

Wheatbelt Snapshot Series: Livestock

OVERVIEW

Western Australia's Wheatbelt region comprises of five Sub-regions, 42 local government areas and five main service centres located in the Shires of Dandaragan, Northam, Narrogin, Merredin and Moora. The Region covers an area of 154,862 square kilometres and accommodates a widely dispersed population of 75,000 people, making it the third most populous region in the State.

The Wheatbelt is Western Australia's most significant farming region for livestock disposals (meat) and products (wool, eggs and milk), representing over 36% of the State's livestock value¹ (See Figure 2). The livestock industry has experienced strong growth in the Wheatbelt, increasing in gross value by over \$135 million between 2007 and 2012². Future expansion is expected and will be facilitated by the increase in global demand for protein and livestock products. The Wheatbelt, in particular the Central Coast Sub-region, is well situated as a prominent supplier to international markets due to its close proximity to Perth, easy access to Fremantle and Geraldton ports, key transport routes, climate suitability and significant groundwater resources.

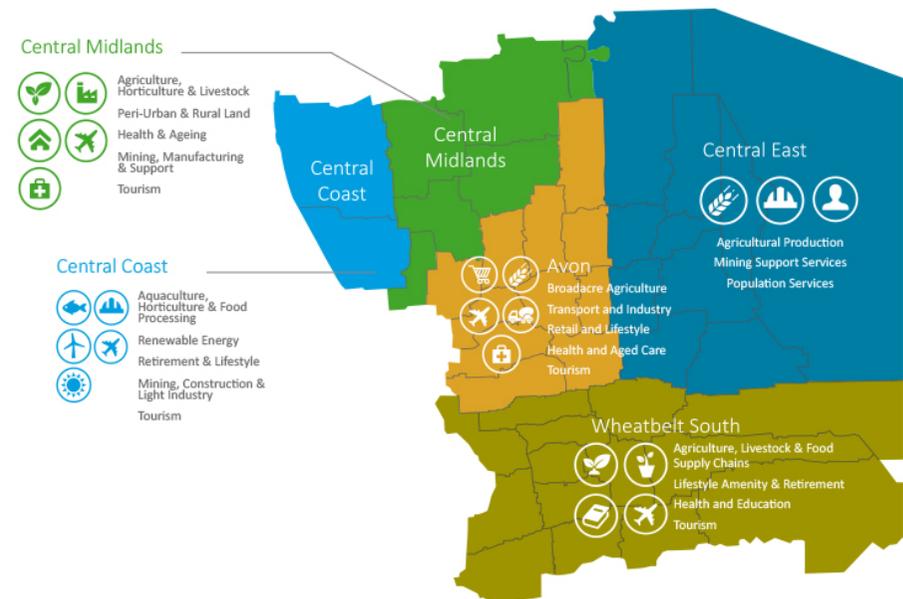


Figure 1: Wheatbelt Region (WDC 2012)

² ABS 2011, Value of Agricultural Commodities 2011-12, Wheatbelt Region, Western Australia

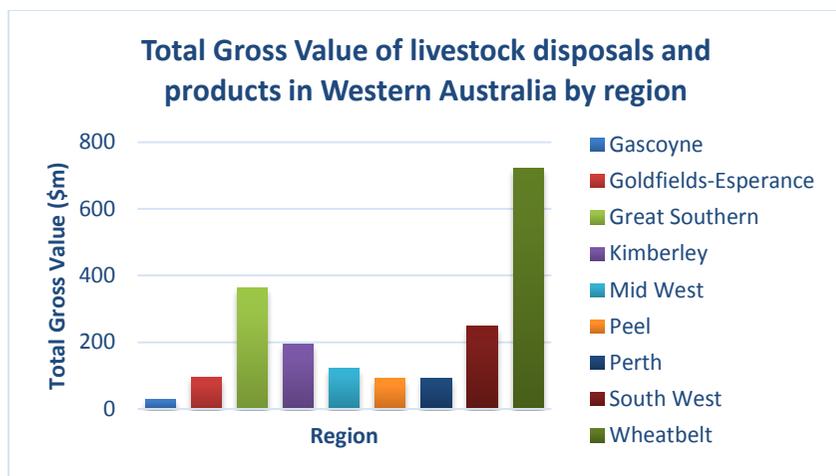


Figure 2: Total gross value of Western Australia's livestock industry by region. The Wheatbelt region is the State's most significant farming region for livestock disposals and products.

Currently, the Wheatbelt produces a variety of livestock products, including but not limited to the following:

MEAT

Meat production is currently the second largest commodity in the Wheatbelt, representing 11% of total agricultural gross value in 2011-12 (31.4% of the State total)³. Sheep and lamb slaughtering accounts for 84% of the Wheatbelt's meat production and is valued at \$49.4 million⁴. The 2011-12 production value of the major meat produced in the Wheatbelt can be seen in Table 1.

³ ABS 2011, Value of Agricultural Commodities 2011-12, Wheatbelt Region, Western Australia

Table 1: Wheatbelt production value of major livestock meat production; ABS 2011, Value of Agricultural Commodities 2011-12, Wheatbelt Region, WA

Meat Produced	Wheatbelt's production value
Cattle and calves	\$49.4 million
Sheep and lambs	\$265.3 million
Poultry	\$1.0 million
Goat	\$1.1 million

The Wheatbelt also has a significant number of pig holdings and sales comparative to other regions of the State. In 2006, the Wheatbelt held 56.3% of the State's total pig numbers, and contributed 50.75% of WA's total sales of pigs and piglets⁵.

Meat production varies between each of the Wheatbelt Sub-regions as outlined below.

Avon Sub-region

In 2006, the Avon Sub-region produced over \$62 million in gross livestock slaughter production, including sheep, cattle and goat⁶.

⁵ ABS 2006, Small Area Data for Agricultural Commodities, Wheatbelt Region, Western Australia

Central Coast Sub-region

The Central Coast Sub-region is characterised by strong animal production capacity with 225,000 sheep in Moora and a further 316,000 in Dandaragan in 2010-11. The Central Coast Sub-region is also a significant producer of beef and pigs with 30,696 and 7,785 animals respectively.⁷ Growth has been driven by the development of sale yards in Muchea in 2011¹¹ and livestock feed lots in the Lower Chittering and Gingin region. The Shires of Gingin and Dandaragan have also experienced the establishment of poultry, ostrich and goat farming among others.

Central East Sub-region

The Central East Sub-region produced over \$4.1 million in livestock disposals in 2010/11⁸. In 2011-12, the Region had the most agricultural businesses (approximately 11,000) with sheep and/or lamb on their holdings⁹, and sheep numbers in the Region remain consistently high, varying between 7% and 8.3% of the State's total sheep numbers depending on seasonal and market conditions⁸. The Central East region also had the highest meat calving rate of 86 per 100 cows, in 2011-12¹⁰.

⁷ RPS 2014, Central Coast Sub-Regional Economic Strategy

⁸ RPS, 2015, Central East Sub-Regional Economic Strategy

⁹ ABS 2013, Agricultural Resource Management Practices 2011-12, Cat No. 4630.0, Australia

¹⁰ ABS 2013, Agricultural Resource Management Practices 2011-12, Cat No. 4630.0, Australia

Central Midlands Sub-region

The Central Midlands Sub-region produced over \$50 million in livestock disposals in 2010/11¹¹. This is supported by the Western Australian Meat Industry Authority (WAMIA) livestock centre in Muchea and numerous livestock feeding lots in the Lower Chittering area.

Wheatbelt South Sub-region

The Wheatbelt South Sub-region is characterised by strong livestock production. In 2010/11 there were over 50,000 head of cattle in the Region, almost exclusively comprised of meat cattle breeds. There were also approximately 2.8 million sheep (excluding lambs) representing 28% of the State's total sheep numbers¹². Most of these animals are located in the Shire of Arthur, Williams and Lake Grace. The processing of meat for the domestic and export market is well established with Hillside abattoir in Narrogin processing up to 1,300 animals per day and niche meat processing facilities in Corrigin, Hyden and Narrogin¹². Recent pig expansions to the State's south also offers the bordering Wheatbelt South the opportunity to capitalise on pig production expertise and increase establishments for pig meat production.

WOOL, MILK AND EGGS

¹¹ RPS 2014, Central Midlands Sub-Regional Economic Strategy

¹² RPS 2014, Wheatbelt South Sub-Regional Economic Strategy

The Wheatbelt contributed 43% of Western Australia's livestock products (including whole milk, eggs and wool) in 2012¹³. The Central East and Central Midlands Sub-regions combined, produced \$80.8 million in livestock products (mostly wool) in 2010/11^{14,15}. There has also been significant growth in the Wheatbelt's dairy industry with a whole milk value of over \$441,000 in 2012; Majority of this growth occurred within the Central Coast Sub-region. The 2011-12 production value of wool, milk and eggs produced in the Wheatbelt can be seen in Table 2.

Table 2: Wheatbelt production value of major livestock products; ABS 2011, Value of Agricultural Commodities 2011-12, Wheatbelt Region, WA

Livestock product	Wheatbelt's production value
Wool	\$298 million
Whole Milk	\$441,064
Eggs	\$27.5 million

EMERGING OPPORTUNITIES

With considerable access to freight and export systems, the Wheatbelt could benefit from competitive supply chain costs for the distribution of dairy products. The coastal margins of the Dandaragan region situated in the Central Coast have similar climatic conditions to other dairying regions of WA. Yearly minimum and maximum temperatures are comparative

¹³ ABS 2011, Value of Agricultural Commodities 2011-12, Wheatbelt Region, Western Australia

¹⁴ ABS 2011, Value of Agricultural Commodities 2011-12, Wheatbelt Region, Western Australia

¹⁵ ABS 2013, Agricultural Resource Management Practices 2011-12, Cat No. 4630.0, Australia

to the Wokalup area, typical for dairying in the Peel Region, while rainfall varies more considerably¹⁶. However, the availability of sufficient groundwater in the Yarragadee aquifer gives considerable potential for irrigated agriculture, dependent on availability of unallocated water resources⁶.

Additionally, the emerging industry of camel milk production has become particularly pertinent in a drying Australian climate, with Dandaragan Camel Dairies Pty Ltd in the Wheatbelt's Central Coast Sub-region already seeking planning approval for a camel dairy farm. As consumers become more health conscious, there is potential to expand camel milk production to fill a commercial market due to its nutritional benefits.

ISSUES

Long-term water allocation

The expansion of the dairy industry into the Wheatbelt will rely heavily on groundwater resources for irrigation purposes. Groundwater in the Gingin area is already under high demand from industries including agriculture, horticulture, and mining with 141 GL/year currently licensed to these sectors¹⁷. Although the Department of Water estimates 90GL/year of water is available in the Region¹⁷, investment will be required to ensure secure water allocations for the long-term.

Climate change

¹⁶ Dairying in Dandaragan Report 2008

¹⁷ Department of Water, 2014, Water for Growth: An overview of current and future water management plans in Western Australia

There are significant opportunities to expand the dairy and livestock industries in Central Coast Sub-region due to a reliable rainfall (450-560mm annually) and mild climate (only 17-43 days above 35°C)¹⁶. However, climate change without investment in adaptive technology could result in greater heat stress, adversely affecting livestock meat and milk quality.

Input cost inflation and price fluctuations

Increasing energy, fertiliser, machinery and finance costs are likely to inflate agricultural production costs. Coupled with declining terms of trade and global cattle price fluctuations, this could potentially influence livestock and dairy profitability in the Wheatbelt¹⁸. For instance, a recent reduction in wholesale milk prices due to short-term oversupply coinciding with a reduction in demand from international markets has the potential to affect WA dairy farmers' sales and profit. Although the Wheatbelt has significant cost advantages like affordable land, low transport costs, reliable fodder and pasture production, related price fluctuations can be problematic for the industry, and investments will be required to secure any increases to the gross value of livestock products in the Wheatbelt.

Human capital and regional population trends

Expansion of the livestock and dairy industries will provide significant job opportunities. However, regional areas are currently relying on temporary migrant workers for support. This is mainly due to the unwillingness of local workers to perform low skilled jobs, exacerbated by the outwards migration of young people from these regional centres in

favour of an urban lifestyle. Without investment in workforce retention this could limit industry expansion.

SOLUTIONS

Investment in water resources

Long-term strategies are needed to ensure future water needs are met and to allow livestock and dairy expansion and development to occur. There are significant freshwater and groundwater resources, particularly in the coastal areas of the Wheatbelt from Gingin to Jurien Bay. To grow the capabilities of the Region, there needs to be investment in securing water allocations from the Yarragadee aquifer for irrigated agriculture purposes, including dairying and livestock. A \$4.5 million groundwater investigation is currently assessing the volumes of available water and how it can be used to meet future demands in the Dinner Hill area West of Moora and North of Dandaragan¹⁹. This will greatly assist in meeting the needs and demands for water for livestock and dairy expansion.

Investment in dairy capacities

Investments in dairy capacities will help to expand production in the Wheatbelt. Projections indicate that milk production in Western Australia could increase by almost 50% by 2030 if short to medium-term investment in milk and meat production occurs, including:

- increasing processing capacity;
- improving factory capacity; and

¹⁸ Wheatbelt NRM 2013, Sustainable Agriculture - 2013 Strategy Review

¹⁹ Department of Water, 2014, Water for Growth: An overview of current and future water management plans in Western Australia

- utilising existing capacity as profitably as possible.

The Wheatbelt could see an increase in gross value of livestock products and slaughter by 2020²⁰, including meat and whole milk production (As show in Figure 3).

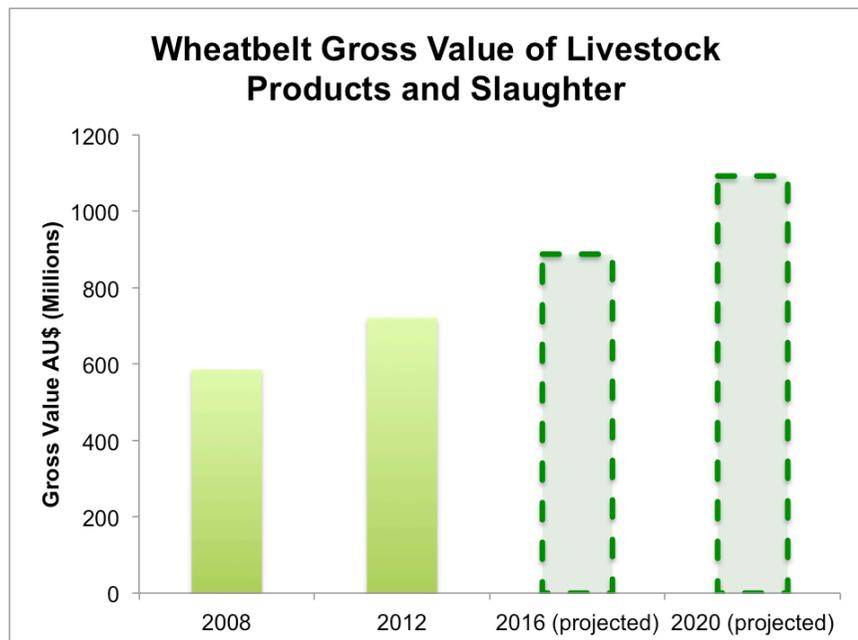


Figure 3: Projected growth of the Wheatbelt's gross value of livestock products and slaughter (\$ millions) by 2020 (Source: ABS 2014)

Investment in global competitiveness of dairy

²⁰ ABS 2014

The disease-free status of Western Australian dairy offers the Region an important competitive advantage over other international competitors, maintaining sales of dairy products in East and South East Asia when concerns have been raised about Bovine Spongiform Encephalitis and Foot and Mouth Disease. There has been a focus on the Region's global competitiveness in safe and quality dairy production and attracting new investment to the dairy industry that improves access to new export markets. Investments should continue to target:

- adoption of international production practices, and establishment of centralised processing and packaging;
- meet market demands for premium safe and quality dairy products;
- facilitate dairy consumption in the domestic market; and
- investment in competitive infrastructure such as new technologies.

Re-assigning crown land

Currently, 93% of all land in Western Australia is owned by the government in which over a third of this is "unallocated"²¹. To accommodate future growth in the livestock and dairy industry in the Wheatbelt, crown land may need to be re-evaluated and re-assigned. Crown land viability for agricultural purposes would depend on:

- pastoral potential;
- stock-carrying capacity; and
- development costs.

Workforce attraction and retention

²¹ Coriolis 2015, Finding the Road forward: Opportunities to increase WA Agrifoods exports

To facilitate the expansion of the livestock and dairy industry within the Wheatbelt, there needs to be continued investment and implementation of strategies linked to career development and support, such as improved access to training and skills development. Collaborative work between these industries and education and training institutions will encourage younger people to enter the dairy and livestock workforce, further building on the Region's world class knowledge networks in land-based production.

Investment in key infrastructure

Investment in key infrastructure for livestock and dairy production is imperative to facilitate growth opportunities and access to key export markets, increasing the Wheatbelt's global competitiveness. Investments should include transport infrastructure development and upgrades (including roads), telecommunications and technology upgrades and development of processing and packaging precincts.

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