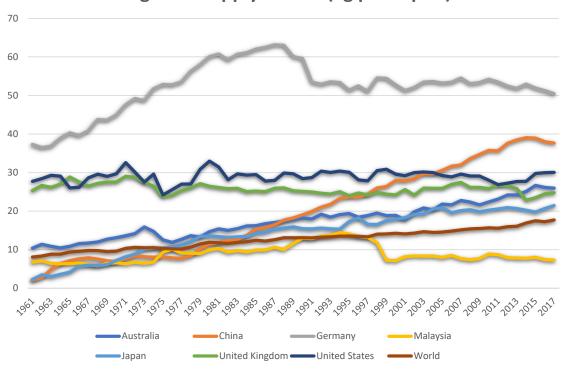


Industry insights

- The world now produces more than three times the quantity of meat that
 it did fifty years ago. The average person in the world consumes around
 43 kilograms of meat, however this ranges from over 100kg in Australia
 (and the USA and United Kingdom) to only 5kg in India.
- Pigmeat is the most popular meat globally, while consumption of poultry is increasing most rapidly. In China the word 'pork' is synonymous with 'meat' (meaning that if the type of meat on a menu is unspecified, it will most likely be pork) and 65% of all meat consumed is pork.
- Australia's pig production and processing sectors are re-stabilising after a period of rationalisation following a period of corporate takeovers and aggregations and agreements to import value added pork and smallgoods products from, predominantly, North America and Europe.
- Swine fever outbreaks and impacts on worldwide pig herds, and an increased focus on biosecurity has changed the immediate prospects for investment in Australia's pig industry. This has raised the longer-term outlook for increasing production of baconers (pigs for ham, bacon and other smallgoods) for the domestic market and to not just focus on porkers (pigs for fresh pork markets). The recent second wave of swine fever in China has reportedly reduced the pig herd by 20-30% in a country where pork is the major animal protein consumed. Although this is not necessarily an opportunity for export of Australian pork (for which only 10% of product is currently exported to all markets), it is an indicator that world supply is likely to be below demand for several years (longer if there are further disease outbreaks), at a time when Australian domestic demand is stable.

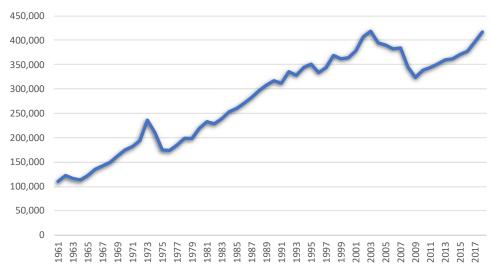
Pigmeat Supply Trends (kg per capita)



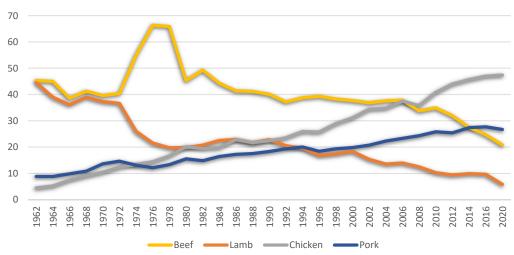
Industry insights (continued)

- In Australia, production and consumption of pork has steadily increased over more than half a century, a result of improved marketing, perceived health benefits of pork as a lean white meat, more diverse cooking applications, and an increasing proportion of the population of Asian origin. Pork consumption now exceeds beef and lamb in Australia.
- In the mid-1990s Australia began importing value-added pig meat products from approved origins (such as Canada, New Zealand, Denmark and USA). This led to reduced numbers of farms producing pigs in general, and baconers in particular.
- Fewer pig farming enterprises, and the importation of cooked and value-added product, have not reduced Australian pork production.
- Australia's strict bio-security regulations and continuing efforts to avoid local outbreaks of swine fever and other diseases should encourage new local industry investment.

Australian Pigmeat Production (tonnes)



Meat Consumption in Australia (kg/capita)



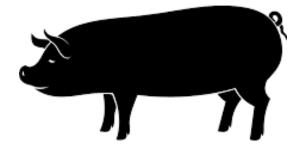
Why Loddon Shire?

Loddon Shire has an expanding intensive livestock production sector. The Shire's farming enterprises are dominated by broadacre, dryland cropping systems, with the majority of farms in the range of 600 to 800 hectares. This environment is increasingly attractive to intensive livestock production as lot-feeding becomes more established and poultry and piggery operations seek bio-secure locations with good access to both stockfeeds and markets. Pig production is an agribusiness sector with solid growth prospects, and locating in Loddon Shire offers:

- quality infrastructure and services
- flexibility
- accessibility
- biosecurity
- prospects for diversification
- potential to target niche markets
- potential to join existing supply chains
- potential to value add.

Loddon Shire's location and geographic spread enables industry concerns and guidelines to be met, for example:

- Locating intensive livestock activity within broadacre cropping environments is the industry preference. Properties of 300+ hectares are, therefore, preferred.
- There is access to quality stock feeds and secure water.
- Production environments can be met with appropriate buffers (of 1 to 10 kilometres depending on the nature of the enterprise):
 - Shedded pigs: 0.22-0.6 square metres per animal for growout, 7 square metres per breeding sow.
 - Free range pigs: the equivalent of 30 adult pigs per hectare.



Investment requirements and economic benefits

Economic value (gross value-add/jobs)

- · Capital investment requirement averages:
 - \$4,800 per sow
- · Typical direct economic contributions:
 - o 20,000 head operational piggery: \$5 million p.a.
- Estimated average full time equivalent jobs:
 - o 20,000 head operational piggery: 17 FTEs

Estimated water usage

- Total water usage in meat production (including breeding, growout and processing):
 - 5,988 litres per kilogram of meat for pork (compared with 8,763 for lamb and 15,415 for beef)*
- Animal water consumption:
 - o Pigs (growout): approximately 10 litres per day, on average.

^{*} Mekonnen, M.M. and Hoekstra, A.Y. (2010) The green, blue and grey water footprint of farm animals and animal products, Value of Water Research Report Series No.48, UNESCO-IHE.



Pig livestock production in Loddon Shire

- "Sustainable growth key to progressive future: In the past decade, Australia's domestic consumption of fresh pork has increased by 35%. As a result of this strengthening consumer support, the value of Australia's pork industry has grown from \$3 billion in 2012 to \$5.3 billion today. As we draw confidence from that progress, Australian Pork Limited (APL) is determined to drive further sustainable growth and help generate an additional \$1 billion in value to the industry by 2025". (Andrew Baxter, Chair, Australian Pork Ltd in the 2020 Annual Report)
- Loddon Shire is already a significant area for pig production. There are 14 farms in the Shire where pigs are produced. Some of the identified pig farming operations in Loddon Shire and adjacent municipalities are:
 - Rivalea Ltd (which has 7 company farms and 19 contract growers, some of which are located around Loddon)
 - Kia-Ora Piggery
 - Murphy's Creek Pork
- · Loddon Shire has many nearby supply chain connections including:
 - KR Castlemaine (owned by George Weston Foods which in turn is a subsidiary of UK owned Food Investments Pty Ltd) is a large producer of pork smallgoods (ham and bacon), located in nearby Castlemaine. There are some smaller butchery operations using pork in manufactured product such as The Fat Butcher in Inglewood, Pacdon Park (producing pork pies and other meat delicacies) in Echuca and Istra Smallgoods near Daylesford
 - Major processor Diamond Valley Pork (owned by Rivalea) in Melbourne
 - Riverside Meats in Echuca is a multi-species abattoir which is licensed to process pigs, and re-opened in the second half of 2019 after a period of closure.

Grower Businesses:	Victoria	293

			es																

Number of Grower Businesses: Loddon Shire 14

Breedii	ng Sows: Loddor	Snire	6,/3/	

Stock Processed: Loddon Shire 96,998

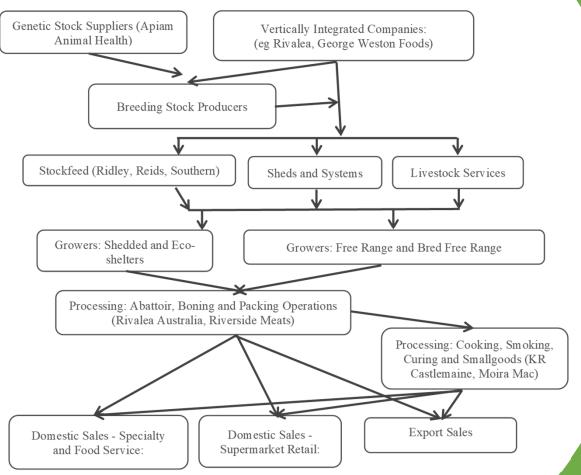
armga											

Farmgate Gross Value: Loddon Shire 2015- 54,892,297 16 (\$)

Loddon Shire Share of Victoria 17.26%

	Pigs (head)	% of Victorian Total	Piggery Enterprises	Average Herd Size	Average sows per enterprise
Loddon Shire	96,998	17.3%	14	6,831	783
Region around Loddon	347,822	61.9%	94	3,704	575
Victoria	562,120	100.0%	293	1,918	293

Pig Industry Supply Chains: Loddon and Beyond





Diverse opportunities

- Loddon Shire welcomes interest in local investment in many links of the pig industry supply chain:
 - breeding operations
 - growout farms (including baconers)
 - free range operations
 - organic operations
 - alternate breeds
 - fresh pork value adding
 - · smallgoods value adding



Porkers (animals used for fresh pork)

Porkers are typically raised to between 30 and 54 kilograms (dressed weight) for meat production.

Consumption of fresh pork products has grown in recent years, at least partly a result of rising health consciousness among Australian consumers. Growing demand for lean sources of protein, promotion by Australian Pork Limited, and the source of all fresh pork being Australian growers have all supported demand for porkers.

- Baconers (animals processed into bacon, ham and smallgoods)
 Baconers are typically raised to over 60 kilograms (dressed weight).
 Australian production of baconers has declined over recent years.
 Rising health consciousness has impacted on consumption of cured meats and smallgoods, while increased import penetration of these products has constrained demand for baconers.
- While animal welfare protests and opposition to high density pig production environments are sometimes misguided and contentious, they do provide evidence of new market segments for producers who choose differing breeding and growing systems.
- Loddon Shire has an increasing number of small agribusiness operators who
 market their products around the type of production system they use (e.g.
 free range, organic, biodynamic) and some work on value-adding to their
 agricultural products by producing, for example, preserves, edible oils, baked
 goods, poultry and pork products, and beverages.
 New fresh pork products and smallgoods would be a welcome addition to
 this network of niche and artisanal producers.
 - Loddon Shire is part of the Bendigo UNESCO Creative City and Region of Gastronomy, and this initiative is expected to increase the reputation of the area for gourmet and fine quality food products.

Investors in Loddon will benefit from the marketing, events and profile of the City and Region of Gastronomy.

Mainstream breeds



Duroc



Landrace



Large White

Alternative and traditional breeds



Hampshire



Berkshire



Tamworth

There is no importation of elite pig genetic stock to Australia, so genetic improvement is based on local breeding.

Most large commercial scale enterprises use breeds which originate from cross-breeding of Large White, Landrace and Duroc breeds with improved growth rates, yields, and feed conversion.

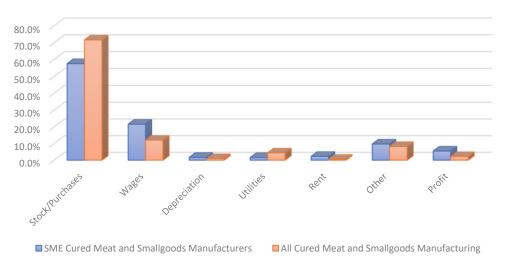
Niche and emerging producers often use traditional breeds as a point of difference, such as Berkshire, Hampshire and Tamworth.

Value-adding

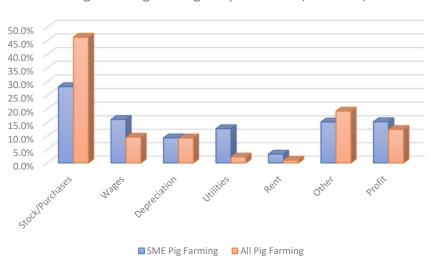
- Small to medium enterprise (SME) smallgoods and cured meat manufacturers (i.e. those businesses with less than \$10 million in sales per year) constitute around 78% of all enterprises in the sector, but they accounted for just 8% of overall industry revenue in 2020-21. The key difference between SMEs and larger cured meat producers is the contrast in sourcing inputs and the mix of markets.
- Large operators, including major players (such as Industry Park, Bertocchi, and Food Investments), have supermarkets and other large food retailers as the primary market. Industry SMEs are most likely to sell to wholesalers and specialty stores (delicatessens and butchers).
- Large manufacturers produce high volume, cost-effective goods to meet the needs of large full-service supermarket retailers, whereas SMEs are more likely to produce premium and valueadded cured meats and smallgoods.

	Average Annual Sales (\$million)
SME Cured Meat and Smallgoods Manufacturers	1.56
All Cured Meat and Smallgoods Manufacturing	11.98
SME Pig Farming	0.68
All Pig Farming	3.49

Value Adding Pork Business Average Expenditure (2020-21



Pig Farming Average Expenditure (2020-21)



A position in the industry?

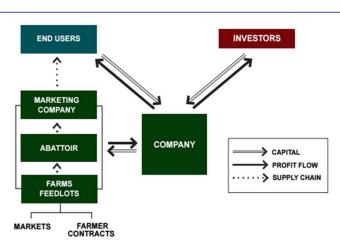
Reasons for going alone

- •To run a paddock-to-plate business.
- •To tap into emerging niche and premium markets with a differentiated product.
- •To implement a preferred growing system or philosophy.

Making it Happen

Reasons to join a supply chain

- •Ideal for growers looking to diversify a broadacre cropping enterprise (to improve the sustainability of the whole farm).
- •Suited to growers who like to keep their business 'behind the farm gate': concentrating on optimising farm inputs, operations and management and leaving the marketing, value adding and logistics work to others in the supply chain.











Site analysis











Talk to Loddon Shire's economic development team Follow up key industry contacts (either potential supply chain partners or markets/

customers)

Site selection on new or existing property

ction and ew or investigations ting erty the business plan (where relevant building, shed, paddock design, commercial

premises,

suppliers,

markets, finance)

Document

Planning Enac permit, chain final custo design, agree building permit

Enact supply chain and/or customer agreements

Capital Co investment op

Commercial operations

How can we help?

- Contact Loddon Shire's economic development team for advice and support with your pig industry enterprise. Our team can help with:
 - · identifying sites
 - · supply chain referrals and introductions
 - seeking relevant State or Commonwealth Government assistance
 - information to use in feasibilities or business cases
 - working through planning and building permits.
- Call or email the economic development team:
 - business@loddon.vic.gov.au
 - Phone 03 5494 1251



This document was compiled with assistance from