



SWINE CLUSTER ECONOMIC IMPACT ASSESSMENT

Summary of Key Findings | 2010-2023



\$50M
Invested
across three clusters

\$225M
Returned

30%
ROI

This is what coordinated national research delivers.

An independent economic impact assessment of the Swine Cluster program from 2010 to 2023 confirms that national research coordination generates strong returns for producers and the broader Canadian economy.

WHY NATIONAL COORDINATION MATTERS FOR PORK

Canada's pork sector generates over \$5 billion in annual export value and operates in a highly competitive global market. Success depends on continuous improvement in productivity, quality, and market access. No single province or institution can address these challenges alone.

The Swine Cluster program, delivered through Swine Innovation Porc, has created an effective framework for national research coordination. The program connects researchers, institutions, and industry partners across provincial boundaries, aligning research priorities with producer needs and ensuring knowledge flows across the country.

Since 2010, this framework has supported four funding cycles and built a unified network of 224 researchers across 74 institutions. Looking at the first three cluster cycles, the results are clear: nearly \$50 million in coordinated research investment generated \$225 million in economic returns and a 30% ROI.

This is what a sector can achieve when research efforts are aligned nationally.



* Swine Cluster 4 research institutions

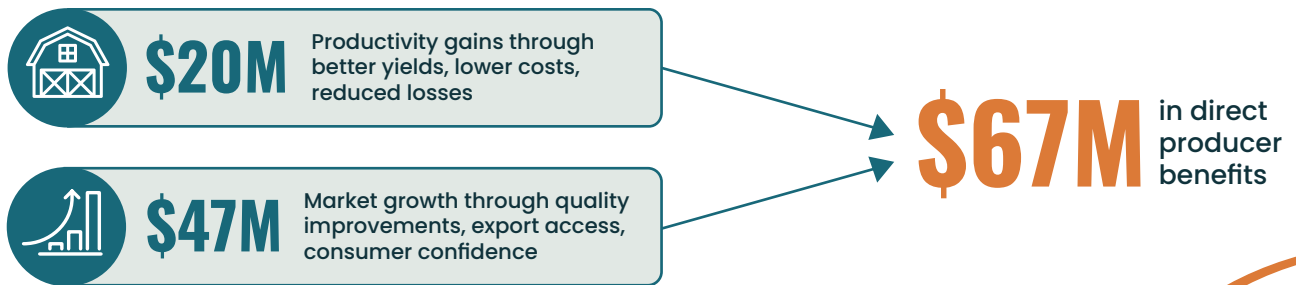
FROM RESEARCH DOLLARS TO FARM-LEVEL RESULTS

The Swine Cluster directs research toward real producer challenges: genetics, feed efficiency, herd health, and on-farm management.

That focus delivered **\$20 million in productivity gains** at the farm level. Producers improved output consistency, reduced losses, and strengthened their operations in an increasingly competitive environment.

Beyond the farm gate, coordinated research on quality, sustainability, and market readiness contributed **\$47 million in increased demand** for Canadian pork. These improvements opened export opportunities and strengthened the sector's position with customers who expect science-backed claims.

When research is coordinated nationally, every dollar works harder.



RESEARCH THAT DELIVERS REAL RESULTS

An investment in research is an investment in productivity, market demand, and risk management benefiting producers across Canada.

Productivity:

+\$20 million in efficiency gains

Research into genetics, feed efficiency, herd health, and on-farm management delivered \$20 million in productivity gains at the farm level. Producers improved output consistency, reduced losses, and strengthened their operations.

These efficiency gains benefit more than producers. By reducing the cost of production, research helps moderate food prices for Canadian consumers and strengthens the sector's ability to compete in export markets.

Example

A \$456,000 project led by Chantal Farmer at AAFC Sherbrooke developed feeding and management strategies for replacement gilts to maximize milk yields. The research demonstrated that improving nutrition during late gestation can significantly increase mammary development—supporting stronger milk production, healthier piglets, and improved farrow-to-finish productivity.

Market Demand:

\$47 million in demand growth

Research is often overlooked as a driver of market demand. It shouldn't be. The assessment found that Swine Cluster research contributed \$47 million in increased demand for Canadian pork.

Research drives demand by improving product quality, building sustainability credentials, and ensuring market access. This matters for the Canadian brand. When industry marketing promotes Canadian pork quality or welfare standards, that messaging is built on a foundation of research. A reputation built on credible, research-backed standards supports premium positioning and long-term market access.

Example

A \$1.23 million project led by Manuel Juarez at AAFC Lacombe assessed pork grading technologies used across major processors and identified gaps limiting objective quality measurement. This work supports stronger consistency in grading and helps protect the reputation and competitiveness of Verified Canadian Pork in export markets.

Risk Management:

Protection for a \$5 billion export sector

The national research network provides something that does not appear directly in ROI calculations: preparedness. A skilled, connected and active research community can respond rapidly to endemic and emerging threats. This capacity functions as insurance for the sector.

The stakes are significant. The sector faces wide-ranging risks from endemic and foreign animal diseases to sudden market access issues or consumer shifts. A baseline of knowledge and expertise cultivated by the cluster network strengthens our industry's capacity to respond.

Example

A \$1.46 million project led by Terry Fonstad at the University of Saskatchewan strengthened biosecurity in Canada's swine transport system by improving trailer cleaning, disinfection, and monitoring practices. The project addressed risks such as **Porcine Epidemic Diarrhea (PED)**—with outbreaks estimated to cost **~\$470 per sow**—and built on earlier SIP work showing trailer temperatures of **75°C for 20 minutes** can inactivate key pathogens. The research has supported the development of automated cleaning and heat-validation tools now being adopted by industry, improving outbreak preparedness and helping protect market stability.

These projects demonstrate how Cluster research translates into tools, standards, and preparedness that benefit the entire Canadian pork sector.

ECONOMY-WIDE RETURNS

Swine Cluster investments generate returns that extend well beyond individual farms.

The assessment found an estimated **\$225 million contribution to Canadian GDP** through three channels:

- **\$85 million** from research activity itself
- **\$42 million** from farm efficiency improvements rippling through the supply chain
- **\$101 million** from stronger pork demand supporting processing, transport, and exports

Research dollars cascade through rural communities, value-added processing, and Canada's agri-food export sector.



RETURNS FOR PRODUCERS

Producers invested **\$8.4 million** and realized **\$67 million** in direct benefits, an **~8:1 return**.

Canada has approximately 7,600 hog producers with an average of ~1,800 hogs per farm.

At the individual level, the average producer invested < \$1,100 and saw returns of approximately \$8,800 through higher yields, improved efficiency, and stronger markets.

That 8:1 ratio is calculated against total industry investment. Federal and industry matching effectively multiplies every producer dollar several times over.



POSITIONING THE SECTOR FOR EMERGING CHALLENGES

The national research network built through the Swine Cluster does more than generate immediate returns. It creates a skilled, connected research community ready to respond to emerging challenges.

Canadian pork faces ongoing pressures: African Swine Fever remains a global threat, sustainability expectations continue to rise, and market access depends on meeting evolving customer and regulatory requirements. A coordinated national research framework positions the sector to address these challenges proactively rather than reactively.





Agricultural research is sometimes called 'slow magic' because returns build gradually over 10–20 years as knowledge spreads through the sector. This long horizon makes continuity essential. Current Cluster 4 investments of \$20 million from 2024 to 2028 are building on the past decade's success, and that success is still maturing.

What comes next matters even more. Sustained and strengthened research investment is how Canada turns a proven framework into lasting competitive advantage.



RECOMMENDATIONS

The evidence from this assessment supports continued commitment to national research coordination:

-  **Sustain the coordination model**
The national network represents years of relationship-building and infrastructure development. Continued federal and industry commitment to the Swine Cluster protects this investment.
-  **Invest to match the returns**
A 30% ROI supports the case for continued and increased funding. These are proven returns that benefit producers and the broader economy.
-  **Streamline funding flows**
The Cluster framework provides a unified national structure that accelerates project approvals and maximizes the impact of every research dollar.
-  **Maintain balanced priorities**
The Cluster's diversified portfolio across health, nutrition, environment, quality, and welfare positions the industry to respond to multiple challenges and builds long-term resilience.

CONCLUSION

Between 2010 and 2023, the Swine Cluster created a framework for national research coordination that strengthened productivity, expanded markets, and contributed \$225 million to Canada's economy. Producers saw ~8:1 returns on their investment, with their actual dollar-for-dollar gains higher still.



National coordination works. The Swine Cluster has proven the model, and continued investment through this framework is essential to sustaining a competitive, resilient Canadian pork sector.

ABOUT THIS ASSESSMENT

Independent economic impact assessment conducted by VALGEN (January 2026), examining Swine Cluster investments from 2010 to 2023.

