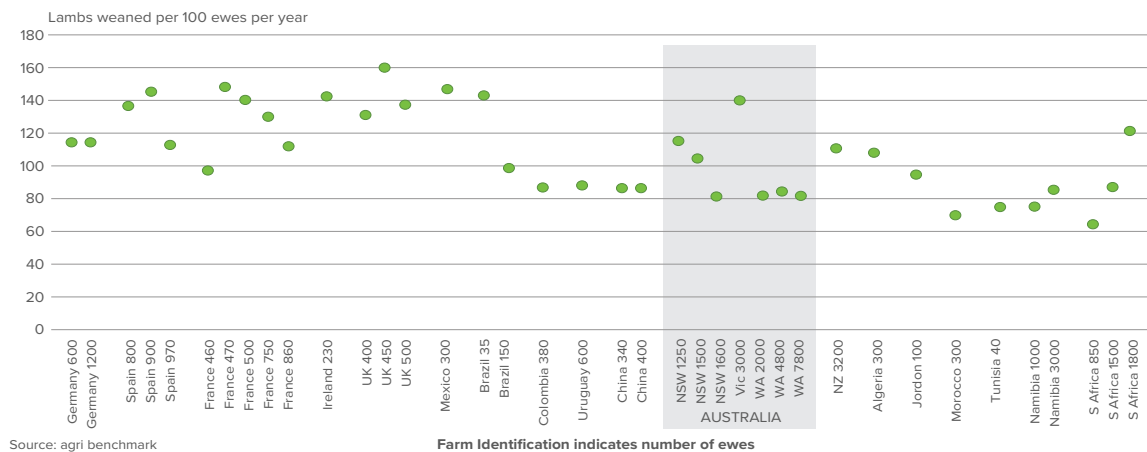


Weaned lambs per 100 ewes per year

European farms tend to have higher weaning rates than Australian farms, primarily due to more prolific breeds in addition to nutrition (supplementary feeding) or, as occurs in France and Spain, multiple lambings.

Australian farms tend to maintain similar weaning rates to more rangeland or less-developed production systems where nutrition and/or genetics may be constraints. This, more than likely, presents the area of greatest opportunity for Australian production systems, depending on the cost-effectiveness of increasing weaning rates, although flocks from higher rainfall regions (AU-3000 in western Vic) or flocks designed for lamb production (AU-1500 and AU-1250) achieve comparable weaning rates to the representative European and NZ systems.

Figure 16: Weaned lambs per 100 ewes per year



Source: agri benchmark

Farm Identification indicates number of ewes

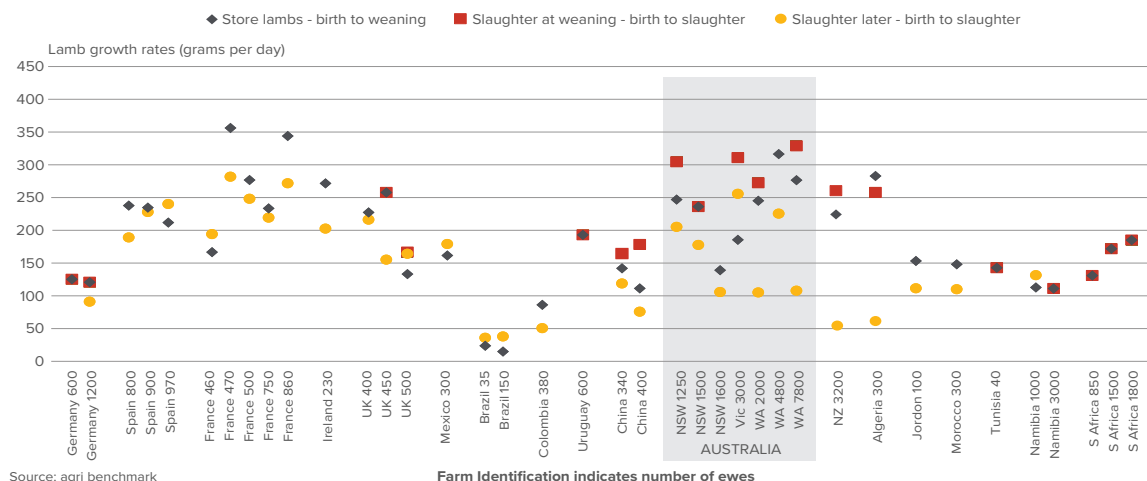
Lamb growth rates – birth to weaning and/or slaughter (grams lwt/day)

Lamb growth rates on typical Australian farms vary significantly, though Australian systems generally maintain above average growth rates for animals being sold or slaughtered at weaning – comparable to most global regions, including Europe and NZ.

However, for lambs grown out beyond weaning (slaughtered later), Australian growth rates are mixed but still average above those in NZ, Brazil and Colombia (but below those in the more intensive European meat lamb production systems). Feed quality (and quantity) and genotype also strongly influence growth rates, which is highlighted when comparing average lamb growth rates across different categories of sheep production systems. Generally, China, and the African and South American countries have the lowest lamb growth rates.

Overall, mean global weaning age was around 90-150 days, with values ranging from 45-60 in Spain, Mexico (due to very light slaughter weight markets), Jordon and Algeria (due to lamb finishing systems); and up to 180 days in Germany (due to on-farm lamb finishing) and Namibia (nutritional and management constraints).

Figure 17: Growth rates for store and slaughter lambs: birth to weaning or slaughter (g lwt/day)



Source: agri benchmark

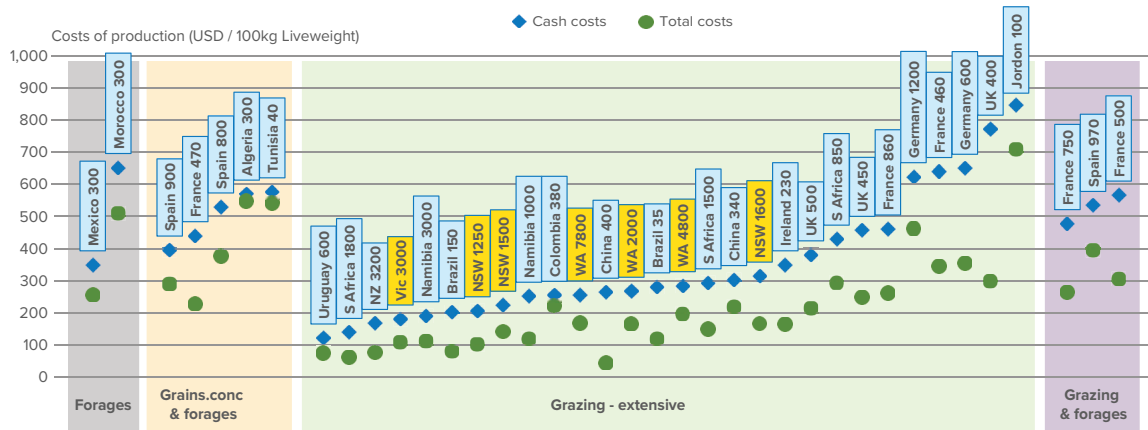
Farm Identification indicates number of ewes

Cash and total costs⁴ of meat production (USD/100kg lwt)

It is noticeable that many countries have well over USD2/kg lwt cash costs. All Australian systems achieve cash costs of <USD2/kg lwt. Globally, only farms from Uruguay, South Africa, Namibia, Brazil and NZ have total costs <USD2/kg lwt. Notably, the only systems that achieve cash costs of <USD2/kg lwt are based on extensive grazing systems, with all other systems (based on Grains and forages) being more expensive to producing sheepmeat.

The changes in total costs of sheepmeat production across the world from 2013 to 2015 were mixed. Costs generally fell in Australia (by 14% on 2014 levels), China, Europe and across MENA countries by 11%, Mexico by 18% and South Africa by 26%, whereas in NZ and Uruguay costs rose by 10% to 18%.

Figure 18: Cash and total long-run costs of sheepmeat production under different production systems (USD/100kg lwt)



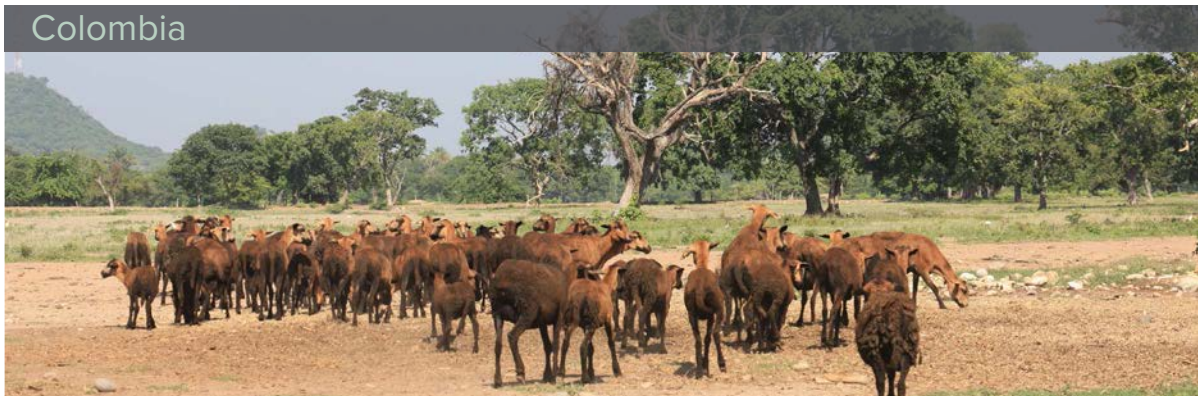
Source: agri benchmark

Farm Identification indicates number of ewes

Labour costs and productivity

Labour costs in Australia are amongst the highest in the world, but have declined since 2013 in US dollar terms. Australia’s average wages paid for employed staff is around USD23/hr, with the opportunity cost of family labour around USD28/hr. China and European countries averaged USD2/hr and USD13/hr, respectively, whereas South American and African countries averaged USD3/hr. New Zealand’s labour costs have also declined to around USD16/hr.

Taking into account the productivity of the labour, the contribution of labour costs to the costs of producing sheepmeat in Australian sheep systems is amongst the lowest in the world, even when compared to countries with very low hourly labour costs. In terms of labour productivity, Australian sheep systems produced 50-85kg liveweight per hour of input, compared to around 10kg lwt/hr for European systems and less than 10kg lwt/hr for most South American, African and Chinese systems.



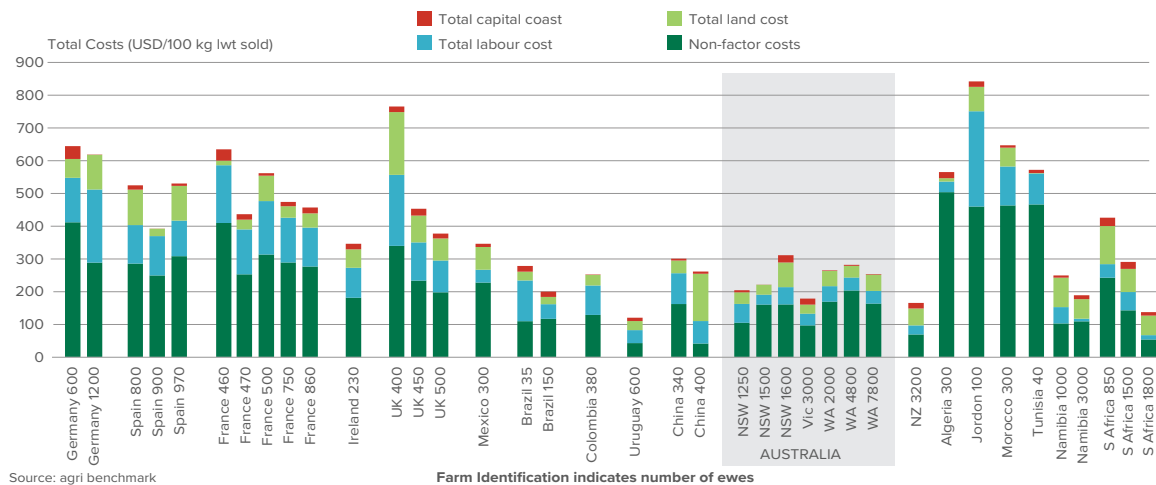
⁴ The cash or non-factor costs represent largely variable costs directly associated with the enterprise. Feed and machinery are the dominant non-factor costs in Europe, with feed costs predominating everywhere else, except Australia, NZ, China, Uruguay and Namibia. Other inputs to ewe enterprises are directly allocated cash costs, such as enterprise specific wages (shearing, marking etc), and these represent major costs to Australian systems. Animal purchase costs are also important in AU-1250 due to being a non-self-replacing system (i.e. buys replacement ewes). Total long-run costs allow for depreciation and opportunity costs (including labour, land and capital).

Total costs⁵ of meat production (USD/100kg lwt)

Overall, Australian farms maintain a low total cost of meat production, with non-factor costs being the largest contributor to total costs. New Zealand, Uruguay, and some farms in China⁶, Brazil, Namibia and South Africa also maintain low total costs.

In most countries, 50%-60% are the non-factor costs or the operational costs of running the enterprise. Feed, machinery and fuel represent the largest non-factor costs in European and some South African systems, with feed being the predominant cost in Spain and MENA countries. Animal purchases are the main non-factor costs in some Chinese and Australian systems. It is quite mixed for all other parts of the world.

Figure 19: Total costs of sheepmeat production (USD/100kg lwt)



In comparison... Australian sheep systems have:

- Moderate losses, mortalities and wastage in the system
- Moderate to high meat production efficiency
- Moderate to low reproductive efficiency – with potential for further improvement through nutritional management and genetics – if economic to do so
- Above average growth rates for animals sold or slaughtered at weaning
- High labour costs, but maintain excellent labour productivity which makes Australia competitive in terms of economic labour efficiency
- Comparably low to moderate sheep returns (revenues), which have decreased from 2013 and 2014 levels, and maintain low total costs of production which have tended to decline year-on-year since 2013, with exchange rate movements against the USD having played a role
- Continuing good sheep enterprise profitability across most Australian systems, which is in alignment with global trends
- Top whole-farm profitability globally due to diversification and scale

⁵ In Total costs include all allocated whole farm costs, as well as opportunity costs for labour (family labour), land and capital used. This represents a long-run cost of production. For capital, land and labour costs it includes opportunity costs of land, non-land assets and family labour.

⁶ In China, land cost is difficult to estimate due to farmers maintaining only the right of use for 30 years, whereas renting usually only occurs for 12 months at a time.