Department of Primary Industries and Regional Development



Protect Grow Innovate

Pork and greenhouse gas emissions

The Western Australian pork industry was valued at \$249 million in 2021-22, with pork exports worth \$38 million.

2020 pork industry snapshot

Emissions from the WA pork industry was estimated at 0.36 Mt CO_2e in 2020.Two-thirds of emissions are methane, primarily from manure management or effluent treatment systems. 19% are indirect emissions from locally purchased feed, with an additional 8% from feed imported from overseas. Other emission sources include agricultural soils, electricity, and fuel use.



Estimated emissions from the WA pork industry by source in 2020.

Mitigation challenges

Formulating lower-emission diets for intensive livestock is technically challenging. The need for new infrastructure (particularly for methane capture) and shifting to outdoor production systems may limit mitigation options. It will also take time replacing imported soybean meal with local feed systems.

Pork industry emission sources

Emissions are classified as Scope 1,2 and 3. This separation aids in identifying the source of emissions.

Scope 1: All emissions on-farm from pork production.

Scope 2: Emissions from electricity.

Scope 3: Emissions associated with producing inputs, both pre-farm and post-farm.



2020 estimated emissions from the pork industry *Only pre-farm scope 3 emissions are included here.

Pork industry emission research priorities

Most emissions research and development in the pork industry is focused on waste management.

Ways to reduce emissions in the pork industry:

- Breed and manage livestock
 for more efficient growth
- Replace imported feed sources with local grains
- Utilise manure as nutrient source for crops and pastures
- Improve manure management and methane capture

- Invest in on-farm renewable energy, including biogas from effluent ponds
- Electrify machinery as WA's electricity grid decarbonises
- Combine heat and power generation on-farm and use methane for heating to offset farm gas usage.

Developing knowledge of carbon accounting and benchmarking supports achieving reductions.

More information

Subscribe to the Climate Resilience mailing list for updates on climate news, emissions and events.



Future proofing regional WA

Important disclaimer

The Chief Executive Officer of the Department of Primary Industries and Regional Development and the State of Western Australia accept no liability whatsoever by reason of negligence or otherwise arising from the use or release of this information or any part of it.

Copyright © State of Western Australia (Department of Primary Industries and Regional Development) 2024.

ABN: 18 951 343 745