

Optimizing land use in animal agriculture



Ontario Pork Industry Council

We strive to:

- Create a workable plan to minimize our industries impacts to the environment
- Produce top quality products for Ontario consumers
- Continue to act as stewards of the land, environment and the animals in our care





"environmental stewardship based on a land ethic "dealing with man's relation to land and to the animals and plants which grow upon it."



Ontario Pork – Social Responsibilty

Ontario Pork is working with producers on key ecosystem and resource sustainability

- Areas of focus are:
 - ✓ Soil testing (80% of producers completing soil testing)
 - ✓ Water meter implications (over 50% of producers)
 - ✓ Manure sample tests (over 50% of producers)
 - ✓ Pesticide management (over 80% of producers using licensed professionals)



Industry initiatives for environmental impact:

- ✓ Environmental Farm Plan (over 80% of producers)
- ✓ Nutrient Management Plans (over 50% of producers)
- ✓ Canada Pork Excellence (CPE)
- ✓ Canada Quality Assurance (CQA)
- ✓ Working with Canadian Agricultural Partnership to leverage government funds to improve overall efficiencies for better farm management.

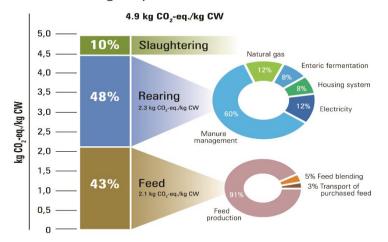
Ontario Pork – Social Responsibility

Life Cycle Assessment (LCA) Footprint For its first Social Responsibility Report, Ontario Pork has measured the sector's carbon and water footprints. Specifically, two indicators were assessed:

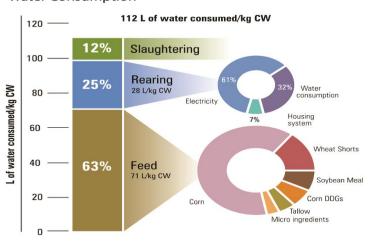
- · Climate change impacts expressed as greenhouse gas emissions in kg CO₃-eq
- Water consumption (L) calculated as water withdrawn minus water reinserted in stream/ground Results, measured following the LCA methodology (see: Life Cycle Assessment), show that 1 kg of pork carcass weight produced in Ontario:
- produces 4.9 kg CO2-eg./kg carcass weight (CW)
- consumes 112 L of water/kg CW

These results, based on the LCA database and available studies, encompass the entire pork production chain from feed production to the processing at the slaughtering house. They provide a baseline to benchmark current practices and impacts, and identify opportunities for progress on climate and water challenges (see: How to reduce the sector's footprint).

Climate Change Impact



Water Consumption



This figure shows the water consumed throughout the different life cycle steps of pork production. Feed production represents 63% of total consumed water. Water used in electricity production is the main driver for the rearing step, followed by water consumed at the farm, which covers drinking water and

Note: Total % may differ from 100% due to rounding.

 Managing and monitoring the impacts of slaughter, rearing and feeding Ontario hogs.

This figure shows the contribution of the different life cycle stages to the climate change impact (carbon footprint). Feed production, blending and transportation to farm account for 43% of the total footprint, while farm emissions represent 48%. The latter impact comes primarily from methane emission from manure and enteric fermentation. Natural gas and electricity production are responsible for 24% of the rearing footprint.

Tracking the impact...



Water Comsumption

Climate Impact

Production of hogs = 112L of water consumed (CW)

Carbon footprint = 4.9 CO/kg of pork (CW)

- 63% feeding (crop and feed)
- 25% rearing of hogs (electricity)
- 12% slaughter

- 43% feeding (crop and feed)
- 48% rearing of hogs
- 10% slaughter

Moving forward...

- Producers will track points of environmental impact
- Water tracking meters
- Electricity metering (natural gas and electricity is largest contribution -24%)
- Manure management (testing, application methods)
- "Smart farming" to manage environmental impact





THANK YOU!!

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